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RUSSIAN CENTRAL ASIA

INCLUDING

KULDJA, BOKHARA, KHIVA AND MERV

BY

HENRY LANSDELL, D.D.
M.R.A.S., F.R.G.S.
AUTHOR OF "THROUGH SIBERIA"

With Frontispiece, Maps, and Illustrations

IN TWO VOLUMES

VOL. I.

London
SAMPSON LOW, MARSTON, SEARLE, AND RIVINGTON
188, FLEET STREET

1885

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To His Imperial Majesty

ALEXANDER III.,

EMPEROR AND AUTOCRAT OF ALL THE RUSSIAS,

ETC. ETC. ETC.

SIRE,

I count myself happy in being permitted to dedicate this work to the august Ruler of an Empire in which I have travelled extensively, and from whose people I have met with unvarying kindness, and attention. Most of my visits to the Continent were undertaken with a view to relaxation and enjoyment, but with this has been blended an attempt to be of religious use to the poor and unfortunate.

I was considering how such a double purpose could be effected in seven countries through which I was to pass, in 1874, *when, not knowing the language of Russia, my only course for that country seemed to be the distribution of religious literature. This distribution I was allowed to begin in the prisons of Petersburg; and during five subsequent summers I have pursued a similar method over the greater portion of the Empire.*

On each of these occasions I sought the assistance of two Societies in London, by whose aid I was enabled to distribute more than 100,000 *publications, and to place at least some portion of Holy Scripture in each room of every prison and hospital throughout Finland, the Caucasus, and certain other parts of European Russia, as well as throughout the whole of Siberia, the works circulated being either printed by the Holy Synod, or duly authorized by the Censor.*

I take pleasure in saying that these efforts have been uniformly well received, alike by your Imperial Majesty's Officials, the Clergy, and the people; and I trust they have also your Majesty's approval and sympathy. I cannot doubt that the good-will thus manifested towards the endeavours of a foreigner, is in part the outcome of that encouragement to the distribution of the Holy Scriptures which has been shown for many years by your Imperial Majesty's illustrious predecessors; and I venture very humbly to express the hope that what little I have been permitted to do in the hospitals and prisons of the vast realms of Russia may be continued and multiplied a hundredfold by your Imperial Majesty and your faithful subjects.

If I may add but one word, it shall be to express my grateful appreciation of the confidence reposed in me, when unrestricted permission was given for the dedication of this book to your Imperial Majesty. Conformably therewith I have treated my subject frankly and without reserve (in fact, I had all but finished the work before the welcome permission arrived); and though I dare not anticipate that no mistakes will be found, yet I am hopeful that these pages will show that I have striven to write impartially, and prove likewise that your Majesty's confidence has not been misplaced.

It is with these sentiments, Sire, I desire to inscribe my volumes. I pray that He who alone can bestow every good gift may vouchsafe to your Imperial Majesty a long continuance of health and happiness, and

I have the honour to remain
Your Imperial Majesty's very humble Servant,

THE AUTHOR.

PREFACE.

THESE volumes may be considered as a record of the completion of the philanthropic object that originally prompted my first visit to Asiatic Russia as detailed in the work entitled "Through Siberia." My sources of information have been four: namely, personal observations, carefully noted on the spot; a series of conversations on a prearranged plan with inhabitants of Central Asia; official statistics and unpublished documents; and, lastly, the general literature of the subject.

Not many Englishmen have preceded me in Turkistan, and not one, so far as I know, over the last portion of my journey. The only English writer who has covered the major part of the route is Dr. Eugene Schuyler, of whose "Turkistan" I can speak in terms only of the highest praise. He has treated many subjects so fully that I have thought it unnecessary to say much about them. This is notably the case with commerce and methods of war; and I have regarded politics also as not falling within my province. The work of M. Ujfalvy de Mëzo-Kövesd I have found quite the best on the

anthropology of Turkistan, whilst in historical matters I have been frequently indebted to the "History of the Mongols" by Mr. Howorth, who, as on a previous occasion, has given some of my proof-sheets the benefit of his revision.

I have preferred, however, when possible, to gather my materials direct from Russian authorities, and have been able to do so largely, thanks to help in translation afforded by Messrs. Robert Michell and W. H. Cromie, and by Mesdames Telfer, Bell, and Romanoff. From one Russian author, Colonel Kostenko, I have gathered much statistical information, and with what labour the literature of the subject has been examined, the preface to my Bibliography will show. I need only say here that, when the name of an authority is mentioned, if the reader wishes for further information, he will be directed thereto by turning to the alphabetical list of authors.

The knowledge thus acquired I have arranged with a view to the requirements of three classes of readers. The "general" reader may probably not care to wade through the notes, nor, indeed, to read all the chapters. Perhaps, therefore, it may be of use to point out that the *narrative* portions of the journey, especially in the first volume, will be found in the chapters with titles indicative of movement—"From Such-a-place to Such-a-place"; or, as indicated more minutely, in the "Author's Itinerary."

Readers of the second class have been regarded as students, who like to know something of the country traversed, its geography, geology, fauna and flora, the characteristics of the people, their government, language, and religion. These and similar topics are touched upon in the notes, and whole chapters also are devoted to the political economy of certain provinces, to ethnography, and to historical sketches of the Khanates and their conquest by Russia.

There is yet a third class of readers—men of science and specialists — for whom I have endeavoured to furnish information. I would willingly have seen this department in more competent hands; but since the greater part of what is known concerning the fauna and flora of Turkistan is inaccessible to the major part of the scientific world, because written in Russian, I have added appendices, which have been most kindly revised by eminent naturalists, both on the Continent and in England. To the former I have expressed my indebtedness further on, whilst among the latter my best thanks are due to Professor Newton, F.R.S., and Dr. Günther, F.R.S., for help in treating of vertebrate animals,—Mr. Dresser, F.Z.S., also revising the list of birds. Entomology has been undertaken by Messrs. MacLachlan, F.R.S., and W. F. Kirby. In botany I have received aid from the Rev. W. W. Tyler; and, in matters geological, from Professor Bonney, F.R.S., and Dr. Haughton, F.R.S. My neighbour, Mr.

Glaisher, F.R.S., has again assisted me in meteorology; and I am gratified that a few chapters have passed under the eye of that eminent geographer of Central Asia, Colonel Yule, C.B. In mentioning these distinguished names, however, I wish it to be understood that their revision has been in many cases of a general character only, and consequently that for any mistakes that may remain, it is I who am responsible, and not they.

Turkistan has not many prisons, but in the chapters devoted to this subject I have given an accurate account of what came under my observation; and I have also answered the few objections, that were raised to my former account of the penal institutions of Siberia so far as they seemed to claim attention.

Biblical students will observe references throughout the work to Scripture texts. Their origin was on this wise. Before commencing my desert journey, I had read all the books in my trunk, and it occurred to me to utilize vacant time by marking in a pocket Bible the passages that might be illustrated from my travels. I remembered that Robert Stephens is said to have divided the New Testament into verses during a journey on horseback from Paris to Lyons; so I took a leaf from his book, while on the back of a camel. In the case of some of the texts referred to, my remarks may at first sight seem superfluous, because the Semitic customs of Palestine and Western Asia have long ago been illustrated in connection with Bible

history. I would remind the reader, however, that I travelled as far from Palestine on the east as London is on the west; and among an Iranian population, many of whose customs are those portrayed in the Sacred Books, especially those written during the Captivity. In China we have an instance of a colony of Jews losing their religion and language, and, in the course of centuries, becoming so intermingled with their neighbours as to be undistinguishable, I believe, even by their physiognomy. Now, I do not maintain that a similar fate has befallen the "lost ten tribes" in Central Asia; nevertheless, I found Bible customs there, which, if not traced to some remote origin common also to those of the Jews, might well be imagined as brought there by children of Abraham. No previous traveller known to me has illustrated Scripture from these little-known regions; and if I sometimes appear to be over-keen in suggesting resemblances, it is because I have regarded them, so far as they are true, as testimony *from a new source.*

These references have been looked over by the Rev. Canon R. Girdlestone. This addition, however, to the foregoing names does not exhaust my list of helpers. Mr. Hyde Clarke, F.S.S., has given me literary assistance, and so has the Rev. A. E. Hodgson, B.A., as well as my neighbour, Mr. Slater, F.G.S.; and there are others also to whom I am similarly indebted, but who would prefer their names not being mentioned.

In conclusion, I must not send forth my book without a word of greeting to those who honoured me by perusing "Through Siberia," whether in English or in the languages of Germany and Scandinavia. I shall be gratified if the present volumes recall to their minds an old aquaintance, who afforded them amusement, or what is better, imparted instruction. But I take it to be the greatest and best reward of an author, when his thoughts and emotions so enter the soul of a reader as to influence him to action. It was the perusal of a book, more than twenty years ago,* that turned the current of my life, and changed my religion from an educational habit to something very much deeper,—which brought, in fact, such joy to myself that I was never so happy as when trying to impart its secret to others. After this, none need wonder at my faith in the distribution of religious literature; and happy shall I be if, in and beneath this story of travel by land and by water, one and another shall recognize the work of a fellow-labourer unto the kingdom of God, and be encouraged to go and do likewise.

H. L.

THE GROVE, BLACKHEATH,
LONDON, S.E.
16th March, 1885.

* "The Anxious Inquirer," published by the Religious Tract Society.

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*** *Most of these have been engraved from the Author's photographs, and have appeared, as also has the substance of some of the following chapters, in the pages of the "Graphic," "Leisure Hour," and "Sunday at Home."*

THE AUTHOR'S ITINERARY.

The following shows the dates of the Author's departures and arrivals, and where described; the number of stationary and travelling days, with distances in miles traversed by rail, water, driving, and riding; also the numbers employed of horses, drivers, and camels.

Dates.	Journeys and where Described.		Stationary days	Travelling days	Rail.	Water.	Driving.	Riding.	Horses.	Drivers.	Camels.
June 26 to 29	London to Petersburg	*Vol. I.* 11	11	4	1,683	23	...	...	...	...	...
July 11 „ 12	Petersburg to Moscow	„ 14	4	2	402	...	...	...	...	...	...
„ 17 „ 18	Moscow to Nijni-Novgorod	„ ..	...	2	273	...	...	...	...	...	...
„ 18 „ 29	Nijni-Novgorod to Perm	„ 17	...	5	...	952	...	...	...	...	...
„ (19 „ 25)	To the Interior and back	„ ..	5	2	...	...	133	...	12	2	...
„ 30 „ 31	To Chusovaia and back	„ 18	...	2	159	...	...	...	...	...	...
„ 31 „ Aug. 1	Perm to Ekaterineburg	„ 26	...	1	312	...	...	...	...	...	...
Aug. 2 „ 4	Ekaterineburg to Tiumen	„ 26	5	3	...	...	204	...	37	12	...
„ 10 „ 17	Tiumen to Omsk	„ 33	1	8	...	979	...	...	...	...	...
„ 19 „ 23	Omsk to Semipolatinsk	„ 66	1	5	...	...	485	...	134	44	...
„ 25 „ Sept. 1	Semipolatinsk to Kuldja	„ 141	3	8	...	...	713	...	237	95	...
Sept. 5 „ 8	Kuldja to Vierny	„ 257	2	4	...	...	301	...	82	28	...
„ 11 „ 15	Vierny to Tashkend	„ 352	5	5	...	...	530	...	228	76	...
„ 21 „ 23	Tashkend to Khokand	„ 477	1	3	...	...	176	...	39	13	...
„ 25 „ 28	Khokand to Samarkand	„ 549	3	4	...	...	264	...	57	20	...
Oct. 2 „ 3	Samarkand to Shahr-i-sabz	*Vol. II.* 3	1	2	...	...	...	47	6	...	...
„ 5 „ 7	Shahr-i-sabz to Karshi	„ 40	1	3	...	...	...	77	6	...	...
„ 9 „ 11	Karshi to Bokhara	„ 56	4	3	...	...	91	...	18	6	...

Dates.	Journeys and where Described.	Stationary days	Travelling days	Rail.	Water.	Driving.	Riding.	Horses.	Drivers.	Camels.
Oct. 16 to 18 .	Bokhara to Charjui *Vol. II.* *163*	...	3	...	...	35	48	36	31	2
„ 19 „ 26 .	Charjui to Pitniak . „ *190*	...	8	...	283	...	11	2	...	...
„ 26 .	Pitniak to Petro-Alexandrovsk *224*	3	1	...	...	...	27	2	...	...
„ 30 .	Petro-Alexandrovsk to Khiva „ *246*	1	1	...	...	...	40	2	...	...
Nov. 2 „ 5 .	Khiva to Kunia Urgenj „ *315*	2	4	...	...	...	107	2	...	...
„ 8 „ 22 .	Kunia Urgenj to Krasnovodsk *368*	2	15	...	...	...	403	2	3	6
„ 25 „ 26 .	Krasnovodsk to Baku . „ *500*	...	2	...	190	...	...	...	...	...
„ 27 .	Baku to Surakaneh and back „ *500*	...	1	19	...	...	11	2	...	...
„ 28 „ Dec. 2	Baku to Tiflis . . „ *501*	1	5	347	...	...	...	...	...	...
Dec. 4 .	Tiflis to Poti . . „ *502*	1	1	193	...	...	...	...	...	...
„ 6 .	Poti to Batoum . . „ *502*	2	1	...	34	..	...	...	...	...
„ 9 „ 15 .	Batoum to Odessa . „ *504*	...	7	...	837	...	...	...	...	...
„ 15 „ 17 .	Odessa to Brody	...	2	457	...	...	...	...	...	...
„ 17 „ 18 .	Brody to Berlin	...	1	640	...	...	...	...	...	...
„ 19 .	Berlin to Vlissingen	...	1	452	...	...	...	...	...	...
„ 20 .	Vlissingen to Queenboro' - . .	...	1	...	140	...	...	...	...	...
„ 21 .	Queenboro' to Blackheath . . .	...	1	67	...	...	...	...	...	...
		59	120	5,004	3,438	2,932	771	904	330	8

From the foregoing it will appear that the total distance travelled was 12,145 miles, of which were accomplished 5,004 by rail, 3,438 by water, 771 mounted on horse or camel, and 2,932 on wheels, by the hire of 904 horses and 330 drivers. Of the 179 days, 59 were stationary; thus leaving 120 days, during which there were covered on an average 101 miles a day.

OBSERVANDA.

In proper names the letters should be pronounced as follows:—*a* as in *f*ather; *e* as in th*e*re; *i* as in rav*i*ne; *o* as in g*o*; *u* as in l*u*nar; and the diphthongs *ai* and *ei* as *i* in h*i*de. The consonants are pronounced as in English, save that *kh* is guttural, as *ch* in the Scotch lo*ch*.

Unless otherwise stated:—

1. The dates are given according to English reckoning, being in advance of the Russian by twelve days.

2. English weights and measures are to be understood.

3. Degrees of temperature are expressed according to the scale of Fahrenheit.

The ordinary paper rouble is reckoned at two shillings, its value at the time of the Author's visit; but before the Russo-Turkish war in 1877, it was worth between half-a-crown and three shillings.

The Russian	paper rouble (or 100 kopecks)	equals	2	shillings English.
,,	silver ,,	,,	3 ,,	,,
,,	vershok	,,	1·75 inches	,,
,,	arshin	,,	28 inches	,,
,,	sajen	,,	7 feet	,,
,,	verst (500 sajens)	,,	·663 mile	,,
,,	desiatin (2,400 sq. sajens)	,,	2·86 acres.	
,,	sq. verst	,,	·43949 sq. mile.	
,,	zolotnik (96 dols)	equals	2·41 drams avoirdupois.	
,,	pound		14·43 ounces.	
,,	pood	,,	36 lbs.	
,,	garnet	,,	34 peck.	
,,	vedro	,,	2·7 Imperial gallons, or 3·25 gallons of wine.	
,,	chetvert	,,	·72 quarter.	

For Asiatic moneys, weights, and measures, *see* p. 682.

London: Sampson Low, Marston, Searle & Rivington.

RUSSIAN CENTRAL ASIA,

INCLUDING

KULDJA, BOKHARA, KHIVA, AND MERV.

CHAPTER I.

INTRODUCTORY.

Intention to cross the Steppe frustrated in 1879.—Considered afresh in 1882.—Distribution of religious literature desirable.—Reasons for and against the venture.—The way cleared.—My objects chiefly religious.—Help of Bible and Tract Societies.—Plans in relation thereto.—Additional objects.—Failure anticipated by some.—Fears entertained by others.—The start.

WHEN passing through Ekaterineburg in 1879, I heard of a people in the south, wandering about in so primitive a condition with their flocks and herds, that, when among them, one might fancy himself on a visit to the Hebrew patriarchs. This so far interested me that I determined, on my way back, to pass through the Kirghese country from Omsk to Orenburg. But I was prevented from doing this by journeying all across Asia, making a circuit of the world. Once more safe home, so far was it from my wish to travel extensively again, that I had asked my

would perhaps allow *me* to do so. 2. The condition of Russo-English political affairs favoured the project being attempted at once, for the "Eastern Question" raised again might cause the Russians to object. 3. If I did not go, I had no reason to suppose that anyone else would.

The first of these reasons weighed with me heavily, all the more so perhaps because of a short extract from Carlyle which had come under my notice a few days previously. It was this :—"Modern majesty consists in work. What a man can do is his greatest ornament, and he always consults his dignity by doing it," and when I looked at the third consideration in the light of a higher teaching, "To him that knoweth to do good, and doeth it not, to him it is sin," I felt that my disinclination thereto must give way if I saw anything like an outward call to the work. If my thoughts were providential leadings, and not mere cogitations, I thought I might reasonably expect that my outward surroundings would in some way be adapted to the work before me. Now I calculated that, if the journey could be accomplished in from four to five months, it might cost at least £400, and, though I did not see it to be my duty to bear the whole expense of the undertaking, yet I resolved that if the cost of travel were forthcoming, from whence I did not know, I was prepared to give my time and energy. And in this direction my way was cleared in the next few days, for, having put my project on paper, I showed it to a friend, who urged me to go, and offered £50 towards the expenses. I then submitted my plans to the Committee of the British and Foreign Bible Society, who had been wishing to extend their work into Siberia (especially since my return from thence), and who

desired also to penetrate to other new regions as opportunity offered. The Committee had on several occasions given me introductions to their agents, and grants of books for my holiday tours, together with a sum of money on one occasion towards the cost of carriage of the books, and they now hailed with thanks my new proposal. In fact, so hearty was the reception accorded to me, that my courage rose to the occasion, and, instead of asking for a grant of £100, as I intended, I asked for £200, which was given me, and as I left the room a member of the Committee, to whom I was a perfect stranger, offered me £50 more. I then told my story to the Committee of the Religious Tract Society, whose generous grants have encouraged me to distribute more than 100,000 of their publications, and they gave me £100, which, with £10 sent unasked for by another friend, led me to decline with thanks another proffered cheque, on the plea that I thought I had enough.

Here, then, end the esoteric antecedents of my journey to Central Asia, which I have been telling the reader in my sanctum. If in so doing I seem to have obtruded what may be regarded as private affairs, I would urge that I have thought it right that the societies which gave me help should receive a public recognition thereof, whilst, as for my personal motives, I see no good reason to withhold them. One of the critics of "Through Siberia" wrote: "The utmost commendation must be given to the reverend author, not only for his personal work, but for the good taste that has impelled him to describe his religious labours in language understanded of the laity." That this was written by a kindly pen I am sure; but, I suppose, a perverse mind might misinterpret it to mean that I

had said too little of my religious labours. Some of my friends thought so. But I did not then set out to write a missionary's report, nor am I doing so now, though I wish it to be clearly understood that the religious character of my journey was paramount. It heightened every pleasure, and softened what perhaps I may not call hardships, but my every inconvenience and fatigue, whilst, in reviewing the whole, it is incomparably that portion of the expedition which affords me the greatest amount of present satisfaction.

The object, then, of my journey, so far as the Bible and Tract societies are concerned, was fourfold:—

1. In 1879, besides distributing more than 50,000 tracts and other religious publications, I gave to the authorities more than sufficient copies of the New Testament and the four Gospels, to enable them to place one (sometimes more) in every room of every prison and every hospital in all Siberia, so that, where my directions have been properly carried out, every prisoner and hospital patient ought to have within reach at all times of the day, and without having to ask for it from the library, a copy of some portion of the Word of God. In 1882 I wished to do the same for the prisons and hospitals of Russian Central Asia, thus completing my work for the whole of Asiatic Russia.

2. Besides supplying the prisons, hospitals, and other public institutions with religious literature, I was anxious to do something of a similar character for the many thousands of Russian exiles, who are compulsory colonists, or who, after a short term in prison, are released to colonize in remote parts of Siberia, where it is all but impossible for them to procure religious books. I hoped to effect this by making some arrangement of a permanent character, by which books might

be distributed to these exiles as they pass through Tiumen, the general depôt, whence they are forwarded to their far-distant destinations.

3. As I should be passing through regions where the Bible is all but unknown, and religious tracts unheard of—where, moreover, the people might not have another opportunity of procuring them locally for many years—I wished generally to sell and distribute as many as possible.

4. My route lying through new countries, I was to inquire what need there existed for making new translations, and to see what openings presented themselves for promoting generally the objects of the two societies.

These were my religious aims; but if I had intended to make them the boundary of my horizon, my friends were determined that they should not remain so. One asked me to make a collection of flower seeds, botanical specimens, beetles and butterflies. I replied that I should not remain long enough in the different places for this, and that it would be a curious telegram to send on ahead to a stranger, "Please have in readiness for me, on such a day and hour, half-a-dozen horses, the *samovar* for tea, and—a collection of the butterflies, beetles, and plants of the neighbourhood!" My friend, however, urged that the pursuit of the required game would be a healthful recreation for the parties concerned, and I accordingly gave a vague promise that I would see what could be done. Then, my friend Mr. Henry Howorth, learning that I was going among his dear "Mongols," of whom he has written so voluminously, not only tried to interest me in them, but set on me *his* friend, Mr. Augustus Franks, F.S.A., who

honoured me by a request that I would collect for him ethnographical specimens and antiquities for the British Museum. Added to this, I thought I might perhaps search with success for Hebrew manuscripts in Bokhara. My neighbour, Mr. Glaisher, F.R.S., of meteorological fame, as on a previous occasion, lent me some of his instruments for taking observations; and, besides all this, I had sundry editorial friends, who wished me to see and take notes of everything possible, and write to them something thereon.

Of course, there were not wanting those who thought my project a hopeless one. Had not other Englishmen tried in vain to penetrate to Russian Central Asia? And was not one of them—a clergyman, too, who proceeded by stealth as far as Tashkend—ordered to be off within four-and-twenty hours? Did I then expect to get to Bokhara? to which, on one occasion when I answered in the affirmative, my questioner sank back in his chair with a look indicating that he deemed it utterly useless to have anything more to say to me.

But, besides these of little faith, there were some of my older friends who looked back 40 years, and recalled that the last two Englishmen who entered Bokhara were put to death, and that Dr. Wolff, who went to ascertain their fate, nearly lost his life. By them I was thought to be entering on a dangerous enterprise; but I was able to assure them that I had not the slightest intention of putting my head into the lion's mouth merely for the satisfaction of saying that I had done so, and that, unless I had not only the permission, but the cordial support of the Russians, I should probably not enter Bokhara. If, however, I am to be candid, I must admit that I was not without

fear. I realized it to be the most dangerous journey I had undertaken, to this extent, at all events, that as our worthy forefathers used to make their wills before setting out on a journey from York to London, so I copied their example, and set my house in order. I then committed myself into His keeping in whose name I was going forth, and—started.

CHAPTER II.

FROM LONDON TO THE URALS.

Five routes to Central Asia.—Departure for Petersburg.—Favourable reception.—Official letters and favours.—Scientific acquaintances and introductions.—Departure for Moscow.—National Exhibition and St. Saviour's Cathedral.—Mr. Alfred Sevier as interpreter.—Our arrival at Perm.—Purchase of tarantass and medicines.—Departure for the Urals.—Tract distribution.—Arrested and brought back to Perm.—Examined and released with apologies.—My own fault.—Exaggerated reports in newspapers.—A fresh start.

THERE are at least five routes between London and Russian Central Asia. The most southerly of these would be by the Mediterranean to the Tigris valley, through Persia to Meshed, and then across the desert by Merv and Charjui to Bokhara, and Samarkand. By this route I thought perhaps to have returned, but was assured, by Russians and natives alike, that it would be next to impossible for me to escape the Turkomans between the Oxus and Merv. The second route is that by which I came back; namely, Odessa and the Crimea, across the Caucasus and Caspian to Krasnovodsk, then by camels to Khiva, whence there is a caravan road to Bokhara, or another on Russian territory through Petro-Alexandrovsk and Jizak to Tashkend. He should be a sturdy traveller, however, who would attempt this route. A third way would be by rail to Orenburg, and then following the post-road

along the Syr-daria to Tashkend. This is the best route in autumn, but a difficult one in spring, by reason of floods and lack of horses. The fourth route, which I thought at first to follow, is from Orenburg to Omsk and Semipolatinsk, and so past Lake Balkhash and Vierny to Tashkend. My plans for the exiles, however, rendered it necessary that I should go to Tiumen, and I therefore followed the fifth route, which, though longest, is, in spring, decidedly the easiest, namely, by rail to Nijni Novgorod, by steamer to Perm, by rail and post to Tiumen, whence steamers ply on the Irtish to Semipolatinsk, and so onwards by posting as in the previous route.

I left London on the evening of the 26th June 1882, and, three evenings later, reached Petersburg, to find at the terminus the English tutor of the Grand Duke Michael, uncle of the Emperor, whose wife, the Grand Duchess Olga, had thus honoured me by sending to inquire when I could come out to the *Michailovsky dacha*, or summer palace, to lunch. I named the morrow, and was then privileged to renew an acquaintanceship formed two years previously at Borjom, when I asked permission of the Grand Duke Michael to place copies of the Scriptures in the prisons and hospitals of the Caucasus. His Imperial Highness heard with interest of my projected journey, warned me that I should be unable to pass from Charjui to Merv (though I might reach the latter, he thought, from the Russian side), and kindly gave me a letter of introduction to Count Tolstoy, the Minister of the Interior.

I had sent to this statesman, as head of the prison department, a few days previously, a copy of my "Through Siberia," so that with him the tongue of

good report had already been heard in my favour; and upon presenting my letter on the 1st of July, the Count's opening words to me were of thanks for the book, which, notwithstanding the pressure of official duties, he said he had found leisure to peruse, and had done so with the greatest pleasure. The Count then listened to the story of my projected tour, asked what I wanted, and said, "I will do all that I can to help you." Thus, providentially, I had leaped into the right quarter at a bound, and within eight-and-forty hours of my reaching Petersburg had virtually obtained permission to do what I wished.

A few days later I received an official letter of thanks for my book, and also a separate commendatory letter (not one circular document, as in previous years) to the governor of each of the provinces through which I was to pass.

The Count had thus redeemed his promise, but I made bold to ask another favour, and a great one,—so great, indeed, that I did not until afterwards realize its magnitude. I begged to be allowed to see the political prison in the fortress of SS. Peter and Paul. Count Tolstoy at first said "No," but subsequently I was allowed to do so, and I shall give hereafter an account of what I saw; but I may add that, as I was leaving the prison, I asked one of the officials if visitors like myself were often thus admitted. He replied that he had been there 22 years, and had never seen one before!

But there were other magnates to be seen, especially one who happened to be in Petersburg—I mean General Tchernaieff, then recently appointed Governor-General of Turkistan. Here I have thankfully to acknowledge the help of a letter from our Foreign Office to the

English Ambassador, Sir Edward Thornton, K.C.B., who had left the capital a few days previously for the country, but who was represented by Lord Frederick Hamilton. Lord Frederick most kindly procured for me, from the Asiatic department, a letter to the Governor-General, which, on being presented, was duly honoured, and I was furnished with an open document that made me the envy of several would-be travellers in Turkistan. After this a letter was given me from the Post Office authorities to assist me in procuring horses, and thus my official papers were complete.

But I could not yet start for lack of an interpreter, and I wished to procure numerous introductions. Here the letters of my scientific friends, and my preparations for the execution of their commissions, stood me in good stead. The Grand Duke Nicolai, eldest son of the Grand Duke Michael, is an ardent lepidopterist, and has a magnificent collection of butterflies. His Imperial Highness introduced me to his curator, Dr. Gustav Sievers, who gave me sundry hints and aids, as also did Dr. Strauch, the Director of the Zoological Museum, to whom I was introduced by Mr. Vessilovski, the Secretary of the Academy of Sciences. The Imperial Geographical Society is an influential association in Russia, and extends its operations over a wider field of science than its name implies. From Mr. Vice-President Semenoff, and the obliging Secretary, Mr. V. J. de Sreznevski, I obtained many introductions. I made, too, the acquaintance of Baron Osten-Sacken, Director of the House of the General Staff; Baron Rosen, Professor of Oriental Literature; Dr. Regel, the Director of the Botanical Gardens; Dr. Albert Harkavy, of the Imperial Library; and Private

Councillor Grimm, an antiquarian, whom I found in the department of coins in the Hermitage; as also of several literary gentlemen, all of whom received me kindly, and most of whom gave me or put me in the way of procuring information respecting the little-known parts whither I was proceeding.

But to Petersburg, indeed, was a "far cry" from Central Asia, and I hoped to feel nearer at Moscow, as there was the chance of meeting persons from the East, and, as I hoped, about to return. This anticipation was fulfilled on the first evening I was there, for whilst in Kamensky's office, arranging about the carriage of my books, there came in two men of dark complexion, whom I ventured to ask from whence they hailed. They said they came from Bokhara, and told me of two others from the same place staying in Moscow. Afterwards, strangely enough, as I was leaving the office, there passed by a Jew, whom I saluted and found that he, too, was a dweller in the city of the Emir. These men gave me sundry pieces of valuable information, and cleared up several obscure points, so that already some of the dangers I had supposed to becloud my way began to disperse.

There were two sights at Moscow I wished to see in passing, namely, the National Exhibition, and the new Cathedral of the Saviour. I had the advantage of visiting the former with our obliging Vice-Consul, Mr. N. W. Hornstedt, who had intended to draw up a report with a view to giving such information respecting the exhibition as would be interesting to English men of commerce. The exhibition was supposed to be restricted to manufactures and productions of the Russian Empire, upon which feature the Mus-

covites plumed themselves duly, though the boast would not bear too rigid an investigation, for one wickedly disposed might twit his Russian friends by reminding them that some of the things they claimed for their own were in reality the outcome of English brains and hands, as, for instance, an excellent boiler made in the Baltic Provinces, and so admissible to the exhibition, but fabricated of English plates by British workmen. I must not be tempted to enlarge upon details, but will only add that the sight, as a whole, interested me exceedingly, illustrating, as it did so vividly, the enormous size and immense fecundity of the Empire. The products of the frigid stood side by side with those of regions near the torrid zone, and there seemed to be no variety of human wants which Russia was unable to supply either from above or below ground.

As for the Cathedral of the Saviour, built in Ancient Russian or rather Græco-Byzantine style, a remarkable fact in my eyes was that it had been erected in a single lifetime, and that there was given to the people of Moscow, what falls to the lot of few generations to see—a grand cathedral new in all its parts. The building, covering an area of 73,000 square feet, awaited consecration, and was rigidly closed to the public, except by special order of the Governor, with which I was favoured. I will mention only a few data to show on what magnificent lines it has been built. Thus, on the exterior of the building, 900 lbs. of gold were used for overlaying its five cupolas. Of its 13 bells the largest weighs half as much again as "Great Paul" in London, and the doors of the temple, of which the largest weighs 13 tons, cost £62,000. As for the interior, I have seen most of the celebrated

cathedrals in Europe, but I know of nothing so exquisite as St. Saviour's. It reminded me most of the interior of Santa Sophia, at Constantinople. The floor is of marble, and the walls are lined with exquisite varieties of the same material, the entire cost of marble alone having exceeded £300,000. Round the cupola are two rows of 1,240 candelabra, placed there at a cost of nearly £40,000, and nearly as much as this was expended on the materials and workmanship of the altar space, without reckoning its ikons and pictures, of which latter the church is full. This costly fane has been erected at a cost of two and a quarter million pounds sterling, and is said to be capable of accommodating 10,000 worshippers.

I was able, in Moscow, to add to my store of introductions, and would gladly have pushed forward, only that I had not yet lighted upon a suitable interpreter. Thanks to the kindness of friends who had been on the look-out before my arrival, I found several in Petersburg who were willing at first to go, but subsequently some were alarmed at reports of Turkistan tigers and fevers; others were weak in Russian, in English, or in health; whilst a fourth, who would have made hardly a companion, but an energetic courier, was eventually kept back by the entreaties of his wife. I had called one morning at Messrs. Egerton Hubbards' to inquire for an interpreter, and was driving away almost in despair, and wondering that my way in other things should have been made so clear, whilst in this it seemed blocked, when a gentleman named Sevier drove alongside my droshky, and said he had heard I needed an interpreter. He was doubtful as to whether he could offer his own services, but if not, he thought his brother at Vienna might like

to go. This was on the 8th July, and I left Petersburg on the 11th, with this offer in reserve to be arranged by correspondence or telegram, if I met with no one more suitable at Moscow. Here again were two or three who would have liked to go, one of whom I had added as a second string to my bow, when, on the morning of the day I was to proceed on a short visit to the interior, I received a telegram from Petersburg that Mr. Alfred Sevier was willing to join me from Vienna. My mind was so evenly balanced between the claims of two persons that I knew not how to decide; but at length I telegraphed, "Please let him come immediately, and catch me as quickly as he can"; and this Mr. Sevier did on the steamer going to Perm, where we arrived on the 29th of July.

We were met by an Englishman, Mr. Parsons, junr., who, with his young wife, accorded us a hearty and hospitable welcome, and assisted me in the important purchase of a tarantass, or travelling carriage, which was expected to carry us 3,000 miles, and to be our dwelling and sleeping place for a long succession of days and nights. Of two Mr. Parsons had selected for my approval, I chose the larger, its extreme inside measurements being 6 ft. 8 in. long, by 3 ft. 8 in. wide, and 4 ft. 4 in. from the floor to the top of the hood. It was not quite new, but came from the best of builders —Romanoff, of Kazan—and notwithstanding that it cost me heavily for carriage from Perm, it proved an excellent bargain, though had I not bought it on such favourable terms, I should have done better under ordinary circumstances to have obtained one in Ekaterineburg.

Perm was to be the last town we passed through before leaving Europe, so that I took the opportunity

to make a few purchases, whilst Mrs. Parsons kindly added to our eatables a valuable store of cherry jam. Mr. Alfred Hynam Sevier, M.B., proved to be a physician who had just finished his studies at Edinburgh, Paris, and Vienna. It struck me accordingly as highly proper—nay, also having Scriptural precedent—that the practice of divinity and medicine should go together, and I therefore commissioned my companion to invest a sovereign in drugs, so that we might physic right and left as occasion might require or opportunity might serve. We were then ready to proceed, and on the evening of the 30th, Mr. and Mrs. Parsons, in Russian fashion, accompanied us to the station to see us off. The occasion was almost a grand one. I was introduced to the station-master, who showed every disposition to make us comfortable. The manager of one of the steamboat companies was there, and gave me sundry pieces of advice respecting my journey. So, too, was the principal doctor in the town, whom I had met in 1879, and he had brought with him a worthy notary, who wished to give me a box of beetles and butterflies, whilst I was besides presented to a general officer, the brand new Governor of Irkutsk, on his way to take up his appointment; and all this before the *élite* of Perm, who, in their best attire, were promenading the spacious platform. One result was I fear that, for the time being, I lost my head, and forgot to mention to the authorities a little plan I had in hand, the disastrous results of which omission will presently be seen. Moreover, as, by some means unknown to me, an allusion thereto got into the Russian and English newspapers, I shall give my narration somewhat in detail.

My books and tracts, as already hinted, were sent

before me to Moscow, and as I found on arriving there that I could send them by heavy transit to Tiumen, I did so, intending to make no distribution in European Russia. I determined thus for two reasons; partly because of the unquiet state of the country, and the temporary trouble and delay I might bring upon myself by distributing pamphlets; but more out of deference to what I believe I may call the conviction of the Committees of the Bible and Religious Tract Societies, that in localities where their colporteurs are at work, the profuse and indiscriminate distribution of Bibles and tracts is a hindrance to the success of their agents, inasmuch as the people decline to buy, and sometimes fail to value religious reading, which they can now and again get without so much as asking for it.

An amiable friend, however, had suggested, and I readily consented, that I should take a small bag of bundles of tracts, neatly wired together, supposed to be suitable for offering to thoughtful persons here and there, rather than for scattering by handfuls everywhere; and these were to be distributed on my way to join my boxes gone before.

Accordingly I commenced operations at the first railway station out of Perm, but warily; for, from experience, I anticipated that if, whilst the train were standing, I commenced distribution, I should be surrounded with applicants, and the contents of my bag left nearly all in one village. I therefore waited till the train was on the move, leaned out of the window, and placed a bundle of tracts in the hand of the gendarme on duty. At the next station I acted similarly, offering the packet to the red-capped station-master, who ran forward to take it, but suddenly stopped,

whereupon I threw the parcel at his feet. After this it became dusk; so we arranged our cushions and "turned in" for the night.

All went peaceably enough till the train stopped at Chusovaia, 80 miles from Perm, about two o'clock in the morning, when a gendarme, on the track of a supposed Nihilist, put his head into the compartment; but, over-awed, I suppose, by the respectable appearance of the persons within, withdrew and closed the door. Presently he came again, but, his heart still failing him, he once more retired. On his third attempt, however, he caught sight of the tracts on the rack and asked if we had any books. Thinking, in the innocency of my heart, that he was in quest of spiritual food, I said "Certainly," and graciously offered him some. But he looked severe, and said that we and our baggage must all come out to be examined. I laughed, and showed him, and the station-master who had entered, my official permission to distribute religious literature. The station-master seemed to see that all was right, but the gendarme stuck to his prey like a leech, and pulled from behind his cuff a telegram sent from a previous station by one of his fraternity. I then went to the General, who was in another carriage, and asked his influence to set me right. His Excellency came, stood at his full height (which was not diminutive), and introduced himself to the station-master as "the Governor of Irkutsk." He also read the telegram, but, shaking his head, said he could not help me, for it was written in the despatch that "proclamations" (that is Nihilistic pamphlets) had been found in the tracts I had given away. I replied that it was all "stuff and nonsense." "That is precisely what you have to go and prove," he answered. "But it will lose me four-and-twenty

hours," I said. "Better that," he replied, "than four-and-twenty days": upon which I gave in, and allowed my hand baggage to be brought into the waiting-room, whilst our tarantass, with portmanteaus, etc., went forward.

We had now to wait for "the next train up," due in about two hours, thus giving us time to telegraph forward to a friend to look after our coming luggage, and to Mr. Parsons, to say that we were returning under arrest to Perm. As we sat in the restaurant we were curiously eyed by the public generally, and a posse of gendarmes, who at length suggested that we should change our quarters, for that it was "*infra dig.*" for gentlemen to be thus watched by policemen in a first-class waiting-room; to which I replied that *we* did not feel in the least ashamed, and I put on a cheerful look accordingly. Further, to improve the occasion, and as the gendarmes appeared to have nothing to do, we offered them to read some of the dreadful pamphlets that had caused our arrest, but they were afraid (probably of each other), and said they dared not accept them.

When the train came up we were placed in a compartment with a gendarme to guard us. He was a good-natured, respectful sort of fellow, but not very clear in intellect. I said that we had sent forward many thousands of tracts to distribute, which intelligence he somehow muddled up with the supposition that we were going to print them. Now the Russian word for a printing establishment, if transliterated into English, is "typography," and as this word was "much of a muchness" with a similar word that had at some time passed through the gendarme's brain, he inquired whether we were going to set up a *photography!* We

assured him we intended nothing so seditious; and, on finding that he had children, I offered him a New Testament and some tracts, which he stuffed into his pockets, and at the next station was relieved by another of four gendarmes who were in attendance upon us. We were next under charge of the little ferret-faced fellow who carried the telegram, and was somewhat disposed to give himself airs. Presently he wanted to smoke, which I forbade. He then went to do so in the gangway, leaving open the door, which I rose and not very gently shut. He promptly re-opened it, whereupon I stamped my foot, and if I did not shake my fist I let him see unmistakably that I would not have the atmosphere about me defiled, whereupon he made some remark about my being an Englishman, and caved in. We then sent the little man to Coventry, which exercised on him a subduing effect, so that ere we reached Perm he was getting quite obsequious, for he began to suspect that he had made a mistake.

On arriving at the terminus about nine o'clock, Mr. Parsons and the station-master, true to friends in adversity, were there to meet us, and we were asked to be seated in the gendarmes' chamber, where presently arrived the Police Captain and the Procureur of the Town. The Captain's hair was all sixes and sevens; he was smoking, and looked as if he might have been out all night on the spree; whilst "Monsieur le Procureur" was faultlessly clothed in a dress-coat of black, with gold buttons and green velvet collar, with a white tie of spotless purity, and carried an important-looking portfolio. He wore the dignified air of a man who had serious business in hand, and after allowing him to settle himself, I opened fire by saying,—

"Well, gentlemen, you have brought us back: pray, what have I been doing?"

"You have been distributing proclamations."

"Very good; where are they?" said I.

"We have sent for them, but the man has not yet come."

Here, then, things were stayed, for my accuser was six miles away. I therefore led off in another direction, and produced various documents I had about me, such as the open letter of General Tchernaieff, and an old one of the Minister of the Interior, and I said that I had on my previous journey distributed more than 50,000 books and pamphlets in Siberia. I also showed an autograph letter addressed to me by the Grand Duchess Olga, the official letter of Count Tolstoy, and a communication from the Russian Ambassador in London, thanking me for a copy of my book presented to the Emperor. This heavy artillery soon began to tell. The Captain allowed that from my permission it was clear I had a right to distribute the tracts, and the Procureur observed that it was exceedingly unlikely that persons with such letters in possession would be distributing proclamations. Another thought appeared then to seize him, and he asked whether I knew any priest in the town, and I, without sufficient thought, answered "No."

"Was there a priest on board the steamer when you came before?"

"Oh, yes!" I said, "I remember, he wished me to get a book he had recently published translated into English."

"Ah!" said the Procureur, gazing hard at me, "I remember you now, for I also was on board; but at that time you wore a beard!"

I produced evidence thereof by showing one of my old photographs.

"Yes, to be sure," he said, as he looked at the picture; and then he added, in soliloquy, "What an apostolic face!" causing us, of course, to laugh; after which he told the Captain there was no ground for bringing an accusation against us, and that, in fact, they had rendered themselves liable to be sued. The Procureur then asked pardon for having detained us, and pleaded the excited state of the country as an excuse, whilst the Captain in turn screened himself behind the over-zealousness of one of his subalterns. It was now my turn to be gracious, and I took blame to myself (which I really deserved) for not having mentioned to the station-master before I started what I was going to do, for then all would have gone smoothly enough, but the narrow limits of my intended distribution caused me, I suppose, to forget it. We were then asked to sign a protocol to be kept in the archives, giving the particulars of our arrest, saying that two Englishmen had passed through Perm, that one of them threw a bundle of publications in one instance, and in another handed some, from the train, but that the publications on being examined proved to be religious pamphlets, bearing titles such as followed, and so we parted with mutual apologies and shaking of hands.

One of my abettors present was greatly disgusted with "these Russians," as he called them, and expressed his opinion that the gendarme who sent the telegram would "get it hot," or perhaps be dismissed. I asked in the evening whether the informer had made his appearance, but was told that the party were so ashamed of themselves that they were taking care to keep out of my way. I had, however, broken the law

in throwing printed matter from a train in motion, a regulation that in the excited state of the country was reasonable enough, but which I did not know to be an offence. The gendarme, moreover, who received the tracts was in the main right, for the Nihilists are very subtil, and not only put seditious leaflets into duly authorized tracts to distribute, but I have heard on good authority of a Bible having been seen, beginning with Genesis and ending with Revelation, but filled in with —Nihilistic matter! The telegram, therefore, of the gendarme sent to his chief, and read by the Captain at Perm, was so far correct, and seemed to say that our books should be examined because he thought they *might* contain proclamations, whereas in sending after us he seemed to have muddled his grammar, and said that the tracts distributed *did* contain proclamations.

The matter was then dismissed from my mind till we returned to Europe, and found that first the Russian and then the English newspapers, not content with my arrest, had been putting me into prison, one of them so fast as to declare it was only by the intercession of the Duchess of Edinburgh that I was released! Thus my friends might well congratulate me, as they did on my return, at having been liberated. As a matter of fact, however, though twice arrested for distributing tracts, I have never been imprisoned, and in this case the authorities did everything in their power to repair the damage. Our railway tickets were allowed to stand, a first-class compartment was secured for us and marked "reserved," and the guards paid us every attention. Thus we had a ride of 160 miles free of charge, as well as the pleasure of a little excitement, and started by the next train, once more to attempt, and this time successfully, the crossing of the Urals.

CHAPTER III.

FROM THE URALS TO OMSK.

Books overtaken: their numbers, kinds, and languages.—Acquaintanceships renewed at Tiumen.—Success of former efforts.—Books for future supply of exiles.—Testimonies to their thankfulness for Scriptures distributed.—Final equipment, and introductions.—New Siberian steamer.—Mr. Ignatoff's generosity.—River voyage.—Sale of books on deck.—Interview with Governor of Tobolsk.—Visit to cemetery and Archbishop.—Voyage up the Irtish.—Cheap provisions.—Fellow-passengers.—Arrival at Omsk.

EKATERINEBURG is the railway terminus at which the traveller arrives in passing from Perm into Asia, but here we stayed only four-and-twenty hours, before posting to Tiumen, which we reached on August 4th. At Tiumen I found my books, and that not a moment too soon, for by a clerk's mistake they were shipped for Tomsk, a blunder which, had it not been detected, would have cost us at least a month's delay. Here I may mention that, before starting for Central Asia, it was more difficult than when going to Siberia, to form a correct estimate as to how many publications I could carry and properly dispose of, and in what languages and dialects they would be required. The committees of the two societies kindly placed at my disposal such a number of their books respectively as seemed desirable, and practicable; and I wrote to the Rev. W. Nicholson my faithful

ally, who has always been so ready to help me, in Petersburg, to get ready 5,000 Scriptures, 10,000 Russian tracts, 1,000 copies of a monthly paper called the *Russian Workman*, and an illustrated broadsheet entitled "The Prodigal Son." These were to be packed in strong wooden boxes, iron-hooped at the ends, and corded; and when I arrived and found 30 of them awaiting me, to say nothing of personal baggage and provisions, I confess to feeling a little alarmed at the burden prepared for my back. The Scriptures consisted of Bibles, Old Testaments, New Testaments, the four Gospels (bound together and singly), and the Book of Psalms. They were printed in Russian, Sclavonic, Hebrew, Chinese, Mongolian, Kirghese, Persian, Arabic, Turkish, Polish, German, and French, and these, as I have said, I was able to book through to Tiumen, where I hoped to deposit a considerable number for distribution to the exiles.

It was very pleasant in this town to renew acquaintanceships formed three years previously, which I did first with an English family named Wardropper, and then with Mr. Ignatoff, who contracts for the carriage by water of the exiles to Tomsk, and of soldiers to Semipolatinsk. This gentleman so thoroughly approved of the object that led me to Siberia in 1879, that, unasked, he took my luggage free of cost, and after my departure gave every facility on his barges for distribution of my books to the exiles as each company embarked. Thus the Bibles and tracts I had left behind had been carefully given out under supervision, and I was pleased to hear that, when my stock of Scriptures was exhausted, Mr. Ignatoff had sent, at his own expense, for 200 more. Specimen copies of the books and tracts had been sent

to the Governor-General, as well as to the Governor and the Archbishop of Tobolsk, who were pleased with the work and with the books, and sanctioned their distribution. A report of what had been done was subsequently sent to them, Mr. Ignatoff informed me. He was able to tell me also that the publications had been much appreciated, and that on more than one occasion the exiles had drawn up a written form of thanks and signed their names. Many, too, had thanked him individually. This testimony was confirmed by the officer who had charge of the prisoners between Tiumen and Tomsk, and who said that the books I left to remain permanently on the barges for the use of prisoners were still there, and accessible to them without having to be asked for. He mentioned, too, incidentally, how little sickness there had been on the barges that season. Eight barges had carried 6,000 prisoners a distance of nearly 2,000 miles. Only 2 (a child and an adult) had died on the passage, and only 20 had been delivered invalided at Tomsk. Yet another testimony pleasing to hear was that of Mr. Wardropper, within sight of whose house the exiles are shipped by thousands, who said that the general condition of the prisoners, and the attention bestowed upon them, had greatly improved during the past few years.

The question then remained as to what could be done in the future for the thousands who every summer pass through Tiumen to be scattered over Siberia; some to be made as colonists at once, and others to spend first their terms in prison or at the mines. The Bible Society had not yet been able to establish depôts in Siberia, east of the Urals, other than at Ekaterineburg and Tomsk,* and although a

* A depôt has since been established at Irkutsk.

stray copy of the Scriptures might here and there be found with the merchants in large towns, yet for the mass of the banished it might be said that copies of the Bible were unobtainable even by those willing to buy them. It must have been no small boon, therefore, during the preceding seasons, when, after embarkation of the convicts, at the close of a religious service before they left Tiumen, books and tracts were handed to those who could read: and it was easy to understand that, in many cases, the New Testament thus received had been carried to some distant *izba* or cabin, to form the library of the household, or, indeed, the only copy of the sacred volume in the village. Accordingly it was determined that there should be left for distribution at and from Tiumen, between 3,000 and 4,000 copies of the Scriptures, and about half my stock of other publications, a large proportion of which was to be given as before to the exiles going east by the barges; whilst for the 7,000 who are annually distributed in the province of Tobolsk, an invitation was to be given to the vollost (or district) committees to purchase the books at a cheap rate, and to sell them still cheaper to the exiles living free; and this on the principle that a man values a purchase more than a gift.

Of course we were not so Utopian as to suppose that none of these would be put to a perverted use or be placed in the hands of those who would not care for them. The tracts, some have said, will be used for cigarettes, and the Bibles be sold for *vodka* (or brandy), which,in some cases, would be quite probable. It would be a rare field in which every seed came to perfection. Nevertheless I am pleased to be able to say that of the scores of thousands of tracts I have

given away in Russia, I do not remember ever to have seen one torn or defaced. Mr. Ignatoff's testimony was similar: that among the exiles he had never seen a New Testament spoiled, not even when sold or taken to the dram shop. I had also the independent testimony of an officer over soldiers that guard the prisoners at Tiumen and Tobolsk, and who had been connected with the transport of the exiles to Tomsk, to the effect that when at Tobolsk he had observed how glad the prisoners were to get the books, and how pleased they were to read them. Moreover, he knew no instance of their being torn; but, on the contrary, he had known cases of prisoners come from Tiumen, who, on being searched at Tomsk, were found to possess New Testaments hidden about them, which they were allowed to keep. That the prisoners may sell the books to each other, or the exiles occasionally to those willing to buy them, is, of course, possible; but this surely is not an unmixed evil, for it means that a portion of Scripture has passed out of the hands of one who did not care for it into the hands of one who does. I was, therefore, only too thankful to leave a goodly store of books at Tiumen, finding my friends willing to do with them all that was possible and lawful.

I was able at Tiumen to get a few more introductions for the south. As they now stand in my journal, allocated under the respective towns where they were to be presented, they amount in number to 255: but this includes documents of all sorts, official and private; letters open and letters sealed; cards "to introduce Mr. So-and-So," and cards backed with miniature epistles. Moreover, they extended over a longer route than I covered, for had the way to Central Asia

been blocked, I was prepared for a run from Petersburg through Finland, and then to Persia, the Tigris valley, Armenia, Constantinople, Greece, and Italy. Another thing we obtained at Tiumen was a second vehicle wherein to carry the books. Mr. Wardropper ordered to be made for me a strong *telega* or wagonette (though not in the English sense of the word), which answered its purpose admirably. We obtained, too, a few more provisions, but I found I had made a mistake about tinned meat. This article is so heavy that I had deferred its purchase as long as possible on account of the inconvenience and expense of carrying it as passenger's luggage, and thinking to get it at Ekaterineburg or Tiumen; but at neither town, however, could I procure cans of beef, but only relishes, such as tinned salmon and lobster, or *pâté de foie gras*, and this last at a price to make one's hair stand on end.

In a very short time we were ready to leave for Omsk; but the question arose, By water or by road? Mr. Ignatoff's steamer was not to start for some days, and I was therefore inclined to post with horses. An important factor, however, in my calculations was, 'Where can I meet General Kolpakovsky?' the new Governor-General of the Steppe, who had been resident in the south at Vierny, and was said to be on his way to Omsk, his future residence, but making official inspections *en route*. I had a letter for him, that an officer at Moscow, who knew the country, had strictly counselled me on no account to fail to present, in order that I might receive the proper papers wherewith to enter Kuldja; "for," said he, "so prejudiced are the officials down there, that an autograph letter from the Emperor himself will not gain you admission

to Kuldja, if you have not one from General Kolpakovsky." Accordingly, when one day Mr. Ignatoff called on us to say that the Governor-General had left Vierny only the day before, and that, travel as fast as he would, he could not reach Omsk before the date on which the steamer was due, I determined to save the shaking of my bones over that much of post-roads, and to glide to Omsk on the Irtish. This Mr. Ignatoff strongly urged, not, as will hereafter be seen, touting for passengers, nor with an eye to business, but with desire to perform a generous deed.

Our stay being thus prolonged, we had time to visit the new commercial school, built at the cost of Mr. Padaruyeff, the mayor, and in it the museum, where was a good number of specimens of butterflies, beetles, bees, and moths, collected locally by Mr. Slovtsoff, to whom I had an introduction, but who happened unfortunately to be away. We saw also a good deal of the Wardroppers, who had just astonished the natives with a steamer they had built, of 200 tons displacement, measuring 170 ft. by 22 ft., a hold 7 ft. 6 in. deep, and drawing only 28 in. of water.*

On the 10th of August we were to leave Tiumen, and Mr. Ignatoff gave a dinner in my honour, placing

* She had compound condensing engines, cylinder steam jacketed, and fitted with Corliss gear, which Mr. Edward Wardropper had seen in England, though not on steamers, and which he had adapted to that end. The high-pressure cylinder was of 21 and the low-pressure 38 inches in diameter, the stroke 48 in., and the nominal horse power 80. All the working parts were of Bessemer steel, and the boilers made of Siemens' steel, worked to a pressure of from 90 to 100 lbs. The engines had been made at the Government steel factory, 500 miles away, at Perm, but otherwise the whole was built in Siberia, where, as regards her fittings of steel and Corliss gear, she was regarded as a novelty, whilst owner and builders alike were pleased that she could tug against stream in 2 lighters, 16 tons to each horse power.

me at the head of the table,* and Mr. Sevier opposite; and when, later on, I went to the ticket office, there was handed to me a free pass securing, as far as the steamer could go, a first-class cabin with three berths, free transport of my two vehicles and the whole of my baggage! This I thought a proof of Mr. Ignatoff's sympathy with my work, and the more observable because I was told that he was Russian to the backbone, and hated foreigners; moreover, that he would probably rather have seen my work in the hands of his own countrymen, but that as they did not do it, and I did, he rose above his prejudices and acted in the handsome manner I have described.

We left Tiumen in the small steamer *Kapitan*, that carried us 60 miles down the shallow Tura to its confluence with the Tobol, where we arrived on the morning of the following day. We were then transhipped into the *Serapolets*, a large, convenient, and comfortable boat. During the process of shifting, I observed a man looking steadily at me, whom I recognized as the captain of the *Beljetchenko*, in which I made the voyage three years previously from Tobolsk to Tomsk. I was glad to find he had not forgotten "Mr. Missionary," as he then called me. I recognized also, among the passengers, the French master at the *Gymnase*, whom I had met on my previous visit to Tobolsk.

The holidays were drawing to a close, and several masters and more scholars were returning for the opening term. This gave me an opportunity, which I embraced on the morrow, to sell some Bibles and tracts.

* The places of honour at the ends of the table do not appear to be tenaciously reserved *in the interior*, except at a wedding, when the bridal pair are placed together at the end, or in the very middle, of the table, with the bridesmaids and best men on either side.

Opening a couple of boxes on deck, I was speedily surrounded with purchasers of all classes, and among them several ladies and ardent schoolboys. One little fellow bought of me almost wholesale, and I am afraid nearly emptied his pockets. The masters of the *gymnase* bought copies in French and German, as did some of the scholars, whilst the old-fashioned orthodox took them in Sclavonic. There was a demand, too, for Polish copies. The light in which my purchasers regarded me evidently varied widely. Some understood that I was conducting a labour of love, but others treated me as a merchant pure and simple. One matter-of-fact old lady, of commercial principles truly Russian, caused much amusement to the bystanders by trying to beat me down. Having fixed upon her book, she asked the price. "Twenty-five kopecks," I replied. "But can't you take twenty?" she said; and, heedless of the laughter of the crowd, went on haggling, till I, more anxious as to her future possession of the book than the sum she paid, allowed her to have it at her own price. When the sales began to grow less brisk, and the poorer passengers saw what their richer friends had bought, they came asking for the books at reduced prices, and this I allowed in cases that appeared genuine. This caused the ship's stoker, who had bought at catalogue price, to inquire why others were served cheaper than he; and when we said, "Because they are poor," he wished to know what means we had of divining the contents of their purses.

Thus, on the whole, I did a capital morning's trade, and in the afternoon the boat arrived at Tobolsk. Here I had five things to do: to visit the Governor; to present an introductory letter; to visit an exile's tomb, with a view to getting it sketched; to pay my respects

to the Archbishop; and to look at a collection of coins —and all this in the two hours during which the steamer would wait! I had communicated with the Governor, reminding him that I had received no account of the books I left with him on my last visit, to be distributed in the hospitals, prisons, schools, and public institutions of his province, and asking that I might be so favoured, if possible, on my expected arrival. As we drew near the city, his Excellency was steaming about on a pleasure trip, with band playing and colours flying; but seeing our boat arriving, and knowing, as he said, I was on board, he caused his craft to turn back and come alongside to welcome me. The police-master then handed me a detailed report in writing, and the Governor thanked me for the books he had had to distribute, adding that he should be glad to give a few more, especially in some of the country schools. He then offered to be of any use in his province that he could, put me into the hands of some of his officials to help me to what I wanted in the town, and steamed away.

This occupied about 15 or 20 minutes, and we then drove quickly, under the charge of the police-master, to Madame Znamensky's, who, knowing my haste, accompanied me at once to the cemetery on the heights in the outskirts of the town. Here were buried Wolff and Mouravieff, two celebrated Decembrists, political exiles who took part in the insurrection in December, 1825, and I had been asked by a relative of the latter to visit, if possible, his grave, and look to its condition. Thanks to the care of Madame Znamensky, who had been governess to the exiled nobleman's daughters, the tomb was in good condition, save only that the iron railings were broken, and these

could not be mended, because there was no foundry in the district. I asked as to the possibility of getting a photograph of the spot, had the Russian epitaph copied into my note-book, and then, without loss of time, hastened away.

We presented ourselves next at the palace of the Archbishop, whose good-will I was anxious to gain with reference to the books I had left to be distributed at Tiumen; for, although his Eminence might not have absolute power to forbid their dissemination, he might put difficulties in the way, and it was in any case better that we should have his benediction. Having sent in my card, we were shown into a chamber spacious and lofty, with shrubs and flowers in the windows, reminding me, in one respect at least, of Lambeth Palace, in that the walls were hung with portraits of Archbishops for many generations, though the number at Tobolsk was much fewer, and the pictures mere daubs compared with some of the portraits at Lambeth. I learned that the present Archbishop of Tobolsk had only recently been appointed, and that it was not he who approved my books and tracts as left before. I had, therefore, to explain the object and character of my mission, and told him of the books I had left for distribution. He seemed at first to be somewhat suspicious that we were actuated by sectarian motives, but ultimately expressed his pleasure at what we were doing, and wished us God-speed!

We then drove to the park close by to peep at Siberia's one monument—that of Yermak, the robber chief who added Siberia to the Russian Empire. The present monument is a stone column standing in a garden. The former one consisted of a wooden figure, to which the Tatars set fire out of revenge; but the

remains of it are still preserved in a shed within the grounds.

We afterwards descended the hill to look at a private collection of copper coins and medals, the value of which, however, we thought exaggerated, and hurried on to the boat to find that the captain had kindly been waiting only for us.

Thus far my journey from London had been over old ground, save that in 1879 I followed the post-road from Tiumen to Tobolsk. I was now to wander into fresh fields, and make way up the Irtish to Omsk, a voyage that occupied five days. The regular service of steamers running fortnightly, or thereabouts, from Tiumen to Omsk, and (when the water is sufficient) to Semipolatinsk,* had been started about two years only, the chief demand for it being the annual transport of young soldiers on their way to Turkistan. They travel on a large barge tugged astern of the passenger steamer, both proceeding slowly, and helping to make a dull journey somewhat tedious.

* The following is a table of stations between Tiumen and Semipolatinsk, with approximate distances between, together with the fares for first, second, and third-class passengers and baggage :—

	Distances.		Passenger's Fares.						Baggage.	
	Versts.	Miles.	First.		Second.		Third.		Per cwt.	
			s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
Tiumen—										
Artamanova .	233	156	6	0	4	0	2	8	1	6
Tobolsk . .	173	115	12	0	8	0	4	5	2	3
Ust-Ishim .	336	224	16	0	12	5	6	5	2	9
Tara . .	354	236	22	0	18	0	9	3	3	0
Kartashevo .	170	113	26	0	20	10	10	8	3	9
Omsk . .	203	135	30	0	24	0	12	0	4	0
Jeliezenka .	293	195	36	0	28	10	14	8	4	3
Peschanoe .	155	103	39	0	31	0	15	8	4	6
Pavlodar .	169	113	42	0	33	5	16	10	5	3
Semiyarsk .	241	161	47	0	37	5	19	0	5	9
Semipolatinsk	211	141	50	0	40	0	21	0	6	0
	2,538	1,692								

The banks of the river possess no beauty, and little interest. When Yermak pushed his way into Siberia at the close of the sixteenth century, he took a small fortress on the banks of the Irtish called Sibir, the ruins of which I was under the impression were still to be seen;* but in answer to my inquiries it was said to be unknown, as also the spot where Yermak fell into the Irtish and was drowned. We passed very few habitations, and not many cattle. On the second day after leaving Tobolsk we arrived at Ust-Ishim, a *selo*, or church village, with only 14 Russian houses, but with a large number of Tatar habitations. It derives what little importance it has from being the centre of the corn trade for the surrounding district, the grain being gathered there for the market at Tobolsk. We stopped, of course, at wooding stations, the steamer burning 6 cubic fathoms, or 1,296 cubic feet, of logs per day, at a cost on the river's bank of 5*s*. per fathom. In Omsk the cubic fathom costs 7*s*.; and in Petersburg 50*s*.

These delays for taking fuel were not altogether unwelcome, because they allowed of our going on shore to look at the villages and to see what the peasantry had to offer in the way of raspberries and other fruits, cucumbers and curdled milk, called *prosto-kvasha*. We were able to exchange commodities in offering them Scriptures and tracts, which usually they took readily. At a certain church village we called and sold books to the priest, who was glad to purchase—though at Ust-Ishim, where I sent parcels of

* In Chap. ix., p. 110 of "Through Siberia." London: Sampson Low & Co., Fleet Street;—America: Houghton, Mifflin, & Co., Boston;—German Translation, Hermann Costenoble, Jena;—Swedish Translation, Albert Bonnier, Stockholm;—Danish Translation, O. H. Delbanco, Copenhagen.

tracts to three ecclesiastics on the bank, one of them, I suppose from fear or misunderstanding, declined to accept them. We sold several publications also at a cheap rate to the officer on the soldiers' barge, for distribution among the men. On the 15th-16th of August, in the middle of the night, we reached Tara, a town of 6,000 inhabitants, and 460 miles from Tobolsk. I remembered the name of this place, because I had read of its prison, from which the exile Pietrovski escaped, made his way over the Urals to Archangel, and thence to Western Europe. I myself was awaked from my slumbers there, to learn that the police-master of Tara had come on board and asked for me. I dressed of course in haste, with the chance possibly of being again arrested and taken back. But all was right this time, the Governor at Tobolsk having telegraphed to the police-master to present himself on my arrival, and inquire if there was aught I required.

Everything, however, was going smoothly, if not rapidly, enough. My time was occupied in reading books of the region whither we were going, and the steward provided an excellent table. Thus our dinner on the day after leaving Tobolsk consisted of, first, clear soup made of sterlet—a fish at largest about two feet long, and weighing 10 lbs., with pale pink flesh like that of a Loch Leven trout, remarkably tender, and almost tasteless I thought; but the flavour of which is so highly esteemed in Petersburg, that the soup there costs 3*s.* a plate. The second course—boiled *nelma*, a bigger fish than the preceding, with firm, white flesh, and, as I thought, *very* good. The third course consisted of *tetierka*, and a good, dry-tasting game the Russians call *glukhar*, or capercailzie. The fourth course was of *prostokvasha*, made of sour

milk and cream. Such a dinner ordered *à la carte* costs from 1*s.* 6*d.* to 2*s.*; and I heard that at Tara other provisions were equally cheap.*

I need hardly say that among our fellow-passengers were no tourists. Travellers for pleasure are rare indeed in Siberia and Turkistan. We met with only two in all Central Asia. But there were upper-form "gymnasts" returning to school at Omsk, who on Sunday evening hymned to me on deck some Russian Church music, whilst I in turn sang them in Latin the "Agnus Dei" in Mozart's "First Mass." So, too, there was a Russian merchant and his wife, who spoke English, and who, it was easy to see, had travelled. They were going home to their children at Tara, having, since they left them, accomplished the circuit of the world. The husband's business establishments were at Hankow and Foochow, to which places the lady had twice crossed the Mongolian desert from her father's house in Kiakhta; but this time they had preferred crossing the two oceans, America, and Europe, instead of returning westwards through Siberia. We became very good travelling friends, and as they left us at Tara, they gave me a cordial invitation, should I come near them in China, "just to look in," which I expressed myself forward to do.

Thus we lost at this second station two pleasant passengers, but we gained other two; for there came on board a lady and her daughter, who spoke excellent

* Thus geese in autumn cost 5*d.* a couple, and are frozen in great numbers to be sent west to Russia, and east to Irkutsk. *Riabchiks* (hazel grouse) and *tetierka* in summer cost 3*d.* a brace, and milk 1½*d.* a pint; good fish, such as *sterlet* and *nelma*, cost from 1½*d.* to 2½*d.* per lb.; whilst beef in autumn, when it is cheapest, costs from 1*s.* 3*d.* to 1*s.* 8*d.* the pood—or about ½*d.* per lb. Mutton is not much eaten about Tara, sheep being scarce.

French. They were accompanied by two gentlemen who appeared to be "in attendance," which was explained when I discovered that the lady was the wife of the Governor of Akmolinsk, who for the time being was acting for the Governor-General. The fact that I had a letter for her husband was of course an introduction, and when, after passing the third station, Kartashevo, we arrived on the 17th at Omsk, I was introduced on the landing-stage to the Governor, and invited to dinner on the following day.

CHAPTER IV.

THE GOVERNMENT GENERAL OF THE STEPPE AND THE PROVINCE OF AKMOLINSK.

"Russian Central Asia" defined.—Its dimensions, boundaries, and divisions.—The government general of the Steppe: its dimensions, hydrography, surface, and vegetation; its population and communications.—Province of Akmolinsk: its surface, rivers, climate, and administrative divisions; its minerals, agricultural produce, and cattle.—The Russian population and medical staff.—Towns of the province, their industries, and houses.—Conflagrations.—Distillation of ardent spirits.—Crime.

BY "Russian Central Asia," as read in the title of this book, is meant the Tsar's dominions lying between the Oxus and the Irtish, and between Omsk and Samarkand. This territory measures from west to east 1,250 miles, or the distance from London to Petersburg, and from north to south 1,100 miles, or the distance from Petersburg to the Crimea.* On the

* Its area exceeds half a million square miles, or as much as that of England, France, Prussia, and Spain together:—

Province.	Extent in square miles.	Population.	Persons to square mile.
Akmolinsk . .	213,301	459,319	2·1
Semipolatinsk .	190,456	538,385	2·8
Semirechia . .	134,410	551,679	4·1
Syr-daria . .	182,000	1,094,557	6
Ferghana . .	28,000	729,690	26
Zarafshan . .	10,000	348,413	35
Amu-daria . .	36,000	107,209	3
	794,167	3,829,252	Average 5

north it is bounded by the government of Tobolsk, on the west by one of the Ural provinces, the Sea of Aral, and Khiva; on the east by the government of Tomsk and what was Sungaria; and on the south by Bokhara and Chinese Turkistan. Russian Central Asia has a population of nearly four millions, or five to the square mile. For administrative purposes it is divided into the governments general or vice-royalties of Turkistan and the Steppe.*

The general government of the Steppe forms the eastern portion of Russian Central Asia, and the boundaries of the two on the north and east coincide; whilst the vice-royalty has on its west the province of Togai, and, on the south, Russian and Chinese Turkistan. Its extreme length from Omsk to the Thian-Shan mountains is 1,000 miles, and its extreme width on the 49th parallel 900 miles, with an area of 538,167 square miles—that is, as large as France, Prussia, Spain, and Portugal. Its entire population is 1,549,383, or 3 to the square mile. In the north the plains do not rise to a thousand feet, though there is a range of hills attaining to that height, commencing 160 miles west of the town of Semipolatinsk, and running across the territory in a north-westerly direction. Further south, on the 49th parallel, stretch westward across the vice-royalty from the Chingiz-Tau, the Suk-bash-Tau mountains, less than 5,000

* Russia has possessions in Asia south of the Caucasus and east of the Caspian, including Merv; also part of the provinces of Perm, Orenburg, and Turgai extend east of the Urals; but all these possessions are governed from European centres, so that, for administrative purposes, Siberia and what I have called Russian Central Asia make up the whole of Asiatic Russia. I did not enter Yakutsk in 1879; but with this exception I have travelled in all the other provinces, so that "Through Siberia" and the present work describe with more or less completeness the whole.

feet high. In the western portion of the range they do not exceed 1,000 feet, and form the watershed of several streams running south into the Sari-Su. South of the Suk-bash-Tau range is the basin of the Balkhash, that, with the valley of the Ili, has an altitude of less than 1,000 feet, though on the north of the Ili about Kopal are mountains attaining to nearly 5,000 feet, whilst on the south, behind Vierny, the Trans-Ilian or southern Ala-Tau range far exceeds that height.

The principal rivers in the vice-royalty are the Irtish and Ishim, flowing into the Obi, and seven rivers, of which the Ili is the most considerable, flowing into the Balkhash. Others, notably the Sari-Su, the Chu, and the Nura, lose themselves in the Steppe, or some of its small lakes. Of these lakes there are several in the plains, such as Lake Dengiz, into which flows the Nura, but none of them are worth naming in comparison with the Balkhash. In the mountains are lakes Zaisan, Ala-Kul, and the famous Issik-Kul at an altitude of 5,300 feet above the sea. In the climate of the Steppe is experienced every degree of temperature between — 52·42, the greatest cold in February, 1879, at Omsk in the north, and + 99·5 of heat in the south at Vierny.

The general government or vice-royalty of the Steppe is divided into the governments or provinces of Akmolinsk, Semipolatinsk, and Semirechia, of which the surface consists mainly of mountains, deserts, and steppes. In the north the steppes afford abundant pasturage for cattle; to the west and south of the Balkhash are a few patches of sandy desert; and in the south and south-east are the mountains. For the most part the territory is poorly wooded. A dendrological map of Akmolinsk and Semipolatinsk shows a narrow belt of deciduous trees, about 70 miles

in width, stretching across the territory west of Omsk, and a small area of a like character about the town of Akmolinsk. Likewise to the north of the town of Semipolatinsk is a forest of conifers about 100 miles square, and a few small forests of this character are met with south of Petropavlovsk; but when comparing these with the immense belt, 400 miles wide, of coniferous trees about the affluents of the Obi, or even the lesser deciduous forests between Tobolsk and Omsk, the northern part of the general government of the Steppe may be called bare of trees.* The character of the vegetation of course varies considerably. As we approached Omsk we were thankful for raspberries, rather sour currants, and other berries; but at Vierny we feasted on luscious melons, grapes, and nectarines. So again, about Omsk, the people ate black rye bread; at Vierny it was as easy, or easier, to get wheaten bread; whilst, further west, rye bread can with difficulty be procured at all.

The vice-royalty is peopled by a comparatively small number of Russian soldiers, Cossacks, and colonists in the towns and along the principal highways; but all over the province are the nomad Kirghese and Kazaks; Kara-Kirghese in the mountains, and Kazaks in the plains, though both are usually spoken of as Kirghese. The chief towns besides Omsk—where lives the Governor-General—are Akmolinsk and Semipolatinsk, capitals of the governments of the same names, and Vierny, the capital of Semire-

* According to the report of the officers of woods and forests, the forest area of Akmolinsk extends to 241,577 square miles, and of Semipolatinsk to 332,880 square miles, to which should be added forests belonging to stations and military districts; to Akmolinsk 97,085 square miles, and Semipolatinsk 67,578 square miles, giving a total in the two northern provinces of the Steppe of 744,746 square miles.

chia. Each government is divided into uyezds, each of which has also its capital town.

With regard to communications, the Irtish is navigable for steamers in spring. There is also a post carriage-road and telegraphic communication from Orenburg, skirting the northern boundary of the vice-royalty to Omsk, and then turning south, following the river as far as Semipolatinsk, after which, passing through Sergiopol to Kopal, it makes a curve in a south-westerly direction to Vierny, and continues into Turkistan.*

Having thus briefly sketched the general government of the Steppe, I proceed to treat of Akmolinsk, the largest of its three governments. When penning my "Through Siberia," I wrote: "Western Siberia is divided into four provinces—namely, Tobolsk, Tomsk, Akmolinsk, and Semipolatinsk," which was then true, but territorial arrangements have since changed; Siberia is pushed farther to the east, and the two provinces of Akmolinsk and Semipolatinsk were cut off in 1882 to make, with Semirechia, the general government of the Steppe.

Akmolinsk is bounded on the north, west, and east by the provinces of Tobolsk, Turgai, and Semipolatinsk, and on the south by Turkistan and Lake Balkhash. Its length extends to 700 miles, or the distance from Paris to Rome, its breadth to 330 miles, and its area

* This main road is joined on the east and south by five carriage-roads from Ust-Kamenogorsk, Marlady, Lepsinsk, Kuldja, and Lake Issik-Kul, but it gives off only one to the west, from Pavlodar to the Orenburg road at Petropavlovsk. Besides the carriage-roads there is a great caravan route, that, entering the territory from the south-west, skirts the bed of the Sari-Su for 300 miles, and branches off on the right to Akmolinsk, and on the left to Atbasar; whilst there are several less important roads for caravan traffic from the south that strike at some half-dozen points the Orenburg route.

is 210,961 square miles—that is, the size of France, which, with a population in 1880 of 459,319, gives an average of 13½ persons to the square mile.

In the extreme north of the province, about Petropavlovsk, the surface is chiefly of undulating *chernozom*, or black earth, intersected by deep hollows, and traversed by ranges of hills gently inclined towards the north, but abruptly scarped towards the south. These hills do not rise to an altitude of 1,000 feet until we come to the northern bank of the Ishim, along which runs a higher belt 60 miles in width. South of the river the surface is again depressed as far as to the Suk-bash-Tau, where, for a small area, the east of the province rises in some places to 5,000 feet. Still further south, in the east are hills rising to 1,000 feet, but in the west the surface is depressed and partly occupied by the *Golodnaya*, or Hungry steppe, whilst north of this is a desert of sand called Peski-Muyun-Kum, covering an area of 2,000 square miles, or about the size of Northumberland.

The principal river in the north is the Ishim, an affluent of the Irtish, which latter skirts the north-west corner of the province. The Ishim rises about 80 miles south-east of the town of Akmolinsk, or the "white tomb," as *Ak-moli* signifies in the Tatar tongue. Flowing westwards for 160 miles, the Ishim receives several tributaries on its right bank, but only one on its left, and at length forms a junction with the Atbasar, that gives its name to a small town at the confluence. About 80 miles west of this town the Ishim meets a range of hills separating Akmolinsk from the neighbouring province, and which diverts its course northwards 300 miles, to Petropavlovsk, beyond which it passes on 260 miles further to the Irtish.

Of a different character from the Ishim are the streams in the south of the province, for all of them may be said to be abortions, since they fail to reach the ocean or any great body of water like the Sea of Aral, into which some geographers assert they once ran. Thus the Sari-Su rises 200 miles south of Akmolinsk, and, running in a south-westerly direction, receives many affluents from the north, but none from the south. For the last 150 miles of its sluggish course it forms the boundary of the south-west corner

METEOROLOGY

	Barometer.			Temperature.			Rainfall.			Relative Humidity.		Cloud.
	Mean.	Maximum.	Minimum.	Mean.	Maximum.	Minimum.	Total in month.	Maximum in a day.	Day of month.	Mean.	Minimum.	Mean.
Jan^y. .	29·981	30·819	29·268	−6·70	35·42	−31·54	0·18	0·09	20	79	56	5·6
	761·5	*782·8*	*743·4*	*−21·5*	*1·9*	*−35·3*	*4·6*	*2·2*				
Feb^y. .	29·981	30·434	29·378	−4·54	28·76	−40·36	0·19	0·07	4	77	52	5·6
	761·5	*773·0*	*746·2*	*−20·3*	*−1·8*	*−40·2*	*4·9*	*1·7*				
March .	29·780	30·316	29·154	17·96	43·70	−11·56	0·22	0·11	24	80	50	5·9
	756·4	*770·0*	*740·5*	*−7·8*	*6·5*	*−24·2*	*5·7*	*2·8*				
April .	29·737	30·371	29·158	29·12	54·32	3·02	0·92	0·39	25	75	40	5·5
	755·3	*771·4*	*740·6*	*−1·6*	*12·4*	*−16·1*	*23·3*	*9·9*				
May .	29·772	30·178	29·032	50·18	83·30	31·64	1·21	0·43	30	59	14	5·1
	756·2	*766·5*	*737·4*	*10·1*	*28·5*	*−0·2*	*30·8*	*11·0*				
June .	29·477	29·930	28·969	66·74	88·70	41·18	3·33	0·74	29	66	26	5·3
	748·7	*760·2*	*735·8*	*19·3*	*31·5*	*5·1*	*84·4*	*18·7*				
July .	29·501	29·953	29·134	68·18	94·64	48·56	2·66	0·94	3	71	38	5·2
	749·3	*760·8*	*740·0*	*20·1*	*34·8*	*9·2*	*67·5*	*23·9*				
August	29·587	29·890	29·024	64·94	87·08	47·48	3·64	1·32	14	74	38	5·5
	751·5	*759·2*	*737·2*	*18·3*	*30·6*	*8·6*	*92·5*	*33·6*				
Sept^r. .	29·579	29·914	28·934	52·52	77·54	36·68	1·59	0·55	9	78	30	6·2
	751·3	*759·8*	*734·9*	*11·4*	*25·3*	*2·6*	*40·4*	*13·9*				
Oct^r. .	29·878	30·284	29·288	38·48	61·16	9·50	0·12	0·12	3	73	38	5·8
	758·9	*769·2*	*743·9*	*3·6*	*16·2*	*−12·5*	*3·1*	*3·1*				
Nov^r. .	29·981	30·410	28·989	22·64	44·60	−0·22	0·17	0·15	9	84	32	7·6
	761·5	*772·4*	*736·3*	*−5·2*	*7·0*	*−17·9*	*4·2*	*3·9*				
Dec^r. .	30·355	31·107	29·583	−9·58	27·68	−43·60	0·08	0·04	5	80	60	3·7
	771·0	*790·1*	*751·4*	*−23·1*	*−2·4*	*−42·0*	*2·0*	*1·0*				
Yearly							Total	. .	. .	.	.	.
average	29·800	31·107	28·934	32·54	94·64	−43·60	14·32	1·32	14 Aug.	75	14	5·6
	756·9	*790·1*	*734·9*	*0·3*	*34·8*	*−42·0*	*363·4*	*33·6*				

In the above table the readings of the Barometer (corrected to the temperature 32° Fahrenheit) inches and *millimetres ;* Relative humidity is given in parts of 100, which represents saturation,

of the province, the volume of its water being gradually diminished by the sands of the Steppe, till, having attained a length of more than 500 miles, its last drops are absorbed in the Aitsi-Kul, in the midst of a sandy desert. In the same desert, 26 miles eastward, is another marshy lake called the Saumal-Kul, into which feebly flows another river of similar character, the Chu, that also helps to form the southern boundary of the province. Other rivers, rising in the same region as the Sari-Su, expend their waters without

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OF OMSK, 1877.

Number of Days with							Direction of Wind. Number of observations taken thrice daily.								
Rain.	Snow.	Hail.	Thunder-storm.	Clear.	Overcast.	Storm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
6	6	—	—	8	11	1	4	6	—	10	6	28	7	4	27
8	8	—	—	2	9	—	—	14	6	10	4	16	12	5	17
12	10	—	—	5	9	2	2	4	2	11	16	23	9	8	17
11	8	—	—	7	10	—	1	9	4	9	12	12	6	17	19
6	—	—	1	5	8	—	2	18	12	9	9	10	5	14	13
11	—	1	5	2	5	—	1	7	10	6	12	9	5	15	25
8	—	—	4	5	7	3	11	7	4	2	2	15	14	17	20
13	—	1	3	4	9	3	2	12	5	4	4	14	4	15	30
10	—	—	—	3	8	2	2	5	—	3	8	24	9	8	28
6	4	—	—	6	11	2	1	—	1	1	7	32	19	10	21
8	8	—	—	3	18	—	—	—	1	2	4	27	13	4	39
4	4	—	—	10	4	—	8	4	3	2	6	13	6	10	41
103	48	2	13	60	109	13	34	86	48	69	90	223	109	127	297.

are given in inches and *millimetres;* Temperature in Fahrenheit and *Centigrade;* and Rainfall in or as much water as the air will carry. For Cloud, 10 equals a completely covered sky.

attaining to the Syr or the Aral. The Nura, for instance, runs through a closed basin, having for a central lake a sheet of water of small dimensions, bearing the name of "Denghiz," or Sea, which may perchance testify to its having covered a larger area at some former period.

The climate of the province is decidedly cold, as we were reminded by some officers travelling from the south, who met us near the Irtish, and who ran into the post-house to put on underclothing, and exclaimed that they were approaching Siberia! At Omsk, in 1879, the ice of the river did not break up till April 12th,* and froze again on October 28th, and the Ishim at Akmolinsk and Petropavlovsk was open only from April 6th to October 26th, and April 3rd to October 28th respectively. Again, at Omsk the temperature ranged in the same year between a minimum in December of −43·6, and a maximum in July of +102·20; whilst at Akmolinsk the thermometer sunk lower in December, namely, to −50·3, and rose in August only to +97·7.†

The province is divided into the uyezds of Akmolinsk, Atbasarsk, Kokchetovsk, Petropavlovsk, and Omsk, of which the populations may be grouped into 120,000 settlers, and 340,000 nomads, the former occupying 11,000, and the latter no less than 200,000 square miles, or an area the size of Spain. The density of population varies considerably in the different uyezds, as does the proportion of nomads to settlers; for whereas in Omsk there are more settlers than nomads, and in Petropavlovsk they are about equal, in Kokchetovsk the nomads double in number the

* All these dates are O. S.

† For Meteorology of Omsk, 1877, see pp. 48-49.

settlers, and in Akmolinsk and Atbasar for every settler there are 28 and 47 nomads respectively.

Uyezd.	Area.		Population.		Density of Population to sq. mile.		Number of Nomads to 1 Settler.
	Settlers.	Nomads.	Settlers.	Nomads.	Settlers.	Nomads.	
	Sq. miles.	Sq. miles.					
Akmolinsk .	206·2	87,254	4,367	121,265	21·17	1·3	27·8
Atbasarsk .	110·5	50,534	1,324	61,941	10·01	1·0	46·8
Kokchetovsk .	2,324·5	25,671	27,129	62,984	9·3	2·2	2·3
Petropavlovsk.	4,316·9	22,471	42,683	57,251	9·7	2·5	1·3
Omsk . .	4,072·6	13,974	44,312	35,562	10·8	2·5	0·8
	11,030·7	199,904	119,815	339,003	60·98	9·5	—

The minerals of the province are coal, copper, gold, and salt. There is a coal mine in the valley of the Nura, near the source of the Sokur, and some few other mines about the sources of the Sari-Su.* With regard to agriculture, the Russians cultivate rye, wheat, oats, barley, buckwheat, a few other kinds of corn, and potatoes. The total quantity of seed sown throughout the province in 1880 amounted to 31,066 quarters, which yielded 148,845, being in the proportion of 1 to 4·7, or nearly a fivefold harvest.† This agricultural produce, however, would not suffice to supply the Russian

* In 1880 the quantity obtained of coal was 19,772 tons, of copper 2,740 tons, and of gold 62 lbs. (avoirdupois), which, as compared with the previous year, represented an increase of 3,715 tons in coal, and gold 28 lbs., but the copper a decrease of 1,240 tons.

† A comparison of the preceding 10 years shows the ratio between sowing and reaping to have been lowest in 1879, 1 to 2·6; and highest in 1876, 1 to 7·2; the average of the ten years being 4·7. It may also be observed that whilst, in 1880, the uyezd of Atbasar yielded a tenfold, and Akmolinsk nearly a ninefold, Omsk barely attained to a fourfold harvest. The following shows the number of quarters of various products sown and reaped throughout the province in 1880:—

	Rye.	Wheat.	Oats.	Barley.	Buckwheat.	Other grain.	Potatoes.
Sown .	6,985	11,908	7,275	1,341	17	175	3,363
Reaped .	39,028	58,351	32,237	5,087	55	653	11,903

population alone of the province, to say nothing of the Kirghese; but it so happens that whilst in Akmolinsk and Semipolatinsk there are only two uyezds that supply more than the computed requirements of the population, there are in the neighbouring governments of Tobolsk and Tomsk only two uyezds that supply less. In Akmolinsk and Semipolatinsk, as elsewhere in the Empire, the Crown provides storehouses of corn for the nomads, and as a preventive against famine, there being in 1879 in Akmolinsk 91 storehouses, with 27,946 quarters; and in Semipolatinsk 69 storehouses, with 6,232 quarters of grain, rye, oats, wheat, etc.

Besides the cultivation of cereals and potatoes, mention may be made of tobacco, of which in 1880 there were in the province 1,192 plantations, covering an aggregate of 11,515 acres. The manufacture of tobacco in Western Siberia, in 1879, amounted to 313 cwt., of snuff to 3¼ cwt., and of cigarettes to the number of 6,503,000. The province, as might be anticipated, is rich in domestic animals. To every hundred of the settled population there are 155—viz., 41 horses, 46 horned cattle, 62 sheep, 4 pigs, and 2 goats; whilst to every hundred of the Kirghese there are 694—namely, 208 horses, 57 horned cattle, 28 camels, 372 sheep, and 28 goats. Throughout the province in 1880 there was a total of 2,525,917 domestic animals.

Animals.	Settled.	To every hundred of population.	Nomads.	To every hundred of population.
Horses . . .	48,051	41	703,261	208
Horned Cattle . .	53,610	46	194,595	57
Camels . . .	148	0·1	95,957	28
Common Sheep . .	68,616	59	1,258,200	372
Fine-woolled ditto .	3,345	2·8	77	0·02
Pigs	3,782	3·2	—	—
Goats . . .	2,384	2	93,891	28
	179,936	155	2,345,981	694

Turning now to the Russian population, in 1880 we find in the province 13,653 births (of which 131 were illegitimate) and 9,043 deaths, leaving an increase of 4,613. The medical staff numbers 47, but this includes doctors' assistants, called feldshers, veterinary surgeons, and midwives.*

All the towns of the government, except Omsk and Kokchetovsk, are on the banks of the Ishim. Akmolinsk, situated 1,004 feet above the sea, and not far from the source of the river, has a population of 6,000. This is the market town for the nomads of the district, and the capital of the province. Akmolinsk is not the residence of the Russian governor, however, whom I met at Omsk, and from whom I learned that the inhabitants of the capital are chiefly Kirghese. To the west, at the distance of 150 miles, is Atbasar, having less than a thousand inhabitants. It was formerly a Cossack stanitsa, or village, dominating the surrounding nomads, but has now become the dwelling-place of agriculturists and merchants. About 120 miles north of Atbasar is Kokchetovsk, with a thousand inhabitants, and at about the same distance further down the Ishim, on the road from Orenburg, is Petropavlovsk, with 12,000 inhabitants. This is the most populous town in the valley of the Ishim. Situated above picturesque rocks, on which are the ruins of a fortress, 100 feet above the river, it commands a fine view of the Steppe, over which the nomads come in crowds to procure commodities and

* Thus: Province doctor, 1; uyezd doctors, 5; town doctor, 1; Cossack doctors, 5; veterinary surgeons, 2; feldshers (or under-doctors) for the uyezds, 5; for towns, 3; for Cossacks, 15; for Kirghese, 1; veterinary feldsher, 1; trained midwives for the uyezd, 5; for the town, 3. Among the diseases occurring in 1880 are mentioned 760 cases of syphilis, 645 of small-pox, and 516 of typhus; whilst of epizootics, the plague fell upon 1,543 cattle, of which number 912 died.

to sell their cattle. More than 3,000 of the Kirghese have become sedentary by the side of the Russian inhabitants. The houses of the Russians, as in Siberia, are built of logs, quickly put up, and by incendiaries still more speedily destroyed. The number of fires in the province during 1880 amounted to 47, destroying 151 buildings of the value of £10,293.*

The industries of Akmolinsk in 1880 were represented by 139 factories, employing 1,408 workmen, and yielding products to the value of £203,096, namely :—

	Factories.	Workmen.	Value of Products.
Mineral	33	466	£31,036
Vegetable	11	146	£19,180
Animal.	95	796	£152,879

The factories in Akmolinsk and Semipolatinsk, in 1879, were: distilleries for making *vodka ;* grinding and preparation of flour, bricks, leather, glue, oil, soap, copper ; preparing sheep-skins, wool, beer and mead, wax and tallow candles, and melting tallow.

Business was transacted for £357,189 at the three principal fairs of Constantinovsky, Petrovsky, and Tainchinsky.† Business done in 1879 at 12 fairs in the Akmolinsk province amounted to £532,895.

* These fires occurred in spring, 5 ; summer, 14 ; autumn, 12 ; winter, 16 ; and from the following causes : lightning, 1 ; badly-constructed stoves, 8 ; carelessness, 17 ; unknown, 19.

†	Constantinovsky.		Petrovsky.		Tainchinsky.	
	£	£	£	£	£	£
Cattle	—	—	2,750	2,100	47,333	32,415
Cattle products (hides, hair, feet, skins, etc.)	66,427	66,427	6,350	6,350	—	—
European goods or settlers' produce (utensils, flour, candles, soap, etc.)	47,725	16,540	18,128	8,549	8,520	2,960
Asiatic goods (khalats, quilts, silk and cotton materials, saddlery and dried fruits) . .	13,500	3,737	—	—	5,650	1,728
Totals . .	127,652	86,704	27,228	16,999	61,503	37,103
Total . . .	£357,189.					

The corn and forests of Western Siberia are largely used for the distillation of ardent spirits, which forms a prominent industry. The general report includes the statistics affecting Akmolinsk, though it should be observed that from the paucity of corn grown in Akmolinsk and Semipolatinsk, their part in the manufacture of spirits is much less than in the neighbouring provinces of Tobolsk and Tomsk. In 1879-80 there were—distilleries working in the provinces of Tobolsk, 11; Tomsk, 15; Akmolinsk and Semipolatinsk, 2; in all, 28, and using a total of 33,386 tons of corn. From this were manufactured 2,774,476 gallons of pure spirit, or 6,936,190 gallons of *vodka*, reduced to 40 per cent. of spirit,* some of which is exported to European Russia. The price of corn purchased by the distillers varied, according to locality, from 2*s.* to 3*s.* 9*d.* per cwt., and was computed at £92,655 for the whole of Western Siberia. Vodka sold from the cellars, without duty, at from 5*d.* to 10*d.* per gallon, the total production of the distilleries being reckoned at £225,900.

Besides distilleries, there are in Western Siberia 25 beer and mead breweries, producing, however, only 11,375 gallons of beer, and 5,200 gallons of mead, of the united value of £24,470.

The Government receipts for duty have been constantly rising of late years—those of 1879, as compared with 1876, showing an increase of 30 per cent.

* Of vodka, the province of Akmolinsk produced 164,482 gallons, and Semipolatinsk 259,200; and some idea of the relative sizes of the distilleries in Western Siberia may be formed by observing that

Upwards of	650,000	gallons were made by		1	distillery
,,	487,500	,,	,,	1	,,
,,	325,000	,,	,,	3	distilleries
,,	162,500	,,	,,	12	,,
,,	39,000	,,	,,	11	,,

The excise duty for 1879 from Western Siberia amounted to £455,961—namely, wine and spirits, £402,084; additional on vodka, £6,609; beer and mead, £1,458; and licences, £45,809. Whether or not this amount represents all that ought to have been paid admits of a doubt; for Baron Nolde,* speaking of the whole Empire, goes so far as to say that £20,000,000 yearly find their way by fraud into the pockets of the distillers. I heard, when passing through Western Siberia, of a remarkable method of keeping the supply of spirits down and the prices up. The principal distillers of the district met, it appeared, from time to time, to arrange the maximum of their products each should bring into the market, one result of the conference being that small distillers were offered a certain sum to make little spirit, or even none. If they chose to be independent and go their own way, the great distillers combined to ruin them by under-selling them; and, on the other hand, I heard of one distiller who received from this party of monopolists the sum of £2,000, simply for keeping his factory closed for a year. Up to 1863 the manufacture of spirits was restricted to persons called *otkupschiks*, usually rich merchants, who paid heavy sums to Government for the privilege. From that date private distilleries were set on foot; dram shops, which up to that time had been limited in number, have, according to the Baron, increased tenfold, whilst the price of the liquor decreased to a third (though it has been rising since), thus tending powerfully to that wholesale demoralization of Russia which the Government at length is beginning to realize. I am not rich in statistics bearing exclusively upon

* "Piteinoe Dielo i Aktsiznaia Sistema." By Baron Edward Frederick Nolde, Petersburg, 1882.

Akmolinsk, but it appears that in Western Siberia, in 1879, there were sold 5,363,166 gallons of vodka, of which 216,729 gallons were exported. The remainder was disposed of in 3,232 retail shops, including 120 wholesale—at the rate, that is, of $12\frac{3}{4}$ pints of vodka, or $5\frac{1}{10}$ pints of alcohol to each inhabitant of Western Siberia.* In the United Kingdom the consumption of alcohol was, in 1876, at the rate of 26 pints per head of the population.† Russia is sometimes spoken of as a drunken nation, but if the foregoing statistics be trustworthy, it should not be England that should cast the first stone at her.

In Akmolinsk, as elsewhere, it is only a step from drink to crime. Concerning this connection it may here suffice to point out generally that in those parts of the province where the Muhammadan (and, therefore, teetotal) Kirghese abound, crime is less apparent; but where Christian Russians assemble, crime is more manifest. I believe this to be generally true, both from the figures below, as well as from my general experience in travelling through Central Asia. I have been careful, however, to say that crime is less *apparent;* because the real criminality of the nomad population must be greater than indicated, since the figures here given relate to crimes which came before the Russian courts, whereas the misdeeds of the Kirghese (with some few exceptions) are judged by their own native tribunals, statistics of which are not forthcoming. Throughout the province in 1880 were committed 831

* In Tobolsk and Akmolinsk were disposed of 3,024,729 gallons, to a population of 1,660,635, or $14\frac{1}{2}$ pints per head; and in Tomsk and Semipolatinsk 2,121,708 gallons to a population of 1,558,558, or $10\frac{3}{4}$ pints to each man, woman, and child.

† "Are we a Sober People?" p. 8, by James Whyte. London: John Heywood.

crimes and misdemeanours, or 1 to every 552 persons, who are thus distributed: in the uyezd of Akmolinsk, less than 1 person in a thousand is a malefactor; in the uyezds of Atbasar and Kokchetovsk the proportion is also less than 1 in a thousand; whereas in the uyezds of Petropavlovsk and Omsk, which are more largely Russian, crime is committed by nearly 4 persons in a thousand.

It must be remembered, moreover, that the homeless working class are largely attracted to the towns that afford greater facilities for evil-doing, so that usually in proportion to the density of population of a district is the proportion of crime committed. If we confine our attention to the *towns* of Petropavlovsk and Omsk, we have, in the former, 161 crimes, or 44 per cent.; and at Omsk, 226 crimes, or 74 per cent. of the whole of the crimes committed in the uyezds.*

Having thus brought before the reader some of the characteristics of the new general government of the Steppe, and statistics regarding its population, we shall now proceed on our journey southwards.

* Uyezds.	Number of Crimes.	To 1,000 of the population.	To each square mile.
Akmolinsk . .	39	0·3 persons	1·3
Atbasar . . } Kokchetovsk . }	121	0·8 ,,	2·04
Petropavlovsk . .	366	3·7 ,,	3·06
Omsk . . .	305	3·8 ,,	4·3

CHAPTER V.

FROM OMSK TO SEMIPOLATINSK.

Description of town of Omsk.—Cause of its decline.—Schools.—Visits to inhabitants and institutions.—Dinner with Governor.—Protestant pastor and distribution of books.—Departure southwards.—Cossack stations.—Summer appearance of steppe.—Arrival at Pavlodar.—Scriptures sold to Muhammadans, advice to contrary notwithstanding.—Cheap provisions.—Roads to mining districts.—Recruits on the march. — Meeting the Governor-General. — Skirting the Irtish. — Change of landscape. — Improved fauna and flora.—Arrival at Semipolatinsk.

ON arriving at Omsk I noticed from the deck of the steamer an officer on the landing stage, whose face seemed familiar to me. He turned out to be the police-master who, three years before, had shown me the prisons of Tomsk. He recognized me, and kindly sent men to look after the baggage, by whose help ere long we were safely housed at the Hotel Moskva. Omsk is a government town of 31,000 inhabitants, situated, at an altitude of 261 feet, in the strip of Russian colonization that divides the Kirghese of the south from the Tatars of the north, and is built upon the banks of the Om, at its confluence with the Irtish, the two parts of the town being connected by a substantial wooden bridge. Omsk was founded in 1717, and the gateways of its fortress are still standing on the right bank of the river. Near at hand are

large public offices, military and civil, whilst on the other side of the stream are situated the large stone house of the Governor-General, the cathedral, a Roman Catholic chapel, some mosques, a Lutheran church, a large military *gymnase* or high school, and several others lower in grade. As usual in Siberian towns, the streets are wide, and in front of the house of the Governor-General is a triangular public garden; but the glory of Omsk is undoubtedly on the wane. Formerly it was on the high road from Europe to China, but the opening of another road further north, and the conversion of the Obi into a summer route, have diverted the traffic, and so lessened its commercial importance. The military gymnase was attended in 1879 by 332 boys, and the other high schools by 160 boys and 349 girls.

It was for a long time debated whether the new Siberian university should not be established at Omsk, but the decision was given in favour of Tomsk, and the result must prove detrimental to the former. Again, Omsk has derived much importance from being the seat of government, and the residence of the Governor-General of Western Siberia, who thus lived in about the centre of his vice-royalty; whereas now that the provinces of Akmolinsk and Semipolatinsk have been thrown into the general government of the Steppe, that ruler finds himself all but expatriated to the extreme north-east corner of his dominions, from the best parts of which he is a thousand miles distant. I heard that General Kolpakovsky had a great desire to transfer the seat of government to his old quarters at Vierny, so that, should this be done, there is every prospect of Omsk declining more and more.

OMSK FROM THE GARDEN OF THE GOVERNOR-GENERAL.

On the day we arrived it had been raining in torrents, but this did not prevent us in the evening from taking a droshky to make some calls, and driving boldly through the streets with pools of water up to the axles. A branch of the Imperial Geographical Society was founded at Omsk in 1877, and I had introductions to some of its members. One of the first acquaintances we made was Mr. Balkashin, who has been appointed the Imperial Russian Consul for Chuguchak, and he was only awaiting an interview with the Governor-General before proceeding thither. This gentleman had lived at Yaroslaf, where he had met two English writers on Russia—Mr. Mackenzie Wallace and Mr. R. S. W. Ralston. He had also seen the Hungarian traveller, Mr. Ujfalvy, who describes him in his book as a *savant*. This gentleman gave us a warm reception, and sundry pieces of antiquarian information; but what impressed him most on my recollection was his earnest advice relative to my contemplated experiment in spreading the Scriptures among the Kirghese. When he discovered that I thought of attempting it, he became quite animated, and said, "*Dieu vous préserve, Monsieur, ne faites pas cela.* The Kirghese are such bigoted Muhammadans that they start back at the very sight of a cross, and I strongly advise you to have nothing whatever to do with them of a religious character. You will very likely be injured, and get yourself into a row, and the Russians too"; and as if this store of advice were not enough, his parting words on the following day were to the same effect.

Another acquaintance we made, both agreeable and useful, in Mr. James Kossagovsky, son of the Governor of Odessa. He spoke English well, kindly placed

himself at our disposal, and accompanied us next morning, with the police-master, to see the prison. He took us likewise to inspect a small industrial asylum founded more than 20 years before by a lady of the town, named Duganmel, for 20 girls and 24 boys. The children were clothed alike, educated in some of the schools in the town, and taught various handicrafts, at a total annual cost of £6 10*s*. for each child, to defray which the institution had a capital of £3,000, the rest being made up by bazaars, concerts, and voluntary offerings. Each child, I was told, was already provided with a copy of the Gospels, but the authorities were pleased to accept some of my books also.

We called on the Commandant, but time did not allow of my visiting the military prison, though I arranged for sending thereto some books. An introduction to Colonel Sokoloff brought me into the tastefully furnished house of an officer who busied himself in leisure hours with the study of chemistry and meteorology. He had heard of my book on Siberia, and gave me a valuable introduction to the Russian consul at Kuldja. We were taken next to the museum ; that reminded me only too forcibly of many like it I have seen in Russia : of an undertaking well begun but not carried through. The collection of natural history objects was not large, though there was a fair number of beetles and butterflies. More interesting perhaps to an antiquarian were some relics of a past age in bronze and stone. When Mr. Ujfalvy passed through Omsk in 1877, General Kaznakoff gave him some stone gouges, and hatchets, which were sent to the Saint-Germain Museum in Paris. They were discovered at Samarova, where

the Irtish flows into the Obi, and I am under the impression that those I saw belonged to the same find. I could not, however, hear of any objects of a like character having been found in the territory of the Kirghese, the Russians telling me, in reply to my inquiries, that the Kirghese civilization is of so primitive a character, and they have learned to manufacture so little for themselves, that they might, in a fashion, be said to be still living in the stone age.

Our morning's business over, we went to dine with General Kurbanofsky, properly Governor of Akmolinsk, but just then acting as Governor-General—the late one, General Kaznakoff, having gone away ill, and the new one, General Kolpakovsky, not having as yet arrived. Among my fellow-guests at dinner was the Government architect, who spoke English like a native. He had been to London for nine days, and was one of the very few Russians I have ever met who was not pleased therewith. I could not get from him a good word for any of our buildings but Westminster Abbey, and he seemed disappointed with London as a whole. A fine view of the Steppe on the left bank of the Irtish was obtained from the Governor's verandah, and from thence I first sighted a Kirghese *aul*, or collection of tents, of which, as we travelled south, we were to see so many.

On leaving the Governor's house we called on the Lutheran director of the post-office, Mr. De Schiemann, who had removed here from Vologda at a cost, he ruefully said, of £70, but which struck me as remarkably cheap for bringing one's effects a distance of 3,000 miles. I inquired for Pastor Hirtz, the only Protestant minister, if I mistake not, in all Russian Central Asia, for I wished to leave with him some

Finnish tracts forwarded to Petersburg for me by my friend Miss Alba Hellmann, of Wasa. I heard the minister spoken well of for his ability in preaching, in recognition of which he wears a gold cross conferred by the consistorium. Before leaving Omsk I packed a box of books to be sent by Mr. Ignatoff's agent to the Governor of Tobolsk, and also made up four other parcels, and sent them through Mr. Kossagovsky to the Industrial Asylum; to General Kurbanofsky, for the supply of the prisons, hospitals, schools, etc., of his province of Akmolinsk; and other two for the military and civil prisons at Omsk.

Everyone during my stay in the town was on the *qui vive*, awaiting the arrival of General Kolpakovsky, and I expected to be obliged to wait too. My business, however, sped so well, and his Excellency was reported to be so far off, that I determined to start on the evening of the 18th August, and meet him, if possible, at Pavlodar. I was too well acquainted with the "rule of the road" to be ignorant of the value of local recommendations to the post-masters, and I had heard dismal accounts of the difficulties of getting horses in some parts of the Steppe. I made bold, therefore, to ask of General Kurbanofsky for a Crown podorojna, which would give me a prior claim to the postal steeds. The General, however, as I was told, was a great stickler for the law, and he replied that he had no power to give me such a podorojna, unless I was travelling in the service of the Government, which, I believe, was true legally, though in previous years I had almost always been favoured with what I now asked for. I had, therefore, to purchase an ordinary podorojna, for which, to Semipolatinsk, I paid £1 9*s.* 3*d.*, but in addition the General obtained a letter for me

from the post-master to the station-keepers, which helped me famously. I was unable to get everything in readiness until the morning of the 19th, when we learned that our interests were being looked after by postilions, who came to tell us that Cossacks had more than once been sent to them by the police-master to see that we were not delayed. Some of our acquaintances called to bid us farewell, and Mr. Kossagovsky, in Russian fashion, accompanied us on horseback for some few miles out of the town.

We had now before us a drive of nearly 500 miles to Semipolatinsk, in the course of which we expected to change horses 31 times at a like number of stations,* the first two introducing us to Cossack life. The Cossack population of the provinces of Akmolinsk and Semipolatinsk in 1879 was located in 149 settlements, and made up of 87,723 combatants, and 99,139 other persons.† About 25,000 combatants, and a further population of 28,000, were living in 54 settlements, called the "Irtish line." They were originally settled along the river, to serve as a protection against the inroads of the Kirghese, a plan similar to one I

* The following are the stations, with distances between, in versts:—

1. Omsk—		13. Osmorijsk	18	25. Semiyarsk	29
2. Ustzaostrovsk	28	14. Peschana	29	26. Grachevsk	26
3. Achairsk	22	15. Prasna	24	27. Cheremkhovsk	33
4. Pokrovsk	19	16. Chernorietsk	16	28. Dolonsk	20
5. Izylbashsk	17	17. Chernoyarsk	26	29. Bielokammena	23
6. Salyansk	18	18. Pavlodar	26	30. Glukhovsk	20
7. Cherlakovsk	26	19. Podstepna	22	31. Starosemipolatinsk	16
8. Tatarovsk	26	20. Yamyeshevsk	30	32. Semipolatinsk	16
9. Urlyutyupsk	25	21. Cherna	22		
10. Jeliezinsk	28	22. Lebyaj	31	Total Versts,	727
11. Piatoryijsk	24	23. Podpuskna	25		
12. Bobrorsk	18	24. Kribinska	24		

† The Cossacks of Western Siberia, which add to the above 20 settlements about Biisk, were divided for military purposes into 5

saw in 1879 along the right bank of the Ussuri. The approaches of the Kirghese are now no longer to be feared, so that these Cossacks have practically lost their local *raison d'être*, but Russia has by their means colonized a fruitful terrain, and planted a succession of villages, many of which have upwards of 400 inhabitants, some of them even possessing churches. The male inhabitants of these Cossack villages are bound to serve in war, and are instructed in the handling of arms by *Atamans*, who are drilled for the most part at Omsk, and who sometimes preside over the Cossack communities. The Cossacks have themselves to provide for the erection of their houses, their uniform and horses, receiving from the Government only weapons and munitions, and a pay so small, that for a captain it amounts to only 28*s*. a year. On the other hand all Cossacks are exempt from taxation, and every head of a family has a grant of about 100 acres of land for cultivation. Should more be required a small rent is charged, which doubtless is more than recouped by the sums for pasturage paid by the Kirghese to the Cossacks, to whom the land for about 20 miles on either side of the line belongs. These warrior-farmers culti-

"lines," located in 1879 in 169 settlements, made up of 94,462 combatants, and of 107,945 other Cossack population. Their agriculture is represented as follows:—

	Sown	Reaped	Ratio of harvest
Rye, wheat, oats, barley and prossa	42,083 qrs.	156,610 qrs.	3·7
Potatoes	5,518 ,,	25,488 ,,	5·8

And their possessions in cattle:—

	Absolute number	Average to each family
Horses	81,260	4·3
Horned cattle	82,916	4·4
Sheep and goats	98,490	5·2
	262,666	13·9

vate in the fields rye, wheat, oats, barley, and millet, and in the gardens tobacco, potatoes, and water-melons. They make also a quantity of hay, that in this region must be cheap, for the director of the telegraph station at Omsk told me that most of his clerks had horses, one of which could be kept for from 8*s.* to 10*s.* a month.

We travelled well at setting out, covering in our first 22 hours 138 miles, and one stage of 12 miles was accomplished in a little less than the hour. The post-master's letter doubtless helped us to some extent, but there was an amiability about the Cossack station-masters and *yemstchiks*, or postilions, who needed little persuasion to do their best. At each station I offered Scriptures for sale and distributed tracts, the former of which were gladly purchased, and the latter thankfully received. I suppose it was this at the second station that caused the Cossacks to offer me gratis some of their horse-hair rope that I wanted to buy, and for which, when I insisted on payment, they took only the trifling sum of 4*d.* At Cherlakovsk, the seventh station, a caravan route branches off to the town of Akmolinsk, and at Urlyutyupsk, the ninth station, 120 miles from Omsk, we passed out of the Akmolinsk into the Semipolatinsk government.

We were now well on to the Steppe, whose straight unbroken horizon so frequently reminds one of the ocean. The soil is yielding, stoneless, and sandy, thus making the smoothest of roads, on which our horses dashed along. The country is nearly treeless, and the ground almost without vegetation, so that one had only to picture the surface covered with snow to see the necessity for the roadside wickerwork erections to mark the route in winter. We were crossing in

the month of August this steppe, parched by the summer sun; but Dr. Finsch, who, in 1876, travelled over the same route in spring, speaks with more appreciation of its appearance.* The steppe is not indeed a grass-covered flat, for the verdure is found only in patches, and then forms no turf, but grows, like the bunch or buffalo grass of the prairie, in separate clumps, although the steppe grass is longer. For great distances the steppe is covered with thickets of the *Spiræa*, or Meadow-sweet.

Here and there too are gooseberry bushes, intermixed with feeble-looking birches, generally less than five feet high, whilst everywhere, when the road approaches the Irtish, we catch sight on the opposite bank of a more or less extensive vegetation of well-grown trees, such as willows, poplars, oaks, birches, and pines. Alongside the river are frequently found hill-like chains of sand resembling downs, with wild oats and other grasses. Another characteristic of the steppe is seen in numerous ponds and lakes, unconnected by streams. They are for the most part isolated, and, what is more remarkable, are in some cases filled with sweet, in others with salt or brackish, water. Thus it happens in their neighbourhood that one meets now with sandy downs, and then with those deposits of salt that have been caused by evaporation, and frequently impart to the ground the appearance of hoar frost or snow. In such quarters the appropriate salt flora is met with. It is not until the end of April that this steppe, near Omsk, begins to present a verdant appearance, and then among the

* "Reise nach West Sibirien im Jahre 1876" (Berlin, 1879), by Dr. O. Finsch, to whose account I am indebted in this and following chapters for several pieces of scientific information.

first harbingers of spring are seen the beautiful blue Anemone, a yellow Draba, the universal Ranunculus, or buttercup, and members of the garlic family.

We had left Omsk at noon on the 19th, and on the morning of the 21st we arrived at Pavlodar, accomplishing the 260 miles in 44 hours. Here we found no less than 45 horses reserved for the Governor-General, whose coming was watched for hourly. We had therefore nothing to do but to wait, and to congratulate ourselves in having to do so at such an excellent station. All along the line, however, the Cossack post-stations had been good, reminding me of the best of those in Siberia, which are comfortable indeed compared with the hovels one met with further south. The Cossack stations were clean, the floors sometimes painted, and the rooms not unfrequently beautified with flowers and creepers, especially ivy. There were, of course, the usual ugly but often expensive pictures of saints in the corners of the guest-rooms, and the miserable Moscow pictures, and portraits of the Imperial family and other notables. These I tried to outshine by nailing to the wall, usually under the *ikon*, a handsome engraving representing the return of the Prodigal Son, with the story in Russ printed around, similar to those I nailed up in so many of the post-houses throughout Siberia.

This operation constantly opened up the way for the sale of my books, and did so with the post-master at Pavlodar. He was a man evidently well-to-do, as seen by the Central Asian carpets hung on the walls, and a silk *khalat* in which, with lordly gait, he walked about. I brought to his notice a handful of New Testaments, Gospels, Psalms, etc., at various prices, from which he might take his choice; but, like a man of means, he

bought the lot at a stroke for his son, about whose education he was evidently solicitous. There was a young woman bustling about the premises, whom I took to be his daughter, at work, indeed, but dressed better than an ordinary peasant, as also was the wife, whom we were glad to ask to prepare us some dinner. She brought soup, cutlets, and pancakes, with a melon for dessert; and if we had not cause to complain of such fare in the wilderness, we had still less reason to murmur at the charges. I have already mentioned the cheapness of provisions on the steamer between Tiumen and Omsk, where my steward's bill for the best food the ship provided, and plenty of it, for two persons for 7 days amounted to only 35*s.*; but the prices of food in the Steppe appeared to outdo even this, for I copied, in one of the post-stations, a scale of charges as follows: "Use of samovar, 2½*d.*; portion of bread, 2½*d.*; pair of chickens, 6*d.*; a cooked fowl, 10*d.*; quart of milk, 1¼*d.*, and 10 eggs for 4*d.*"

But we had business other than that of meeting the Governor-General. Our personal baggage and tarantass we unshipped at Omsk, but my boxes of books and the vehicle to carry them went on by steamer to Pavlodar, from which point we were to take them forward—the water being now too low to allow of the steamer proceeding to Semipolatinsk. When the boxes arrived at the post-station, I was unexpectedly constrained to unpack them. I have alluded to the earnest and doubtless well-meant advice given me at Omsk, to attempt no effort of a religious character among the Muhammadans. To the same effect I was counselled by a General on the Urals, who deprecated what he called my "pro-

paganda" among them, and said the mullahs were fanatical. "General Kaufmann," he added, "would not allow our own missionaries even to attempt any work among the Muhammadans, and if you do anything of the kind you are likely to get yourself into trouble and us too." Now, so far as the latter result was likely to ensue, I was, of course, unwilling to do anything that might embroil the Russians, especially after the gracious manner in which they had allowed me to go where I pleased. But as for my own skin, I felt I was the keeper of that, and I doubted if there were sufficient cause for alarm. Besides which *modus est in rebus*, and I could not help thinking there was some *via media* between forcing upon the conquered the religion of the conquerors, as the Muhammadans have loved in all ages to do, and standing aloof from them, attempting nothing whatever for their spiritual good. As I said to my military adviser, "I can offer them my books, and if they do not choose to accept them, I have only to pass on." Accordingly I began to practise my principles in Omsk, the first town at which I stopped, having any considerable number of Kirghese. One of the mullahs was informed that I wished to see the mosque, after the inspection of which I placed in his hand a Kirghese New Testament, and asked whether he could read it. When I perceived that he could do so, though apparently not very well, I asked if he would accept it as a souvenir of my visit. He replied that he was not sure whether it was a proper book to be in such a building, and hesitated; but whether he thought I intended it for use among other service books of the mosque, or whether he was in fear of his interpreter, who spoke Russian, I am not clear. In any case he did not

return the book, and I was content to leave it with him for further study. My next attempt was at Pavlodar, where, as I offered my Russian books to the post-master, there happened to be a Kirghese standing by. I therefore offered to sell him a New Testament in his own tongue, but he intimated that he could not read, and left the room—to tell his co-religionists, I suppose, for in a few minutes there entered two well-dressed young Tatars inquiring eagerly for the book. I placed it in the hands of one of them, and he speedily asked if I would sell him several. How many did he want? I asked. Well, he said, he would purchase ten; which was a tenth of all I had, so that I preferred to sell him less than this number; and from that time forward I had not the least trouble in selling my Kirghese Testaments at catalogue price. A second couple of Muhammadans came to the station to inquire for books other than the New Testament, and within a few hours, further on the road, a New Testament was *bought* by a mullah!

Whilst waiting for the Governor I busied myself with my pen—for there was little in Pavlodar to merit attention. It is called a "town" of some 1,300 inhabitants, and serves for a landing-place midway between Semipolatinsk and Omsk. I may mention, however, that from hence there goes off a post carriage road into the heart of the Kirghese steppe in the direction of Baian-aul about 120 miles, and Karkaraly 100 miles further.*

* Whether the post carriage road continues further seems doubtful. According to the best Russian map I have, purchased in 1882, in Petersburg, and supposed to be corrected up to date, the postal road is continued from Karkaraly through Akmolinsk, and Atbasar to Petropavlovsk; but in the map attached to my post-book, published in 1880, the post-road ceases at Karkaraly.

This may be called the mining district of the Steppe, in which are situated some rich metallic deposits. About 27 miles from Baian-aul are several mines called after the name of their owner, Mr. Alexander Popoff, of Petersburg, yielding coal and metals. About Karkaraly are other mines bearing the same name, and two further west called Ushakoff. In these are found silver, copper, and iron in rich ores, though mining affairs are not in a flourishing condition owing to the want of necessary roads and sufficient capital. The district is interesting to the mineralogist, more particularly from the occurrence of the rare *Dioptas*, or copper emeralds, that are met with in beautiful crystals of an intense emerald green colour, but only, it seems, near Altyntube, about 70 miles from Karkaraly. The Russians denominate the Dioptas "*Aschirka*," after their discoverer Aschirit, a native of Tashkend.

All the way hither from Tiumen, there had been following us, more or less closely, a company of soldiers, towed in a barge by our steamer to Omsk, and now brought forward to Pavlodar, whence they were to march into Turkistan. Large numbers of young recruits are every year thus sent to Tashkend, and one person in Tiumen mentioned to me significantly that he saw many soldiers going thither, but few coming back; which afterwards I thought largely accounted for by a somewhat heavy mortality, and also from the fact that Russian labour being scarce in Central Asia, and their return home not being without difficulties, they prefer to stay in the warmer climate to which military duty has introduced them.*

* Many of the Turkistan troops come, I believe, from Western Siberia, the local Kalendar for 1882 furnishing some interesting details.

I believe the soldiers at Pavlodar were to be inspected by the Governor-General on his arrival, for which, however, we discovered in the afternoon that we need not wait, as tidings came to the post-master relative to his Excellency's whereabouts, and knowing that he did not usually travel at night, we were told that we might have the necessary horses for our two vehicles, proceed, and meet the General some stations ahead. Accordingly we set out towards evening, and after driving through the night a distance of 50 miles, found ourselves in the early morning at Cherna, where, notwithstanding the rain, the people were in the white heat of expectation awaiting the Governor-General. The post-house was brushed up to its maximum presentability, and everyone was getting more and more excited. Some unhappy man in the room adjoining ours, who seemed to be out of the fun, was talking loudly and boastfully what *he* would do under the circumstances, whilst every man, woman, and child in the hamlet appeared to have turned out to bear a part in providing or changing horses, or to perform the all-important business of "looking on." It was the first time General Kolpakovsky, *quâ* Governor-General, had passed, and who could resist the desire to get a

Of 33,502 examined in Western Siberia in 1879, it would appear that 98 per cent. were Russians, nearly 1 per cent. Tatars, the remaining 1 per cent. being made up in decreasing proportions of Jews, Little-Russians, Mordvins, Poles, Chukhons, Fins, Mongols, Lithuanians, Gypsies, Chuvashes, Cherkess, and Jmudi. Some of them were not great of stature, for out of 33,137 men approved, two did not exceed 42 inches in height. There were, however, 1,572 measured 5 ft. 2 in., and the numbers went on increasing to the maximum of 4,693, who measured 5 ft. 6 in., after which the numbers decreased to 1,014 at 5 ft. 10 in., and so on to 2 Brobdingnagians, who had each attained to 6 ft. 5 in.; the average stature of the men being 5 ft. 5½ in. With regard to size round the chest, the biggest man measured 44 in., the least 26¼ in., the average measurement being 34¼ in.

peep at the Viceroy? As for our humble selves, we, for the time of course, were nobodies, and I was content to do my best, under difficulties, to procure for myself a clean face and hands, from my india-rubber basin, under a shed in the yard. Presently two outriders dashed into the village, as if on their speed depended their lives.

And now there was hurrying to and fro, shouting, talking, haranguing, and bawling, whilst I, with the calmest nerves I could command, took up my stand in the guest-room. At last appeared the first carriage of the viceregal *cortège*,—a tarantass like our own—then a second, a third, a fourth, and so on to the eleventh, to each of which fresh horses had to be attached in an incredibly few minutes. Soon there walked into the station a youth, who I was told was an aide-de-camp. To him I addressed myself in French, explaining who I was, and what I wanted of the Governor-General. He replied that his father was coming in, and would speak to me. Unfortunately for me, his Excellency had not enjoyed the education he was giving to his sons; for he was one of those Turkistan officers who had risen from the ranks to the highest position and respect, like another I afterwards met, but who also had to speak to me through his interpreter. Another son entered the post-house with his father, and interpreted for me in French, with an ability that I thought I had never seen excelled. The General had heard of my coming, and expected to see me at Pavlodar. I explained that I was anxious to get on as fast as possible, and presented a letter from the Minister of the Interior, accompanying it with a request that I might be furnished with a "courier," or a "Crown" podorojna, and be saved the possibility of

coming to a standstill in the Steppe for want of horses.

Nothing could have been kinder than his Excellency's attention in listening to all I had to say, and promising to telegraph along my route to facilitate my journey. I hardly supposed that he could give me a formal letter during this few minutes' stay at the post-station; but I had provided writing materials, paper, ink and cards, even to a stylographic pen, with which the General wrote on his own card that all and sundry were to show us attention, and accord assistance if needed. This was to serve us to Semipolatinsk, and when I reached there I found awaiting me this magnanimous telegram :—

" Recommendation to local authorities.

" I desire that all administrative authorities and postal contractors in the general government of the Steppe show hospitality, provide interpreters and guides, and help forward without delay the English traveller, Pastor Lansdell, who is travelling through the Semirechia oblast to Kuldja and Turkistan.

" (Signed) Governor-General
" LIEUT.-GEN. KOLPAKOVSKY."

Gentlemen of England, who live at home at ease, or who, when they voyage to the south of France, telegraph to Paris for compartments reserved, and write to the *Times* if they are not satisfied,—velvet-cushion travellers such as these can only feebly appreciate the value of such a telegram in the steppes of Central Asia. To say that it was worth its weight in gold is only faint praise; but perhaps I had better not be too lavish of my superlatives here, because, when returning to the same subject, I shall want them further on. Suffice

it now to say that, after a hearty shake of the hand and the kindest of farewells, the General sped on his way, but not before he had thoughtfully remembered that he was taking away more than 40 horses, which might have left us high and dry, had he not bade the *starosta* to supply our wants, and send us on as quickly as possible. This magic word exalted us speedily from nobodies to somebodies, and the men dashed at our vehicles to equip them for our immediate departure, as if they thought we were going to tear after the Governor with the rest.

We now posted on to the next station, Lebyaj, where the Viceroy had spent the night, and where, in the guest-room of the station, the blooming oleanders, and flowers in tubs and pots, bore witness to the welcome his hosts had provided. At this point another caravan route crossed our road, extending on the right to the Russian colony of Karkaraly, and by dusk we found ourselves three stations further on, at Semiyarsk, where there was just light enough to see the outlines of a somewhat pretentious mosque, no longer used. At this station also was another caravan route joining that from Lebyaj. We posted on through the night, or at least wished to do so, but on arriving at the next station the horses were found to be turned out for the night, and to collect them from a pasture where hurdles and bounds are unknown was not to be done in a minute. For five hours we had to wait (my longest delay, let me thankfully add, that I anywhere experienced in the Steppe), during which it seemed utterly vain to storm at the post-master, whose heart and conscience were doubtless hardened, for his complaint book was full of the lamentations and threats of preceding travellers.

I have spoken of the Irtish steppe as sandy and

stoneless; but after passing the nineteenth station, large, isolated stones are here and there visible, and between Grachevsk and Cheremkhovsk, the approaching station, are rock deposits, and limestone, that is burnt in kilns near the village. Pallas mentions this stone quarry, which in his day supplied the material for the new fortification at Omsk, in which, besides the exiles, 100 Cossacks laboured.

All the way from Omsk the road had kept company with the river, which we never lost sight of very long. As in other northerly flowing rivers of Asia, the right bank is tolerably high and the left flat, the numerous islands of the Irtish being covered with thickets of willows and reeds. The banks are of sand, in which are found pockets of impure gypsum occasionally of crystalline shapes. The Cossacks burn this gypsum in ovens, and employ it to whiten their rooms. Another gain to them from the river is an abundance of fish, for the capture of which they employ boats of poplar, brought from Urman, a boat 30 feet long and 5 broad costing about £2. Among the fish they take are Pike (*Esox Lucius*), Nielma Salmon (*Coregonus Leucichthys*), Yass (*Squalius Grislagine*), Perch (*Perca Fluviatilis*), Nalym (*Lota Vulgaris*), and *Tschebak* or bream. Of Sturgeons the Sterlet is most frequently taken, but larger descriptions are also met with.

We breakfasted at Cheremkhovsk, and found that the character of the landscape had completely changed. On leaving Pavlodar the aspect of the country was bare in the extreme, and hardly a tree was visible, but now, although the soil continued sandy, it was occupied by tall pine-trees, which occasionally were so numerous as to present a forest appearance. Indeed, we had on our left a triangular forest district of conifers, extending

to 100 miles at the base, and I observed also along the road poplars, Scotch firs, and willows. The vegetation also improved, though there was little grass, and that little mixed with rushes. We found clover and immortelles, and at the next station, Dolonsk, bought a melon for 5*d.*, five times what it would have cost further south.

With improved vegetation came a greater development of animal life, and I noticed the appearance of Hooded Crows, Magpies, various kinds of Hawks, and birds that I took to be Plovers. In crossing the Irtish steppe in spring, Dr. Finsch frequently met with Whooper Swans (*Cygnus Musicus*) in flocks, sometimes of 20 or more, which he supposed to breed in the locality.

Both Winter and Black-headed Gulls (*Larus Canus* and *Ridibundus*) are frequently seen soaring above the deserted Steppe, far, very far from water, looking doubtless for insects and worms as food. The Oyster-catcher (*Hæmatopus Ostralegus*) is also occasionally met with, and the Yellow-headed Wagtail (*Motacilla Citreola*). In the sandy banks of the Irtish are found numerous nest holes of Sand Martins (*Cotile Riparia*), which nest here in common with the House Martin (*Chelidon Urbica*). These last, however, do not excavate nest tunnels, but only shallow holes. In April White-winged Larks (*Alauda Sibirica*) show themselves in large flights, and the sweet trill is heard of the Skylark (*Alauda Arvensis*), notwithstanding the frequent showers of snow and hail. By erecting boxes on poles, the Cossacks provide nesting places for house and tree Sparrows, and sometimes Starlings; but Magpies, Crows, Jackdaws, and Ravens have to make their own arrangements for nests on the bush-

like dwarf-birches.* I noticed about the villages of the Steppe, as I constantly did through Siberia in 1879, a variety of Hawks and Kites. Of the Brahminy Kite (*Milvus Govinda*) several specimens are seen. The charming Red-footed Falcon (*Falco Vespertinus*) holds its quarters particularly along the telegraph line, that possesses, I have frequently noticed in treeless regions, so much attraction for all birds of prey, the wires and poles being so readily adapted by them for resting points. On the poles are often seen perched the Osprey (*Pandion Haliaëtus*), and, further south, other Eagles. The Lesser Kestrel (*Falco Cenchris*) is not rare. Now and again a Little Bustard (*Otis Tetrax*) dashes by the traveller with heavy wing, soon, however, to settle again, as also does its larger congener (*Otis Tarda*). On the downs of the Irtish is seen the Willow Ptarmigan (*Lagopus Albus*), and keeping near

* I was able to purchase at Omsk, besides butterflies and beetles, a small collection of birds' eggs found in the neighbourhood, which last Mr. H. E. Dresser, the well-known author of the "Birds of Europe," has kindly determined for me thus:—

Orange-legged Hobby . . .	*Falco Vespertinus.*
Red-spotted Blue-throat . . .	*Cyanecula Suecica.*
Booted Warbler	*Hypolais Caligata.*
Tawny Pipit	*Anthus Campestis.*
Tree Pipit	*Anthus Trivialis.*
Yellow Wagtail	*Motacilla Flava.*
Reed Bunting	*Emberiza Schoeniclus.*
Eastern Bullfinch.	*Pyrrhula Major.*
Swallow	*Hirundo Rustica.*
Grey Shrike	*Lanius Excubitor.*
Golden Oriole	*Oriolus Galbula.*
Jay	*Garrulus Brandti.*
Magpie	*Pica Rustica.*
Crow	*Corvus Cornix.*
Quail	*Coturnix Communis.*
Black Grouse	*Tetrao Tetrix.*
Common Snipe	*Gallinago Coelestis.*

and amongst the herds of cattle, as is their wont, are to be espied flocks of Sociable Plovers (*Chettusia Gregaria*).

Post-horses failed us at Dolonsk, but by paying extra we were able to hire private cattle, though by reason of the sandiness of the road we were obliged to take four horses for each conveyance; and when we reached Semipolatinsk, our four days' drive of 482 miles, including refreshments, the hire of 134 horses, and gratuities to each of 44 drivers, had cost us less than £6. We arrived at midnight, and speedily found ourselves in comfortable quarters at Stepanof's hotel.

CHAPTER VI.

THE PROVINCE OF SEMIPOLATINSK: ITS NATURAL FEATURES.

Dimensions of province: its surface, river basins, mountains, and passes.—The River Irtish: its scenery, tributaries, banks, and floods.—Zaisan lake and its Cossack fisheries.—Fauna of banks.—Geology of neighbourhood and minerals.—Mineral springs.—Forests of the province.—Wild and domesticated animals.—Towns of the province, and uyezds, with their populations.

THE province of Semipolatinsk forms a rude triangle, whose flattened apex touches the government of Tobolsk on the north, the east and west sides of which are bounded by the governments of Tomsk and Akmolinsk, whilst its irregular arbitrary base is contiguous to the Chinese frontier, the province of Semirechia, and part of the Balkhash lake. Its extreme length from north to south is about 650 miles, its greatest width about 550 miles, with an area of 188,333 square miles, or about the size of Spain. To the north the country is a low flat steppe, without any marked watersheds. Proceeding south, little hillocks are met with, capped with blocks of red and orange stone, and there appear in the distance the sharp blue outlines of the Altai range, approaching which the soil partakes of a more rocky nature, with blocks of quartz,

slate, and porphyry. Scattered among the green grass of the Steppe are coarse, brown, dry and saliferous patches, the country in some places being clothed with incrustations of salt, looking like snow-fields. Near the town of Semipolatinsk high sand-dunes are prominent, whilst close to the mountains the character of the landscape presents considerable variety. The steppe is clothed with coarse high grass, and is dotted over with yourts or tents, around which wander camels and horses with galloping Kirghese horsemen. On the reedy banks of brackish streams, wading birds strut about, whilst in the background rises the sharp, jagged outline of the Arcat chain, consisting of piles of granite, with needle-like peaks, and flat terraces apparently formed of gneiss.

The division of the province into river basins would be, first, the south-western or Balkhash, bounded on the north-east by the Djenghis-Tau or "hills of the lakes"; next the Upper Irtish or Zaisan basin, bounded on the south and west by the Tarbagatai mountains; and lastly the Lower Irtish basin, bounded on the north-east by the Altai, on the south-west by the Tarbagatai and Djenghis-Tau, and having the north open. The chief mountains of the province, apart from spurs of the Altai and the comparatively small Kalbinsk range in the south-east, are the Tarbagatai, a mass about equal to the Pyrenees in length and height, rising in a space about 250 miles wide, that separates the massive eastern extremes of the Thian Shan and the western Altai.*

* The mountains of the Tarbagam, or "marmot," consist of three branches: one running west by north, called the Djenghis-Tau, with an average height of 4,000 feet; the north-east branch, separating the Upper and Lower Irtish valleys, with an average height also of 4,000 feet; and the south branch, with an average of 6,000 feet. In this last

The greatest gaps in the mountains are: The valley of the Kara Irtish where it enters the Zaisan, at an elevation of about 1,400 feet; the valley of the Irtish proper above the town of Ust-Kamenogorsk, about 1,300 feet; and that of the Urzubaï at about the like elevation. Besides these wide depressions, showing by heaps of stones, such as are seen in moraines, that glaciers have existed, there are several defiles, and passes to the number of 14 in all, by which the Tarbagatai is crossed.*

The one great river of the province is the Irtish, of which the Mongol name is "Ertchis." According to Tatar traditions the name of this river was given by the Tatar Khan Irtyshak, who ruled over Siberia late in the fifteenth century. If the etymology be Tatar, "Ir" means earth, and "tysh" fissure or crack, perhaps because the chief of the two branches of the Irtish falls in a cascade out of a mountain gap. It is supposed to rise at a height of 10,000 feet amongst the Chinese Altai snows. It flows in a straight course for

branch are found the highest peaks of the whole range, those of the Muz-Tau, or ice mountain, 11,000 feet high, and the Saur, both being snow-capped. The line of perpetual snow on the Tarbagatai is 9,000 feet, and on the Saur 10,700 feet. The southern branch of the Tarbagatai is clothed with forests of firs and poplars, and below the forest zone glaciers, in several places, extend into the valleys. On the southern slopes of a large portion of the western Tarbagatai no snow is seen the whole year round, except on the Tas-Tau (9,614 feet high), a double-peaked mountain, solitary and bare of vegetation, composed of clay and dolomite, together with granites and porphyries, one peak of which the Chinese call the Standard, from their annually unfurling there a flag. The elevated side of these mountains, and of the Altai spurs on the north, is the south-east, that being part of the Central Asian plateau.

* That of Chagan-Obo, south of the Saur, 6,000 feet high; Burga-Sutaï, at the east end of the range, 4,670 feet; Khabar-Assu, in the middle of the range, 3,750 feet; Alet, at the west of the range, 5,850 feet; and that of Sergiopol, crossed by the post-road, 1,210 feet.

130 miles till it approaches the eastern end of Lake Uliungur.*

From this point the stream is called the "Kara," or "Black" Irtish, under which name it has a course of 373 miles, the entire length of the river being 2,075 miles. Just before entering Russian territory its mean depth is 10 feet; its breadth 686 feet; its volume 793,000 cubic feet per minute, or about three times as much water as the Seine rolls under the bridges of Paris.†

During its course towards Ust-Kamenogorsk, it receives on the right bank the Altai tributaries, the Karaburek, Kalgut, Kurchum, Kainda, Narim, and Bukhtarma, after which the stream becomes more rapid and the mountains close inwards, perpendicular rocks rise out of the streams, on one of which is

* There are strong reasons, however, for supposing that this stream is only a tributary of the Uliungur that rises on the Kobdo plateau, flows south till it rounds the promontory of the Tsin-Guntee mountains, and then, completing a course of 300 miles, flows north-west at a low gradient into the lake. Between the eastern shore of the lake and the so-called Irtish, already mentioned, runs a low ridge, which disappears towards the north, where the lake and the Irtish are only two miles apart, and where the Kirghese point to a dry watercourse, said to be filled in spring by the overflow from the lake. (*See* "Recent Russian Explorations in Western Mongolia," Markham's *Geographical Magazine*, July, 1875.) At this point there is, in the opinion of Captain Miroshnichenko, a subterranean communication between the lake and the Irtish; for whereas the volume of the river is 36,000 cubic feet per minute at a spot 13 miles above the lake, it is 125,000 cubic feet, or more than three times as much, below it.

† Thus far the two large tributaries on the right bank have been the Kran and the Burgum, besides which may be mentioned the Koba, Alkabek, Kaljir, and Tokyr, whilst on the left bank flow in the Suptukurt, Ku-Irtysh, Burutogoi, and the Temir-Su. The river now enters Russian territory, and receives the Kalba and the Koldjur, this latter bringing the drainage from a mountain lake, the Marka-Kul, about 60 miles distant, 1,360 feet high, measuring 27 miles long by 17 wide, and with an area of 154 square miles. Further on the Kara Irtish divides into three branches, with marshy banks, and flows gently across the

poised a huge granite boulder overhanging the water, the landscape presenting for rock scenery one of the most picturesque of views, compared with which, Mr. Atkinson says, the scenery of the Rhine is small and tame. In some parts the mountains rise to an enormous height above the water, and are so nearly perpendicular that no man could climb them. Some of the rocks are jasper of a dark reddish brown, others of a deep purple, contrasting beautifully with the yellow and green mosses and lichens growing thereon. But no luxuriant vegetation is visible; no forests, no fields. Every now and then appears an islet clothed with poplars and willows, but that is all except a few grey bushes on the rocks. There are many rapids, but not too swift for navigation. Further down, terraces about 25 feet above high water mark show that of old the Irtish had a higher level either from having a greater volume of water, or because in course of time the river has worn for itself a deeper bed. At Ust-Kamenogorsk the long stretch of rapids ends abruptly, the river, now at an altitude of 1,128 feet, opens out widely, and enters on its path across the steppe in a broad clay bed, winding about among numerous large islands, several of an area of from 10 to 40 square miles.*

Bosangir flats into the Zaisan lake. On emerging at an altitude of 1,345 feet, the river, now called the "White" Irtish, that has hitherto had a straight course, becomes very winding, flowing north till it rounds the "Bolshoi" or Great Altai range, then north-east till close to the 84th meridian of east longitude, then north-west past Ust-Kamenogorsk, within about 50 miles of which town the gradient of the river is $\frac{1}{2100}$, or about 3 feet in a mile.

* On the left bank also there are several tributaries not yet alluded to: the Kenderlik, foaming and thundering down the rocks to the steppe, and then with spirit tamed flowing slowly across the Bosangir flats into the Zaisan; the Kokpekti, rising near the Karakol pass: the Char-Gurban, rising north of Kokpektinsk, but on the other side of the

In its long dreary journey to the north, the Irtish nowadays receives few tributaries. The hundreds of rivulets that used to flow into it, having had their mouths barred by sand, now form marshes. The sand-hills, too, bordering the river, held together of old by forests of pine that have now been cut, have begun to show signs of instability, and, by their beginning to give way, threaten the destruction of villages, and even of the capital itself. It is a similar phenomenon to that which occurred in the middle ages at the time of the destruction of the forests that grew upon the sand-downs on the coast of Gascony.

In winter, when the rivers are frozen (in some places to the bottom), the course is thus blocked, and in various spots the water bursts up the ice from below, spouts out of the cracks, spreads over the surface, and is there frozen, to the continual thickening of the ice. Near Pavlodar, this bursting of the ice appears to result in considerable inundations of the Steppe.* Unlike most rivers having their rise in snow mountains, such as the Rhine and Rhone, which are highest

mountains, flowing first north-west, then north, and entering the White Irtish above the capital, whilst below the capital is the largest tributary of all—the Chaganka, made up of two great tributaries, the Aschi-Su, rising close to the Karakol pass, and the Chagan, coming from the south-west.

* The mean dates (O. S.) of the opening and closing of the Irtish at various points, computed on averages of periods varying from three to thirteen years, is as follows :—

Places.	No. of years observed.	Opening.	Closing.
Zaisan . . .	3	11th April.	30th October.
Ust-Kamenogorsk .	13	7th ,,	19th November.
Semipolatinsk . .	10	8th ,,	5th ,,
Pavlodar . . .	6	12th ,,	23rd October.
Omsk . . .	13	20th ,,	27th ,,
Tara	5	18th ,,	24th ,,
Tobolsk . . .	8	22nd ,,	25th ,,

in July and August, the Irtish is lowest in summer, at which time the shallowness, caused by drought, lays bare rocks in the bed at Semipolatinsk, so that whereas Dr. Finsch mentions that the men had difficulty in spring in rowing across the dashing stream a ferry such as would carry tarantass and horses, I was able to drive through the river without even wetting the bottom of the carriage. In 1864 a steamer ascended to the Black Irtish as far as Ak-tube, below the confluence of the Koldjur, and a great stimulus to trade was given by the establishment, in 1880, of steamboat traffic in spring between the capital and the lower river. The Irtish, as stated before, is rich in fish, as also is Lake Zaisan. It is believed that by cross-breeding of the fish of this lake with European species, the latter might be greatly improved. A piscicultural effort was made some time since by Lieutenant Friedrichs to stock the Balkhash with fish transported by land from the Irtish, but the experiment failed.

The two principal lakes of the province are the Balkhash, or rather a portion of it, which I sighted, and shall describe hereafter, and the Nor-Zaisan, situated in the south-eastern corner of the province, in the midst of a vast steppe, whence one sees the snowy peaks of the Altai to the north, and of the Saur on the south. The Siberians of the seventeenth century called the lake Kyzalpu. The Mongols euphoniously named it Kun-Bloti-Nor, or the Lake of Bells, on account of its waves producing, when striking against some parts of the shore overgrown with weeds, a sound that resembled from a distance the tinkling of bells. Its present appellation was given by the Kalmuks in 1650, when, during a period of famine,

they supported themselves from its fish, and called it Zaisan,* meaning "noble" or "honourable."

The following kinds of fish are found in the Zaisan: The Sturgeon (*Accipenser Sturio*), Sterlet (*Accipenser Ruthenus*), Nelma Salmon (*Salmo Nelma*), Grayling or Taimen (*Salmo Fluvialis*), Trout (*Salmo Lenæ*), Pike, Roach, Perch, Carp, and Burbot. The Sturgeon are of two species. The flesh of the first is tender, and of rich flavour; the second has a dark shiny skin, firm, coarse flesh, and so hard that even long boiling will not soften it. The head is large, nose obtuse, and bent upwards; the body thick, and out of proportion to the general size. The weight of the *Taimen* reaches 144 lbs., with large but watery and tasteless roe. It is a ravenous fish, that preys on its own species, and on anything it can secure.

The Sterlets of the Nor-Zaisan may be divided into three species: "Zaisanki," a dark-greyish fish, with half as much fat as flesh, and that dry and coarse, and equally uncookable as the black-skinned Sturgeon; its

* Of oblong shape, its entire length is 56 miles, the mean width 13 miles, and its area 700 square miles, or three times that of Geneva, though, unlike the Swiss lake, its depth extends only from 22 to 26, increasing in some places to 40 feet. In former years the lake was of greater extent, as indicated by the existence of sand hillocks at a considerable distance from the present shore, and by the low neighbouring land being largely overgrown with reeds. Its level rises from the middle of June to the end of July. The waters of the Zaisan are transparent, fresh, soft, and good for cooking purposes, but of a reddish colour in deep pools. The bottom of the lake is in some parts clay, and in others mixed with small pebbles, with white, yellow, red, and blue varieties of quartz. The shells of small mollusks are found in the sands of the shore, and between certain points large quantities of stone, of the size of a pigeon's egg, are washed up from the bottom of the lake, and overgrown with fine green moss. About a dozen headlands from the mountains run out into the lake, which has three islands, bearing names, and many nameless ones besides, all covered with reeds. The lake receives the drainage of ten rivers.

weight is generally from 36 to 72 lbs. "Golovashki," similar to the preceding, weighing from 6 to 20 lbs., and, like it, caught in the Upper Irtish, but rarely met with in the Lower. The third, which is the ordinary Sterlet, weighing from 5 to 20 lbs., has a light-greyish skin, and its flesh is soft, rich, and of agreeable flavour. The Sturgeon and Sterlet remain in the lake during winter, and descend the river to spawn in the middle of May. They are then caught at the mouth of the Irtish until the 13th June; but from that date to the 27th July, the quantity taken is inconsiderable. The great catches are in April and May.*

Except for fishing and hunting there is no navigation on Lake Zaisan, and there are few habitations on its banks. In the reeds around are numerous wild boars, which feed on the roots of the *Arundo Calamagrostis*, a coarse grass called *Koga* by the Kalmuks. Otters are also numerous, and large herds of *Saigas* (*Antilopa Saiga*), whilst the immediate neighbourhood of the lake is frequented by Swans, Geese, Ducks, Cormorants, Pelicans, Snipe, Plovers, Bustards, and Pheasants.

Concerning the geology and mineral products of the neighbourhood of the Zaisan and the province generally, it may be remarked that 13 miles from the Koldjur river stands a large rock called the *tuetash*,

* So long ago as 1803 the Siberian Cossacks had a fishing station on Nor-Zaisan, the fishing season generally commencing in the middle of May and ending, on the lake, early in September. Salted fish and roe were despatched for sale, ice-cellars and depôts being established for this purpose at Krasnoiarsk, Ust-Kamenogorsk, Semipolatinsk, and Omsk. The revenue derived for the benefit of the Cossacks, from 1842 to 1845, amounted to £20,000; in 1865, the profit arising to the troops from their monopoly was £1,500; and, later, Réclus quotes the "caisse des Cosaques" as giving the annual catch of fish at 640 tons.

that presents from a distance the appearance of a camel. Near this there exudes a slight stream of petroleum, containing sulphuric acid, with earthy and resinous matter. Again, seven miles below the Koba rivulet, that falls into the Upper Irtish from the right bank, stands a hill bearing the name of Achudasta Mountain, formed of horizontal layers of ochre, varying in colour from dark red to yellow and white.

The local Kirghese prepare *achudas* or alum from the red ochre, and also find the alum in a crystallized state (*alumen nativum cristallisatum*). They use this mineral in colouring their wares. Saltpetre also is said to be found in the neighbourhood. Hillocks of varied stratification, like the Achudasta hills, are numerous, particularly in the direction of the Altai, along the right side of the Irtish, as well as along the Kurchumu rivulet, near the Irtish, and on the right side of the Zaisan. Near the source of the Ku-Irtish is said to be a hill of solid stone, from which naphtha is discharged, and about 10 miles from the Kara Irtish, between the rivers Burchun and Koba, is a small saline lake, the salt deposited on its banks being used for cooking by Kalmuks and Kirghese. Between the same rivers, but 20 miles from the Irtish, is a hill of mica, the gleam of which in fine weather may be seen for half-a-dozen miles. In former years this mica was transported for sale to Semipolatinsk and elsewhere. There are no volcanoes now active in the district, but Dr. Finsch thinks that the Manrak rocks show distinct signs of plutonic origin.

In the extreme south-east corner of the province the chief constituents of the hills are porphyry, argillaceous ironstone, and diabase, or some kind of greenstone. In the precipitous gorges and narrow ravines

may be seen veins of quartz, displaying white, green, and red bands. The spurs consist of yellow sand and marl, from which issue warm springs. Mineral springs also exist at the southern extremity of the Makran hills, and near the springs stands a Buddhist temple. The Chinese at one time had recourse to this spot for curing various maladies, and likewise held in great esteem two mineral springs issuing from a small mound near the source of the Arasan Koba rivulet. The water of both is cold and white as milk, one spring being used by men and the other by women. Gold is worked in the Kalbinsk range, and the mineral products of the northern part of the province are silver, copper, rich iron ores, and coal, whilst about Semipolatinsk the formation is quartz, and, higher up the river, of slate. Alexander Schrenk mentions felsite and hornstone porphyry, as well as greywacke. The ordinary formations on the Tas-Tau are sandstones and schistose rocks belonging to the Carboniferous period. Its peaks are of dolomite, whilst the rocks are largely composed of granite, syenite, and porphyry. Russian explorers have found in the ravines of the southern slopes of the Tarbagatai great blocks of copper ore and veins of iron ore.

The forests of the province of Semipolatinsk occupy about 4,000 square miles, or 2½ per cent. of the whole superficies. The conifers are distributed in six principal groups widely apart,* but the foliferous trees, chiefly poplars and willows, do not grow in woods, but

* 1. Between the right bank of the Irtish from Semipolatinsk to Pavlodar and the Tomsk frontier are pine woods, sometimes sparse, growing in sandy soil. This group constitutes the chief wood reserve of the province. 2. In the upper valleys of the Bukhtarma and Kurchum rivers, principally on the northern slopes of the mountains, are dense larch woods. 3. In the eastern part of the Kalbinsk moun-

in small groups and lines on the banks and islands of the rivers. Near Lake Zaisan are arborescent shrubs with almost white leaves, resembling *Eleagnus hortensis*, and roses, and in the salt soil abundance of Tschingin, a long-stalked plant, the favourite food of the camel. Bulbous plants, especially of the Iris tribe, are very common.

In the same neighbourhood wild animals abound, including the Tiger, Leopard, Lynx, Cat, Bear, Wolf, Fox, Corsac Fox, Wolverine, Badger, Beaver, Marten, Squirrel, Siberian Weasel, Mole, and Ermine.

The domestic animals are: low set, but extremely hardy Horses, two-humped Camels, fairly large horned cattle with short horns, goats, and sheep. The last are both white and black, and of that peculiar genus known as the fat-tailed sheep. The weight of the animal varies from 140 to 180 lbs., the cushion of fat weighing about a fourth of the whole. This pad of fat disappears by cross-breeding with Russian sheep. The nose is arched, the ears pendent, and the fleece, that is less used for weaving than making thread, is coarse, and the wool hairy. The horns of the rams are spiral.

The chief races inhabiting the province are Tatars, on the right bank of the Irtish, north of Semipolatinsk; Kirghese on the left bank, and to the south-west of that river, and along the banks of the water-courses; and between Semipolatinsk and the Altai, Russians; the average number of persons of both sexes in 1879 being 2¾ to the square mile.

tains are here and there pine woods, principally on the almost inaccessible granite rocks. 4. Sparse larch woods occur at the sources of the rivers Djemeni, Kenderlik, Chidone, and Chogan-Obo, also on the Saur mountains, and at the Zaisan station. 5. In Baianaul stanitsa, and 6, at Karkarali, are small pine woods growing on the granite rocks.

The towns of the four uyezds,* into which the province is divided, and that give their names to their respective districts, are, with one exception, on the banks of the Irtish or its affluents. Pavlodar I have already alluded to. The others are Semipolatinsk, the capital, 597 feet above the sea level; Karkaralinsk, in the south-west, at an altitude of 2,698 feet; and Ust-Kamenogorsk, at an altitude of 711 feet, in the south-east. Besides these should be mentioned in the mountains, the town of Kokpeti, 1,927 feet high, Zaisan Post, at an altitude of 2,200 feet, and Bukhtarma, alluded to by Atkinson as a somewhat imposing town, and where one of the early Russian forts was built, but which seems now to have declined in importance.

Thus far I have dwelt upon the natural features of the Semipolatinsk province. I have now to treat of its economy.

* The four uyezds and one sub-district are said to be peopled as follows, but the totals, in every case but one, are wrongly calculated:—

Districts of		Kirghese.	Cossacks.	Peasants.	Soldiers.	Total.
Semipolatinsk . . .		115,938	6,030	2,739	—	125,069
Pavlodar		105,707	6,228	—	—	112,360
Ust-Kamenogorsk . .		64,055	5,751	—	232	70,349
Karkaralinsk . . .		123,571	—	—	—	123,571
Zaisan station . . .		71,683	707	—	—	72,417
Towns of	Bourgesses.					
Semipolatinsk	4,735	6,939	—	1,184	2,932	17,817
Pavlodar . .	967	—	616	—	356	2,263
Ust-Kamenogorsk	2,439	—	607	—	1,348	5,428
Karkarali . .	—	896	397	—	178	2,027
Zaisan Post . .	159	—	703	150	2,427	3,766
Kokpeti . .	821	—	1,867	—	330	3,247

CHAPTER VII.

THE PROVINCE OF SEMIPOLATINSK: ITS ECONOMY.

Minuteness of Russian provincial statistics.—Governor's report for 1881.—Agriculture and irrigation.—Cereals grown, and by whom: quantity sown and reaped.—Cossack gardening.—Cattle breeding.—Agriculture.—Facilities for development of trade, and factories.—Gold mining.—Mechanics and artisans.—Trade at fairs and with China.—Population according to religions and ranks.—Marriages, etc.—Number of ratepayers.—Location of population.

WHEN crossing Siberia in 1879 I had no conception, until I reached the end of my journey, of the minuteness with which the governors of provinces transmit to head-quarters the affairs of the most distant corners of the Empire.*

The statistics first accorded to me in the government *chancellerie*, at Vladivostock, were to my mind

*They report, for instance, as to 1. Agriculture, the system pursued, and by whom, together with the kinds and quantities of crops sown and reaped; the kinds, number, places, and circumstances of breeding of cattle; the sustenance of the people, their industries and manufactures; trade, with the number, kinds, and value of wares purchased and sold: together with the increase or decrease, ranks, and religions of the population. 2. Taxes, duties, and personal liabilities with their administration. 3. The social welfare of the people, public morality and public buildings, fires, and-post houses. 4. Health of the people, number of hospitals, doctors, patients, diseases, epidemics and epizootics, together with circumstances attending violent and accidental deaths; prisons and benevolent institutions. 5. National education, schools, etc.

little short of a revelation, and I began to suspect that I was learning secrets; but when I asked for the like information in Central Asia, the usual courtesy of the Russian officials granted my request; and not only so, but the new report for the government of Semipolatinsk for the preceding year (1881) being not quite ready at the time of my visit, it was subsequently forwarded, most obligingly, to my English address, so that I became supplied with the latest and most trustworthy statistics relating to the province. Should these statistics appear, here and there, to overburden this and the following chapters, I would beg the reader's indulgence, promising that it shall not occur again, if only for the simple reason that for no province to be described hereafter do I possess equal stores of information. I hope, moreover, here to give my readers such an illustration as I have never seen in English, of a part of the economy of what was, till quite recently, an ordinary Siberian province, with the fulness of which information he may perchance be as much surprised as I was.

To begin, then, with agriculture. In the extreme west of the Kirghese Steppe, about Orenburg, the 50th parallel of north latitude is the southern limit of agriculture without irrigation. To the east, in the province of Semipolatinsk, this limit is on the 53rd parallel, north of which there is only an unimportant part of the province, consisting chiefly of basins enclosing saline lakes, where the soil is too much impregnated with salt to be profitable for tillage.*

* The remainder of the province, consisting of more than 130,000 square miles, is scantily watered, with the exception of the mountainous districts and certain vast tablelands, that from their altitude intercept the south-west winds, and so contribute to the fall of rain and snow, and consequently the formation of rivers and brooks. The only well-

The Kirghese learnt from the Chinese how to irrigate the land by damming up the mountain streams and drawing off the water in canals. The nomads thus water about 75 per cent. of their fields, and with better results than the settlers obtain who occupy those parts of the province suited to ordinary agriculture. By both the land is left fallow to recuperate its powers, and neither uses manure; the settler because his fields are usually too far distant from his homestead, and the nomad because manure is his principal fuel. The predominating cereal grown throughout the province is spring wheat, and next oats, then millet (chiefly among the nomads), barley, and spring rye. In the year of my visit, it was intended to sow at the Zaisan station winter wheat obtained from the Chinese in the Emil valley, with the hope that it would yield a better crop, being less exposed than spring corn to the ravages of grasshoppers and locusts. These latter, according to Lebedour, belong to the species *Grillus Biguttatus* and *Grillus Clavimanus.**

Agriculture constitutes the chief pursuit of the settled rural population of the districts of Ust-Kamenogorsk, Zaisan, and parts east of the capital, but in the re-

watered districts are those of Ust-Kamenogorsk, with its Alpine scenery to the east, and the Kalbinsk range to the west. The Tarbagatai range induces an incomparably smaller deposit of atmospheric moisture, and the soil of the scattered eminences in the western and south-western parts of the province is too rocky for agriculture. Even in the vicinity of the mountain peaks and high slopes, where more rain falls, the surface is often either rocky or else too much exposed to the early autumn winds, whilst at the foot of the mountains, where the soil would allow of tillage, the rainfall is insufficient, without the assistance of irrigation.

* In the Alexandroff volost alone, during the season of 1880, the locusts destroyed more than 4,400 acres of corn, and grasshoppers appeared in large numbers in the Ust-Kamenogorsk district and at Zaisan station.

mainder of the province it is little developed. The corn raised is almost entirely for home use. The fairly satisfactory harvest of 1880 provided a normal quantity of seed for 1881; but the small snow-fall told badly upon fields not irrigated, because in so dry a climate the successful germination of the spring corn chiefly depends upon the abundance of moisture from the melting snow. During the spring and first half of the summer, little rain fell, and to make matters worse, in some districts, the locusts and caterpillars appeared, so that throughout the whole province there was only a 3½-fold harvest of wheat, and a 3¾ one of oats. The total wheat harvest amounted to 52,484 quarters (40,626 less than in 1880), and of oats to 22,548 (12,017 less than in 1880), of which total a full half was gathered by the nomads. Of potatoes (planted exclusively by the settlers) a seven-fold crop was reckoned satisfactory.*

About the capital the harvest barely sufficed for seed: in Pavlodar less corn was harvested than was sown, whilst the highest average was less than a five-fold crop—a difference verily from England, where a farmer in the Weald of Kent tells me they sow 2½ bushels to the acre, and in a good year look for a twelve-fold yield! Things, however, in Semipolatinsk right

* The following represents the sowing and reaping in the province in 1881:—

	Sown by		Reaped by	
	Settlers.	Nomads.	Settlers.	Nomads.
	Quarters.	Quarters.	Quarters.	Quarters.
Rye	816	—	2,754	—
Wheat	6,796	4,945	13,121	17,055
Oats	3,397	2,021	12,269	10,245
Barley	359	799	1,927	3,777
Buckwheat	4	—	2	—
Other grain, chiefly millet	432	902	1,455	8,997
Potatoes	3,259	—	21,844	—

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themselves by the convenient circumstance that just over the south-west frontier, in the neighbourhood of Biisk and Barnaul (the happy land where, in 1879, I found good black earth letting at 3½*d.* an acre), the peasants can easily grow, in a year, five times as much corn as they can eat, and when, in 1881, the crop of their neighbours so completely failed, the official report says it "had no particularly bad consequences." The reserves of the Tomsk district amply sufficed for the emergency, and "there was not even an extraordinary rise in the price of corn."*

The Cossacks are great gardeners; or, at least, their wives are; the husbands also being sometimes driven thereto by lack of other work. They grow tobacco, water and other melons, and hemp. The crop for 1881 was 197 tons of tobacco; of hemp, 53 tons; seeds of flax and other oleaginous plants, 16 tons; and 1,298,300 melons. The tobacco is of inferior quality, but suited to local taste. In 1879 the province yielded 292 tons; and in 1880, 243; but the official return for 1881 was only 194. This last figure, however, is judged to be too low, because of the male Kirghese and Cossacks, the former all 'snuff,' and the latter all smoke, and, since no importation took place, their estimated requirements of 486 tons must have been supplied by local culture. The Cossacks make much of their hay, selling the surplus in towns, especially in Pavlodar, or to the Kirghese. The poor or thriftless Cossack sells his crop on the ground; but the rich reap for themselves, or with the help of the Kirghese, paying

* The Cossack and settled populations even stocked their corn reserves, as usual in other parts of the Empire, as a precaution against famine. In 1880 there were in the province 69 store-houses, and at the end of 1881 there remained available 2,354 quarters of corn, besides 6,634 quarters due on account of loans or arrears.

in wages, or in kind with a third or half the crop. The dry season of 1881 was unfavourable for hay, and though 65,000 tons were cut by the settlers, which was one-fourth in excess of the preceding year, it did not suffice to feed the herds without breaking in upon the reserves.

Cattle-breeding constitutes the chief means of subsistence, not only of the nomads (who form more than 89 per cent. of the population), but also of a certain portion of the settled inhabitants of the province, especially about Karkarali and Pavlodar, where, to a great extent, the climate and soil are unsuitable for agriculture. No attempt is made to improve the breed of the Steppe cattle, the settlers conducting their operations partly on the Kirghese system, with this difference, that instead of sheep, which constitute the first article of Kirghese management, their attention is chiefly devoted to horned cattle, though making less of milk produce than the nomads. According to official information, the number of beasts in the province in 1880 amounted in all to 3,081,082.

	Camels.	Horses.	Horned Cattle	Sheep.	Goats.	Pigs.
Settlers .	325	48,240	29,455	38,703	5,099	510
Nomads .	69,277	463,149	202,437	2,223,887		

But only in regard to the herds of the settled population are these data even approximately correct. The official report says the figures for the Kirghese herds are far too small. This statement is based upon the calculation that, according to the Kirghese returns, computed with reference to their population, it would appear that they profess to have only for each kibitka, or tent, 664 head of large, and 21 head of small cattle, the equivalent, that is, to 48 sheep; whereas, for food alone, each nomad family require yearly not less than

54 small cattle.* With the breeding of cattle should be noticed the keeping of bees, that has long existed in the Cossack villages of the Ust-Kamenogorsk district, where, however, notwithstanding numerous facilities, agriculture has not progressed so much as might have been expected. The year 1881 was favourable to the interests of 180 beekeepers, who had 5,217 hives (1,830 remaining over from the preceding year), from which were taken 27½ tons of honey and 2½ tons of wax.

The abundance of live stock, copper mines, glauberite and common salts in the province would suggest a

* The untrustworthiness of the figures is further apparent if the districts be taken separately; for then in the Karkaralinsk district, the richest of the province in cattle, each kibitka is returned as possessing only at the rate of 44 sheep. Information respecting the number of the Kirghese herds is collected triennially, on the enumeration of the tents, and is based upon the reports of the Kirghese themselves, without any check. Now up to 1869 a tax, called the *yasak*, was imposed upon the herds in Akmolinsk and Semipolatinsk; the nomads therefore found it advantageous to return as few heads of cattle as possible, and though the impost no longer exists, the nomads do not yet believe fully in the irrevocable abrogation of the *yasak*, and so retain the practice of understatement. But whilst a Kirghese gives the smallest figure for his own herds, he has no objection to tell the truth about those of his neighbours, so that it is not difficult to find out on separate occasions to what extent the official figures differ from the actual. After comparing all available data regarding this difference in 1881, it was judged by the Russians that, in order to have figures nearer the truth concerning the Kirghese herds, it was necessary to multiply the nomad returns by three for the Karkaralinsk and Zaisan districts, and by two for the rest of the province. For camels, however (which had never been taxed), it sufficed to increase the number by one-half. The following amended table for the province in 1881 is compiled with reference to the above considerations:—

	Cossacks and Peasants.	Kirghese.
Camels	80	104,680
Horses	36,084	1,101,600
Horned Cattle	24,856	483,600
Sheep	32,591	5,529,000
Goats	3,747	
Swine	356	—
Number of families (or tents)	5,095	110,616
Large beasts to a family	12	14½
Small ,, ,,	7	50

possibility of the local development of tanning, fur dressing, stearine, soap-boiling, soda, and copper smelting trades; but up to the present, from want of enterprise, not one of these branches of industry has been vigorously commenced. Skin-dressing is carried on in a few works resembling trade establishments, but both the quality and quantity of work are of small account. During 1880 and 1881 the production of hides decreased 45 per cent. Copper-smelting, which began to acquire a certain development 20 years ago, has fallen away of late years, and in 1881 ceased entirely on the winding up of the affairs of Messrs. Popoff, who for a long time kept in their hands the greater part of the mines in the Pavlodar and Karkaralinsk districts.*

The gold industry that has long been carried on in the Kalbinsk mountains was as productive as usual in 1881, notwithstanding the constantly decreasing find of gold, that at present consists there of 10½ dols to the 100 poods of sand, at which rate eight tons of sand would need to be washed for enough gold to make a sovereign. So poor a sand is worked with profit only by reason of the cheapness of Kirghese labour, and of provisions brought to the mines from the neighbouring villages of Biisk.†

* In 1881 there were in activity 67 works (consisting of 19 tanneries, 5 soap and candle works, 7 tallow boileries, 1 oil mill, 1 brewery, 1 wire and 1 pottery manufactory, and 32 brickfields), the whole giving employment to 400 workmen, and producing merchandise to the value of £43,257, or £1,011 more than in 1880.

† In 1881 were worked 31 mines, and 526,716 tons of sand washed (28,174 tons more than in 1880)—as much, that is, as would cover Trafalgar Square to a depth of 35 feet—and therefrom extracted 412 lbs. of slich gold (25 lbs. more than in 1880). The number of workers was:—2,091 men, of whom 1,692 were Kirghese; 178 women, of whom 22 only were not Kirghese, and 127 children. Of the workmen engaged (from a distance) 36 did not think fit to put in an appearance at the mines,

In the towns of the province in 1881 there were 1,526 master, journeymen, and apprentice artisans, or 1 to every 12 of the male inhabitants; among the Cossack and peasant populations there were 571 artisans, or 1 to every 19 males; and among the Kirghese were 4,155 artisans, which is 1 to every 62 males.*

and 31 left the work, of whom 16 returned; the monthly pay of a workman with food being from 8 to 12 shillings. To these workers should be added 641 horses and 31 oxen.

* The following were their occupations:—

Townspeople.	Masters.	Journeymen.	Apprentices.
Bakers	18	—	—
Pastry Cooks	6	1	—
Butchers	93	41	—
Tailors	89	12	4
Shoemakers	206	10	5
Dressmakers	9	40	—
Leather Cutters	25	4	—
Masons and Stove-builders	112	22	—
Carpenters and Cabinet-makers	369	62	8
Coppersmiths and Blacksmiths	107	37	—
Harness-makers	22	5	—
Carriage-makers	1	—	—
Clock-makers	4	—	1
Silversmiths	10	—	2
Carriers	146	37	—
Farriers	16	2	—
Total	1,233	273	20

Cossacks and Peasants.	
Blacksmiths and Locksmiths	40
Carpenters and Cabinet-makers	161
Stove-builders and Masons	36
Tailors	45
Shoemakers	289
Total	571

Kirghese.	
Blacksmiths and Locksmiths	681
Tailors	243
Shoemakers	1,319
Saddle and Harness-makers	605
Silversmiths and Coppersmiths	298
Cabinet-makers, Turners, etc.	1,009
Total	4.155

The trade of the province is to some degree indicated by the number and quality of the trading certificates granted in the year preceding my visit to 3,217 persons, of whom only three took first-class guild merchants' licences and 34 first-class tickets, the remainder being licences and tickets of the second guild and for retail traders, carriers, etc., the whole at a cost of £3,148, which was £352 more than in 1880. The trading waggons, or movable shops, that wander about the Kirghese vollosts, numbered 268, and the shops in the towns and villages 526. At the 10 fairs of the province, merchandise changed hands to the value of £245,082.*

* The 10 fairs are held on the following dates (O. S.):—

1. Charsk, in Semipolatinsk district, 10th May to 10th June.
2. Botovsk (Kuiandinsk), in Karkaralinsk, ,, 15th May to 15th June.
3. Charsk, in Semipolatinsk district, 10th Sept. to 10th Oct.
4. Joanno-Zlatoiustovsk, in Pavlodar district, 13th Nov. to 1st Dec.
5. Ekaterininsk, in Semipolatinsk ,, 24th Nov. to 2nd Dec.
6. Ekaterininsk, in Ust-Kamenogorsk ,, 24th Nov. to 9th Dec.
7. Nikolsk, in ,, ,, 6th Dec. to 20th Dec.
8. Spiridonoff, in Pavlodar ,, 12th Dec. to 22nd Dec.
9. Christmas, Urlyutyup ,, ,, 25th Dec. to 2nd Jan.
10. Christmas, Bukhtarminsk, Ust-Kamenogorsk ,, 25th Dec. to 10th Jan.

The sum expended was thus distributed:—

	£
Manufactures and colonial goods, grocery and small wares	66,341
Iron and copper, in manufactured articles and unwrought	3,962
Dressed hides	3,083
Flour and grain	7,550
Central Asian textures and fruits	6,783
Peasant productions	177
Butter and tallow	5,141
Felt and camel-hair cloth	1,159
Camel's, goat's, and other hair, lambskins, etc.	6,470
Sheep's wool (*djebag*)	5,532
Other goods	3,803
95 Camels	399
836 Horses	2,037
16,595 Horned Cattle	30,356
290,205 Sheep	93,162

The fair trade consists chiefly in the exchange of manufactured articles, and the handiwork of the settlers for the beasts and animal products of the nomads. In 1881 the nomads brought animals and their products to the value of £153,392 (£32,088 less than in 1880), for which they took away goods to the value of £87,898 (£8,148 more than in 1880), the remaining £65,494 being received from the settled population in money. An increase of purchases by the nomads, as compared with the previous year, was observed in grocery and colonial goods, metallic wares, corn, and Central Asian textures and fruits, and a decrease in dressed hides and peasant productions. Of local products, there was an increased demand for oil and tallow, felt, camlet, sheep's wool, horse-hair, and corn-chaff, but a decrease in undressed hides. The herds sold were considerably smaller (except camels) than in 1880, the decrease being due to the fact that the Pavlodar dealers bought a large number of flocks, chiefly sheep, direct from the nomads, so that the price of sheep was considerably raised at the fairs, and fetched on an average 6*s.* 5*d.* each, as against 5*s.* in 1880. For horned cattle the average selling price was 36*s.* 6*d.*, and for horses 48*s.* 9*d.* each, being 1*s.* and 3*s.* 2*d.* respectively less than in 1880. It should be borne in mind, however, that the trade at fairs embraces only a small portion of the commerce with the Kirghese, but it deserves attention because it furnishes the population with the means of effecting trade exchanges independently of the powerful "middle man."

With regard to export trade, the year 1881 not only saw the apprehension of war removed between Russia and China, but also the conclusion of a treaty advan-

tageous to Russian commerce. Notwithstanding this, the returns of the Semipolatinsk merchants did not show much increase, in all probability because tranquillity was not completely restored in those parts of the Chinese Empire bordering on Russian territory, where, moreover, the Manchu officials showed themselves by no means favourably disposed to the increase of Russian sales.*

The population of the province of Semipolatinsk in 1881 consisted of 290,312 males and 248,073 females,

* The majority of Semipolatinsk merchants trading with Chuguchak take out their passports in Semirechia, so that their returns do not appear in the statistics of their proper province. Apart from these, however, 32 passports were granted (41 in 1880), and a like number of caravans set out—3 for Chuguchak, 3 for Guchen, 3 for Kobdo, 1 for Shikho, 1 for Urkashar, and 21 for the valley of the Black Irtish. The value of the goods exported was £25,519, which, notwithstanding the unsettled state of affairs and fewer caravans, was £434 more than the exports of 1880. The goods crossing the Chinese frontiers and their values respectively were :—

EXPORTS.	£	IMPORTS.	£
Manufactures . . .	20,549	Tea	264
Groceries	104	9,600 yards of felt . .	590
Tea and Sugar . .	479	16 cwt. of hair . . .	86
Trunks and small wares .	798	14 cwt. of goat's hair. .	36
Dressed hides . . .	2,426	5 tons of sheep's wool .	65
Iron and copper goods .	456	465 pieces of hair rope .	27
Central Asian products .	505	205 Bags	4
Stags' horns . . .	200	25 Raw hides . . .	5
		2,050 Sheepskins . .	101
		25,398 Skins . . .	714
		23,934 Beasts . . .	9,949
	£25,517		£11,847

On the other hand, the value of the imports was less than the exports by £13,673. This sum, together with £10,208 profit (reckoning at 40 per cent.), or a total of £23,881, should have been received in silver currency, but the merchants showed only a total receipt in silver of £3,226. According, however, to private information, 14½ tons of Chinese silver currency were sent to Semipolatinsk, representing £106,650 (credit), of which about 11 tons were sent to Kiakhta, and the remainder to the fairs of Irbit and Krestovsk.

or together 538,385, being an increase on the previous year of 7,665. Divided according to religious beliefs, 496,150 (or 92·16 per cent.) were Muhammadans, 41,875 (or 7·78 per cent.) were of the Russian Orthodox Church, and the remainder (·06 per cent.) consisted of 75 Raskolniks or dissenters, 86 Romanists, 13 Protestants, 180 Jews, 3 Karaim (Jews), and 3 Pagans. Again, divided according to ranks, there were of the nobles and aristocracy, including regular and Cossack officers, 1,448; Russian clergy, 171; Muhammadan mullahs (exclusive of those in the Kirghese vollosts), 82; upper-class citizens and merchants, 1,352; bourgeois, 9,979; peasants, 4,762; Cossacks, 23,177; ordinary soldiers, 4,732; reserved, 244; retired, with their families, and the families of soldiers and reserved, 2,647; Kirghese, 489,134 (of whom 45 were nobles and 2,489 descendants of "sultans"), and of others 657. Hence, of the entire population, the classes ranged as follows: 90·85 per cent. were Kirghese; then followed the Cossacks, 4·31 per cent.; bourgeois, 1·85; peasants, 88; and soldiers, 88. Of the Kirghese little more than one-third were pure nomads, having no other dwelling than their tents, whereas the remainder do not wander in winter from their fixed quarters. The remaining 57,431 (or 10·67 per cent.) constitute the settled population, of whom 34,547 (including 8,180 Kirghese) live in towns, and 22,884 in rural districts. The number of marriages throughout the province in 1881 was 2,131; births, 5,665 males and 4,570 females, or a total of 10,235, of whom 59 were illegitimate; deaths, 6,680 males and 4,457 females, or 11,137, leaving a decrease of population in the province of 902.*

* The foregoing figures are founded, so far as the town of Semi-

Among the orthodox population there were 419 marriages, 2,019 births (58 being illegitimate), and 1,401 deaths, or 3·35 per cent. Among the Muhammadan town population there were 166 marriages, 13 divorces, 443 births, and 606 or 4·23 per cent. of deaths. Owing to the inaccurate method of registration among the Muhammadan population of the districts, their returns are not worthy of credence; but they stand at 1,546 marriages, 15 divorces, 7,773 births (including 1 illegitimate), and 9,130 or 1·68 per cent. of deaths. The number of ratable persons in the towns of the province at the end of the year was 4,534, and of those exempted 364: a total of 4,898, or 162 more than in 1880. The number of peasants was 1,103 ratable and 8 exempt—a total of 1,111, or 8 less than in 1880, whilst the Cossack population was augmented by 4 men and decreased by 2.

The settled population of the province, excepting the few inhabitants stationed in pickets, farms, mills, etc., inhabit 57 Cossack villages, 5 peasant hamlets,

polatinsk is concerned, on a census taken by the statistical committee on one day in March, 1882; for the other towns and settled rural populations, on the lists compiled a month or two earlier by the local police authorities; but for the Kirghese population of the districts, from the data deduced from the vollost family lists compiled in 1880. These last data, says the report, particularly for Zaisan station, cannot be complete. In several *starchinstvos* or sub-districts, for instance, the number of females is returned at less than half the number of males; so that these data would show throughout the province only 4·42 persons to each Kirghese kibitka, whereas on all occasions when an actual census of the Steppe population has been taken, the average number of Kirghese of both sexes to each kibitka has been 5. Reckoning, then, the kibitka at 5 persons, the Kirghese population of the province should amount to 553,080, and so the total population to 602,331 of both sexes. On this computation, the population of the districts (excluding the towns and urban settlements) will be: Semipolatinsk, 128,752; Pavlodar, 112,559; Ust-Kamenogorsk, 72,658; Karkaralinsk, 148,871; and Zaisan station 104,944.

and 6 towns. For purposes of government the Cossack population is formed into 12 stanitzas, the peasant population into 1 vollost, and the 110,616 Kirghese kibitkas into 74 vollosts or districts, and 602 starchinstvos or sub-districts.*

Thus far, then, I have dwelt in this chapter upon the economy of the province with respect to its people and their occupations; in the following one I purpose to treat of its administration.

* Districts.	Stanitzas	Cossack villages.	Peasant vollo ts.	Peasant villages.	Kirghese vollosts.	Starchinstvos.	Kibitkas.
Semipolatinsk .	3	18	1	5	17	148	25,312
Pavlodar . .	3	16	—	—	14	111	21,189
Karkaralinsk .	1	—	—	—	20	174	29,939
Ust-Kamenogorsk	3	19	—	—	9	65	13,292
Zaisan station .	2	4	—	—	14	104	20,884

CHAPTER VIII.

THE PROVINCE OF SEMIPOLATINSK: ITS ADMINISTRATION.

Taxes: what, by whom paid, and amount.—Excise duties and revenue from lands.—Local rates.—Liabilities to personal service.—Cossack service.—Recruiting statistics.—Houses and public buildings.—Expenditure of civil authorities.—Military buildings.—Fires and fire brigades.—Public health, medical officers, hospitals and diseases.—Violent and accidental deaths.—Vaccination.—Central Asian statistics and their weak points.

THE province of Semipolatinsk enjoys the reputation of having been punctual, since the establishment of the present *régime* in 1869, in the payment of its taxes. This is attributed to the class of which the settled population is composed, and to the convenient system adopted with regard to the nomads. The unit of taxation among the Kirghese is the *kibitka*, each of which pays 6*s.* a year, and the enumeration of which is performed every three years by selected men, who are paid for the work at the rate of 7½*d.* per tent. The townspeople pay a tax on property, besides which the peasants pay a land tax and a capitation tax, and there are certain taxes levied besides from the bourgeoisie. The kibitka tax for 1881 amounted to £30,417; property tax, £1,011; peasants' land and capitation taxes, £568; and from the bourgeois, £101; making a

sum total for the whole province of £32,187; in addition to which there remained in arrears £807, or £536 less than in the preceding year. Besides this there were rates raised for local purposes to the amount of £239.

The different kinds of excise duties collected amounted to £28,738, made up of £26,478 for wine duty, £1,968 for licences, and for tobacco and stamp licences £292, amounting in all to £8,367 less than in 1880. This decrease was attributable to the alteration of the excise on salt, otherwise the returns would have shown an increase of £2,465 as compared with 1880. The lands in the province paying rent to the Treasury consist of three portions near the capital—503 acres in all—bringing in an annual rental of £12, and for timber felled £792, or £192 more than in 1880.

An important extent of land, chiefly on either side of the Irtish, belongs to, or is occupied by, the Cossacks. The quit rents of these holdings are paid into the Cossack fund.*

Besides the taxes just mentioned there are the vollost, or local rates. In 1881 the Kirghese paid £14,958, to the expenditure of which I shall allude hereafter. In the peasant vollost, of 1,111 souls, £275 were expended thus: for the maintenance of

* From this source there was collected in 1881, rent for land, £302; rent of mills and works, £205; licences for fishing on Zaisan lake, £379; and £92 also were paid into the Cossack reserve fund as salt duties. The total, £978, is little more than half what it was in the previous year. In the eastern part of the province is situated the Balagach Steppe, a locality specially favourable to husbandry, that is readily rented by agriculturists in the capital, in the surrounding Cossack villages, and by peasants of the Alexandrovsk vollost, who have no arable land. In this district and the mountain land generally, the annual rent is 4*d*. per acre In 1881, 32,000 acres were let, but on account of the failure of the harvest the rents collected amounted to £400 only, as against £509 the year before.

the communal administration, £77; for the maintenance of the school, £30; pay of the parish clergy, £52; and for yemstchiks, or postilions, £116. In the Cossack stanitzas the expenditure for public purposes is covered by the receipts obtained from various lands, from the tolls of ferries, etc.*

Besides the payment of money, the inhabitants of the province are placed under certain personal liabilities as to obligatory duties. Military service is not imposed on the Kirghese; but they are bound to keep roads in repair (generally compounded for, however, by public convention, and not done in person), to furnish, on payment, fuel, tents, and sheep to military bodies on the march, and also to let on hire tents and horses to functionaries travelling in the steppe on public service.†

The Cossacks pay no taxes, but in lieu thereof they undertake military and other kinds of service on special conditions.‡

The administration of the military liability of the other classes is shown thus: The calling up began on the 15th October and ended 31st December (O.S.),

* At the beginning of 1881 there was a balance in hand of £1,729; besides which £1,751 were subsequently received, and £1,431 expended, leaving a surplus towards 1882 of £2,049, of which £848 was in cash, and £1,201 on loan.

† In 1881, 282 tents were thus supplied to troops, and food was requisitioned to the extent of 21 horned cattle and 1,052 sheep, to the value of £176. Some of the tents were furnished without payment, by Kirghese wandering along the line of march, but the majority were paid for from the vollost fund.

‡ In 1881, 3 officers and 147 Cossacks, or 1·27 per cent. of the male Cossack population (11,795), were called to active service, in the 3rd cavalry regiment, whilst of the other classes liable to military service, the number entering the army constituted ·49 per cent. of the male population. The other liabilities of the Cossacks consisted of the furnishing carts (2,503 were supplied without payment) and 3,483 days' work at road mending.

the total number requisitioned being 187. Of these 49 were designated to enter the service, 3 absented themselves from the lot-drawing, but 47 recruits were taken, and two were discharged by purchase.*

The houses and public buildings of the Semipolatinsk province, standing midway between Central Asia and Siberia, partake of the characteristics of both.† The cost of public buildings in 1881 to the civil authorities was £301, which sum must appear to an English eye to have been made to go a long way; for it included the erection of offices in Pavlodar and a guard-house on the Zaisan-Kokpety road; repairing the court-houses at Pavlodar and Karkaralinsk; the prisons of Semipolatinsk, Pavlodar and Usk-Kamenogorsk, and the lock-up at Karkarali, besides pickets on several of the steppe-roads. Building operations, however, were carried on to a much greater extent by the military engineering department, the total expended being £3,226.‡ The buildings of the province suffered

* The number actually drawn consisted of 45 fit for active service, 2 non-combatants, 3 who entered the service under special regulations, and 2 entitled to short service. The remaining 45 were not so entitled. Socially, the 47 (of whom only 14 could read and write) consisted of 1 upper-class citizen, 4 merchants, 30 bourgeois, 11 peasants, and 1 other; or, again, taken by religious professions, they consisted of 31 orthodox, 1 dissenter, and 15 Muhammadans. The number of married was 14. Besides the foregoing it should be observed that, during the year, 125 were sent into the militia of the province.

† Of 39 orthodox religious buildings in 1881, 14 were of stone and 25 of wood; of other religious buildings, 2 were of stone and 24 of wood. There were in the province 52,472 inhabited dwelling-houses of stone so called, of which, however, 20,055 were of daubed clay; and 21,719 of wood. There were also uninhabited 142 stone and 619 wooden houses, making the total number of buildings throughout the province to be 52,614 stone and mud and 22,338 of wood. This number included the Kirghese winter quarters, comprising 64,208 buildings, namely, 12,372 of wood, 31,781 of stone, and 20,055 of clay.

‡ The more noteworthy of these works were the building of two stone commissariat magazines for corps in Semipolatinsk (£1,200), the con-

heavily in 1881 from 71 fires—an increase of nearly 50 per cent. on the previous year. The destruction of 315 houses and yourts (270 more than in 1880) and 2 forests involved a loss of £15,426—an excess of £13,641 over the preceding year.*

The health of the people was cared for throughout the province by a staff of 18 physicians and 49 assistant surgeons, of whom 13 and 37 respectively were military; and by 7 midwives. The medical establishments were 9 in number, there being under civil jurisdiction in Semipolatinsk two hospitals, one being free; and under military jurisdiction, 6 hospitals and a "rest." †

version of a coach-house into a stable for the horses of the mounted mountain battery in Usk-Kamenogorsk (£201), the construction of a wooden equipment-store at Zaisan Post (£259), and the construction of a wooden stable for the horses of the West Siberian light battery at Zaisan Post (£307), etc. As connected with these expenditures in the province may be noticed the following sums received and expended during the year in its four principal towns:—

	Balance from 1880.	Receipts.	Expenditure.
	£	£	£
Semipolatinsk . . .	3,595	2,791	2,456
Ust-Kamenogorsk . .	2,096	982	1,045
Pavlodar	1,463	724	698
Kokpety	908	153	99
	£8,062	£4,650	£4,298

* Of the 71 fires, 10 took place in winter, 36 in spring, 18 in summer, and 7 in autumn, their alleged causes being: from faulty construction of chimneys, 7; from carelessness, 28, which includes the burning of 2 forests; from lucifer matches, 5; and 31 from causes unknown. It would appear that throughout the province the only towns that have anything like a fire brigade, are Semipolatinsk, Ust-Kamenogorsk, and Pavlodar, the former two spending thereon in 1881 the sum of £456, whilst the fire-extinguishing paraphernalia of the six towns in the province amounts to 2 under-officers, 25 workmen, 25 horses, 14 pumps, 16 hose, 36 summer and 24 winter vehicles, 29 tubs, 44 pails, 12 ladders, 53 hooks, 29 axes, and 25 screens or sails.

† The military hospitals were: at Semipolatinsk, for 58 beds; Zaisan Post, 58 beds; Ust-Kamenogorsk, 22 beds; Pavlodar, 6 beds; Karka-

The Semipolatinsk town-hospital commenced the year with 9 patients, 81 were admitted later on, 67 discharged, 13 died, and 7 remained, whilst 454 out-patients paid 554 visits. When I was at Semipolatinsk the free hospital had been opened a little more than a year. During the first seven months of its existence there entered 226 male and 205 female patients, of the following social grades :—Upper classes, 20; clergy, 18; merchants, 8 ; bourgeois, 186; peasants, 80; Cossacks, 14 ; soldiers, 77 ; Kirghese, Sarts, and Tatars, 28, amongst whom the chief diseases were intermittent fever, mucous diarrhœa, rheumatism, catarrh of the respiratory organs, diseases of the abdominal organs, inflammation of the jaws, abscesses, eruptions, etc.*

I have already alluded to the number of young recruits who are sent every year to Turkistan. Of these there were in the hospitals of the Semipolatinsk province, at the commencement of the year, 2 ; there were added during the year, 122 ; discharged, 120 ; died, 4 ; whilst of the lower ranks of the reserve army there was in hospital, at the commencement of the

ralinsk, 14 beds; Kokpety, 4 beds; and Koton Karagai, 6 beds. In the military hospitals at the beginning of the year the patients, a certain proportion being civilians, numbered 124, and there were subsequently admitted 2,917. Of these 2,875 were discharged, 59 died, and 107 remained in hospital at the end of the year. The number of out-patients attending the military hospitals was 12,947; the number of their visits, 25,274.

* The chief diseases in the town hospital were: typhus and typhoid fever, 9; intermittent fever, 7; tuberculosis, 7; venereal diseases, 6; and from excessive drinking, 6. Of 13 deaths, there occurred from tuberculosis, 7; typhus, 2; burning, 1; frost, 1; dropsy, 1; and old age, 1. The patients admitted to the town hospital were: nobles and merchants, 5; bourgeois and peasants, 19; postal employés, 3; soldiers, reserve and serving, 14; Kirghese, 18; and, in addition, 5 children and 17 women, of the last of whom 4 were suffering from syphilis and 4 from intermittent fever.

year, only 1 patient: 7 were added, 6 discharged, and 2 remained.*

The greatest mortality among the hospital patients resulted from typhus, and next from inflammation of the lungs. The total mortality was 2·4 per cent. of the number of patients.

In connection with the foregoing might be mentioned 108 violent and accidental deaths, occurring throughout the province, which were 44 less than in 1880.†

A large number of deaths by burning is a speciality of nomad life, many of the Kirghese children being scalded by the overturning of kettles, or burnt by the ignition of their clothes from the fire in the midst of the tent. The number of children vaccinated by physicians, surgeons, and vaccination pupils was 6,104, the operation being successful in 4,259 cases.

This finishes, then, for the present, the ample information I ventured to promise the reader concerning the Semipolatinsk province, in which I have endeavoured to do justice to the minuteness with which statistics are gathered and forwarded to Petersburg from the remotest parts of the Empire. Of course the question may be put, Are these figures trustworthy? The answer must be both "Yes" and "No." When asking a governor further south for statistics, he replied that they had been able to gather none, the Russian popula-

* The chief diseases in the military medical establishments were: intermittent fever, 689; local diseases of the urinary organs, 313; acute and mucous, and in some cases bloody, diarrhœa, 146; acute catarrh of the respiratory organs, 146; rheumatism, 145; venereal diseases, 142; typhus, 136; and inflammation of the lungs and pleurisy, 126.

† Of violent deaths, 5 were murders (19 less than the year preceding), 6 were suicides, and 3 dead bodies of infants were found. Of 22 sudden deaths, 8 were from sickness, and 12 from unknown causes; whilst of 72 accidental deaths, there were killed by lightning, 4; by falling, 9; drowned, 24; frozen, 4, and burnt, 21.

tion being so small as compared with that of the natives, and, moreover, that some of those statistics I had already received were of little worth. This admission from the mouth of a particularly intelligent Russian General at first rather startled me, but, when properly explained, seemed to amount to this. The Russians, being few in number in the recently annexed provinces of Central Asia, are obliged to depend for information upon the natives. Now in a trustworthy informant we look for two things: that he should be able to speak the truth, and that he should be willing to do so; whereas the natives are neither one nor the other, as I speedily discovered, when surrounded by them after crossing the Russian frontier. In one of the tribes in the north-east of Siberia, a man wishing to express the number 20 would count on his hands and toes, but beyond this number he would call into requisition the hands and toes of a second man, and so on *ad libitum;* and though I do not affirm that the Central Asiatics are so simple as this, yet they have very vague ideas of high numbers. Said I to the Bokhariot officers sent out to meet me as I approached Charjui, "How many inhabitants does that town contain?" "A million!" was the reply; whereas, had the man said 30,000, I believe he would have exceeded the mark—not, I think, from design, but for lack of power to grasp the meaning of a million. So, when some old *aksakal*, or white-beard, is brought in from the mountain or the steppe to appear before a Russian officer, and is asked the number of tents in his district, and the cattle, it is no great wonder if he often gives an unsatisfactory answer.

But besides the question of incompetency, I have already mentioned the unwillingness of the natives to let the Russians know their affairs, and their suspicions

that the gathering of statistics is only a prelude to further taxation. "How many cattle has your father?" said I to the son of a Kirghese dignitary, and forthwith the answer came, "150 horses, 500 sheep, 30 cows, and 20 camels," which probably was not far wrong. But shortly after I mentioned it to the Russian officer, who referred to his books to see what official return the father had made, and found it to stand, "50 horses, 150 sheep, 10 cows, and 6 camels," from which example it will be seen how *native* statistics are to be taken *cum grano salis*.

CHAPTER IX.

HISTORICAL SKETCH OF THE RUSSIAN OCCUPATION OF THE IRTISH.

General history of Central Asia.—Russian occupation of the Irtish.—Yermak's victories, conquests, and death.—Submission of Barabinski Tatars.—Consolidation of Russian power by arms, mediation, and trade.—Baikof's mission through Sungaria.—History of Kalmuks: their opposition and submission.—Origin of forts along the Irtish.—Aggressive designs of Peter the Great.—Treaties with the Kalmuks.—Extinction of Sungarian kingdom.—Russian frontier fortified against the Chinese.—Trading places of Bukhtarminsk, Ust-Kamenogorsk, and Semipolatinsk.—Growth of commerce with Chinese.—Russian administration of new territory.

THE history of Russian Central Asia may be conveniently treated under the general divisions of ancient and modern. Its ancient history includes the struggles of Asiatics, whose rude conquerors approaching the fray, whether from the highlands of the east, or from the lowlands of the west, brought to the conquered a method of warfare, and manners and customs, not greatly dissimilar to their own. What these were the reader will better understand and appreciate when in the course of our narrative we have travelled further south.

The modern history of Central Asia, however, brings on the scene a conqueror from the north, a European, with a strange language and a new mode of warfare, who advances not at the head of a devastating cavalry

column, but in the persons of, at first, a mere handful of Cossacks, who make their way up the rivers, building forts as they go, engaging in trade, and so turning to their own advantage the internal feuds of the enemy, that he is at length surrounded and bidden to surrender. In this chapter I purpose to treat of so much of the modern history of Central Asia as will cover the Russian occupation of the Irtish, or, in other words, the country through which, thus far, we have travelled.

The history of the Russian occupation of the Irtish commenced with the conquest of the Tatars, about the mouths of the Tura and Tobol, and was followed by the series of events that brought the Russians in contact successively with the Kalmuks of Sungaria, the Chinese of Western Mongolia, and to some extent the Kazaks of the Steppe.

It was in 1579, during the reign of John the Terrible, that Yermak crossed the Urals, to find himself opposed by Kuchum Khan, ruler of the Siberian hordes of the Irtish, Tobol, and Barabinski Tatars, a lineal descendant of Jinghis Khan, and a prince of some note, who had been the first systematically to introduce Muhammadanism into Siberia. This ruler Yermak conquered, in 1581, in a series of battles, one with three petty Tatar princes near the mouth of the Tura, another near the mouth of the Tobol, and a third on the Irtish, after which Kuchum fled from his fort Sibir, and on the 7th of November Yermak took possession of his capital.

Several of the surrounding chiefs tendered their submission, and the Russians sailed down the Irtish, capturing numerous forts; but in the spring of 1584 the enemy besieged the invaders in Sibir. Yermak defeated them, and then sailed up the Irtish, where

he gained possession of several strongholds, and was returning on his way to Sibir, when, having learned that a caravan from Bokhara was crossing the Ishim Steppe on its way to Kuchum Khan, he halted near the River Bagatai, and on the evening of the 17th August, unaware that his enemy was near, lay down with his companions to sleep, without so much as posting sentinels. The troops of Kuchum attacked the sleepers, and though Yermak cut his way to the river, yet in the endeavour to step into his boat he fell into the water and was drowned, whereupon his followers recrossed the Urals, and left the field to Kuchum.

When news reached Moscow of the ease with which Yermak had gained his victories, it was determined speedily to send an expedition to recover lost ground. On the 10th July, 1586, a new Russian force reoccupied Tchingi-Tura, one of Yermak's first conquests, and founded thereon Tiumen, which became the first permanent Russian settlement east of the Urals. In the following year Tobolsk was founded near the Tatar Isker, and was made the residence of the first *voyevode*, or governor of Siberia. The Cossacks had little difficulty in subduing the neighbouring tribes, but Kuchum, though weakened, was not dead. He had been living with the Tatars in the Barabinski Steppe, east of the Irtish, and in the summer of 1590 marched to the neighbourhood of Tobolsk, to be beaten again, however, the next year, and deprived of a son and two of his wives. Shortly after this, in 1594, and in order to overawe the district of the Upper Irtish, and the Barabinski Steppe, as well as to restrain Kuchum, Tara was built on the Lower Irtish and fortified.

At the same time, according to instructions from Moscow, letters were sent to Kuchum Khan, inviting

him to come to terms, but since he remained obdurate the Russians determined to crush him. Accordingly Cossack troops were sent against his remaining forces, with the result that eight of his wives, five sons and daughters, and five princes fell into the hands of the victors, after which the Tsar Boris Gudunoff was informed that the Russians were now masters of Siberia. Kuchum escaped to the Upper Irtish to the Kalmuks, and from thence he went to the Ishim steppe, where it is said he was put to death by the Nogais. Thus closes the first period of my history, a term of 20 years, during which the Russians were chiefly employed in the conquest of the Tatars.

The fame of these successes brought every year new subjects to the Russian Tsar. Among others came Tayan, prince of the Barabinski Tatars, from the upper banks of the Tom, who proceeded to Moscow in 1604, and presented to Boris Gudunoff a petition, asking to be received with all his family as Russian subjects, proposing the construction of a Russian town in his territory, and promising to assist in inducing the neighbouring peoples to submit to the Tsar's sovereignty. Tayan's proposal was accepted, and the said town founded the same year on the right bank of the Tom, and hence called Tomsk. The road thereto lay through Tara, which dominated the Barabinski Steppe, and served as an intermediate station between Tobolsk and Tomsk, as also a means of communication with the advanced posts up the Irtish, where lived the Sungarian Kalmuks, the next people whose contact with Russia we are to notice.

For fully a century after the conquest of Kuchum, the invaders on the Irtish did little more than hold what they were pleased to call their own, for the natives

did not leave them alone. In 1609 the Tatars, Voguls, and Ostiaks endeavoured to plunder Tiumen, and in the following year the Nogai Tatars devastated the country around. Nor was the onslaught of arms the only difficulty with which the Russians had to contend. Three times in the century the wooden town of Tobolsk was destroyed by fire, and in 1638 it was inundated by floods. The native tribes, nevertheless, continued to offer submission, and Russian influence was strengthened by the opposing native factions, each of whom bid for Russian help.

Another factor that helped to consolidate the Russian power was the opening of trade with the natives. In 1648 the merchants of the Central Asian Khanates were permitted to trade in Siberia. The Bokhariots brought furs to the country about Tiumen, and half a century later a considerable exchange had sprung up, concentrated at the Yamyshef lake, east of the Irtish, between the Russians, Kalmuks, Bokhariots, and Tashkendians. This intercourse with Central Asiatics could not but furnish the Russians with information as to the interior of the continent, of which they took advantage in 1665 to send the Boyar Theodore Baikof, by way of Sungaria, to China. Starting from Tobolsk, he reached the camp of Taishi Ablai, a Kalmuk chief, and passed the winter there. In spring he proceeded to the Beska rivulet, near which Ablai was then erecting two stone palaces, now known as "Ablai's Halls." This spot he left on 24th July, and by the 7th August arrived at the camp of the Kontaisha, or emperor's sons, from which another 10 days' journey brought him to Nor Zaisan, whence he journeyed for 17 days to the sources of the Irtish, and then proceeded to China. This journey would appear to have been undertaken at a

favourable opportunity, for 30 years later we find Ysbrant Ides at Tiumen, journeying on a political mission to China, and dryly remarking, "If it were safe to travel the Kalmukian country, the most expeditious way would be to pass the Jamuschowa (Yamyshef) lake"; and then he adds, "Strolling incursions are very frequently made by the Kalmuks upon their czarish majesties' frontiers, but are repelled by the Tobolskians." Accordingly, like a discreet man, he

A TORGOUT KALMUK.

gave the Kalmuks a wide berth, and journeyed on by way of the Obi.

In the fifteenth century some of the Mongol tribes formed a union, known as the *Durben Oirat*, or "four allies"; of which, at the beginning of the seventeenth century, some of the petty chiefs endeavoured to make themselves independent, and came to the Russians for help.

Batur-kun-taitsi, son of Khara-kul, one of the sovereigns of the Oirat, thus entered into relations with the invaders in 1649, and was succeeded, first by his son

Galdan, and in 1697 by his grandson, Tsevan Rabdan, the latter of whom was recognized by both China and Russia. He subdued many petty princes from the Altai to the Balkhash, and exacted tribute from Eastern Turkistan, as well as Samarkand, Bokhara, and even Balkh. He married the daughter of Ayuka, Khan of the Torgouts, a branch of the Oirats living along the Irtish, but fell out with him, and compelled the Torgouts to move westwards to the lower regions of the Volga, where they were known as Kalmuks. and whence they returned, on the invitation of the Chinese, in 1771. Tsevan Rabdan also conquered another branch of the Oirat in Tangut, attacked Tibet, and even opposed the Lama.* He was likewise successful in a war with China, and left his son, Galdan Tsyran, to pursue, from 1727 to 1745, a similar career of war and bloodshed. The power of Galdan's sons was overthrown by two tribal leaders, named Davatsi and Amursana, whose quarrel with each other led to Amursana being beaten and driven to Pekin, whence with Chinese help he returned, and overthrew his opponent to become ruler of Sungaria, in 1755.

Such were the Kalmuks, whose incursions against the Russians began about the time of the fall of Kuchum Khan, whose people they assisted. The Kalmuks claimed that the Turkish tribes about Tara had been their subjects from time immemorial, from whom accordingly they had the right to collect tribute. When they appeared to assert this claim in 1606, the Russians beat them, but failed to drive them entirely away; after which the Kalmuks laid claim to the salt mines in the neighbourhood of Tara. Finding, how-

* On these transactions in detail see Howorth's "History of the Mongols," i., pp. 614—646.

ever, their policy to be unwise, they feigned submission to the Russians, till having been worsted in a contest with Altan Khan of the Mongols, several of them in 1621 came wandering along the banks of the Irtish and Obi, and in 1634 ravaged the neighbourhood of Tara, and besieged the town. They were again repulsed; and in 1638 they promised not to molest the Russians further.

These transactions and struggles on the frontier were no doubt carried on by small detached tribes, largely on their own account; but, meanwhile, the Russians had determined to penetrate into the enemy's country. For the defence of the Barabinski Tatars, who had become subjects of the Tsar, from the hostile irruptions of the Kalmuks, as well as the plunderings of the Kirghese, the Russian Government determined at the beginning of the seventeenth century to occupy the Upper Irtish, and to build along it a line of forts, added to which a less justifiable motive urged the invaders towards Central Asia; for, in 1713, Prince Gagarin, Governor of Siberia, reported to the Great Peter, who had now ascended the throne, the possibility not only of constructing a line of forts along the Irtish, but of continuing it through Sungaria as far as Yarkand, where gold was said to abound.

This excited both the cupidity and the aggressive spirit of Peter the Great, who, in 1714, directed Colonel Bukholts to take a detachment of 1,500 men to Yamyshef lake, there to build a fortress and occupy it until the spring, and thence to proceed—building redoubts for depôts and communications as he went—to the Irket, whence was supposed to be brought the gold. Bukholts built a fortress at Lake Yamyshef, in 1715, from which, however, he was

driven with great loss by the Kalmuks, so that he had to retire towards Tobolsk, but halted on his way at the mouth of the River Om, and there in the following spring built the fortress of Omsk. In 1718 the first fortress was built at Semipolatinsk, and in the following year two officers—Urasof and Somof—having received the Emperor's orders to proceed on an expedition to Yarkand, surveyed the shores of Lake Zaisan, and the banks of the Upper and Lower Irtish. In the same year Prince Gagarin was ordered by an ukase to survey the Kalmuk lands, to ascertain the number of troops, and to induce the local chiefs to take the oath of allegiance.

With a view to this, and to build a fort on Lake Zaisan, General Likhareff was despatched in 1720 up the Irtish, with 34 flat-bottomed boats and 440 soldiers. He reached Nor Zaisan, and was ascending for 12 days the Upper Irtish, beyond the parts visited by Urasof and Somof, when he met with Galdan Cheren, son of Tsevan-Rabdan, who, with 20,000 Kalmuks, was watching his frontier against the Chinese. Likhareff, after a skirmish, managed to hoodwink the Kalmuks as to his intentions, and then turned back, building on his way Ust-Kamenogorsk, in 1720; after which the Tsar, disappointed again of his gold-dust, sent orders next year, according to Zemlianitsyn,* that the Yamyshef fortress was to be strengthened, that they were "to make peace with the head of the Kalmuks, and take a company of merchants to him, to the Chinese towns Selim and Daba, and to the dwelling of the Dalai-Lama; further, that these merchants were not to labour for gain, but that

* "Historical Sketch of Semipolatinsk and its Trade," by J. Zemlianitsyn, *Turkistan Annual*, 1876, to which I am greatly indebted in the compilation of this chapter.

skilled persons were to accompany them to purchase, or even to examine the gold, where it was found, and in what quantity, also the roads leading thereto, and finally, even though it should be with difficulty, to seize that place." Peter the Great died before his gold robbery could be carried out, but in this way was commenced the line of forts on the Irtish. In 1722 another small wooden fortified building, called Kaïnsk, was erected on the Barabinski Steppe; and 15 years later a line of forts was extended, under the name of the New Siberian or Ishim line, westwards all across the Steppe to the advanced posts of Orenburg, which line was connected with the Irtish in 1752.

Semipolatinsk was no sooner founded than there flocked to it, as to Yamyshef, Kalmuks, Bukhariots, and other Asiatics, for the purposes of trade, which so increased that in 1733 commissioners were appointed for the Semipolatinsk Customs. In the previous year the Russian Government had sent an ambassador to Galdan Cheren, the ruler of Sungaria, then living on the Ili, with proposals respecting the abolition of Customs between the two nations, whereupon Galdan Cheren sent an embassy to the Russian capital, which returned through Tobolsk in 1736, with presents, besides goods purchased in Moscow, to the value of £1,300. Ten years later another Sungarian embassy went to Moscow, whereupon the Imperial Government repeated its desire for continuance of trade, and ordered the Siberian frontier authorities to maintain friendly relations with the Kalmuks, and not to give them any offence; but when the ambassadors returned, it was explained to them at Tobolsk that Sungarian subjects could come only for trading purposes to the forts of Yamyshef and Semipolatinsk.

Thus it will be seen that, at the time of the gradual occupation of the Irtish by the Russians, they had to contend with an enemy of some importance. At that time the Khan of Sungaria ruled over Tashkend, Turkistan, and Sairam, all of which he had taken from the Khans of the Kirghese Kazaks, and he had carried on war so successfully with the Chinese as to drive them to the Russians for succour.

The end of the Kalmuks, however, was near. I have already mentioned that Amursana, with the help of the Chinese, became ruler of Sungaria in 1755, in which position he expected to reign independently, whereas he found that he was merely to hold an honorary rank under the Chinese, who proceeded to divide the Oirat territory into four provinces, to be placed under Chinese administration. Upon this Amursana incited his subjects to rebel, and the Chinese, bent on getting rid of the troublesome Kalmuks, determined to slaughter them wholesale. The massacre was so indiscriminately pursued that, of a population in 1756 of 600,000 souls, scarce one Sungarian remained, those few not killed having fled to the Russians or the Kirghese.

Thus perished the Sungarian kingdom, of which now almost the only memorials in the country are tumuli or circular mounds, from 10 to 100 feet in diameter, that are found in numbers between Sergiopol and Kopal. They are surrounded by rows of stones, and in some cases have on them rudely-carved figures of recumbent warriors. The figures represent men with thick mustaches, but without beards, holding in the right hand a cup, and grasping with their left a double-handled sword stuck into the belt, whilst at the back of the head are a number of small plaits of

hair, quite unlike the long tresses worn by the Mongols of the present day.

We come now to the third of the peoples with whom the Russians were brought in contact in annexing the Irtish. At the time just mentioned, when the Chinese were committing everything in Sungaria to fire and the sword, the Russians deemed it prudent to place their frontier in a defensive condition; especially as it was observed that, if the Chinese junks sailed out of Lake Zaisan with hostile intentions, their progress could not be checked by the forts along the Irtish, nor was there adequate protection either for the Altai mines, or for the Teleuts who nomadized in the vicinity of the Teletsk lake. It was decided, therefore, to extend the line along the Irtish from Ust-Kamenogorsk to the River Bukhtarma, to which it was thought the Chinese could not object, if the Russians did not establish themselves on the Zaisan. The Bukhtarminsk fort accordingly was erected in 1760, and in 1764 an expedition was despatched for the survey of the Zaisan, the officers returning with the conviction that a Chinese flotilla was not dangerous to Russia from that quarter. Nor did the Chinese offer hostilities, though they appear to have kept an eye on the Russian proceedings. Many years afterwards, in 1822, the Cossack fisheries were extended to the Zaisan, and subsequently established to the exclusion of all others.

It was thought by the Siberian authorities that the forts of Bukhtarminsk and Ust-Kamenogorsk would answer as good central points for trade with China, India, and Tatary, and certain immunities were granted to merchants on goods passing through Bukhtarminsk, but the result was not satisfactory. Nor

was Ust-Kamenogorsk, opened as a trading place in 1765, destined to be a flourishing place of commerce, although the Chinese in 1804 professed a wish to come there with goods for barter with the Russians. It may very well be, however, that the crafty Celestials merely hid under this declaration their desire to watch the Russians, who were consolidating their authority on the Kirghese Steppe; for here, as also at Bukhtarminsk, where trade was ordered to be carried on in 1797, and a custom-house established six years later, these would-be merchants were constantly coming to every house offering brick tea and copper pipes, not apparently with the desire to find customers so much as to observe whether there was any collection of Russian troops or military preparations.

At Semipolatinsk, however, a considerable trade sprung up, Chinese soldiers coming there as early as 1757 to sell silver and Sungarian captives; but the war of the Chinese with Sungaria caused a great falling off of commerce, an end being thereby put to the caravan trade across the frontier, so that the custom-house staff had to be reduced. In 1776 the commercial exchange of Semipolatinsk was moved to a new site, which was regarded as advantageous from both a strategic and commercial point of view, since it attracted the Asiatics to bring their goods, and also to purchase Russian wares for sale in Western China, thereby competing with the trading establishments the Chinese had built near the present Urjarsk station and at Chuguchak. Entrance to these places was prohibited to the Russians, who could trade there only under the disguise of Asiatics. This barrier had to be removed, and in 1811, when Chinese merchants began trading at Bukhtarminsk, General Glasenap despatched from

thence his interpreter, Putimsof, to Kuldja, with the result that Russian caravans were allowed to proceed both there and to Chuguchak. This seems so to have diverted the stream of commerce that in 1839 the custom-house at Bukhtarminsk was transferred to Omsk.

Meanwhile the Russian export trade with China increased, but with one serious drawback. All commerce at first was carried on by barter, but the subsequent appearance on the bazaars of gold, first in coin and then in dust and bars, had an injurious effect on the exchange of Russian goods. Such was the commercial condition when the Minister for Foreign Affairs at Petersburg proposed to establish Russian factories within the Chinese territory. In August, 1851, a treaty between the two Governments was concluded, and the presence of Russian consuls at the factories put a stop to the open trade in gold, but its contraband sale could not be prevented; and from this cause the Russian trade was still suffering in 1856, at which date the exports amounted in value to £75,000, and the imports to £67,000, when the commerce ceased altogether, owing to the destruction by fire of the factory and all the goods it contained. The consulates were re-established two years afterwards, but in 1861, according to M. Abramof, the trade still languished. In 1871 the Ili province passed temporarily into the hands of the Russians, but as it was to revert to the Chinese in 1883 the newly-appointed Russian consul, whom I met in passing through Omsk, was on the eve of taking his departure to Chuguchak, and I subsequently stayed in the house of the Russian consul at Kuldja. Thus I have brought down to the present day the transactions of

the Russians with the third of the peoples they encountered on the Irtish.

Let me not omit to mention, however, that whilst the Russian Cossacks and merchants were pushing further southwards, the Government was planting institutions and strengthening its administration in the rear. In 1744 a road was constructed from Tobolsk, the capital, to Tara, and 10 years later posting was established from Moscow to Tobolsk. Tara does not seem ever to have become a place of great prominence, but Omsk and Semipolatinsk forts both grew in importance, the latter being made a "town" without a district in 1764, and in 1782 an *uyezd* town. In 1804 Omsk and Kaïnsk were exalted to the same municipal rank, and at the former, five years later, was formed an infantry regiment. This necessitated, in 1813, the establishment in Omsk of a Cossack school, that was subsequently united to and afterwards incorporated with an Asiatic school that had been set on foot there more than 30 years before. Further changes were made, however, in 1846, when the school was adopted for the Siberian cadet corps, and from it, in the following year, the teaching of Asiatic languages was transferred to the town school for soldiers' children. The whole of Siberia having been placed under two Governors-General in 1822, the district about Omsk was formed into an *oblast*, or province, of that name, and a Cossack cloth factory established in the capital for the employment of exiles. The new oblast, however, did not at first flourish very well, for in 1823 the capital was destroyed by fire, and in the following year, through lack of funds from its own resources, the neighbouring provinces of Tobolsk and Tomsk had to expend in the oblast upwards of

£12,000. This poverty seems to have lingered awhile, for in 1826 the Cossacks were allowed to engage in trade. In the following year an institution for granting public assistance was opened in Omsk, to which town, also, in 1838, were removed from Tobolsk the residence of the Governor-General, and the whole staff of the chief administration of Western Siberia. The oblast was then suppressed, and instead of it there was constituted a "frontier administration"; Omsk, Petropavlovsk, and the Cossack villages of the Ishim line being added to the Tobolsk province; and Semipolatinsk and Ust-Kamenogorsk, with the Cossack villages on the Irtish, being added to the Tomsk province.

There was yet another people, the Kirghese, with whom the Russians were brought in contact during their occupation of the Irtish, but of these I can better treat in connection with the Russian occupation of Semirechia.

CHAPTER X.

FROM SEMIPOLATINSK TO SERGIOPOL.

"Semipolatinsk": its etymology, situation, and meteorology.—Call on Governor.—Visits to prison and asylum.—Schools.—Post Office statistics.—Trade.—Our start delayed.—Departure, roads, and posting service.—Sunday at Sergiopol.—Distribution of books from the capital and onwards.—Antiquities and remarkable skulls.—Mineral deposits.—A previous English traveller.—Lake Ala-Kul: its aspect, ornithology, lizards, and fish.—The Central Asian "Kulan."

THE town of Semipolatinsk (pronounced Semipalatinsk), at which I arrived on the 24th August, derives its name from "Sempalati"—seven palaces or buildings, the ruins of which were seen in 1734 by Gmelin, who called the place "Sempalatnaya-Krepost," or fortress. These buildings had served as temples for the Kalmuks, and one of them still contained two idols of bears, and on the walls of another were partially discerned representations of men, whilst not far distant in the valley of Ablaïkit were found the ruins of another temple of Buddhist origin. The present Russian town stands on the lofty right bank of the Irtish, 11 miles from the original site, now called "Old Semipolatinsk," my last post-station, and whence one or more migrations had been found necessary by reason of the eating away of the river's bank, and the encroachments of the sand-dunes. It has a public garden with 14 fountains. On

the left bank stands the rare spectacle of a Kirghese town, where these settled children of the desert dwell in houses of wood, with curtained windows. Surrounded by a desert of sand, Semipolatinsk has all the disadvantages of a continental climate, with few corresponding advantages. The Russians established here a meteorological station, where, as in other stations in Central Asia, observations were recorded thrice daily—at seven, one, and nine.*

It was not my intention to stay longer in Semipolatinsk than was necessary, and I accordingly sallied forth betimes in the morning on the typical Russian droshky to pay my respects to the Governor, General Protzenko. His Excellency had already heard of me, and was prepared to help me in every way possible, regretting only that his household was all but broken up, because he was on the point of departure to a distant portion of his province. He gave me permission to visit the prison, where we found an Afghan prisoner;

* From observations taken from October, 1854, to January, 1860, the average yearly temperature was found to be $+24^{\circ}\cdot77$, the average of winter being $-7^{\circ}\cdot56$; spring, $+34^{\circ}\cdot11$; summer, $+24^{\circ}\cdot84$; and autumn, $+37^{\circ}\cdot08$. From the published statistics for 1877, it appears that the greatest heat in Semipolatinsk was $+99^{\circ}\cdot32$, and the greatest cold $-57^{\circ}\cdot82$, the mean temperature for the year being $+35^{\circ}\cdot24$, or $14^{\circ}\cdot7$ less than at Greenwich. The rainfall for the Arctic Ocean river systems generally is computed to average 7·87 inches annually, but the rainfall on the Irtish at Semipolatinsk was only 5·58 inches as compared with 27·28 inches in 1877 at Greenwich. The number of days for the whole year 1877 with rain was 89; with snow, 48; hail, 1; thunderstorms, 13; whilst some indication of the aspect of the sky may be gathered from the registration of 76 days clear, 91 overcast, and 16 stormy. The prevailing quarter whence the wind came was east, for which there were recorded 141 observations, and 116 from the south. Least wind came from the north-east and north-west, each furnishing 32 registrations, whilst 467 observations were recorded as calm, or without wind. The barometer rose in December, 1877, as high as 30·89 inches, and fell to the minimum of the year in July to 28·69, the mean for the year being 29·49, or 0·24 less than at Greenwich.

then we made our way to a small "*prioot*" or asylum. It contained only 11 children and 3 old men and women, who were maintained by a ladies' society for the care of the poor. During the preceding year 3 girls and 4 old people had left the institution, to be received by their relations or by tradespeople as apprentices. It was interesting to find this little almshouse so far away in the heart of Asia, and it spoke well for the prosperity of the capital, that, although the funds for maintaining it were so ample, yet there were so few needing such a refuge.*

The children of the asylum were taught in the various schools of the town, of which there are 4 for the Russians (one each for upper- and lower-class boys and girls, and one parish and one smaller school), one for 15 Jewish boys, and 8 Tatar schools for 549 male scholars, presenting for the capital a total of 13 schools, attended by 904 scholars, of whom only 116 were girls.†

After our visit to the asylum we called on Mr. Michaelis, who was learned in statistics respecting the province, and then upon a gentleman given to scientific pursuits, after which we made our way to the post and telegraphic office, to find awaiting me the valuable telegram (already alluded to) from General Kolpakovsky.

* The receipts for 1881 were £251, of which £152 was a balance from 1880; £20 was given by the Town Council; £28 subscribed by members, and £50 was from other sources. Besides money donations, the society received materials for clothing, etc. The maintenance of the asylum cost only £57, and £23 were distributed to the people, leaving a balance to carry forward to 1882 of £169.

† Taking the places of education throughout the province, it appeared that in 1881 there were 83 schools (including one technical school, and others for Kirghese, Tatars, and Jews), in which were taught 2,127 boys and 293 girls, being 99 of either sex less than in the preceding year; this decrease, however, being traceable to the lack of data concerning Tatar girls. The number of Russian pupils increased.

The last opportunity we should have for awhile for purchasing post cards and stamps was in this head office of the province. Some idea of the postal affairs may be formed from the fact that in its 13 post-offices and stations for the reception of correspondence £1,504 were expended for maintenance and administrative expenses, and £3,771 received.*

The buildings of Semipolatinsk did not strike me as remarkable. There were, however, many large warehouses, a reminder of the fact that the town was long celebrated for its commercial relations with Central Asia. The Russian and Tatar merchants of Semipolatinsk sell in the bazaars tea, sugar, and other groceries, cotton stuffs, Chinese silks, porcelain, furs, wax, and honey. The principal trade is carried on in winter, when the Cossacks and peasants come in from the neighbouring districts, bringing skins, ropes, and other produce. The Kirghese also—some on horseback, and others in camel-carts—bring cattle and camels'-hair, which they dispose of to purchase grain, flour, tobacco, iron ware, and wooden boxes.

After this flourish of trumpets respecting the trade of the capital, it will sound somewhat strange that our departure was delayed by reason of our being unable to purchase throughout the town a sufficiency of white bread. Foreseeing that we should have to travel many miles before we could reckon on the possibility of replenishing our stores, we purchased sundry provisions, leaving the article of bread to the last, so that

* The total number of letters, etc., posted in all the postal establishments of the province during the year 1881 amounted to 254,278, viz.:—

Ordinary letters . .	50,958	Newspapers . . .	89,023
State packets . . .	66,508	Money and packets of value	20,829
Registered letters . .	13,373	Valuable parcels . .	5,436
In wrappers	3,132	Ordinary parcels . .	5,019

it might be new; but we could find only one baker of white bread, a German, who inveighed against the badness of the local flour, and said that he should leave the place. He could promise no supplies till next morning, and thus we were prevented starting on Thursday night. The incident tended, however, to evoke a well-known trait of Russian character. The Governor-General's telegram commended me not only

A KIRGHESE CAMEL-CART.

to the good offices in general, but also to the "hospitality" of the authorities, and this proved to be no empty form, for when in the evening, after a call from Mr. Michaelis, General Protzenko did me the honour of a visit, and I mentioned that we were delayed for lack of bread, his Excellency expressed his regret that his own *cuisine* was already packed and started, and asked Colonel Ilyinsky, chief of the staff, to come to the rescue. We had already tried to purchase from

one or two private persons, but they had only sufficient bread for the day. Early next morning, however, good things were showered upon us in abundance. Not only did the baker bring his tale of loaves, but Mr. Michaelis added to their number, and Colonel Ilyinski himself brought us bread, butter, cakes, and jam, and wished us *bon voyage!*

At half-past nine, therefore, with a full commissariat, we started for Sergiopol, a distance of 180 miles, comprising 11 stations and 10 changes of horses, being accompanied by a subordinate sent by the police-master to see us safely over the Irtish.*

I had heard dismal complaints of the road south of Semipolatinsk, owing to the paucity of horses. Even in the official report for 1881 it appeared that 136 complaints had been lodged at the stations by passengers, and it was said that General Kolpakovsky himself had found the posting accommodation in the southern Steppe not to his liking. This, no doubt, was partly owing to the increased traffic consequent upon the breaking down of the postal service from Orenburg to Tashkend, which caused the post to be brought all round by the Irtish, and necessitated an increase in the number of horses.†

* The stations between Semipolatinsk, Sergiopol, and Kopal, with the distances between in versts, are as follows:—

Semipolatinsk		Kazyl-Mulinsk	26	Altyn-Kalat	23
Uluguzsk	25	Arkadskiy	27	Sergiopol	26
Arkalyksk	22	Alchan-adyrsk	24		
Ashchikulsk	27	Uzun-Bulak	24		272
Djertatsk	21	Enrekeiskiy	27		

† In the province of Semipolatinsk the 1,327 miles of post-roads (of which 601 miles were highways to the Akmolinsk, Semirechia, and Tomsk provinces, the remainder being communications with the interior) were served from 85 stations and pickets, at which were maintained 174 pairs of post and 10 pairs of farm horses, a "pair" being used, I suppose, in the Russian postal sense of a troika or *three* animals. For

It was to me, however, a source of great comfort, that I was now kindly supplied with a Crown podorojna, so that I might fairly reckon upon doing as well as could be expected under the circumstances. During the first 24 hours we covered 127 miles. The road to Sergiopol lay almost due south from Semipolatinsk, and for the first two stations presented a bare landscape, relieved only here and there by a few *auls* or collections of tents, and cattle of the Kirghese. Arkalyksk stood in the middle of a desert, at an altitude of 950 feet, whence we passed on over vast plains without a sign of life, and across a low range of hills, rising to 1,280 feet.

We descended to 1,000 feet at Ashchikulsk, and rose to 1,300 at Djertatsk, which we reached in the evening, and then posted on through the night past Kazyl-Mulinsk, 1,450 feet high, and then gradually mounted to 1,700 feet at Arkadskiy (or Arcat). In the very early dawn we passed the seventh station, and breakfasted at the eighth, after which the road was so intolerably dusty that we sometimes could not see the horses' heads. In the afternoon we approached Altyn-Kalat, the frontier station between the provinces of Semipolatinsk and Semirechia. Count Waldburg-Zeil computed its height to be 2,133 feet, so that since leaving Semipolatinsk, 750 feet, we had ascended 1,400 feet, and had reached the watershed of the Chingiz-Tau, the western spur of the Tarbagatai, which together send the rivers flowing north into the Zaisan and Irtish, and those flowing south into Lakes

these the Treasury paid during the year £12,584. Further, in consequence of the increased postal service with Turkistan, 34 stations were augmented by 8 pairs for the first 3 months, and for the remainder of the year by 4 pairs; that is, from 272 to 136 pairs, for which were paid £8,639.

Balkhash and Ala-Kul. One of these latter, however, the Ayaguz, has small pretensions in summer to a river, for Sevier going to bathe therein found the water only ankle-deep.

On reaching Sergiopol, on the banks of the Ayaguz and surrounded by sands, we found that the good offices of the Governor-General had preceded us in the form of a telegram that horses should be in readiness. It was Saturday night, however, and I had determined to spend the Sunday there, expecting a larger town than it afterwards proved to be, and intending to visit the hospital and prison. Having, therefore, called upon the chief military authority overnight, we slept at the post-house, and went after breakfast to see the military hospital, prison, and barracks. In this last establishment I was pleased to find a modest library of what seemed to me rather antiquated Russian books, probably the remains of former days, when Sergiopol had greater military significance than now.

I was glad to add thereto some copies of the Scriptures and other publications, some of which I also distributed in the hospital and prison. News of this spread, and I was speedily visited first by the Russian priest, who came to buy a Kirghese New Testament to present to the mullah, and then by a Cossack school-mistress, in pretty Russian costume, and wearing the national head-dress known as the *kokoshnik*, with which I fell in love; so, when the young lady's purchases were completed, I ventured to ask her to sell it to me for a curiosity. She gracefully declined my request, but offered it as a gift. Accordingly, I made up its value in printed matter, which here I found highly prized, as everywhere else along my route.

At Semipolatinsk I could not learn that the Governor

had received any of the books I sent in 1879 to the Governor-General Kaznakoff for the prisons and hospitals of the Semipolatinsk government. General Protzenko, however, was willing to accept a New Testament for each room of every prison and hospital throughout his province, estimating the net number at about 210 rooms in all, after making allowance for the number of Kirghese prisoners and patients who could not read Russ. With the Moslems the Governor did not like to attempt much, but consented to accept 10 copies of the Kirghese New Testament, to be used as opportunity might serve. Accordingly I sent with these 100 New Testaments, 65 Gospels, and 50 Psalms in Russ, some German, Hebrew, and Polish Scriptures, and about 400 tracts, etc. This done, I repacked some of my boxes, so as to have as few as possible on my second conveyance. At the stations as we came along I continued my plan of nailing up in the post-houses the engraving of the "Prodigal Son," and offering my books for sale. Blessings indeed they must have been, I should think, in these solitary houses in the wilderness, and the post-masters seemed so to regard them. At the last station before Semipolatinsk an old man said, "The Lord must have sent these books for us," and his delight was great at getting them. Between Semipolatinsk and Sergiopol almost every post-master purchased books, and some bought at a stroke all the selection I offered, as at Uluguzk and Uzun-Bulak. Even this did not satisfy my customer at Altyn-Kalat, for he wanted another rouble's worth.

The Russians took up their position at Sergiopol, previously called Ayaguz, and subsequently named after Sergius, a younger son of the Emperor, in 1831' since which date, their frontier having advanced south-

wards, the place has greatly declined in importance. The inhabitants number 1,000. The town is situated within sight of, but at some distance from, the post-station, near which is the fortress containing the church, the house of the *nachalnik*, or chief, and the barracks. About 16 miles from the town, in the Saïkemir defile, beside the River Badpak, Mr. Ujfalvy states there have been found cut in the rock rude representations, resembling those found by Pallas and Spasky in Siberia, of wolves, stags, camels, dogs, snakes, etc.*

There should also be mentioned, as existing within 120 miles of Sergiopol, several mineral deposits, such as silver and lead, to the south-east near Chuguchak; graphite within 20 miles of the town; oil in four places to the south, and copper on the southern slopes of the Tarbagatai, in the neighbourhood of Abket, where lie three beds belonging to Mr. Permikine, who formerly worked them.†

During my short stay at Sergiopol I heard of a fellow-countryman, Mr. Delmar Morgan, who has laid the

* The same author, one of whose principal functions was the measuring of human heads and skulls, to the unconcern of course of the dead, but to the utter amazement, and sometimes terror, of the living, natives, states that the crania found in this region—that is, to the south-east of the province of Semipolatinsk—present anthropological features exceedingly remarkable, the protuberances above the eyebrows being very marked, the separation between the nose and the glabella (or space between the eyebrows) being unusually deep, and the internal commissures, or angles of the eyes, being very close together. It is impossible, he says, that these can be Mongolian skulls, and adds that some others found in the neighbourhood of Lake Issik-Kul present analogous features.

† According to Mr. Tatarinoff the lodes are nearly two feet thick, and are formed almost exclusively of the following kinds of copper ore: oxidulated earthy copper, cuprite, azurite, and even native copper. The lodes traverse argillaceous schists. From the mines of Gratchevo and Gregory was obtained "mineral" producing from 20 to 30 per cent. of copper.

English public under obligations by his many translations from the Russian. He had preceded me in 1880 to Sergiopol, where, arriving early in April, he was detained for three weeks by the impassable state of the roads. Not till the 6th of that month did the waterfowl begin to arrive in the lagoons on the left bank of the Ayaguz, and opposite the town the ice of the river did not move till the 14th. He was then preparing to start for the Russian frontier town of Bakhta, opposite Chuguchak, when he was hindered by a telegram summoning him to Vierny. The distance to Bakhta is 174 miles, with six picket stations to Urdjarsk, a small village, and afterwards four other stations, with a post-road all the way, and not turning into a caravan track at Urdjarsk, as represented in General Walker's map. This last-mentioned station, on the Urdjar river, is probably the best starting-point for Lake Ala-Kul, the third largest lake in Central Asia.

The Ala-Kul, or variegated lake, is thought to have been joined at one time to the Balkhash, but is now an entirely distinct basin without effluent, and receives the drainage of the circumjacent Barlik, Ala-Tau, and Tarbagatai mountains.*

Dr. Finsch has given the best account I have met

* It consists properly of three lakes. The large eastern part contains bitter salt water; the western, called Sassyk-Kul, fresh water; whilst the central part of the basin is called Uyali. On the Chinese maps the whole lake bears the name Alak-tugul-nor (Lake of the Variegated Ox). The normal altitude of Ala-Kul is 1,200 feet, but according to Kirghese traditions the water of the lake rises at times, and then subsides. Not many years ago it was possible for caravans to pass along the isthmus of Uzunai and Naryn-Uziak, but now both these strips of land dividing the lakes are covered in the middle with water. The lake is supplied by at least four considerable rivers, their mouths being transformed into a series of small reed-grown lakes. In spring the water submerges the reeds; these rot in summer and emit a putrid smell, whence the name "Sassyk," or stinking, given to the western lake.

with of the fauna on the shores of this lake, and of the district through which he passed. Along the post-road in autumn I saw but few birds or living creatures of any kind, but his more practised eye discerned the Red-footed and two other Falcons, Great Buzzards, and Harriers. Wheat-ears (*Saxicola Oenanthe*) were to be seen everywhere on the stone-covered hill-tops, whilst in the thickets of *Spiræa* the Bluethroats (*Cyanecula Suecica*) were building their nests. The cry of the Quail was heard on every side, as well as the note of the Cuckoo, whilst high in the air fluttered the Chimney Swallows (*Hirundo Rustica*), the Skylark (*Alauda Arvensis*), Pallas's Short-toed Lark (*A. Pispoletta*), the Eastern Shore Lark (*Otocorys Brandti*), and, most common, though most remarkable of all, the Black Lark (*A. Yeltoniensis*), whose uniform velvet black plumage, pale yellow beak, and large size make it both remarkable and interesting. It loves to sit on stones by the roadside, or perch on the bushes, with drooping wings and tail erect, singing there, as well as in the air, its melodious song. When in flight it appears even more remarkable than when sitting, for in this respect it differs from other larks. Clapping together the points of its wings, and whipping about, now regularly and then in an irregular manner, its flight may be likened to that of a bat. To these may be added in the Tarbagatai, the Demoiselle Crane (*Grus Virgo*), the Masked Wagtail (*Motacilla Personata*), and the Black Stork (*Ciconia Nigra*).

From a bare knoll on the banks of the lake near Ak-tube, nothing can be seen in the direction of the great Ala-Kul but forests of reeds, which shelter abundance of Bird-life.*

* In the shallow ponds and pools are wading Avocets (*Recurvirostra*

Some of the species of the fish taken by Dr. Finsch in the Ala-Kul were new to him. That of the commonest occurrence was a species of Perch (*Perca Schrenkii*, Kessl.), which grows to the length of a foot or more; then the *Schizothorax Orientalis*, Kessl., called "Marinka" by the Cossacks, a species belonging to the group of Barbels; and, further, two species of *Diplophysa* belonging to the Loaches, the last named Pæstrak (*D. Labiata*, Kessl., and *D. Strauchi*, Kessl.). The Perch were greedily eaten by the Cossacks and Kirghese, but the *Marinka*, supposed to be poisonous, were thrown aside. Dr. Finsch, however, boiled a fine specimen, two feet long, and ate of it (the roe excepted) with enjoyment, and without ill-effects. In fact, the meat of this species is generally used as food

Avocetta), Stilt Plovers (*Himantopus Candidus*), Redshanks (*Totanus Calidris*), Cranes (*Grus Communis*), and Lapwings (*Vanellus Vulgaris*). Coots (*Fulica Atra*) may also be observed, and numberless flocks of Ducks and Gulls. Amongst the latter, besides the Black-headed Gull (*Larus Ridibundus*) appears its gigantic relative, the Great Black-headed Gull (*L. Ichthyaëtus*), whilst of Ducks, besides the common Wild Duck, the Teal, the Pintail, and the Gadwall (*Anas Boscas, Crecca, Acuta, et Strepera*) are met with the Ruddy and Common Sheldrake (*A. Rutila et Tadorna*), as well as the beautiful Red-crested Pochard (*A. Rufina*). Cormorants flit by occasionally in small flocks, as well as Egrets (*Ardea Egretta*) and Swans; and round the traveller's tent, with their usual boldness, show themselves Brahminy Kites (*Milvus Govinda*), and a Crow, which cannot be easily approached, but whose wings in the sunlight shimmer of a peculiar brown. Amongst the smaller birds are the Black-headed, Grey-headed, Common White (*Motacilla Alba*), and even the Grey Wagtail (*M. Boarula*). Amongst the reeds is heard the note of the Grasshopper Warbler (*Calamoherpe Locustella*) and the Stone-Chat (*Pratincola Rubicola*). Notwithstanding that the district is treeless, the Turtle Dove (*Turtur Meena*) is found there, and also, strange to say, the Red-throated Thrush (*Turdus Ruficollis*). To these must be added that beautiful appearance, the Rosy Starling (*Pastor Roseus*), and numerous Ortolans (*Emberiza Hortulana*), whilst numerous colonies of Sand Martins (*Cotile Riparia*) build in the banks of the lake.

Close at hand may be found, too, numerous Lizards. Besides the

in Central Asia, and sells in Kopal for a halfpenny per pound. The Kirghese, who carry out no regular fishing operations, say that there are no more than these four kinds of fish in the Ala-Kul. The presence therein of mollusks is testified to in the sand on the banks by bleached shells of fresh-water mollusks (*Limnæa Planorbis, Bithinia, et Valvata*), which, with a Land Snail (*Helix Semenoni*), has been attributed only to the Thian Shan.

Before taking leave of the fauna of the Ala-Kul district, mention must be made among Mammalia of Arctic Hares (*Lepus Variabilis*), the Kara-biruk Antilope (*Antilope subgutturosa*), the Ibex (*Capra Sibirica*), the Water Shrew (*Crossopus Fodiens*), the Prickly Hog, and the Wild Ass. This last is found in several parts of the Central Asian steppes; "*Kulan*" is the name by which the animal is known to the Kirghese. The Mongols call it "*Dschggetai.*" It is probably the same species described by Pallas as *Equus Hemionus* (with shorter ears, and consequently more horse-like appear-

Lacerta Agilis, met with in beautiful varieties of colouring, may be remarked two other species. One species is of a light brown colour with dark spots (*Eremias Variabilis*, Pall.), the other (*Phrynocephalus Helioscopus*, Pall.) is smaller, with very flatly-pressed hind quarters, and short round head, which, with a generally brownish colour, is distinguished by beautiful light sky blue and rose coloured spots, the latter colour extending to the lower side of the tail. These little reptiles, which Dr. Finsch thinks may fairly be regarded as the representative Lizards of the Southern Steppe region, as well as parts of Mongolia and China, have their abodes in holes apparently scratched out or enlarged by themselves, above which are found little heaps of earth like mole-hills. The passages are said to be frequently six or eight feet long, and invariably terminate in a small chamber scarcely two inches high, filled with dry grass. They feed chiefly upon Beetles, among which *Dorcadias* (*Abamukovi, Thoms. politum*, Dolm.) are most frequent, and around their subterraneous dwellings are found small woolly balls enclosing the elytra and other rejected fragments of beetles' wings, coverings, and legs.

ance), which is distinguished from the species from Persia called Kulan (*Equus Onager*) by the absence of the black cross-stripe on the shoulders. The "*Kiang*" (*Equus Kiang*) from Upper Tibet would appear to be nearly related, although larger. The Kulan is said to be untamable, but Dr. Finsch had the opportunity at Omsk of describing and sketching two specimens that had been received from the Bekpak-Dala Steppe when quite young, and had then been suckled by a young mare. Both the wild animals became so accustomed to this new phase of existence, that they grazed with her and other horses, and although the one was two years old and the other as much as three years, they still had recourse to the paps of their foster mother.*

Having thus described the Ala-Kul district and its fauna, of which latter so little information is within reach of English students, and having brought my readers to the frontiers of the Semirechia province at Sergiopol, I shall now proceed to describe generally this "land of seven streams"

* The prevailing colour of these animals was a pretty yellowish brown, but the nostrils, lower jaw, throat, belly, legs, and spots on front of the thighs were white. The ears were also internally white, with black-edged points, and these were better formed than those of the ass, but longer than those of a horse. The black, bushy, erect mane reached from the back part of the head to the withers, and on either side of it was a stripe of white running down the back and dwindling away at the tail, which terminates in a tuft of stiff hairs reaching to the point of the hough. In winter the animal bears a long and almost shaggy pelt, while its measurement may be taken as follows: From tip of nose to end of tail, 10 ft.; height of shoulder, 3 ft. 10 in.; of crupper, 3 ft. 11½ in.; length from nostril to point edge of ear, 1 ft. 8½ in.; of ear itself, 7¾ in.; from the tip of the nose to the back of head, 2 ft.; length of neck from back of head to top of shoulder, 21½ in.; of the back from middle of the shoulder to root of tail, 3 ft. 9½ in.; of the tail root, 15½ in.; of the entire tail, 2 ft. 7½ in.; the longest hair in the tuft, 16 in.; longest hair of mane, 5¾ in.; height of the hoof in front 2¾ in., and behind, 1½ in.

CHAPTER XI.

THE LAND OF SEVEN STREAMS.

Semirechia: its boundaries, dimensions, and orography.—Thian Shan mountains: their etymology, exploration, extent, form, ranges, and geology.—Height of snow-line, glaciers, and snow bridges.—Character of valleys and supposed volcanoes.—Rivers and lakes of Semirechia.—Lake Issik-Kul: its origin, dimensions, shores, antiquities, and bed.—Climate of Semirechia.—Forests and Mammals.

SEMIRECHINSK, or "seven streamed," is the euphonious adjective prefixed to the southernmost of the three provinces that now make up the General Government of the Steppe. Bounded on the north by the provinces of Akmolinsk and Semipolatinsk, and on the west by the Syr-daria government, the south and eastern frontiers of Semirechia are contiguous to Chinese Turkistan and Sungaria, the area of the whole being 134,410 square miles, or the size of Belgium added to the whole of the British possessions in Europe. Part of its western surface consists of tracts of shifting sands and salt plains, but in the east are rich mountain valleys with fertile black earth, and mountain gorges lying deep in forest recesses. Most remarkable, however, is the southern portion, the mountainous region of the Thian Shan, which, after the Himalayas, contains some of the most gigantic

mountains in the world. Contiguous to the mountain region is a narrow strip of clayey soil, that, when well watered, is unusually fertile. Beyond this, stretching out into the plains, is the limitless, almost fruitless, and sometimes sandy steppe.

The three principal basins of the province are those of lakes Balkhash, Ala-Kul, and Issik-Kul, formed by the following mountains, namely: in the north, the Tarbagatai, already alluded to; the northern or Sungarian Ala-Tau, between Lake Ala-Kul and the River Ili; and, south of that river, the Trans-Ili Ala-Tau, which is, in fact, only the northern ridge of the huge system known as the Thian Shan—this compound name signifying in Chinese the "Celestial Mountains," called by the Turks *Tengri-dagh*, and by the Huns, *Kilian*.

This mountain system, whether regard be had to its area or its length, the height of its crests, the abundance of its snows, or the massiveness of its glaciers, is the grandest on the northern slope of the Asiatic continent. It is not long ago that we had only the most confusing and obscure information regarding it. Mr. Semenoff, whom I mentioned as having seen in Petersburg, was the first traveller, not a Siberian, who explored the Thian Shan. This he accomplished in 1856, but since that date a number of Russian scientists, and a lady among them, have penetrated as far as the Pamir from the north, whilst English explorations, long ago commenced, have reached the same point from the south. Thus, thanks to the labours of *savants* of the two nations, this portion of the geography of Central Asia is now fast emerging from obscurity and conjecture.

Under the name Thian Shan we must understand

the vast mountain system that forms the watershed of the rivers Syr-daria and Chu, of lakes Balkhash, Ala-Kul, Ebi-Nor, and Ebi-gesun-Nor, on the one side, and, on the other, the Upper Amu, Lake Lob-Nor, and the River Tarim Gol. Its entire length is about 1,660 miles, and its highest peaks everywhere rise far above the snow-line. The average height of these dominant peaks varies from 16,000 to 18,000 feet, and some of them even exceed 21,000. The entire mass is estimated by Réclus as 25 times larger than the Swiss Alps, and as forming a protuberance upon the earth's surface considerably larger than all the mountains of Europe put together. Reckoning their average width at 250 miles only, the total superficies of this orographic system would cover 400,000 square miles, or as much country as the whole of France and the Iberian peninsula.

The Thian Shan range begins in Mongolia, somewhat to the east of the Chinese towns Barkul and Hami, in a simple ridge of rocks rising up from the bed of a dry sea, the Han-haï of the Chinese; but to this ridge, which advances west-south-west, is added a second, then a third, fourth, and more ridges united by intervening plateaus. The mountains continue to rise, enlarge their base, and finish by occupying from north to south a space of about eight degrees of latitude. The peculiarity of the range is that the system on the east extends at first almost along an even parallel, whilst as it advances westwards it opens out fan-like, and forms many groups. Between Barkul and Hami the intervals between the several ranges scarcely exceed 46 miles—that is, from the foot of one slope to the foot of the one opposite—but to pass north from Kashgar to the Ili valley, a distance of 250 miles only,

it is necessary to traverse no less than eight snowclad ridges.

Towards the middle of these mountains, the width of the plateau upon which the ranges rest diminishes, and the ridges become fewer in number. Its more extensive ramifications are noticeable at the western end, beginning at the sources of the Syr-daria; and the colossal Thian Shan, that already has lost its name at its western extremity, finally sinks, like a vast ruin, into the plains of Turkistan in the form of rocky spurs, surrounded by salt marshes and sands. Kostenko* gives a separate description to nearly 40 ranges† forming the Thian Shan, some of which will be alluded to hereafter.

* In his "Turkestanski Krai," of which I have largely availed myself in this description.

† They are as follows:—

Range Bogdo.
,, Katun-Daba.
,, Narat-Daba.
,, Kaitu-Tag.
,, Jungar Ala-Tau.
,, Boro-Khoro (Talki).
,, Uzun-Tau.
,, Muz-Tag.
,, Sariasi.
,, Kok-Shal.
,, Borkoldai.
At-Bash-Tau range.
Mountains to south of River Ak-Sai.
Narin-Tau range.
System of the Yaman-Tau ("Evil Hills").
Ak-Shiriak-Tau (western range).
Ak-Teke mountains.
Ferghana range.
Mountains to the north of the River Narin, the Terskei-Tau range.
Ak-Shiriak-Tau (eastern range).
Jitim-Tau range.
Son-Kul Plateau.
Mountains to the south of the Karakol river.
Mountains between the rivers Narin and Talas (the Susamir).
Trans-Ili Ala-Tau.
Range Alexandrof.
,, Urtak-Tau.
,, Kara-Tau.
,, Chatkal.
,, Alai and the roads crossing them.
Alai plateau.
Range Turkistan.
,, Shaikh-Jeli.
,, Zarafshan.
,, Hissar.
Pamir plateau and its system.
Tarbagatai range.

The rocks of this system are chiefly metamorphic and crystalline.*

In height the Thian Shan range, as already hinted, may be reckoned among the chief mountains of the globe, and the snow-line is generally at a great altitude. In the northern, or Sungarian Ala-Tau, it is about 10,000 feet above the sea; on the 43rd parallel it generally rises to 11,000 feet, and in the southern groups, about the Zarafshan, to more than 14,000 feet; whilst on the mountains of the Pamir it exceeds 15,000 feet.

Almost throughout the dominant range, and in certain of its spurs, there are glaciers, the number of which is computed to be not less than 8,000. Especially grand are those found in the principal range, called the Muz-Tag, crossed by the famous Muzart Pass. Snow bridges in the Thian Shan are often met with much below the glaciers, namely, at 5,000 feet or lower. These sometimes attain to a mile and a third in length, and 100 feet in thickness. They

* Mushketoff, who has told us more, I believe, than any one, of the geology of Turkistan, divides these crystalline rocks into three categories. To the first category belongs the granite group; and to the second category, the dioritic or porphyritic group, including diorites, aphanites, and various porphyries; whilst to the third, or most important category, belong the amygdaloid rocks. The mountains formed of rocks of the granite group are the most ancient, and the most massive, and have fairly smooth, or at least but little jagged, ridges, whilst their direction bears west-north-west. The second group, the dioritic rocks, are, in comparison with the preceding, less widely distributed. The ranges composed of these are far inferior in size and continuity to those of the granite group. They lie principally in a south-westerly direction. Their outline is sharper and less regular, whilst they have deep rocky gorges filled with masses of *débris* brought down by the torrents that in small cascades fall from height to height. The mountains formed of rocks of the third category lie chiefly in a north-westerly direction. As a rule they seldom reach the snow limit, and their outlines are smooth and cupola-shaped.

are produced by avalanches, and therefore the snow in them is mixed with rubble, brought down together with the snow from the surrounding crags.

The valleys of the range are of two principal types, the transverse with side windings, and the vast longitudinal valleys, which may be considered one of the most characteristic features of the Thian Shan.*

It was thought for a long time that the range contained many volcanoes. The burning mountains of the Thian Shan were among the "Traveller's Tales" of the last century. Mr. Semenoff, however, declared that Mount Kullok, south of the Ili, was not, as alleged, of volcanic origin, and that the *solfator* of Ketu, in the Ili valley, proceeded in all probability from the combustion of coal.†

Hydrographically the Thian Shan belongs to the continental drainage of Asia, and in this respect is of less importance than the neighbouring but inferior Altai mountains, whence flow the great rivers of Siberia. Confining our attention for the present to such of its streams as descend from its northern slopes in Semirechia, I may observe that there is some difference of opinion as to which are the seven rivers whence comes the name of the province. Of those now flowing into the Balkhash the most important are the Ili, the Karatol,

* The longitudinal valleys generally extend in a direction parallel to the main range for sometimes hundreds of miles, and besides their direction these valleys have the peculiarity that their beginnings or heads are formed of vast river basins, whilst their mouths form rugged gorges or defiles. In them are nearly everywhere noticeable the most recent lake deposits, taking the form of horizontal conglomerate and sandstone.

† Other explorers, after Semenoff, have denied the existence of volcanoes in the alleged localities. M. Mushketoff also has come to the same conclusion, and he supposes that the other pseudo-volcanic centres of the Thian Shan, that have not yet been examined by Europeans, may be placed in the same category of *solfators*.

and Lepsa, all of which I crossed, and to which I shall allude in the course of the narrative, whilst there is another belonging to the province, namely, the Chu, that ranks next in importance to the Ili.

The principal lakes of Semirechia are the Ala-Kul —already alluded to—the Balkhash, and the Issik-Kul; the last being the most interesting as having become scientifically known to us only during the present generation. The origin of Lake Issik-Kul is very problematical. Some suppose that, in a distant geological epoch, it was part of the general system of the basins of the Caspian, Aral, and Balkhash. Again, from the fact that, at the bottom of the lake, buildings have been discovered, some have supposed that the locality has subsided, and that the hollow thus formed has filled with water. Professor Romanoff, however, in his careful investigations, found no traces of subsidence of the ground, though the terraces on the shores show that the waters have receded by evaporation. Their former level was at least 200 feet higher than now, and the volume of water is lessening yearly. Popular traditions say that in the now submerged town was a well, that one fine day burst forth such a quantity of water as to engulf both the city and its inhabitants. The lake is fed by at least 16 streams from the south and 13 from the north, but has at present no visible outlet. A Kirghese tradition says that the natives, wishing to rid themselves of its waters, dug out the canal of Kutemaldi, three miles in length, at the western end of the lake, thereby connecting it with the River Chu. If so, however, they made a mistake in their levels, for instead of letting the waters of the lake into the river, the reverse took place.

The waters of the lake are now held, as in a cup, in

a gigantic hollow formed by branches of the Thian Shan, the dimensions of the hollow being much larger than the surface of the lake, which, at a height of 5,300 feet, covers 3,104 square miles, or ten times the extent of the Lake of Geneva. The northern shore is known as *Kungei*—that is, "the side turned to the sun,"—and the southern shore as *Terskei*, "the side turned to the shade." The shores of the lake are desolate and barren. Its pellucid waters, blue on the shore and of a deeper shade further out, extend beyond the circle of the horizon. The distant shore is hidden by the curvature of the surface, but the mountains rise above, their bases half hidden by vapours reddened in the sunlight, and lifting snowy peaks into what is usually a cloudless sky. An eternal silence reigns supreme, whilst on the reddish strand there is scarcely a hut, or on the waters a skiff, to indicate the existence of man.

There are certain localities, however, for the nomads, and also for agriculture, the eastern shore of the lake being more suitable for habitation than the western. Hence, during the last few years, this has been dotted with some half-dozen Russian settlements.

Issik-Kul is considered to be more than 1,000 feet deep where the shores are precipitous; but where the banks are low a man can wade into it two-thirds of a mile. The water is brackish and almost unfit for use; cattle do not drink it. The lake has no islands, but numerous shoals. In consequence of its general freedom from ice, the Kirghese call it *Issik-Kul*, the Chinese *Je-Hai*, both meaning "the warm lake." To the Mongols and Kalmuks it is known under the name *Temuru-Nor*, or the ferruginous lake, because of the large quantity of black ore covering the bottom,

that is thrown up on the shores in the form of sand. The Kara-Kirghese collect the ore, and extract iron therefrom. A knife thus made, of extremely primitive manufacture, was given me in Vierny, but I unfortunately lost it. The Russian Bishop of the diocese showed me, too, among his antiquities, a bronze instrument, found in the lake, somewhat resembling the head of a large hammer, but probably made for a small hatchet. Its upper surface measured $4\frac{1}{2}$ inches long, by $1\frac{1}{4}$ in. wide, and 1 in. deep in the thickest part, through which was driven a longitudinal hole large enough to admit the fore or middle finger, but it was not easy to see how it would be hefted. Besides objects of this kind, the waves cast up human bones and skulls, as well as household utensils and bricks. Dr. Schuyler observes that on the shores of this lake old Chinese maps place the city of Tchi-gu, and on the Catalan map of 1375, there is marked on the southern shore a Nestorian monastery, containing the bones of St. Matthew. These ruins have not yet been scientifically investigated, but General Kolpakovsky, besides tracing brick walls under water in the lake, drew out a large stone on which was carved a human face. Also it may be noticed that, in 1847, before the advent of the Russians, two ornamented copper kettles were found by the Kirghese on the south shore, and presented to the Khan of Khokand. Only four kinds of fish, Carp, *Usman*, *Marnik*, and Bream, have as yet been found in the lake, but of these there is abundance, though neither Kirghese nor Russians catch them.

The climate of Semirechia is not so dry as some other districts of Central Asia. The northern portions of the province, about Sergiopol and Kopal, have a

climate fairly cool—not sufficiently warm, in fact, for the more delicate vegetable growths—though further south the heat is sufficient for apricots and vines. In the plains trees, bushes, and grasses grow only by means of irrigation, but in the mountainous region, where are streams, woods appear. Still, even here, there is an insufficiency of moisture. Hence the forest growth extends only to certain spots along the northern and north-western slopes in the gorges of streams that issue from beneath the snow. Peaks, not snowclad, and the southern slopes are bare.*

Numerous wild animals inhabit Semirechia, and much credit is due to Russian naturalists for their classification of collections of fauna made by various scientific travellers.† To confine ourselves here to the mammals of the province, we may notice that there are found therein seven species of Bats, the Long-eared Hedgehog, and the White-clawed Bear.

* The commonest and most widely distributed tree is the spruce fir, extending from the western limits of the province to the eastern end of the Thian Shan. Its straight stem attains a height of from 70 to 90 feet, and its branches, gradually shortening towards the top, give the tree the appearance of a pyramid. Its cones, the size of one's fist, are of dark blue, and hang at the end of long stems quite vertically. By far the most richly wooded portions of the province, and, indeed, of the whole Thian Shan, are those known under the name of the Muz-Tag. Here, besides the fir, are the birch, the apple, willow, mountain ash, and poplar. But the deciduous trees are completely lost among the conifers. The fir forests in Semirechia sometimes extend for tens of miles, but, in the European sense of the word, they can be hardly called forests. The trees stand apart, seldom afford the pleasing shade of woods, and everywhere allow pedestrians and horsemen room for free passage. The fir grows in a region 6,000 to 9,000 feet above the sea; the birch between 3,000 and 8,000, and the juniper between 5,000 and 10,000, except in the Alai, Turkistan, and Hissar ranges, where it is found a thousand feet higher.

† One of these travellers is Dr. N. Severtsoff, whose "Mammals o Turkistan" was translated in the *Annals of Natural History* for 1876.

This last varies his diet according to locality, feeding in some parts on Marmots, disturbing their winter sleep by digging them out of their holes, and thus unearthing more than he eats. In the Western Thian Shan he feeds principally on fruit—apples, grapes, and walnuts; but about Vierny, since the advent of the Cossacks, Bruin has manifested a sympathetic interest in the progress of apiculture by diligently emptying the colonists' hives. To these animals must be added the Badger, Otter, and some other species of Mustelidæ, including Pole-cats, Weasels, the Stoat or Ermine, and three species of Marten. Of these last, as well as of a Lynx, I was able to secure in Vierny the skins and skeletons, all of which are now in the British Museum. The Wolf is met with almost everywhere, and a Wild Dog is found up to the snow-line, while three species of Fox occur, as also the Tiger, Snow-Leopard, Cheetah, and other Cats. The salt plains are frequented by the Short-tailed Souslik, as well as many other Rodents, among them several species of Mouse, Vole, and Hamster, four of Jerboa, and, at greater altitude, the Hairy-Nosed Porcupine. To these should be added the Persian Gazelle, the Saiga Antilope, the Siberian Ibex, the Siberian Roebuck, and the Maral Stag—this last closely resembling the Canadian Wapiti. There are some other animals also of greatest interest, to which I shall allude hereafter.

Meanwhile, having described the natural features of the province, I shall proceed to speak of it in relation to man.

CHAPTER XII.

THE PROVINCE OF SEMIRECHIA (Continued).

Ethnology of province.—Kalmuks and Taranchis.—Population of Semirechia, by races and classes: their habitations, agriculture, and cattle.—Cossack and peasant colonists.—Taranchi refugee settlers, and Russian efforts for their welfare.—The Orthodox Christian Brotherhood: its constitution and missionary operations in Sarkan.—Its Kalmuk school in Vierny.—Contemplated Issik-Kul mission.—Religious and educational affairs of the province.

THE province of Semirechia is of exceptional interest to the ethnologist. I met in the market-place in the capital men belonging to seven different races, representing Russians, Tatars, Sarts, Kirghese, Dungans, Chinese, Taranchis, and Kalmuks. I made the acquaintance of these last in visiting a Kalmuk tent in the Ili valley.* They are, for the most part, nomads, being excellent shepherds and

* They are of Mongol race, and are somewhat below middle height, with flat faces, forehead wide and arched, scanty eyelashes, the superciliary protuberance but slightly developed, eyes very oblique, the nose wide, short, and flat; the cheek bones and zygomatic arches very prominent; large mouth, with coarse, colourless lips, set in a half-idiotic and inexpressively sad smile; large and sound teeth, white in men, but stained among the women; ears unusually developed and slightly projecting; the face flat and square, and the head very bulky. They have black, coarse, and glossy hair, the unshaven part of which is twisted into a queue, scanty beards, and smooth, yellowish skin. The shoulders are broad, arms long, hanging lazily by the side, the legs crooked and bowed, and the voice harsh, sharp, and strongly aspirate. To these

clever horsemen, and roam about the Vierny and Issik-Kul districts. They easily bear a severe climate, continued cold, and general poverty, numbering throughout the province about 25,000. They are Buddhists, and the women go unveiled; but one whose acquaintance I made in the tent was anything but beautiful. The Taranchis are of Turkish origin, and agriculturists, deriving their name from *taran*, millet. They were deported from Chinese Turkistan to the number of 6,000 families, and settled in the Ili valley a century and a half ago. In 1834 the number had increased to 8,000, whilst now as many as 36,000 families are living in Semirechia alone.* The Taranchis are Muhammadans, but their women, nevertheless, are not veiled. Their language is said to be an offshoot from the old Uigur dialect, and to be more purely Turkish than any Turkish book printed in Constantinople. I heard of no books printed by the natives, but there fell into my hands a Taranchi pamphlet, issued, I think, by the Russians, which, on presenting at the British Museum, I was told was in Eastern Turki. Their manner of life resembles that of the Sarts, to the ethnological characteristics of whom, as of other

must be added what a Russian writer calls "a disagreeable smell of garlic, snuff, and sweat." The Kalmuks are very angry if irritated; usually timid, good-tempered, and generous; but, despising physical labour, are excessively indolent.

* The Taranchi is of good height, the forehead tolerably high and wide, with a marked protuberance over the eye; the eyebrows are arched, and often abundant; the depression separating the nose from the glabella, or space between the eyebrows, not deep; the eyes very little elevated at the corners, medium and arched nose, rather large mouth, medium and sound teeth, the cheek-bones slightly prominent, the face square, and the ears of middle size and standing out. The hair is soft and dark, the beard generally scanty and darker. The skin is usually white, especially the parts not exposed; and when dark, it has not the olive hue that characterizes the Kashgarians.

nationalities residing in the province, I shall have occasion to refer hereafter.

A census of the population of Semirechia had been taken four years before, but not printed. I was favoured, however, with an official copy of statistics in manuscript (though apparently incomplete so far as the Taranchi settled population is concerned), from which it appears that in 1878 the inhabitants numbered 609,000, of whom the males exceeded the females by 36,000; the most populous districts being those of Vierny in the south, where the Russians form 8½ per cent., and Sergiopol in the north, where they form 2½ per cent. of the entire population.*

The occupation of the nomads of course is chiefly connected with cattle, but necessity has compelled some, and opportunity induced others, in certain places to cultivate wheat, barley, and millet, to which the

* In the districts of Tokmak and Issik-Kul, the Russians form less than 1 per cent. of the population. If next we take the social standing of the settled population, we find the landowners number 7,396; Cossacks, 21,085; peasants, 14,128; clergy and their families, 168; nobles or upper classes, 960; merchants, 3,203; mechanics and handicraftsmen, 1,166; agricultural labourers, 5,628; and of other labourers, 2,055. The upper classes among the nomads are ranged as follows:—Sultan, or ruling families, 1,884; Telengutes, 1,139; Iginchis, 35,858; and of mullahs or priests, 1,639. The great disproportion between the settled and the nomad populations will be apparent when it is observed that the former live in 8,000 houses, and the latter in 126,000 tents. Whilst, therefore, the nomads roam over the whole province, divided into 78 volosts, the settled population is found in a few towns, of which the principal are Vierny, Tokmak, Kopal, Sergiopol, and Karakol, each the chief town of one of the five uyezds into which the province is divided, also Lepsinsk and Iliisk, whilst my statistics give the names besides of 64 villages and hamlets. The houses are of stone and wood in about equal proportions, and, apart from dwelling-houses, there are throughout the province 9 caravanserais, or native inns, 33 schools, 5 Muhammadan colleges, 24 churches and monasteries, 8 mosques (also 6 hospitals in 1869). There were besides of industrial buildings, 341 windmills, 24 stamping mills, 2 tanneries, 3 tallow and 2 soap

settled agriculturists add rye, oats, and clover.* The seed sown in 1878 all over the province amounted to 5,300 tons, and the harvest to 47,000, thus yielding on an average nearly a ninefold crop. Of this amount the nomads raised only 7,211 tons, the major part being produced by the settlers; but when we come to

factories; 1 match factory, 3 wine factories, 1 brandy distillery, 1 brewery, and 13 bazaars.

The following details I give in full, as, I believe, they have not appeared elsewhere:—

SETTLED POPULATION.	Houses.	Males.	Females.	Kirghese.	Sarts.	Tatars.	Kalmuks.	Dungans.	Russian Colonists.
Vierny uyezd	3,328	12,452	11,252	539	1,202	1,034	231	...	20,698
Issik-Kul ,,	713	2,841	2,372	28	506	162	170	619	3,728
Kopal ,,	1,454	4,983	4,102	10	141	1,411	327	...	7,196
Sergiopol ,,	1,833	5,635	4,705	442	23	229	10	...	9,636
Tokmak ,,	675	4,906	2,541	...	500	772	...	3,256	2,919
	8,003	30,817	24,972	1,019	2,372	3,608	738	3,875	44,177
		55,789			55,789				

NOMADS.	Kibitkas.	Males.	Females.	Kirghese.	Tatars, Kalmuks, etc.
Vierny uyezd .	34,136	102,707	96,142	195,258	3,591
Issik-Kul ,, .	14,90[illegible]	32,396	28,497	56,751	4,142
Kopal ,, .	26,337	62,590	56,091	118,643	38
Sergiopol ,, .	24,515	48,734	39,724	88,073	385
Tokmak ,, .	26,559	45,221	41,065	86,286	
	126,456	291,648	261,519	545,011	8,156
		553,167		553,167	

* The sowing and reaping in Semirechia for 1878 were (in tons):—

	Sowing.					Reaping.				
	Rye.	Wheat.	Barley and Oats.	Millet.	Clover.	Rye.	Wheat.	Barley and Oats.	Millet.	Clover.
Settlers .	498	1,949	2,215	...	27	3,659	15,919	14,761	...	5,418
Nomads	...	428	53	136	...	...	2,109	233	4,870	...
Total .	498	2,377	2,268	136	27	3,659	18,038	14,994	4,870	5,418
	5,306 tons.					46,979 tons.				

cattle the tables are reversed, the nomads possessing ten times the number of animals owned by the others, out of which, however, during the year no less than 39,000 died.*

The Russian settlers in Semirechia are of two kinds, the Cossacks and the colonists, some of the latter being Russians and some natives. The Cossacks were brought, at the time of the Russian conquest, both to till the soil and to defend it. They were, for the most part, from Siberia, descended originally from Great Russians. The Russian peasant colonists, on the other hand, are descended from Little Russians, though coming immediately in large proportion from the government of Tobolsk.†

* Cattle in Semirechia, 1878:—

	Camels.	Horses and Asses.	Horned Cattle.	Sheep.	Total.
Settlers	341	30,398	29,530	25,157	85,426
Nomads	15,756	90,817	63,722	687,151	857,446
	16,097	121,215	93,252	712,308	942,872
Died during the Year . . .	1,125	3,445	6,833	27,598	38,971
Remainder	14,972	117,770	86,419	684,710	903,901

* The localities occupied by the emigrants have followed the advance of the Russian armies from Semipolatinsk to Sergiopol, then to the districts about Kopal and Lepsinsk, and so on past the slopes of the northern and southern Ala-Tau to the eastern shores of Issik-Kul. The flow of new settlers year by year has rendered it difficult sometimes for the local government to set apart land for their use, and it is now proposed to send the colonists further south into the rich valleys of the interior of the Thian Shan. The proportions of the emigration towards Semirechia may be estimated from the fact that since the establishment of the Turkistan district in 1867, the number of Russians has increased from 30,000 in 20 settlements, to 44,089 in 65 settlements. Of these 20,641 belong to the Cossack element, who form the militia of the province, and live in military posts or stations, by the side of which there sometimes happens to stand a peasant settlement, but the character of the buildings is as distinct as are the personal qualities of the inmates.

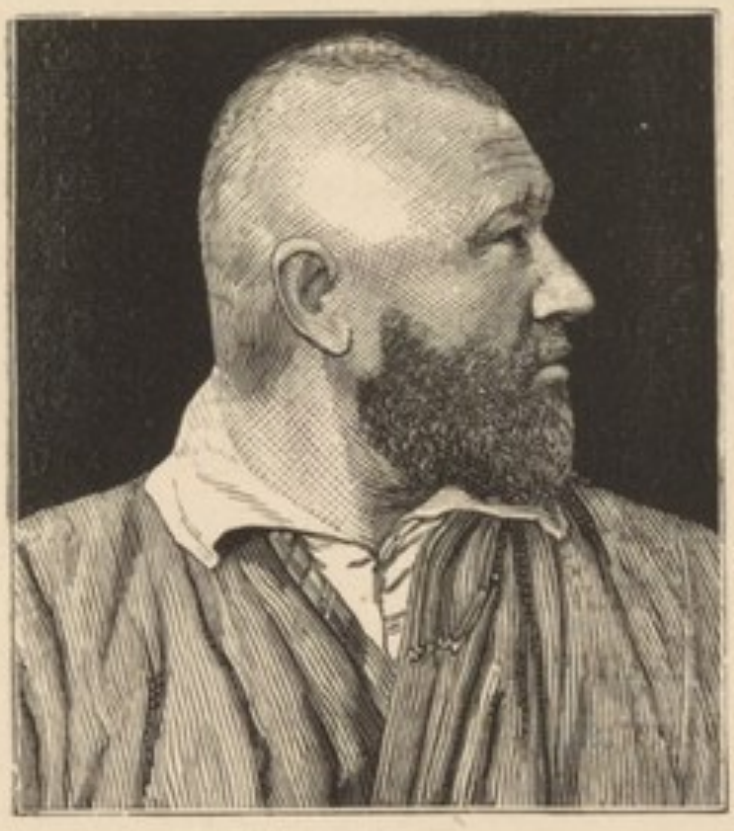
The exterior aspect of the stations is very much like that of a Russian military colony elsewhere, the houses of piled logs, possessing no gardens, and on the whole presenting a dreary appearance. The peasant cottages, on the other hand, are almost hidden amid orchards and gardens. The colonists, on arriving, soon settle down and habituate themselves to their new circumstances, and, as a rule, become as wealthy as the Cossack militia remain poor.*

One serious inconvenience with the Semirechia colonists is their ceaseless strife with the nomads about water and about land, and the local government is much taken up with keeping the peace. Questions relating to boundary lines between the nomads and settlers lead to numerous feuds, the opposing parties in which, however, do not foster lasting enmity, so that serious collisions betwixt them do not often ensue. Of late the local government has endeavoured, with a view to increasing the army of the province, to induce the peasants to enter the Cossack militia, and certain exemptions have been offered, but with only

* To judge by what Colonel Kostenko says of the Semirechia colonists in general, and by what Mr. Delmar Morgan writes of those in the vicinity of Lepsinsk in particular, it would appear that these latter had the opportunity of making of their terrain an earthly paradise. On emigrating from Russia they received free grants of land, with immunity from taxation and military service for 15 years. They felled timber, and built themselves *mazankas*, or homesteads, raised corn, and kept bees, their chief complaint being that they could not always find a market for their surplus produce. But of late years winters have been severer (partly, perhaps, from the indiscreet and wholesale destruction of forests, which is now forbidden), harvests have failed, and complaints, Mr. Morgan says, have been made; a similar condition of things, I suspect, to that I heard of on the Amur, where peasant colonists were given land, immunity from taxes for a term of years, stock and farming implements to start in life, after which they liked their state of tutelage so well that, on its expiration, they came begging that it might be renewed.

partial success, for volunteers have been few in number.

But besides the Russian peasants who have become colonists by choice, and the Cossacks, who are sometimes made new colonists without their choice, there is a third class of settlers in Semirechia,—natives from the neighbouring countries,—who, sensible of the greater security to life and property, as well as lighter taxation, choose to be under the government of the Tsar rather



A TARANCHI.

than that of their Asiatic rulers. The Taranchis are a noticeable instance of this, and their treatment by the Russians presents many points of interest.

During the civil wars of the Kuldja district in 1867 some hundreds of Taranchis crossed the Russian border for protection, to whom the authorities gave land as to their own colonists. One of the spots chosen for this purpose was the Sarkansky district, where some 800 took up their abode, each family receiving agricultural implements and seed, and £6 10*s.* in cash, with the result that, thanks to their semi-Chinese

industry and good tillage, they developed into a thriving colony.

The Russians determined, moreover, to seek their intellectual and spiritual welfare. Taranchis, to the number of 800, were speedily baptized, and so became what the Russians call "converts"; not that they understood the new religion they had embraced, but professed to have done with Buddhism, and were willing to be instructed. Accordingly an association was formed in Vierny, called the Orthodox Christian Brotherhood,* and in 1868 a priest-schoolmaster sent to Sarkan. The priest's affairs, however, seem to have gone badly, for his miserably small stipend of £70 a year for some reason did not reach him, and he was well-nigh reduced to beggary. After establishing a school and a chapel he left, and was succeeded by another priest named Pokrovsky, who, in spite of many obstacles, was able to make some little headway.

* The following is a condensed account of the rules of this Brotherhood:—

1. The Orthodox Brotherhood imposes upon itself the task (1) of spreading and developing moral and spiritual enlightenment, and useful knowledge among the population of Semirechia; (2) of helping the clergy in arranging and decorating churches, and providing books; (3) supporting missionaries and teachers; (4) helping the old and orphans, and burying the poor; and (5) constructing industrial schools.

2. The Brotherhood is established in connection with the Church of the Holy Martyrs, Faith, Hope, and Charity, and their mother Sophia, in the town of Vierny. In this church the Brotherhood has a banner with paintings, with historical data connected with Semirechia, where prayers for the Brotherhood are continually said.

3. The Brotherhood is under the care of the bishop and the civil head of the province.

4. Persons of orthodox faith, irrespective of sex or calling, may become "brothers." The right of voting is restricted to annual or life subscribers.

5. Its affairs are entrusted to an honorary council of from six to eight brothers, with a president.

6, 7, 8, 9. These rules refer to meetings of the Council, the conduct-

I am indebted for information concerning this Sarkan colony to the independent testimony of a Russian officer, Friedrichs, published in a Russian pamphlet respecting the Taranchi emigrants, and given me in Vierny. The colonel speaks of the neatness of the cottages built in Chinese style, and of the industry and good moral conduct of the people. In the garden they cultivated some plants unknown to him, and their fields brought forth so abundantly that the Cossacks went to Sarkan for supplies. There were two schools for boys and girls, where the children (for the most part Taranchis) were taught the Russian language and arithmetic. The colonel adds that these emigrants received the orthodox faith without hesitation, and he argues thence in favour of extending such efforts to the Kuldja province.

I am not aware that the Brotherhood ever extended its operations into Kuldja, but in 1871 it was determined to open a school in Vierny for Kalmuk Christian boys; and in connection with it was established a home for ten scholars, sons of recently-baptized Kalmuks. This was mainly due to the energetic co-operation of Archbishop Putintseff, whose example was soon followed by Father Bielajarsky, the priest of the town church. He established the asylum in part of his own house,

ing of its correspondence, treatment of claims, and the annual meeting of the Brotherhood, at which the accounts are to be presented after examination by auditors, and after presentation to the military governor of the province.

10. The funds to be maintained by voluntary contributions, to which a note is added that the Brotherhood does not refuse donations from professors of other religions interested in the work.

11, 12. A collecting box having been placed in the church, and books distributed to the members, these rules look forward to the possibility of the Brotherhood acquiring real property, and provide for it, as also for possible surplus funds, to be placed in banks at interest.

and opened the school under his own supervision, his daughter Catherine being the teacher. The military governor of the province approved the rules drawn up by the priest, the aims of which were to regulate religious and practical education for the scholars.*

This work, however, was not continued for long at Vierny, nor am I aware whether anything of the kind now exists at Sarkan. Various accounts of the labours of the priest Pokrovsky in this latter district were communicated by him to the Turkistan papers from 1871 to 1875, but I read of Mr. Pokrovsky as priest of the hospital church in Tashkend in 1877, from whose notes and papers the pamphlet to which I have referred was compiled. Its author, Mr. N. P. Ostroumoff, states that when he returned to Vierny in 1878, he heard from the bishop the sad news that the Kalmuk school was closed, and that the Brotherhood existed only on paper.

This latter remark, I presume, is not to be taken

* The course comprised writing and arithmetic, theology, prayers, and singing, reading in Russian and Sclavonic; and instruction in handicrafts was to be added when the means of the Society would allow.

Teaching was carried on daily, from the middle of September to the beginning of June (Saints' days excepted), for two hours in the morning, this time being apportioned to two lessons, with the practice of gymnastics between. After dinner the time was devoted to preparation and repetition of lessons, and to recreation. In summer the pupils were, for the most part, engaged in learning useful occupations and trades. The rules provide that the children shall read the ordinary prayers morning and evening, before and after study, and before and after dinner; and also attend church on festivals, weather permitting. Nothing definite is laid down in the rules, but it was believed by the author of the pamphlet that the children also observed fasts, attended confession, and received the Sacrament according to the regulations of the Russian Church. The maintenance of this school and home was contributed to by the Brotherhood, who paid the teacher a small salary, provided clothes for the inmates, and allowed for each 6*s.* 6*d.* per month for board. At the public examination in June, 1875, the progress of the pupils not only gave satisfaction, but surpassed expectation.

quite literally, though it appears that the income of the Brotherhood in 1878 amounted to £165 only, and in the following year further decreased to £120, out of which latter amount a small sum was sent to Sarkan for poor Dungan apprentices. I heard, during my stay in Semirechia, of no existing church missions. Archbishop Alexander told me, however, that they had in contemplation the establishment of a mission at Lake Issik-Kul. The missionaries were to be monks, who ate no meat, and their efforts were to be directed to the nomads, who ate no bread; and thus the neighbourhood of the lake had been chosen that these spiritual pastors might largely subsist on fish. At first their mission was to be of a scientific character, and afterwards religious; the Kara Kirghese, according to the Archbishop, being not real Muhammadans, and not knowing the Koran, though they register themselves as good Mussulmans.

I have no further details concerning the religious and educational affairs of the province in general of a recent date, but observe that, in 1869, there were in the Kopal uyezd 8 raskolniks. Perhaps they were Dukhobortsi, for I observe a statement in the pamphlet about Taranchi emigrants at Sarkan, that a Cossack who had become one of the Dukhobortsi had destroyed his ikons, and told the newly-baptized emigrants that in them they worshipped demons, and not God. Also in the town of Karakol, in 1869, there were 5 Romanists and 1 Armeno-Gregorian; but otherwise all the Christian population appear to have been of the orthodox faith. Further, from the *Turkistan Annual* for 1872, it appears that the schools of the province were of three kinds, and kept by the

communes, by religious houses, and for the poor.* Having thus treated generally of the "Land of Seven Streams," I shall proceed to describe my journey through it.

* In 6 town schools 20 teachers instructed 333 boys and 82 girls; whilst in 11 district schools 16 teachers instructed 326 boys, but only 6 girls; giving for the province 17 places of education, 34 teachers, 659 boys, and 88 girls.

CHAPTER XIII.

FROM SERGIOPOL TO ALTYN-IMMEL.

Departure from Sergiopol.—Miserable station at Djus Agach.—Desiccated lake-bed near Ala-Kul.—Arganatinsk.—View of Lake Balkhash: its dimensions, tributaries, water, shores, fish, and harbour.—"Ehbi" wind and sandstorm.—Lepsinsk station.—Lepsa river.—Accelerated posting.—Branch road to Lepsinsk colony: its agriculture.—Sungarian Ala-Tau mountains.—Arasan sulphur baths.—Kopal.—Arrival at Altyn-Immel.

ON trotting out of Sergiopol towards evening on the 27th of August, the road lay along the valley of the river, that gave its name to our first station, Middle Ayaguz, where we drank tea, and

* The stations between Sergiopol and Vierny, with the distances between in versts, are as follows:—

Sergiopol—		Sarabulakskiy	26
Sredne Ayaguz	32	Vyselok-Karabulakskiy	21
Taldi-Kuduk	29	Djangyz-Agachskiy	22
Kyzyl-Kiy	24	Tsaritsinskiy	21
Malo Ayaguz	26	Kugalinskiy	26
Djus Agach	26	Altyn-Immelskiy	25
Arganatinsk	31	Kuian-Kuzskiy	28
Ashchi-bulak	29	Karachekinskiy	28
Lepsinsky	34	Chingildinskiy	33
Baskanskiy	29	Iliisky	24
Ak-suisky	28	Kutentaiskiy	23
Abakumovskiy	26	Karasuiskiy	22
Arasanskaia	21	Vierny	24
Kopal	29		
Ak-Ichke	27	Total	715

then pushed on to Taldi-Kuduk. Here a few soldiers, with a handful of prisoners on the march, had put up for the night, the soldiers stretching themselves on the ground in Central Asian fashion outside the post-house. At the first station the post-master bought the whole of the books I offered for his selection, and now these soldiers readily purchased more; after which, our horses being ready, we posted all night,

A POST-HOUSE "CHAMBRE DE TOILETTE."

passed Kyzyl-Kiy and Little Ayaguz, and in the morning reached Djus Agach. It was a picket of the most desolate character—the most miserable station we had seen—a tumbledown house in the desert. Here we breakfasted, and took our morning wash, but both under difficulties. One of the inconveniences of post travelling in Asiatic Russia is the absence of good lavatory accommodation. The common method among the Russian peasants of washing the hands is to

place them beneath a bowl of water fixed at a height, out of which a stream trickles. One accustomed, therefore, to the orthodox "tub" wherein to splash about finds himself inconveniently restricted in his toilet. Moreover, as these washing contrivances in Asia are frequently placed out of doors in the yard, it will be understood what a comfort it was to have brought with me an indiarubber basin. Some travellers had arrived before us—an officer, I think, and his wife—who consequently occupied the guest-chamber; and, there being no room for us in the inn, the post-mistress brought the samovar outside the stable and spread for us a table in the wilderness. All around was a barren steppe, without a blade of vegetation the horses could eat. It was truly pitiable to see them crawling around us almost starved. It appeared that their usual supply of corn had not been brought, and the poor creatures were trying to pick up the handfuls of chaff lying about. I offered one of them a piece of white bread, but he would not eat it, and I began to wonder how we should get on. It was needless to ask whether the post-master had horses. There were plenty before us, but they were reputed to be sick, and they certainly looked so. Nor did they possess at this station tar enough to lubricate the wheels of our wagonette. A fine place, truly, to be "stuck fast" at the mercy of a Cossack post-master till his horses could be fattened for work! But, most fortunately, the news of our coming had preceded us, and they said that we should have horses.

And so we did, though they were anything but fiery steeds to pull us over the next stage, which was the worst we had had, the road lying sometimes on rocky hillocks, and sometimes over sand, in which the

wheels occasionally stuck. Driver and fares accordingly descended, and walked, which gave us the opportunity of examining the tall dry assafœtida plants by the side of the track, and to catch a few butterflies and dragonflies. But even in this fashion our sorry horses made slow work of it. We were, however, passing over ground of geographical interest, it being none other than what is believed to have been the dry bed of a sheet of water, connecting what are now the lakes Balkhash and Ala-Kul.

Only 50 miles to the left of us lay the once little-known Ala-Kul, conjectured by Humboldt to be the centre of the subterranean forces of Central Asia, though subsequently shown by Schrenk, its first explorer, to have no traces of volcanic rocks, either on the islands or round the lake.* This region has also a touch of historical interest. The Franciscan monk, Jean de Plano Carpini, sent by Pope Innocent IV. to Mongolia in 1245, gives no clue to his route across

* The absolute altitude of Ala-Kul is 1,200 feet (according to Semenoff 780 feet), and the appearance of the locality leads to the supposition that between the levels of the Ala-Kul and Balkhash there is no perceptible difference. On early Chinese maps the Ala-Kul is shown as one lake, and not, as now, divided into three. According to Kirghese traditions the level of the water rises and falls. They say that in the times of their fathers the waters of the lake extended over a considerably larger area than at present; that afterward the level began to subside, and a quarter of a century ago was so low that small islands, now 250 yards from the shore, were joined thereto. Subsequently the water began to rise, and continued so to do for some years. The belt of desert now separating the Ala-Kul and the Balkhash is about 60 miles in extent, and consists of the beds of former lakes and sand waves. The soil is of sand, or clay, encrusted with salt. When I crossed it the summer sun had parched everything, but Mr. Delmar Morgan speaks of tough grass, heaths, and scrub wormwood imparting to the surroundings in spring a tinge of green, whilst vast sheets of water then indicated that the traveller had reached the lowest part of the country.

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* The absolute altitude of Ala-Kul is 1,200 feet (according to Semenoff 780 feet), and the appearance of the locality leads to the supposition that between the levels of the Ala-Kul and Balkhash there is no perceptible difference. On early Chinese maps the Ala-Kul is shown as one lake, and not, as now, divided into three. According to Kirghese traditions the level of the water rises and falls. They say that in the times of their fathers the waters of the lake extended over a considerably larger area than at present; that afterward the level began to subside, and a quarter of a century ago was so low that small islands, now 250 yards from the shore, were joined thereto. Subsequently the water began to rise, and continued so to do for some years. The belt of desert now separating the Ala-Kul and the Balkhash is about 60 miles in extent, and consists of the beds of former lakes and sand waves. The soil is of sand, or clay, encrusted with salt. When I crossed it the summer sun had parched everything, but Mr. Delmar Morgan speaks of tough grass, heaths, and scrub wormwood imparting to the surroundings in spring a tinge of green, whilst vast sheets of water then indicated that the traveller had reached the lowest part of the country.

the Steppe till he mentions a lake, that is believed to be Ala-Kul, with islands and a violent wind. It seems also to have been visited by William de Rubruquis and Tch'ang Te, both travelling hereabouts within the following 20 years.

A drive of 20 miles from Djus Agach, the latter portion of which was over rising rocky ground, brought us to Arganatinsk. By this time the sun was at its

THE PICKET POST-STATION AT ARGANATINSK.

meridian, and the thermometer in the tarantass rose to 85°. The post-house stood, according to my aneroid, at 1,600 feet above the sea, and on either side rose two bare rocky hills covered with loose shingle, up one of which I had determined to climb, to have the satisfaction of getting a peep, 20 miles off, at the famous Lake Balkhash.

This lake was called by the Kalmuks *Balkatsi Nor*, Great Lake, and by the Kirghese *Ak-Denghis*, or

White Sea; *Ala Denghis*, or mottled sea, on account of its islands; or simply *Denghis*, the sea. To the Chinese it was known as *Sihaï*, or Eastern Sea, and it is in their records that the earliest information about the lake is to be found. In shape Lake Balkhash resembles the body of an ant without the legs, the head pointing east. Its length is about 400 miles, its width varies from 5 to 53 miles, its circumference is 900 miles, and its area 12,800 square miles, or about 36 times larger than the Lake of Geneva, though M. Réclus estimates the volume of water in the Balkhash to be only two and a half times as much as that of the Swiss lake, the greatest depth of the Balkhash being 70 feet, whilst in the centre and southern portions its depth is only 35 feet, and in certain places on the southern side it is so shallow, and the shore so shelving, that a strong wind sometimes lays bare for a time a portion of its bed.*

Many Kirghese pass the winter on the sandy shore, the surface yielding a limited pasturage for their flocks. The reeds, 16 feet high, shelter them from the north

* Through the northern or Semipolatinsk shore not one perennial stream makes its way; even the large stone, the Tokrau, falling short of the lake in drought, absorbed by the sands. So it is also with such wadys on the south as have their sources in the Steppe; but the majority of the streams coming from the snow mountains reach the lake, carrying down such quantities of earth with them as threaten to divide the lake into separate basins. The banks on the north and part of the south-east are mountainous, whereas on the south are broad sand-hills, and in many places the change from land to water is so gradual that it is hard to say where one ends and the other begins. The rocky promontories on the north side, where the water is deepest, can be approached only when the lake is smooth, whilst the low reed-covered peninsulas on the south, for lack of water, cannot be approached at all. The bed is sandy, except where the shores are rocky, and then it is stony, though along the south-eastern and eastern shores, the bottom is of ooze.

The surface of the Balkhash rises from mid-April to the end of July,

wind, providing at the same time a haunt for wild boars, wolves, and tigers, and in the spring a breeding-place for myriads of wild birds. Little rain falls, and the summer heat is unbearable. Winds blow almost daily over the lake, but not steadily, sometimes raising very high waves. There is abundance of fish in its waters, especially *Marnik*, *Usman*, and Perch. In summer and in windy weather they keep to the shallows; but in winter go to the open lake. On a promontory on the north-west coast, a harbour was constructed in 1850. Though navigable throughout, the Balkhash can be continuously navigated only in vessels with deep keels. The harbour was intended as a depôt for goods to be despatched to the trans-Ili district, but endeavours to carry on navigation have not thus far met with adequate success. There are, moreover, no places adjacent to the edges of the lake that are fit for settlements, and the whole district seems likely to remain a wilderness.

As I stood at Arganatinsk, on the top of the hill, whither I had clambered 400 feet, I was surrounded with deserts that, with clay beds, salt steppes, and

during the melting of the snows, and the overflow of the rivers flooding the surrounding country creates pestiferous swamps. At this time of year the water near the mouth of the Ili is almost fresh, while at the north-east end it is brackish all the year round, though usable; and at the southern extremity the water is so salt as to kill animals that drink it. Hence there it is called by the Kirghese *It-ichmiz*, "not fit for a dog." The soil around Lake Balkhash is principally rock and sand. On the north and north-west the land is elevated, barren, waterless, and therefore a complete waste. On the opposite shores, whence the lake is fed by the so-called "seven rivers," rocks occur only in two places, and for many miles along its margin there is not a stone to be found. This sandy region stretches from the lake for 200 miles to the foot of the Ala-Tau mountains. Across this vast extent there grows scrub forest, fit only for fuel, called by the natives *saksaul*, *jingil*, *teresken*, *chiral*, *jui*, *tuzgen*, *sul*, and *aktikken*. There are also varieties of grasses, including *aktasp* and *kizilcha*.

moving sands, seemed to show that the Balkhash had once been larger than at present. In front of me, as I looked towards the lake, was the Uchakty Kum, and behind, the Niiaz-, the Sary-, and the Tash-kara Kum. Fortunately our road crossed directly no one of these, but we fell in that night with one of their local phenomena. At the next station they gave us four sorry horses, and, what was worse, a sleepy Kirghese driver, whom I caught several times nodding on the box. He understood no Russian, so I more than once conveyed to him my meaning by a thump in the back, whereupon he looked round as if I were unfairly disturbing his slumbers. At last, finding it useless to vex my impetuous soul, I resigned myself to fate and tried to sleep, for night had well set in. There came puffing into the carriage, however, a dry, hot wind, the like to which I had never experienced before. My ordinary clothes were too hot, and I would fain have lifted the curtain and let down the apron, but the heavens lowered, and the wind so stirred up the sand that I wondered what manner of thing was going to happen. I have since learned that frequent sandstorms, of the character of snowdrifts, but far more dangerous, occur on these steppes about the Balkhash, and that they sometimes rage for several days. Mr. Delmar Morgan speaks of the "Ehbi" wind that blows from the south-east towards the Ala-Kul, and is sometimes so violent as to have the force of a hurricane. It raises clouds of snow and sand, and has been known to bury solitary travellers, and, it is said, villages also. The caravans bound for Kuldja are afraid of it, and either wait till it is over in the plains, or, to avoid it, go by way of the mountains.

Whether I had come across a modified specimen of

the "Ehbi" wind I know not, but on our arrival in the early morning at Lepsinsk, we saw the sand blowing in such fashion as I had never before witnessed. To go only from the carriage into the post-house, the gritty element dashed most disagreeably into the face, mouth, and eyes, and covered us as effectually with sand as if we had rolled in it. This was bad enough, but, to make matters a little worse, our luggage wagonette was nowhere to be seen. We had foolishly allowed the driver to follow us instead of insisting that he should go on ahead, and now we were to pay the penalty. I urged that our man should go back to see if the concern had broken down, and, if so, give the driver help. But he did not seem to consider that a part of his duty. After waiting some time we declared that we would make complaint of the delay, and at last by bribes or threats, or perhaps both, our man was moved and set off on horseback.

The post-station was not one of the most cheerful, for it lacked the presence of one of the gentler sex, and the household affairs of our bachelor or widower post-master appeared all higgledy-piggledy. I sighted, however, a water-melon, which he allowed me to buy, and, with this added to our own resources, we made one if not two meals before the luggage arrived. Presently the post-master said that one of his Kirghese workmen, from the top of the stable, thought he could see something moving on the road about 8 miles off, a feat I should have doubted had I not heard of the keen sight of these sons of the desert. At last our man arrived, and explained that the horses in the wagonette were so attenuated that it had been necessary to carry corn to bait them half-way, and that the driver, having put food before his beasts, had gone off to sleep, and was

quietly reposing by the roadside. On being aroused he was ashamed to face us, and handed over his charge to our driver, so that all we could do to the delinquent was to call down vengeance upon him, by complaining, in the book set apart for that purpose, that we had been delayed on this stage for 12 hours.

I had heard of the little station at Lepsinsk as far west as Moscow, and was requested to inquire there for a letter from a Russian colonel, a friend of my adviser, who, he said, would, if at home, find me Kirghese antiquities, or open one of the Kalmuk tumuli of the neighbourhood, and send or accompany me from the town of Lepsinsk over the Ala-Tau mountains to Lake Sairam-Nor, and in this way get me to Kuldja instead of going round the post-road. But against this spirited enterprise I was strongly warned before entering Asia, and, pressed as I was for time, I found it to be out of the question. Besides which, there was no letter awaiting me at the station, so I hastened to get forward.

A better lot of post-horses was given us at Lepsinsk, which we left with the sandstorm still blowing, and soon came to the River Lepsa, that gives its name both to the station as well as to the chief town of the district.*

* This river flows out of a spur of the Sungarian Ala-Tau, and consists of two channels, which converge towards the Ichke-Ulmes mountains, where the Lepsa flows through steep and mountainous banks over a rocky soil. From its source to the post-station the stream is very swift, and bears down stones and trees. Below the Lepsinsk station it becomes quieter, and in the flood season is navigable to its mouth for flat-bottomed boats carrying 16 tons. The outlet of the river, however, is choked with weeds, and these prevent passage into the Balkhash. The length of the river is about 233 miles, with a valley from 2 to 3 miles wide, in which are many hay-producing areas, but since with the grass spring up reeds and scrub, haymaking is not always profitable.

At the next station, Baskanskiy, there were trees before the post-house, and, further on, herbage appeared with camels feeding, after which snow mountains loomed in the distance, and we crossed in a small ferry-boat the Ak-Su, a smaller and narrower river than the Lepsa, but quite as rapid. At the Ak-Su station horses were again given us, but it must not be supposed that all this came as a matter of course, for we overtook at least three officers in these picket-stations, against whom we should have had no chance in securing horses, but for the kind patronage of the Governor-General. To expedite matters still more, and finding that an *estaphet*, or mounted messenger, could be sent on ahead for such a trifle as a halfpenny a mile, I began the practice further on of sending off immediately on my arrival a boy to the next station to announce my coming, so that if the horses were turned out on the steppe, they might be brought to the stable ready to be harnessed at a moment's notice. At the Ak-Su station it poured with rain—a fact I mention only to take of those refreshing drops farewell—a long farewell, for days and weeks and months, since, if I remember rightly, we saw no more like them for upwards of three months—that is, till we reached the Caucasus in December.

At Abakumovskiy, the next station, we were near the mountains. From this place a post-road goes off at the foot of, and parallel to, the Ala-Tau range, a distance of 65 miles, past three stations to Lepsinsk. The first station is Sarkandskiy, to which I have already referred as peopled chiefly by baptized Taranchis; and the fourth, Lepsinskaia, Mr. Morgan says, lies under the shadow of the principal range of the

Ala-Tau, in an amphitheatre of mountains bearing the local name of "Djeilau," or summer pasture grounds. Although at an elevation of 3,500 feet, its climate is temperate and healthy at all seasons, the rainfall supplies every need of the agriculturist, and even timber is not wanting in the higher mountains, while Alpine scenery, lakes and waterfalls, not to mention a rich and diversified flora, lend additional charms to the neighbourhood. Lepsinsk is one of the districts in which the colonists prosecute the keeping of bees, though to a less extent than in the uyezds north and south.*

The Sungarian, "Cis-Ili," or "Northern" Ala-Tau, so called in contradistinction to the "Southern" or "Trans-Ili" Ala-Tau, terminates that vast depression stretching to the south of the Tarbagatai, in the midst of which are situated the lakes I have been describing.†

* I have no recent statistics, but, according to the latest to hand, there were in Sarkan 9 beekeepers, and throughout the Kopal uyezd 29. In the Sergiopol uyezd there were 103, and in the Vierny uyezd 188; making for the whole of Semirechia 320 beekeepers, who, during the 15 years from 1856-1871, collected 71 tons of honey, and 10 tons of wax, of which amount 47 tons of honey and 7½ tons of wax were sold.

† The main range of the system corresponds nearly with the 45th parallel of latitude, and here are snow-clad peaks for a distance of more than 130 miles, with but a very limited number of passes. Mr. Morgan calls this Ala-Tau the first step in the series of ascents to the highlands of Central Asia, approached from the north, and describes its appearance in the distance as like a massive rampart with snowy parapet extending to the west as far as the eye can reach. But on closer acquaintance it is found to consist of several nearly parallel chains, considerably lower than the main range, though adding much to its width. The average height of the range reaches 6,000 feet, but isolated peaks attain to 12,000 and more. The limit of perpetual snow was computed by Schrenk to be 10,700 feet. The outer hills, composed largely of Jurassic formations, are cut by the rivers Lepsa, Baskan, Sarkan, and Ak-Su, which issue from deep and almost impassable

On leaving Abakumovskiy we found ourselves ascending a mountain path, named the Hasfort pass, after a former Governor-General of Western Siberia, that called to my mind the sides of one of the Californian cañons, and it was not till far on in the night that we reached the station Arasan, where I was too sleepy to see much, but I heard that the station-master was a Pole, who, understanding that I was a foreigner, asked whether I came from Paris. What gaieties I should have seen, had it been daylight, I know not, for we were now at the fashionable bathing place of the neighbourhood. Here are hot sulphur springs (whence the name *Arasan*), much frequented in summer. There are bathing houses, a pretty garden, and a small hotel.*

From Arasan we posted into a temperature uncom-

gorges into the plain below. From the summit of the first ascent are to be heard distinctly the roar of cataracts in the higher ice-bound granite cliffs. To the west the range falls almost at once to the picket-station of Ak-Ichke, where there are only some low hills that soon mingle with the plain. To the east a like phenomenon occurs, forming the boundary of Kaptagai, except that here the contrast is more striking. Between the points named there is an interval of 200 miles, and in this are the more or less accessible passes of Tentek and Lepsa. Besides these passes connecting Lepsa with the south should be mentioned two caravan routes to the north striking the main post-road, one at Arganatinsk, and the other slightly north of Little Ayaguz. Such a peculiarity of surface, says Colonel Kostenko, makes an excellent state boundary for Russian Central Asia, and the abundant water supply on the plains to the north admits of the possibility of maintaining on the limits of this frontier line a large settled population and great numbers of armed men.

* Other thermal springs are found east of Ala-Kul; also in the Borokhoro range are hot sulphur baths, with a temperature of 122°, as measured by Mr. Morgan. In both the latter localities cold springs occur by the side of the hot ones. In the Borokhoro natural baths, resorted to by the natives, a thin, cold stream issues from the rocks, and has been so adjusted that a bather may have a jet of water trickle on his eye. This has been devised as a cure for ophthalmy, a prevalent complaint in this region.

fortably cold, till sunrise found us 3,900 feet above the sea at Kopal. This town was formerly the capital of the province, and has a population of 5,000 souls. It was founded in 1841, and is finely situated in a valley. It has two schools, two churches, and a mosque, but is now on the decline, since the business formerly done in the Steppe has now been largely transferred to the new capital at Vierny. As we drove through the town before its inhabitants were astir, it looked well-built and clean. I would gladly have purchased some new white bread, but as this would have delayed us some hours, and necessity did not compel me to stop, we posted on past Ak-Ichke, and breakfasted at the next station, Sari-bulak, beyond which the way lay through tall herbage with hollyhocks. Here we met our first camel caravan and signs of increased animal life. Thus far, apart from the stations, we had not seen, I think, all the way since leaving Semipolatinsk a single collection of houses that could be called a road-side village. At Vyselok-Karibulaksky was a village, and something much rarer, a church, whilst the cultivated land around recalled one of the Siberian villages, so closely planted along some of the post-roads. Here I observed, flying about, my first Hoopoe, with its gay yellow crest and speckled wings. Up to the next station, Djangyz-Agachskiy, the road had made a considerable *détour* to the west in order to skirt some spurs of the Ala-Tau, and beyond this station we ascended among barren mountains to the height of 4,500 feet above the sea. At the following station, Tsaritsin, we had reached a point 40 miles in a straight line from Kopal, but which had cost us double that distance to attain to. Here was a telegraph station, the officer of which in his loneliness eagerly asked for books. From this

point the road divides, one branch making a *détour* to the left by Kok-su and Ters-agan to Kugalin, whilst the road to the right goes to Kugalin direct. This latter way we went, starting after tea, and arriving in the middle of the night two stations further on at Altyn-Immel. So cold had it become during the last two stages that, despite my Ulster coat and Maude shawl, I had to descend from the tarantass and run to warm my feet.

Altyn-Immel to us was "Kuldja junction," where we had to re-arrange if not to "change carriages." From this point we turned off to Kuldja, that was to be our next resting-place, whither it seemed unnecessary to drag our wagonette, laden chiefly with Russian books, but rather to take the Mongolian and Chinese Scriptures, and leave the rest till our return. We arrived in the small hours of the morning at Altyn-Immel, where, being unable to find anyone in the post-house, I entered the guest-room, and began writing till daylight should bring someone on the scene. At length the post-master, a Tatar, emerged from his sleeping-place, that was none other than an empty post-cart in the yard, after which, our boxes left in his charge, we hurried off towards Kuldja.

CHAPTER XIV.

FROM ALTYN-IMMEL TO KULDJA.

The Altyn-Immel Pass.—The Ili valley and its mountains.—Stations to Kuldja.—A sick telegraphist, and Tatar.—Nomads of the Province.—Borokhudzir fortress and nursery.—Cotton growing.—Ruined towns, and Solons.—Kuldja minerals, and mining.—Chinchakhodzi, and road to Lake Sairam.—Communications of the Province.—History of Ili valley: its colonization, rebellion, and occupation by Russians —Arrival at Kuldja.

SOON after sunrise on the last day of August, we left the post-station with our stock of Chinese and Mongolian books piled on the tarantass in three cases, and thus heavily laden we gradually ascended for seven miles to the gorge or pass of Yakshi-Altyn-Immel, or the "good golden saddle," so-called in distinction from the "Yaman" or "bad" Altyn-Immel pass in another part of the range. We had attained a height of about 5,500 feet above the sea, and had a fine view before us. The length of the gorge is four miles, and the road passes through clefts in the overhanging rocks. At times the cliffs recede, and then in front there opens out a vast plateau shut in on the south by the central course of the Ili. There now lay before us a district that has played a prominent part in the history of the East. It is the most accessible depression by which the great plateau of Central Asia may be reached from the Turkistan plains. Hence the Kuldja oasis has

served as a resting-place for the vast hordes whose migrations, conquests, and defeats have formed so important a chapter in the history of Asia.

The Ili valley is a continuation of the Semirechia country running east in the shape of a wedge between the Ala-Tau and Thian Shan mountains, the base of the triangle being open to the Steppe whilst the apex, where the Ili has its sources, is closed by lofty mountains. The eastern portion of the valley, which, together with the Baratol valley, constituted at first under the Russians the Kuldja *rayon*, or province, occupies an area of 25,000 square miles, or half the size of England, and is bisected by the River Ili, formed by the Kungess, Tekess, and Kash, and having a course of not less than 750 miles. The mountain range, known as the Borokhoro, on the north of the valley, does not exceed 9,000 or 10,000 feet in height, but the southern range rises to an absolute altitude of 15,000 feet, covered with a dazzling, continuous mantle of snow, the skyline being broken by an endless succession of giant peaks, some of them upwards of 20,000 feet above the level of the sea. We had a very fine view of distant snow peaks, and of bare rocky mountains near at hand, before we descended by a rapid and almost dangerous slope into a stony, level, and arid plain.

On reaching the first station,* Bash-chi, we had

* The stations between Altyn-Immel and Kuldja, with number of versts between, are :—

Altyn-Immel—		Khorgos	22
Bash-chi	28	Alimptu	15
Aina-Bulak	25	Chinchakhodzi	20
Konur-Ulen	21	Suidun	18
Koibyn	25	Langar (Baiandai)	18
Borokhudzir	25	Kuldja	23
Ak-Kend	28		268

come down more than 2,000 feet, and found a poor picket station, where we were told that the horses were "in the field," or, better said, in the wilderness, and the time it took to catch them made us resolve to send forward an *estaphet* to announce our coming, and so, in future, prevent delay. By tea time we had reached Konur-Ulen, and met in the station an invalid telegraphist, who had just arrived to live a month in a Kirghese tent and undergo the *Kumiss* cure. He had brought with him of the fruits of the land, and gave us a melon, which added a relish to our meal, coming, as we did, from the fruitless steppe. Tea over, we watched a Kirghese woman putting up his tent, the hire of which for a month was to cost 12*s.*; and whilst we were thus employed, the post-master, entering the name from my podorojna in his book, read the words, "The English Pastor, Henry Lansdell, *Doctor bogoslovie*"—literally, doctor of the Word of God or Divinity. The "bogoslovie" probably puzzled the post-master, for he was a Tatar; but, thinking that "doctor" had something to do with medicine, he came to show his tongue, covered with sores, and affected, Mr. Sevier feared, with cancer. My companion applied some caustic, and promised to see him again on our return. The man bought a Kirghese New Testament, and we departed over at first a fair road, though afterwards it proved atrociously stony. On arriving at Koibyn we found that we had sent forward an *estaphet* to some purpose, for Mr. Sevier, on springing out of the carriage and asking for horses, was told that he could not have them, for they were being kept for a general —the "general" proving to be none other than my humble self, whom the post-master seemed to anticipate to be of exalted rank, since such kind attention was

being shown me by the authorities. From Koibyn we proceeded up a mountain gorge that is described as pretty by both Schuyler and Ujfalvy, who speak of the varying yellow, red, and purple hues of the steep and scarped rocks, as also of bushes covered with blue, white, red, and yellow flowers; but we passed this place in the night, and by dawn came within sight of Vyselok Borokhudzir.

In passing the 60 miles from Altyn-Immel to Koibyn, we had met more than one party of nomads flitting to new pastures. A prominent individual among the first cavalcade was a stout old lady riding astride a fat ox. Other females of the party were all riding in the same fashion, some on camels, with children in front, and some on saddled oxen.* We saw in the distance as we drove along Kirghese auls, with their flocks and herds, which form their chief means of subsistence, though some of the Kuldja nomads do, to a certain extent, cultivate the soil.†

We had reached Borokhudzir, 3,900 feet above the sea, prettily situated on the right bank of the river of

* I was subsequently favoured with a MS. copy of the latest statistics (for 1878) of the numbers, grades, domestic economy, and places of resort of the nomad population of Kuldja; from which it appears that in the five vollosts of the northern, and five of the southern, divisions of the province there were 13,000 tents, with a population of 31,600 males, and 26,400 females. Of these, 36,000 were Kirghese, and the remainder Tatars, Kalmuks, etc. So far as there are any grades among the nomads, one may distinguish in the province 14 sultan or aristocratic families, 4,000 *igintchas*, or poor, and 1,000 mullahs.

† In 1878 they sowed of wheat, barley, and millet, 819 tons; and reaped 21,925 tons, or a twenty-seven-fold harvest. To this may be added the wheat, barley, rice, millet, and clover of the settled inhabitants of the province, sown to the amount of 5,980 tons, with a result of 107,632 tons reaped, or nearly a twenty-fold increase. Kostenko states that, about Kuldja, crops of wheat return 30 per cent. The cattle of the nomads numbered 750,000 (of which 107,000 are reported to have died during the year) and the cattle of the settled inhabitants 182,000.

that name, on September 1st, and had I been a devotee of "Saint Partridge" there would have been no need for me to long for the turnip fields of Old England wherein to keep the festival, for the surrounding woods were full of game, including not only Partridges, but Pheasants, greyish Hares, and abundance of Deer. For some years previous to the Russian occupation of Kuldja, Borokhudzir was the Russian outpost in this direction, and during the Dungan insurrection a corps was stationed here to prevent infringements of the Russian boundary. Here, too, were stored up, after the seizure of Kuldja, the arms taken from the Dungans and Taranchis. After the annexation of Kuldja, the force stationed here (in 1877) consisted of 100 men and 2 guns; but at the time of my visit I am under the impression there were more, in prospect of Kuldja being ceded to the Chinese, and Borokhudzir becoming again the frontier fort—the "fortress" meaning, if I mistake not, a defensible barrack of four long buildings, in the form of a square, and not a defence with ramparts.

Peasant colonists from the Tomsk province of Siberia have built a settlement near of about 50 whitewashed houses of unbaked bricks, where is a post and telegraph office, and a nursery garden, planted in 1869, for the purpose of showing the natives how to develop the vegetal capabilities of the country. General Kolpakovsky, we heard, took great interest in this experiment, and on our return journey we inspected the nursery. It was watered by irrigation, and in the season furnished occupation for from 30 to 50 men. The vines were trained in bowers, of which there were many and long, but the cheapness of fruit may be gathered from the fact that a Sart paid only £18 for all the season's

grapes. The number and variety of young trees and shrubs was very considerable, and included pears, apples, walnuts, peaches, and sundry other fruit-trees, besides large numbers of karagatch. The hard timber of this last, when well seasoned, possesses enduring qualities that are highly esteemed. Some of it also was growing in the form of well-cut hedges. Other trees were the thorny acacia, and among poplars a silver species with a light-green smooth bark. I noticed, too, raspberry canes, artichokes, cabbages, cauliflowers, cucumbers four spans long, and a plant resembling a large turnip with cabbage-leaves coming out of the bulb. The products of this nursery are highly esteemed by the natives, and are distributed as far as Kopal.

Besides this, I should mention that cotton has been successfully grown in the valley of the Borokhudzir river. It was introduced in 1867 by Chinese emigrants, who considered the clayey soil of the valley, and the long, dry, hot summer, with a short snowless winter, as fairly good for cotton culture.* In the years 1868-9 an attempt was made at growing cotton at Borokhudzir

* The soil is prepared as for sowing corn, the ploughed land being formed into regular beds, not more than seven feet square, and surrounded by small clay dykes to preserve the seed from the dampness of the canals. The beds are then inundated from the *aryks*, and remain so for about three days. When the surface is quite dry, little furrows are made in the beds with the finger; into these the seed is dropped and lightly covered with earth. Two weeks after sowing, the plants come up, and, if not frostbitten, the stems grow rapidly to the height of two feet. A rainy summer or immoderate watering spoils the cotton, but in the middle of August germinal pods appear, and subsequently increase to the size of a walnut. The shell hardens, and at the beginning of October bursts, when through the fissures may be seen the white fibres of cotton; this at length hangs out of the pod, and is then ready to be gathered. Cotton culture in weeding time and harvest requires despatch, and, consequently, the employment of many hands. The cotton is freed from the pods and seeds by the clumsiest of contrivances, such as tax the patience even of a Chinaman; and the preparation of thread,

by the Russian soldiers, under Chinese superintendence, but the climatic conditions of those seasons happened to be unfavourable, and I did not hear that the cultivation was being carried on to any considerable extent at the time of my visit.

From Borokhudzir we drove out by the wide street, fringed with canals and willows, very early in the morning; and, having crossed the river that gives its name to the village, we traversed a vastly improved region, where on either hand there met us tokens of culture, in the form of well-arranged canals, but all in ruins, and the land overgrown with weeds. The road entered the remains of a considerable forest of prickly shrubs, pines, willows, and karagatch trees, said to have extended in former times as a cultivated forest nearly all the way to Kuldja. Chinese settlements were scattered throughout, and the ruins of them are still visible, but the trees, no longer cared for or irrigated, are fast dying. Nine miles from Borokhudzir we crossed the River Usek, on whose bank (*jar*) are situated the ruins of Jarkend.

and weaving it, is carried on by machines equally primitive. Comparing the lengths of three kinds of cotton grown in the Borokhudzir valley, it was found that the "Tashkend" measured 3½ inches; the "American" upwards of 7 inches; but that Chinese cotton of the "Tashkend" sort was shorter. The Chinese cultivate cotton as an accessory to corn growing, but seek to produce only so much as will supply the family with clothing, and not for export like tea. This remark, however, would not apply to the natives of Samarkand, where cotton is grown under more favourable conditions. In a paper transmitted to the American Geographical Society of New York in 1875 by M. Brodowsky, on the Cotton of Central Asia, the author states that, in 1868, Russia manufactured £12,167,400 worth of cotton; that she consumes yearly 48,000 tons of raw cotton, and more than £450,000 worth of English yarn; that of this quantity 9,600 tons (or one-fifth of the whole) come from Central Asia, and 3,200 tons from Persia. The rest is bought in Liverpool, 2,000 tons being of American, and 16,000 tons of East Indian growth.

The remnant of a people called Solons live near. They are not an old race in Sungaria, but are a section of the Manchu race living in North-Western Manchuria, and forming some of the most warlike of the bannermen. They were planted largely by the Manchus in Sungaria, when they conquered it. Mr. Howorth met one, he tells me, at Petersburg, at an Oriental Congress. At Jarkend they live in scattered mud houses in winter, and in summer pitch their tents on the river banks; but they are few in number, some having removed to the neighbourhood of Chuguchak, and others having become Christians, and settled at Sarkansk. The place, however, is likely to regain importance from the Taranchi and Dungan emigrants, who have settled there since my visit in order to be under Russian government, in preference to staying in Kuldja under the Chinese. In the Usek our carriage stuck fast for about an hour, till some Cossacks came to the rescue and got us out.

By breakfast time we reached Ak-Kend, where a comfortable Chinese house had been converted into a Russian post-station. Here we met a travelling Russian priest, to whom I sold some tracts and Scriptures. The station is in the midst of a once flourishing, but now ruined, Chinese town, the one semblance of commerce that we could discern being two or three stalls for the sale of melons and vegetables. We speedily purchased some of the former, and proceeded on our way, now meeting clumsy Chinese carts, and passing here and there a field under cultivation. On reaching the River Khorgos, which is the boundary line of the Russian and Chinese empires, we found encamped a number of Cossacks, who bought some of my books, and then proceeded to help us to cross the

stream. In spring this is sometimes impossible for weeks. On the present occasion a mounted Cossack preceded us to find the shallow parts of the bed, whilst another rode by the side of the tarantass, with a rope attached, to keep us from toppling over. On emerging safely from the river, we passed ere long the walls of Tchimpantzi, once a flourishing industrial and commercial centre with 50,000 inhabitants, but where not a single house had been left standing. Formerly the town was surrounded with irrigated fields, but since they had been visited with the curse of civil war the land had reverted to a barren steppe.

Over this Steppe we drove for some miles, passing the Taranchi village of Mazar, lying off to the left, whilst three miles further could be seen the Solon village of Dabir. On arriving at Alimptu there were no post-horses, though the chief strove to comfort us by saying that, had our estaphet only arrived earlier, he would have stopped the post in order that we might have the steeds. Whether this was perfectly genuine I know not, but there were abundance of Cossack horses in the stable; and when we asked the Cossacks whether they could not take us forward, they graciously consented, but asked for four times the normal fare! This they abated, Russian like, to a triple charge, which we paid rather than wait longer than sufficed for a meal. In the station yard was a stone lion with curly mane, similar to those placed by the Chinese at the doors of their temples, or of persons of high rank, the lion being usually represented in a sitting posture with the right paw on a globe. This post-house was kept by a brother and good-looking sister, who struck me as superior to the average of their class, and who were, we afterwards found, children of the post-master

in easy circumstances at Chinchakhodzi, where we arrived the same afternoon.

All the morning, as we had driven along through ruined towns and desolate fields, we enjoyed by contrast a strangely beautiful view of the distant mountains, their bases being hidden by mist, whilst their snowy peaks seemed to float on the bosom of the clouds. This was especially the case with those on the right, and those on the left at their summits were also sprinkled with snow. These mountains of the Ili valley contain numerous minerals, but it is doubtful whether any, except perhaps coal, are valuable. Gold is found only in the right affluents of the Ili, which spring from the syenitic-granite spurs of the Borokhoro range. When the Russians took possession of Kuldja they instituted an inquiry into the mining operations of the natives, and found things in a condition truly primitive.

Coal has been worked in the valley for more than half a century, though not used in other parts of Central Asia. Chinese labourers worked in companies of 8 on co-operative principles, or Kalmuks in gangs of 12, hired by Dungan or Taranchi capitalists. They sought a spot, when possible, where they could sink a vertical shaft sometimes 300 feet deep, and at the same time advance thereto by an inclined one, the former serving to raise the coal, and the other as a means of communication. Up to the coming of the Russians the price of coal at the pit's mouth was ¾*d.* per cwt., by reason of the cheapness of labour, materials, and food.*

* One coalmaster stated that the sinking a vertical shaft 300 feet, and making an inclined adit 400 feet long, cost him about £80; the labour employed being 12 Kalmuks during the winters of 2½ years at wages of "a penny a day," or 24*s.* each per annum, and food, costing

The station at Chinchakhodzi we found in the midst of an excellent garden, with numbers of standard peach trees, and a bower of vines with grapes beginning to turn colour. Here was another fair sister and daughter of Russia, whose mother, the post-mistress, told us that it was her son and daughter whom we had seen at the previous station, and she further informed her guests, with some satisfaction, that she had another son a post-master, and a third who held the appointment of Russian and Chinese interpreter to General Friede, Governor of Kuldja. But though the happy mother of five thriving sons and daughters, the good woman

half this sum. For extracting coal he hired 20 labourers on the same terms, who raised about 8 tons a day, procuring 1,300 tons in 160 working days. Deducting, in addition, cost of mining apparatus, and one-third of the produce for tax to the Khan, selling the remainder at ¾*d.* per cwt. brought the coalmaster about 10 per cent. upon the capital laid out. The miners' wages in Kuldja would not delight the heart of a Northumbrian, for they are often paid in the form of old clothes; and if the results of their work supply the miners with the barest necessities, they are content. The approximate annual output of coal in the neighbourhood of Kuldja, previous to 1873, was from 10,000 to 13,000 tons.

The iron mines were worked also by means of vertical and inclined shafts, and sometimes galleries were constructed in the deepest parts for seeking lodes of ore. The ore was roasted and then smelted in furnaces made of bricks—air being introduced by hand-bellows. For the preparation of 1 cwt. of iron were required 7 cwt. of ore, and 15 cwt. of coal; the cwt. costing in production 2*s.* 4*d.*, and selling at Kuldja, in 1873, for 4*s.* 10*d.* The quality of iron was of the worst, and the industry generally at a very low ebb. Silver mining would not appear to have been much better, for Mr. Davidoff reported that a band of 4 Chinamen extracted in 3 years 6 *yambs* of silver, thereby earning for themselves only £3 each. Copper mining under the natives was still less satisfactory. From a cwt. of ore were received 5 lbs. to 8 lbs. of black copper, afterwards smelted in crucibles and cast. The Taranchi sultan, when in power, was wont to order a levy of 100 Kalmuks or Chinese, make them light fires, extract the ore, and conduct the smelting, for which they received their food, but rarely any wages. In 1873 copper smelting had been going on 2 or 3 years, and the production for that period was said to have been about 3 tons.

had a "skeleton in her cupboard," even in the Ili valley, for she had also a child idiotic, and, reading "Doctor" on my podorojna, she supposed there might be a physician passing by, and brought her boy of eight, saying that he had never spoken since he was three years old, that he had fits, was never still, and seemed like one possessed. Sevier, for some reason, could not dispense for her satisfactorily out of our medicine chest, but promised to bring on our return some iodide of potassium, and gave hope to the mother that her child might outgrow his malady.

Chinchakhodzi is inhabited by Dungans, and, being a Mussulman town, escaped the general destruction at the time of the war. It is surrounded by a wall, and wears an aspect unmistakably Chinese, as did the maize and harvest fields we next passed through. From Chinchakhodzi there branches off a road by which the traveller, after a journey of about 30 miles into the Borokhoro range, reaches Lake Sairam, 6,000 feet high, and about 300 square miles in area, above the southern shore of which is situated the Talki pass. The road in some places passes over steep declivities, and in others upon cornices hanging over precipitous cliffs, whilst here and there are preserved the ruins of Chinese pickets or military posts. At the bottom of the gorge whirls, amidst roar and foam, the Talki stream, and, in ascending, the appearance of the grey and red piles of rock becomes wilder and grander. As one mounts higher, the vegetation peculiar to a warm climate, such as apricot, dwarf elm, and apple, is replaced by the hawthorn, mountain ash, and willow; higher comes the birch, and, higher still, a wide belt of red fir, beyond which the road ascends a bare rocky slope, and, when the crest is reached, there is presented

to the view a majestic and peaceful lake, held in its mountain basin as water is held in a cup, or like a sheet of clear glass softly reflecting the azure blue of the heaven above. Skirting this lake is the great Chinese "Imperial Road," connecting Kuldja, Urumchi, and Pekin, by which some of the mediæval travellers made their way now to the Court of the Mongols, or further to the land of Cathay.*

Our next station to Chinchakhodzi was Suidun. As we approached we saw the Cossacks exercising, and coming nearer found the Chinese strengthening the walls of the town. About 10 miles distant were the ruins of what was the Chinese capital, variously called Ili, New Kuldja, and Manchu Kuldja, in which 75,000 people were butchered in one day. We did not go there, nor had we yet seen the last of the ruins by the roadside, concerning the origin of which I have as yet said nothing in detail, though I think an outline thereof will better enable the reader to understand the heterogeneous elements of which the Ili population is now composed.

The history of the Ili valley dates back as far as the second century before the Christian era, when the Usuim were driven by the Huns to settle there from Mongolia.

* Concerning the roads of this region the principal artery is the great Chinese carriage road leading from Nanking by way of Hankow, Ngan-si-chow, and Hami to Turfan. Here it divides north and south of the Ili province, one branch proceeding through Urumtsi, Manass, and Chuguchak to Semipolatinsk (with the branch described above, over the Talki pass to Kuldja), and the other passing by way of Karashaar, Korla, Kucha, and Ak-Su to Kashgar. There are also two bridle passes from Kuldja to the carriage roads north and south of the mountains, one by the River Kungess to the Yuldus plateau, and the other by the Tekess river to the Muzart Pass near Khan Tengri; but that over the Talki only is constructed for wheel traffic, and even this one in 1873 was in so ruined a condition that Mr. Dilke spoke of it as not passable for artillery.

Here the Usuim became a powerful people, till in the fourth century they again migrated, and their place was occupied by the Uighurs, a Turkish tribe that had descended from the north and occupied the slopes of the Eastern Thian Shan. China, however, had long before made her power felt over Central Asia. Chautsian, in the second century B.C., journeyed from China and commenced relations with "the Western Country." Annexations followed, and in B.C. 59 the country north and south of the Thian Shan acknowledged the suzerainty of the Celestials. This sway was only nominal for some hundreds of years, but in 627 the second emperor of the Tang dynasty despatched an army to strengthen the wavering allegiance of the Uighurs, whereupon the western country was divided into departments, and placed under a viceroy. Later on the Chinese power in Central Asia declined, and the "Western Country" fell in succession under the Tibetan tribes, the Arabs, and the Kara-Khitai, and then under Jinghiz Khan.

After the time of Jinghiz Khan, Sungaria, of which the Ili valley was a part, was possessed by several tribes, called Kalmuks, who formed a confederacy, and were termed *Oirats*. Their influence spread over all Mongolia, and in 1450 they conquered the Chinese, but subsequently their power declined. In the beginning of the seventeenth century internal dissensions began to lead to secessions of tribes, and in the following century the Sungarian throne was seized by a usurper, who recognized the suzerainty of China, and then repudiated it, conduct which was punished in 1756 by the Chinese massacre of 600,000 Kalmuks, so that Sungaria was completely depopulated, and, becoming once more a Chinese province, was divided into seven

districts, of which the Viceroyalty of Ili consisted of three—Tarbagatai, Kurkara-Usun, and Ili or Kuldja.

China now proceeded to repeople the country by sending there her own convicts and vagabonds, by planting military colonies of Solons and Sibos from Manchuria and Dauria, by causing to migrate thither from the western provinces of Kan-Su and Shen-Si, Chinese Muhammadans called Dungans, and by importing from Kashgaria other Muhammadan settlers, who became known as Taranchis. Besides all these, in 1771 there began to return from the Volga region a number of the Torgout tribe of Kalmuks, who had migrated thus far before the destruction of their kinsmen, and who had been invited by the Chinese to come back to the haunts of their ancestors.

For the purpose of keeping order in the country, the city of Ili or Manchu Kuldja, south of Suidun, was built as a seat of government and settled by Manchus. Six other forts were erected, one with a Manchu garrison, the others being defended by Chinese soldiers. In course of time the officials so oppressed the Mussulman inhabitants that in 1864 the Dungans rebelled and killed the Manchus and Chinese about Urumtsi to the number of 130,000. The wave of rebellion rolled on to Kuldja, where the Taranchis joined with the Dungans, and completely overturned and massacred the Chinese and Manchus. Then the Dungans and Taranchis fell out with each other, met in battle in April, 1867, and the Dungans, who had everywhere murdered, robbed, and pillaged, were badly beaten, and so the Taranchis became rulers of the country. Meanwhile the Russians had been quietly looking on during the insurrection, refusing help to the Chinese authorities, and declining to enter

into relations with usurpers. Numbers of refugees fled to Russian territory, and were kindly received and located as colonists; but when the Russian border was

RUINED CHINESE GATEWAY AT SUIDUN.

crossed by marauding Kirghese from the Kuldja territory, and when, moreover, it looked possible that Yakub Beg, Governor of Kashgar, fighting successfully

with the Dungans, might proceed also to Kuldja, the Russians stepped in and seized it first, and promised the Court of Peking that, so soon as the Chinese Emperor could restore and maintain order, and pay the expenses incurred by the Russians, the province should be given back to the Celestials. The fulfilment of this promise had been claimed the year before my visit, so that I found things in a transitional state, and the strengthening of the wall of Suidun, referred to above, was in anticipation of the Chinese return to power in the following year.

We did not stay at Suidun, though it was late in the evening, but posted on past the ruined Baiandai, formerly a town of nearly 150,000 inhabitants, and at midnight arrived at Kuldja. We had now travelled from Omsk, a distance of 1,800 miles, in a fortnight, having our clothes off to sleep only the two nights at Semipolatinsk. There are no hotels at Kuldja, and as it was too late to present letters of introduction, I was glad enough to throw myself down on the bench in the dirty post-house, and there to sleep till morning.

CHAPTER XV.

THE ETHNOLOGY AND ETHNOGRAPHY OF THE ILI VALLEY.

The Ili Valley, midway between Turanian and Chinese races.—The Taranchis: their dress, habitations, and amusements.—The Dungans: their origin, number, features, and customs.—Solons and Sibos.—Visit to a Sibo encampment.—Their household gods, and sick people.—The Kalmuks: their physical and mental characteristics.—Administration under Geluns and Zangs.—Clerical functions of the Gelun.—Duties of the Zang.—Kalmuk religion, family life, and marriage.—Foreign influence and superstitions.

THE Ili valley may be regarded as a half-way house between the Turanian races of Central Asia and the Mongol races of China. Here meet the settled Mussulman Taranchi and Dungan, with the Buddhist Sibo, Manchu, and Chinese; as well as the nomad Muhammadan Kirghese, and the Lamaist Kalmuk. This variety of races and religions cannot but be interesting to the ethnologist and ethnographer generally, and a brief description of some of them will also render more intelligible my future narrative. The most numerous of the populations are the Taranchis, of Turkish race, who formerly lived in Kashgaria, and who, after rebellion in 1756, were transported by their Chinese rulers to the Ili valley. They occupy the valley north and south of the river, from the confluence of the Kungess and Tekess, to Kuldja, in about

a dozen villages ; and in 1877 numbered 28,000 males and 24,000 females, or about 40 per cent. of the population of the province.

The Taranchis call themselves Sarts, but to the Chinese they became known by their present name from their occupation as agriculturists or millet sowers, from *taran*, meaning millet, or, according to some, "a ploughed field." Mr. Ujfalvy calls them a mixture of Turco Tatar peoples strongly impregnated with Iranian blood ; but, though Turks and Muhammadans, long contact with the Chinese has modified some of their customs. Their dress consists of a full shirt, drawers of leather or cotton, and a khalat, with a *shub* added in winter. Except the mullahs, the men do not wear turbans, but fur caps ; whilst women and girls adorn their heads with stiff, low, gaudy, cylindrical hats, having conical tops. We saw ordinary patterns displayed in large numbers up to 20*s*. each, but wives of sultans have their caps adorned with jewels, sometimes to the value of upwards of £100.

A pair of Kashgar ladies' boots (*Makhsa*) I bought are about 10 inches high, of red shiny leather, gorgeously embroidered, and fitting close, but without a second sole or heel. They do well for house wear, but for the street a golosh is worn over them. Now and then one sees among the women a pleasant face, but they are all browned, being accustomed from childhood to work in the fields ; a striking contrast to their Tashkend sisters, who remain shut up in the house. The males shave their heads. One of our curious sights in the bazaar was a baby boy squalling under this operation. Married women braid their hair in two, maidens in three, long plaits, and both blacken their eyebrows, but do not paint. The women wear rings in the ears

(*untcha*), and upon the thumb, whilst the men thus adorn the third or ring finger.

In their houses, in Kuldja, they are said to have introduced improved surroundings and furniture, such as bedsteads and tables, at which they sit to eat, using stools and sometimes even chairs of simple workmanship. This, however, was not the case in the house of a former Taranchi bek, occupied by his five-times married widow, wherein lived Colonel Mayevsky, whom we visited in Kuldja. In this case a large proportion of the room was taken up with a raised divan, covered with rugs, and the dining-table was less than a foot high. At their feasts one may see the Kashgar dance, in which the performer accompanies himself on the tambourine.*

The Taranchis have a national song, but it is very expressive of sadness. Most of them speak Chinese, but their own tongue is Eastern Turki.

The Dungans, or Tungans, are fellow Muhammadans, and wear a skull cap, shaving the head like the Taranchis; but in language, dress, and almost every other respect they resemble the Chinese. Several guesses have been made at the etymology of their name, and their origin is uncertain.†

* In another dance the man (accompanied by a Chinese fiddle, and a stringed instrument called "chitra," or "cithara") strikes his head, shoulders, legs, and soles with a bamboo cane, carrying little bells. This latter dance is unknown at Tashkend or Samarkand. There is yet a third rollicking dance, in which the Taranchi wears bells round his neck, large enough for horses, and, putting himself through a variety of contortions, elicits from his auditory furious bellowing by way of applause.

† Some think them descendants of the old Uighurs; Terentieff makes them Turanians converted to Muhammadanism in the eighth century, and transplanted into China to the province of Han-Su. Legendary accounts connect their coming to Kuldja with Tamerlane, who, they say, married a Chinese princess and received the province of Ili to govern, and the land was afterwards given to his followers. Hence the Dungans consider themselves its rulers by right. According to other

The Dungans throughout Turkistan are supposed to amount to 20,000. In 1862, in the Ili valley, they numbered 60,000, but in 1877, after the war, they counted only 2,100 males and 1,900 females, being chiefly in Suidun, Chinchakhodzi, and Torji. Some have emigrated and others been exiled to Ferghana and Semirechia, in which latter province, about Tokmak, they number 4,000 souls. The Dungans living in the towns north of the Thian Shan, as Manas, Urumtsi, etc., have been said by some to be Chinese turned Mussulmans, but Mr. Ujfalvy declares this to be absolutely false as regards the Dungans of Kuldja, who are of a type quite distinct and radically different from the Chinese. They resemble rather the Uzbegs and Sarts, inhabiting Tashkend and Kashgar. The women, however, are like the Chinese, except that they do not disfigure their feet. The Dungans abstain from spirits and opium; neither smoke nor take snuff.*

traditions their Mussulman ancestors subdued China, and were by degrees, and partly through taking Chinese wives, absorbed in the conquered nationality.

* The Dungans are of middle height, and inclined to be stout. They have high and prominent foreheads, thick and arched eyebrows, eyes rather sunken, fairly prominent cheek-bones, face oval, mouth of average size, lips thick, teeth normal, chin round, ears small and compressed, hair black and smooth, beard scanty and rough, skin smooth, neck strong, and extremities of average proportions. The characteristics of the Dungans are kindness, industry, and hospitality. They engage in husbandry, horticulture, and trade. In domestic life parental authority is very strong. After the birth of a child the mother does not get up for fifteen days, and, without any particular feast, the child receives its name in the presence of a mullah the day succeeding that of its birth. Circumcision takes place on the eighth, ninth, or tenth day. When a girl is married she receives a dower. In sickness they have recourse to medicine and doctors, but never to exorcisms. After a death the mullah and the aged assemble to recite prayers; the corpse is wrapped in white linen and then buried, but never burned. On returning from the interment the mullah and the elders partake of bread and meat. To saints they erect monuments like little mosques,

They are more manly than the Chinese, and decidedly superior in morals. *Batchas** are unknown among them, though they are fond of gambling and the dance; but the two sexes dance apart, and the women never in public. The Dungans dance to the sound of the *dumbra*, a sort of guitar, and the *sabas*, or cymbal. This people never ceased to be Muhammadans, though their fanaticism has been somewhat modified by contact with idolaters. They follow the Mussulman laws, but have generally only one wife. On the death of a husband, his mother inherits, or if there be none, then the eldest brother, and afterwards the widow, even though she may have contracted a fresh marriage. The Dungans do not take oaths, but the deposition of witnesses is admitted. It is assumed, according to Mr. Hyde Clark, that a man is bound to speak the truth. If doing otherwise, he is by law subject to the penalty that would have been incurred by the subject of his false testimony.

The Dungan weights and measures are Chinese, as also the usages for the purchase and sale of property. The towns are always fortified, their villages not, and the houses are built at a distance from one another. Dungan carts are large, with immense wheels of 18 spokes, and drawn by three or four horses. The smaller vehicles have peculiar wheels covered with large nails. The people burn coal, candles, and oil lamps. They eat five times a day, but never horseflesh or pork, and like Chinese vinegar in their plates. They are particularly fond of a fruit the Chinese call *baisa*, a kind of red berry the size of a raspberry. It

for others simple hillocks. The widow may re-marry after 90 days, and on the third anniversary of the death a feast takes place.

*Boys kept for dancing, and sometimes for questionable purposes.

is sown one year and eaten the next, after cooking in large saucepans.

To the two settled peoples of the valley, who are Muhammadans, should be added 34,000 of their nomad co-religionists, the Kara-Kirghese. Of these I shall

SIBO MILITARY COLONISTS.

speak in a later chapter, also of the Manchu and Chinese as I met them during my stay. The Solons and Sibos, as already stated, were brought to the Ili valley as military colonists from Eastern Manchuria. I remember hearing, if not seeing, something of a Tunguse tribe called Solons when on the Ámur in

1879, and as Dr. Schuyler says the Sibos speak a Tunguse dialect similar to the Manchu, I presume they come from about that locality. The colonists were divided into 14 banners or *sumuls*, afterwards increased to 16, the Solons being settled on the right bank of the Ili, and the Sibos on the left. We passed through the Solon district between At-kend and Borokhudzir, but their numbers were so reduced by the war that only 800 were left in 1877, and these, by the immoderate use of opium, appear to be doing their best to destroy themselves.

The Sibos number 18,000 souls, the sexes, numerically, being about equal. I had been recommended to visit a Sibo sumul as one of the sights of Kuldja, and we accordingly did so. Of the eight Sibo sumuls we drove to the second, and arrived at a rectangular walled town, with a chamber over the gate. In this room were some idols, brought thither from a destroyed temple. We drove through a long, and fairly wide, but dirty street, to a building that corresponded to a town hall or house of public business, the walls of which were written over with stories in Manchu. We were next taken to a "tanza," or house, as I supposed, of a dignitary. The principal room was spacious and clean, but the furniture and ornamentation were principally confined to the western side, where were a hieroglyphical-looking representation of a tiger, and the paraphernalia of a Buddhist altar, on which were placed the *penates* or household gods. I should have liked to have purchased some of their *burkhans*, or idols, but they would not sell them: in fact, I think the proprietor was not there. I had taken some Scriptures, in Chinese and Mongol, but they could read neither one nor the other. They said, however, that the men of the sixth sumul could

read, and that books should be sent to them through the Russian Consul. We then went into other houses looking for curiosities, when my eye fell upon a man's belt with a clasp, fastening with a hook and eye cut in jade. There was also suspended from the belt, of the same material, a carved lotus, or sacred flower of the Buddhists. I bought the whole, and it is now in the British Museum. We inquired, likewise, if any in the town were sick, and were taken to a miserable hovel little better than a shed, where was

A SIBO WOMAN.

an old man, somewhat of an idiot, with fever, but not of an eruptive character, and opposite to him a young man. Mr. Sevier carefully examined him, sounding his swollen and dropsical stomach. His ribs were dilated, the liver pushed up, heart out of place, and arms wasted, whilst his pulse was beating fast, and he was suffering from bronchitis.* We had not the necessary

* Whence he had got the idea I know not, but (perhaps from local superstition) he was drinking his own water, and this was not the first case Mr. Sevier had met with. He directed him, of course, to discontinue it, and told him to drink milk.

instruments for tapping him, so that directions only could be given that he should be brought into Kuldja. The Sibos are said to be excellent gardeners, and when we repaired again to the town house to drink tea, they not only crowded round to see us eat and to partake of what we offered, but they brought us melons, after which we returned to Kuldja.

There remains one more tribe to be noticed in the present chapter, who are, in some respects, the most interesting in the Ili valley, because they are the least known. The Russians have long had the Turanian nomads under their rule, but not so in an equal degree the nomad Kalmuks. I have alluded in early chapters to the migration of one of their tribes, called Torgouts, to the Volga towards the close of the seventeenth century, and how, after the annihilation of the Sungarian Kalmuks, the Torgouts were invited by the Chinese to return. They did so in 1771, and were allowed to pasture the rich lands on the Kungess and Tekess rivers, considerably to the east of Kuldja, where they still wander under the name of Torgouts. In 1876 they numbered 9,600 males and 6,400 females.

I met with some of these people in Kuldja, from whom it was easy to see that they represent the Mongol type in comparative purity, reminding me of the Buriats, another Mongol tribe, I saw in 1879. They are anything but good-looking.* It should be added that they are good-tempered and generous, but exceedingly indolent. They are credulous, and dearly

* The Mongol has a flat face, cheek-bones prominent, but not so wide apart, I think, as with the Buriats, retreating chin and forehead, small eyes like narrow slits, and obliquely placed. Their lips are colourless, set in a strange, almost idiotic, and at the same time inexpressively sad, smile. The teeth of the men are large and white, whilst those of the women are stained with black. The hair is straight, coarse, and

love anecdotes and stories. Artificially produced gaiety, however, is followed by deep melancholy. Usually timid, they become very angry if irritated, and though not remarkable for severe morals, they excel the morally corrupt Chinese, than whom they are more generous, frank, and hospitable. They use no flour food unless it be gruel; and their brick tea they boil with milk, fat, salt, flour, and millet. I remember being treated to a cup of this mixture in a Mongol dwelling in Siberia, and my "accident done for the purpose" in upsetting the cup and declining with thanks to have it refilled. The cares of domestic management all fall upon the women, who, according to M. Ostroumoff,* are not noted for conjugal fidelity, in connection with which it should be mentioned that a very large proportion of the males are lamas, and therefore celibates so-called, so that, the proportion of males to females being increased, polygamy is encouraged.

For administrative purposes before the Russian rule, and now again I suppose under the Chinese, the Kalmuks are divided into squadrons (sumuns, or sumuls), each of 200 tents. They constitute the Chinese irregular cavalry. Each sumul is under the direction of a cleric called a *gelun*, and a laic called a *zang*. The gelun has the right to promote the lower lamas of his squadron to the rank of *getsul*, representing

invariably black, the beard scanty and bristle-like, and the skin rough and sunburnt. They are below the middle height, with broad shoulders, and long arms that hang idly by the side. The legs are bowed, and the voice harsh, sharp, and strongly aspirate. The coarse hair that is left unshaven at the back of the head is twisted by the men into a long queue.

* "Chinese Emigrants in the Semirechia Oblast," etc., by N. P. Ostroumoff, to whose able paper I am indebted for information concerning the Kalmuks, that I have seen nowhere else.

a third clerical grade. The gelun must be a celibate, must shave his head, fast on the 8th, 13th, and 20th of each month, abstain from wine and tobacco, and not wilfully kill an animal, even an insect. The gelun wears on ordinary occasions a long robe, enveloping him from head to feet, above which is worn a yellow gown with wide sleeves, and a yellow hat. When conducting religious ceremonies he wears many other and multiform garments.

The gelun's tent is always placed in the centre of the sumul, and is distinguished by its white, thin felt, and prayer-inscribed banner floating from a staff at the door. Here live the gelun and his disciples (*shabi*), usually five, who are not less than 12 years of age. Some of the disciples are simply servants, who look after domestic arrangements; and the third class, called *getsul*, assist in the performance of religious worship. The gelun's tent is also the house of prayer, as well as a dispensary, whence the great man administers medicine. His tent, like a chemist's shop, is accessible at all times to all persons, whether to a man with a sick cow or seeking a strayed horse, or one about to go on a long journey. On entering, the suppliant places his hand on his breast and bows, whereupon the gelun lays a holy book on the head of the visitor and pronounces a blessing. The gelun is maintained partly at Government expense (£4 16*s.* a year), but chiefly by his scattered "parishioners," some of whom he visits weekly, accompanied by one or two of his disciples. On arriving at a collection of tents he is joyfully received by the Kalmuks, who regard it as an honour to entertain him with their best, and give a feast usually of fresh mutton, tea, and *kumiss*. He says prayers in his tent at the prescribed hours, as if he

were at home, and the whole of the aul, men, women, and children, come and ask for his blessing.

As a cleric the gelun is subject to his spiritual superiors, but not to civil jurisdiction. He is supposed to take no part in the secular affairs of the people, but simply to render a quarterly report of births in the sumun to the *zang*, with whom he is considered to be on an equality. Indirectly, however, he can influence secular affairs through the lamas, who are numerous, since one of every three brothers in a family adopts the clerical calling. All the lamas in a sumul live by themselves, and are in constant relation with their gelun, and receive from him personal assistance. The gelun's superiors are the heads of monasteries, who may fine, and even inflict corporal punishment on the geluns, which is not often done, however, on account of the tolerance of the Kalmuks for the frailties of their pseudo-virgin geluns.

The *zang*, or civil administrator of the sumul, ranks with an European major. His tent is better than, but not otherwise different from, the rest. The sole distinguishing mark of his costume is a hat with peacock's feather, and dark blue button. It is his duty to arrange the turn of military duty on the frontier pickets, and to mount guards over government horses. He also investigates non-capital crimes committed in the sumul, and may award from 27 to 54 blows with a whip, but not more. The people are not on such intimate terms with the zang as with their spiritual ruler. They appear before the zang only when summoned, and kneel on one knee. No one dare sit in his presence without permission, or criticise his orders. Usually he connives with the rich and oppresses the poor, who uncomplainingly submit.

The faith of the Ili Kalmuks who emigrated to

Semirechia and were baptized was that of Buddhistic-Shamanism, which the lamas diligently propagated among the Solons, Sibos, and Manchus, very similar, I presume, to what I found among the Buriats, where old Shaman customs still lingered, though the people had accepted Buddhism. The lamas are teachers, medical sorcerers, and priests. Hence their services are continually called into requisition: at a birth to read prayers over the mother, who for a month is considered unclean, and to name the child; later to instruct the boy, to marry him when grown up, to treat him when sick with prayers and drugs, and after death to decide whether the corpse shall be buried, exposed on the Steppe,—to be eaten, I presume, by dogs as at Urga,—or burned. The lama, in fact, appears as chief counsellor and teacher in all the important events of life, and supplies his parishioners besides with amulets and *burkhans*.

The Kalmuks had special oratories in Kuldja, and a monastery on the Tekess. In their tents they have movable *burkhans*, or idols,* and round their necks they carry amulets made of short prayers sewn on pieces of cloth. When journeying they wear, besides the ordinary amulets, a burkhan in a leather purse.†

Family life among the Kalmuks possesses greater freedom than among the Solons. A Kalmuk girl is a shepherdess. She is married early, without much attention to her predilections, even without her consent,

* Reminding one of Laban, Gen. xxxi. 19, 34.

† Some of the burkhans are painted in oil colours on cloth, some are carved on copper, or cut on wood and stone, baked in clay, or sometimes printed on paper. The printed burkhans on cloth are often rolled on a wooden cylinder, and tied, but unrolled and hung in the tent during prayer. On fête days the Kalmuks place before the burkhans small copper cups, filled with Kunjut oil, and ignited. They have also various perfumes, one being prepared from a finely-broken brushwood. Besides

but she is at liberty to leave her husband and return to her relations. Whether she likes a suitor is known by her leaving the tent as soon as the marriage negotiations commence, or the reverse, by her staying during the whole conference. The parents, however, seldom regard her taste, and the aspirant, with their consent, watches for an opportunity of seizing the girl and carrying her off by force, the parents considering

A KALMUK BEAUTY.

their duty towards their daughter fulfilled if only the man carry her off without their seeing it. A Kalmuk widow may marry three months after her husband's death, or even after one month's mourning.

The Kalmuks, who lead a nomad life, cordially hate the settled Taranchis, Dungans, and especially the

the burkhans, religious respect is shown to little black pyramids, the size of a pigeon's egg, with Tibetan letters in relief. These are said to come from Tibet, prepared from a mixture of clay with the ashes of pious Buddhists whose corpses have been burned. The pyramids are carried by Kalmuks in copper or silver cases on their bosom as sacred amulets.

Kirghese. Consequently they have come very little under foreign influence, and preserve their national languages, both written and spoken, remain faithful to their national traditions, and love their own peculiar songs. The women are particularly fond of singing, and take parts with the men. What foreign influence reaches the Kalmuks does so through Buddhist teaching, which is concentrated in Kalmuk monasteries and disseminated by means of the lamas. The learning of the lamas is almost limited to the ceremonies of the Buddhist religion. As a mundane element in Kalmuk-Buddhist literature may be mentioned a certain kind of medical knowledge, which, however, is not the heritage of the people at large, but only of the lamas, in whose hands it assumes a form nearly akin to sorcery. The manner of regarding the appearances of nature was borrowed by the Kalmuks from Buddhist writings, in harmony with which they explain eclipses of the sun and moon, rain, hail, thunder, and lightning. The Kalmuks consider an eclipse of the moon portends general poverty over the whole land, and endeavour, by cries and drumming, to frighten from the moon the evil spirit that is shading the light. In a whirlwind they recognize the soul of a suicide. The Kalmuks endeavour to get out of its way, or, if that be impossible, they think to evade its influence by spitting, as if shrinking from contact with an unfortunate soul reproved by God.

I have thus described some of the tribes of the Ili, my remarks upon their government applying rather to the Chinese than the Russians; but having now introduced to the reader the inhabitants of the valley, I shall be the better understood, I think, in detailing my experience during our stay in Kuldja.

CHAPTER XVI.

A SUNDAY IN KULDJA.

Hospitality at the Russian Consulate.—Visit to Taranchis and Sibos.—Crossing the Ili with Cossack escort.—Roman Catholics in Kuldja.—The Russian Church.—A request from Roman Catholics for religious service.—Distribution of Scriptures.—Steadfastness of Chinese Christians.—Visit to Buddhist temple.—Dungan and Taranchi mosques.—Educational affairs at Kuldja.—Population divided according to religions and races.—Visits to Chinese Police-master, and Commissariat officer.—Sale of Scriptures.

WE had arrived at Kuldja on Saturday morning, September 2nd, to find that most of the persons to whom I had introductions were away. The Governor, General Friede, was busy on the frontier, the line of which was then being settled; the Commander of the Chinese forces, to whom we had a letter from the Chinese Legation in London, was not in Kuldja, nor was the Chinese Governor-General, who lived, it appeared, in Suidun, which we had passed, so that we should have to see him on our way back. The next on our list was Mr. Paderin, the Russian Consul, to whose house accordingly we drove. Here, again, we were disappointed, for the Consul was also at the frontier; but on presenting my letter, his secretary saw at once that it was written by a friend, and begged us to stay at the Consulate. The praises

of this house have already been sung by Dr. Schuyler and Mr. Ujfalvy, both of whom were guests therein when it was occupied by Colonel Wartmann. The building is pleasantly situated in a garden and shrubbery, and its spacious rooms were furnished with such taste as, together with English books lying about, made one long to converse with the owner. What advance modern conveniences had made in this out-of-the-way part of the world was visible in the drawing-room, where there was a telephone communicating with a distant part of the town.

Mr. Paderin had been Consul at Urga, in Mongolia, and when transferred to Kuldja, came not by the humdrum way of the post-road, but went across country, visiting the site of Karakorum, the ancient capital of Jinghis Khan, and thus deepened his knowledge of Northern Mongolia, making him probably the first European authority upon that part of Asia. An Imperial order had been published in the previous March that a consulate should be established at Kuldja, with annual pay to the consul, in *silver*, of 5,000 roubles (£750); secretary, 2,500 roubles (£375); office allowance, 1,000 roubles (£150); and convoy 850 roubles (£127). The secretary's office and quarters were in a villa in another part of the grounds, so that we were to be lodged in the great house alone, save for the caretaker, and the secretary was to take his meals with us.

One of the first things we asked to be allowed to do was to visit the Sibo sumul, or encampment, I have referred to; and finding that it was seven miles out of the town, I rather foolishly declined to go on horseback, and begged that we might drive in our carriage. Horses were found us, and a Russo-Chinese interpreter,

and off we started at the dashing pace with which a Russian coachman thinks it proper to begin and end a drive, however he may lag in the middle. Old, or Taranchi, Kuldja was founded about a century ago, and is a rectangular town with clay walls, 30 feet high, sufficiently thick for two carriages to be driven abreast on the top, and measuring 4 miles in circumference; the work, it is said, of 2,000 Kalmuks, driven to the task by the Taranchis. Two large streets crossing each other divide the town into quarters, which are subdivided by smaller streets and alleys. We made our way through the Taranchi bazaar, along the street of which runs a water-course from one of the two rivulets, Pensin-Bulak and Pilechi-Su, that water the town.

The Taranchi bazaar, in the citadel, has shops somewhat more roomy than those of Central Asia generally, and the street is not covered from rain or sun. It is paved with small stones, and the shops are kept by stolid Mussulmans. "Here we bought our first ripe grapes and nectarines." Apricots ripen at Kuldja at the beginning of July, and we were, therefore, too late for them, but of late peaches, that ripen early in August, we came in for the last, flat in form, about an inch and a half in diameter and half an inch in thickness. They tasted fairly well, but there was little flesh on the stone." Most of the Kuldja fruits, including pomegranates, apples, pears, and mulberries, besides those I have mentioned, are small, since the trees, through neglect, may be said to be almost wild. In Suidun the fruit is much better, so that after the arrival of the Russians the natives of Kuldja began to graft their stocks with Suidun cuttings.

As we drove from the bazaar towards the Ili (*Ili*

means a river), we passed through the Taranchi gardens and fields,* to find a swiftly-running stream, 700 feet wide, just the width of the Thames at low water at London Bridge; and when I saw the clumsy ferry into which our heavy tarantass had to be lifted, it was easy to see why the secretary recommended our going on horseback. On account of the velocity of the current, especially when it is windy, the process of crossing is slow. Usually there are three ferry boats, owned by a Russian merchant, and at the time we crossed there were large numbers of cattle waiting to do the same. They were accordingly tied by the head to the ferry, and made to swim after it, the barge being filled with vehicles and passengers. Having landed safely on the opposite side, we drove across a low, flat country, almost without roads, sometimes through ditches, and over crazy bridges, that kept us in doubt whether or not we should be let through into the stream below; but having at last reached the sumul, we inspected it as I have described in the previous chapter. The children thronged around us full of curiosity, but people seemed pleased to see us, only that our interpreter did not speak their dialect particularly well; and as our ideas passed successively through English, Russian, and Chinese, not to add Sibo, it may be supposed that

* The soil in the neighbourhood of the town is sandy clay, and very fertile. This is characteristic of the right bank of the Ili, though there are parts with rich mould, and extensive marshes overgrown with jungle. The climate, too, is suitable for gardening, and is warm and healthy. The summer heats go up to 106° in the shade, but the sultriness is considerably reduced by summer rains. Thanks to the spring showers, grain can be raised about Kuldja without the aid of irrigation. Snow lasts for about six weeks. This mild climate is accounted for by the sheltered situation of the valley, the Borokhoro range protecting it from the north winds. The prevailing wind is from the lowlands of the Ili on the west, bringing fogs and rain.

we conversed with difficulty. Just as we had finished our tea, four mounted Cossacks came to the place, saying that the Commandant having heard of our intended visit to the encampment, though he did not apprehend our being harmed, yet thought it better to send us a guard, and they had arrived at the Ili just after we had crossed, and so failed to catch us up, but that they were now ready to escort us back when we pleased. We therefore started speedily, for evening was drawing on, and we did not reach the Ili till dusk. The embarkation from this bank was more difficult than it had been from the other, and there was much ado to get the Cossack horses on board, for they had to walk in the shallow water and then jump over the side of the barge. One little horse, at a word from his rider, sprang over the gunwale with the agility of a cat, although the others had to scramble up in a fashion that I should think only Cossack horses would do. It was dark before we reached the Consulate, but we had spent an enjoyable day, and were quite ready to turn into bed, for this had not been vouchsafed to us more than twice for a fortnight.

The morrow being Sunday, I had thought whether there was any clerical work I could do. The Mussulmans and Buddhists had their mullahs, and the Russians had their priest. I heard of no Protestants, but I had both heard and read of a small colony of Chinese Roman Catholics at Kuldja, amongst whom Christianity was introduced by French missionaries who came from Peking, some say a hundred years ago, in accordance with which Mr. Ujfalvy states that he found among them Latin and French books of the last century and beginning of the present. Mr. Ashton Dilke in 1873 stated that before the insurrection these

Christians were nearly 400 in number, but that 300 of them, including their priest, Father Thomas, were then massacred. The remainder of these Christians, according to Dr. Schuyler, were among the first to welcome the advent of the Russians. The Jews, however, have no dealings with the Samaritans, nor have the Greek Catholics with the Roman. Consequently there was a little flock surrounded by Russians, Mussulmans, Buddhists, and Pagans, who spoke enthusiastically to Mr. Dilke of their murdered priest, and compared Christianity with their former religion, much to the disadvantage of the latter, still holding fast to the only form of Christianity they had ever known, yet doing so without a shepherd, and notwithstanding that they had been unvisited by one of their missionaries, or, so far as I could learn, had any communication with head-quarters, for seventeen years. The case seemed to me both interesting and pitiable, and I wondered if there were anything I could do. We had no spoken language in common. Mr. Dilke spoke of their accent in pronouncing Latin as Italian, but said that some could translate it. Dr. Schuyler thought the pronunciation "at least singular," and some years later Mr. Delmar Morgan had found the pronunciation "wholly unintelligible to a European ear." Mr. Ujfalvy mentions, indeed, that some of them could read Latin and French, but then, he adds, "without understanding it," so that it seemed clear I could do nothing in the way of preaching. I mentioned the matter to our host on Saturday, and begged him to make inquiries of the Roman community if there was anything I could do for them. The secretary, however, did not see his way very clearly in the matter, and when we returned in the evening he had another plan to propose—namely,

that we should accompany him to the Russian church in the morning, and visit the Romans in the afternoon, and to this, though disappointed, I agreed.

There is but one Russian church in Kuldja, and that some distance from the Consulate, on the outskirts of the town. Two Cossacks came to ride behind the Consul's carriage, in which the secretary drove to service, and when we reached the church I saw, for the first time, I think, a Russian church that departed from the usual style of architecture, and that was built to look on the exterior a little like a Chinese pagoda. Inside there was a long nave with aisles and wooden pillars, and the building approached more nearly in form to the interior of an English church than anything I have seen in Russia. The choristers were soldiers, as also those attending on the priest, and the full congregation appeared to comprise the *élite* of the Kuldja world. After the service I gave some Russian tracts to the Protoierea (or Dean) Bieloiarski. As we returned, the military band was playing the national anthem.

At lunch the secretary had invited to meet us a Polish doctor, who inquired if I would baptize his children. I was somewhat surprised to receive such a request from a Roman Catholic, and, that there might be no misapprehension on his part, asked whether he understood that, if I did so, according to the formularies of the Church of England, the children would be regarded as Protestants; to which he replied it were better even so than for the children to grow up heathens. However, he said he would first consult with his wife, and also let me know whether his family, and the Chinese, would like me to administer to them the Holy Communion according to the English

service; for my opportunities of doing anything for them seemed shut up to this, and knowing the exaggerated, and, as I think, unscriptural prominence which Romanists give to the Lord's Supper, I thought that after such long deprivation thereof they might like to join in the celebration of this sacrament, even though not administered according to their own form. The doctor returned at length to say that General von Kaufmann, when in Kuldja, had promised to send a Roman priest, and he thought, therefore, it might be better to wait for the baptisms, but that they would like me to give them the service, for which, accordingly, I prepared.

We found the chapel in the outskirts of the town, at the bottom of a narrow court, where I think most of the Chinese Christians, 65 in number, were living. They received us with a smile of welcome, appeared desirous for the service, and conducted us to a room measuring about 30 feet by 20, where was an altar with pictures, candlesticks, and other appurtenances, and a box at the side containing some of the minor vestments, and a New Testament in Chinese. Here I met the Polish family, whereupon difficulties arose, in that, as Romanists, they would not partake of the cup, and next they remembered that as they were not fasting, but had dined, they could not receive the elements at all. They wished, however, to be present whilst I officiated, and so remained whilst I and my fellow-churchman communicated. The Chinese perceived when Mr. Sevier knelt or stood, and so to some extent followed the service, and I thought perhaps they would have communicated when they saw him do so; but they did not seem to comprehend what was expected of them, and I proceeded till, coming

to the blessing, I lifted my hand as does the priest in the Greek and Roman churches. The meaning of this they perceived at once, and knelt, thus ending one of the most curious passages in my ecclesiastical experience.

Could I have seen the end from the beginning, I am not sure that I should have acted as I did, but I meant it for the best, and the people seemed grateful. They said that one of their number occasionally read prayers, and the Russian priest sometimes gave them a "benediction," but I think I gathered that this last was abnormal, and not given with very good grace, so that they had no other public service. I did not gather they were in the habit of meeting for the study of the New Testament, and I wondered how the book had come there, for though Messrs. Dilke, Morgan, Schuyler, and Kostenko, all speak of Latin books, and Ujfalvy adds also French, they say nothing of any in Chinese.

I had brought with me some Chinese, Mongolian, and other Scriptures, and was willing to have given them several; but though they accepted one or two copies, they did not appear to want more. They numbered 13 families, of whom 15 persons, they said, could read. I asked if they would like to have a missionary sent to them, to which they replied that they had not discussed the question. This exchange of ideas, or, perhaps I ought to say, attempt at conversation, was attended with difficulty. The best interpreters on the Consul's staff were with him and the Governor, I suppose, on the frontier, and our interpreter was decidedly feeble, but as a finale the Chinese brought forth tea, grapes, melons, peaches, and nectarines, and in partaking of them we were

joined by some Russian officers who had heard of my conducting the service.

Kostenko says that as a rule "these Kuldja Catholics are very lax as to the essentials of their religion. They wear crosses round their necks, and read prayers in the Latin language, and they made a request (that is, of the Russians) that they might be permitted to display these emblems on the outside of their dress." I may add, however, that a very intelligent Russian Protestant in the region told me that among their own people the character of the Chinese Christians stands high, that they do not smoke opium, and that their word can be relied on. The persistence of this handful of Chinese in the tenets of their adopted religion, under such unfavourable circumstances, reminded me of my crossing the Pacific in 1879 with an American clergyman who had laboured as a missionary among both Chinese and Japanese, and who regarded work among the former as decidedly the more hopeful. The Japanese he allowed were more readily influenced, but, like children, they sometimes drop the toy that has quickly pleased them, whereas, though John Chinaman takes a longer time to be convinced, he is, when won, more easily held. I have since heard that three Roman missionaries have arrived in Kuldja.

After bidding the Romanists farewell the Russian officers took us to the Buddhist pagoda. There is only one in Kuldja, and that a poor one. On leaving the street we passed through an antechamber into a courtyard, where children assemble for instruction in the tenets of Confucius, each pupil holding a book, and all reading together as in Mussulman schools. Crossing the courtyard we entered the joss-house

THE CHIEF TARANCHI MOSQUE IN KULDJA.

and saw the idols. Against the wall was a large daïs, with various eatables arranged thereon, and lamps and vessels for incense. Representations of dragons are displayed, as well as suspended banners and bells. I did not see any adoration performed, but Kostenko says that a dirty and ragged individual, with a bundle of lighted joss-sticks in his hands, advances and recedes from the altar with endless bowings and striking of the bells. On important occasions, instead of verbal prayers, papers with petitions written thereon are burnt, in the belief that the petitions thus dealt with will ascend to God more quickly. I did not observe any prayer-wheel such as I saw at a Buddhist monastery near Kiakhta in 1879; but the temple at Kuldja was exceedingly dingy, dark, and dirty. Here, however, I disposed of some Mongol and Chinese Scriptures, the priest, as I supposed him to be, or attendant, thankfully accepting a Bible, and two other men, apparently poor, each purchasing a copy for £2.

It is strange that the Hindus who penetrate throughout Turkistan as money-lenders do not appear to have reached Kuldja, so that we had no Hindu temple to visit; but I may mention two other religious buildings we saw the following day. One is the Dungan mosque near the Chinese bazaar, with a high and handsome minaret, and the other the Taranchi *Jumma* (or Friday) mosque in the citadel. The latter is the larger and older building, restored and ornamented under the last Taranchi sultan, Abil Ogu. Both these principal mosques are built in Chinese style, with roofs turned up at the corners, and are the most remarkable buildings in the town. With regard to educational buildings, there was, in 1873, a "Kuldja people's school," with 7 Russian, 1 Tatar, 1 Chinese, and 25 Taranchi pupils

There were likewise 13 Taranchi elementary schools and 2 medresses, in which were educated 314 male and 140 female scholars; also 1 Dungan school, with 20 boys and 9 girls, and 2 Chinese schools with 20 boys. These last are intellectually the best, for whereas in the Muhammadan schools nothing is taught but the Koran and Shariat, the Chinese teach arts and an extensive literature.

MINARET OF THE TARANCHI MOSQUE AT KULDJA.

The total population of Kuldja, according to my MS. statistics in 1878, was 7,200 males and 5,300 females. I have not their classification at that date according to religious professions, but in 1873 they existed in the following ascending order: Protestants, Romanists, Orthodox Pagans, and Muhammadans; whilst the various races at the same date prevailed

in the same way as follows, namely, Dungans, Sarts, Russians, Chinese, Taranchis.*

In the vestibule of the Buddhist temple lived the Chinese police-master, upon whom, in company with the Russian officers, we called. He gave us pale yellow tea, with oval leaves, about 1¼ in. long and ⅝ in. wide, and what looked like blossoms of the plant, in the cups. It was no doubt thought very choice, but for me had little flavour. Looking about the room, I observed a guitar-like instrument with three strings, the drum being covered with snake-skin, such as I remembered seeing in 1879 in Eastern Manchuria.

* More particularly they were :—

Religious Profession.	Males.	Females.	Total.
Orthodox	1,044	119	1,163
Romanists . . .	71	47	118
Protestants . . .	3	—	3
Mussulmans . . .	3,650	3,507	7,157
Pagans	809	802	1,611
	5,577	4,475	10,052

Races.	Males.	Females.	Total.
Russians	1,153	148	1,301
Taranchis . . .	2,980	2,978	5,958
Chinese	841	846	1,687
Sarts	391	244	535
Dungans	274	259	533
	5,577*	4,475	10,014

* Wrong, but correctly copied.

The Russian population of Kuldja at the same date was made up of hereditary nobles, 26; personal nobles, 32; clergy, 2; merchants, 26; mechanics, 88; peasants, 5; peasants on leave, 18; free Cossack families, 18; troops, 1,014; soldiers' and Cossacks' wives, 71.

There was also in the police-master's room a flute, about two feet long, with ten holes. Before leaving I offered our host a copy of the Bible in his native tongue, which he accepted ; and we were then taken to call upon another Chinese official, an officer of commissariat, who welcomed us with a smile to his rather dirty house, and, when asked to accept a Bible, said he had heard of it as a book, the reading of which would do a man good. I showed him my Chinese passport, and he said it was well that I had it, as without it I might be liable to interference. Looking round his room, I perceived an important-looking package wrapped up in yellow silk. I learned it was his seal of office from the Emperor. He had also a flat box, two inches square, with a compass and lid, which, when opened, distended a string intended to throw a shadow on the box, and thereby act as a pocket sundial. The officer was dressed in silk, and his manner was unusually gay for a Chinaman. My companions at once recognized his condition, and told me that if he took only a little wine he very soon became intoxicated, but that the cause of his present hilarity was opium smoking. On his divan stood an opium lamp lighted, so that our visit had disturbed him before he had reached oblivion. One object we had in calling upon him was to ask him to inform the Chinese Governor-General at Suidun that I hoped to have the honour of calling upon him on my return journey in two or three days, and when this was arranged we returned to the Consulate to dinner.

We had now visited some of the religious buildings of the town, and I had distributed my books and tracts as opportunity served. Mr. Sevier took some to the Russian hospital, whither I did not accompany him,

and I heard nothing of any prison.* This was the first town we had entered where Muhammadans were so numerous, and I had not yet forgotten the warning given me in Omsk as to the danger of offering them the Scriptures. Nor did I know how such a course would be regarded by the Chinese. When going to the bazaars next day, however, I took in the chaise a large bag filled with Scriptures, and whilst looking here and there for curios to purchase, I presently offered for sale a copy of the Gospels in Chinese for 5 kopecks. It was bought and immediately examined, with the result that others came to buy, and those to whom I had sold returned to purchase more. I then offered the New Testament for 40 kopecks, and the Bible for 60 kopecks, and was amused to see them comparing the size of the Bible with that of the Gospels, and so reckoning what ought to be the price of the latter from the proportionate thickness of the former. I was now besieged by purchasers, who jumped at my offers. One man wished to buy wholesale, but fearing that he would re-sell them at exorbitant prices, I preferred to dispose of them myself, and soon came to the end of my Chinese stock. But the Mussulmans showed equal eagerness to get Tatar

* Mr. Pantusoff gives the statistics for crime in Kuldja in 1873 as follows :—

	Number of offences.	Taranchis.	Dungans.	Chinese.	Kirghese.	Kalmuks.	Sibos.	Russians.
Attempted suicide	2	2	—	—	—	—	—	—
Murders . . .	15	7	—	—	1	1	—	2
Thefts . . .	39	57	—	12	—	9	1	—
Receiving goods .	6	5	1	—	—	—	—	—
Assaults and riots	69	47	7	16	—	5	—	—
	131	118	8	28	1	15	1	2

books, and my remaining Kirghese New Testaments were fast disappearing—one Tatar on horseback not only paying the sum demanded, but in his eagerness literally snatching the book from my hand. Some of the Chinese subsequently came to the Consulate to purchase more, and I presented some Mongol Scriptures to the interpreters for themselves and for a school of which they told me. A few other copies of Mongolian Scriptures I left with a note for Mr. Paderin to distribute, and thus, with the many I sold and others I gave, it came to pass that I emptied in Kuldja my three cases of books, and had the satisfaction of being the first salesman there of the Word of God. This I counted a greater honour than to have marched into the city at the head of an army, whether it were the half-wild horsemen of Jinghis Khan, or the Cossacks of the Russian Tsar. The latter have now left the province, but my books remain as seed that is sown. And I am content to wait for an answer to the question, What shall the harvest be?

CHAPTER XVII.

TARANCHI KULDJA, AND THE VALLEY EASTWARDS.

Taranchi, Chinese, and Sart bazaars.—Character of trade, prices, and coins.—Native restaurants.—Kuldja imports and exports.—Industrial buildings.—Visit to a Kalmuk tent.—Exploration of Kalmuk camping-grounds.—Colonel Prejevalsky's journey to Lob Nor.—Severtsoff's description of mountain sheep.—Alpheraky's journey, and collection of Lepidoptera.—English butterflies in Kuldja.—Russian and English explorers of the Ili valley.

ON Monday morning, September 4th, we started early with the Consul's servant and an interpreter to the Taranchi, Chinese, and Sart bazaars. The first was noticeable for its abundance of vegetables and fruit, large melons at 5 farthings each, and the best apples—good-looking but tasteless pippins—at the same price, whilst flat peaches sold for 4½*d.* a dozen. These prices for local produce were not exceptional, for eggs cost from 5*d.* to 8*d.* a hundred, and fowls from 1¼*d.* to 2½*d.* each. Before the advent of the Russians, chickens cost only a halfpenny each. Manufactured goods from Europe, however, were dear, and even Russian "family" tea cost from 2*s.* to 6*s.* per lb.* I secured

* The following are fair specimens of Kuldja prices at ordinary times:—Wheat and rice, 2*s.* 6*d.*, barley, peas, and millet, 1*s.*, chaff, 4*d.*, and clover, 3*d.* per cwt. Mutton and beef from ½*d.* to 2*d.*, butter 8*d.*, and tallow candles 4*d.* per lb. Russian chintz sells at 7*d.*, and ticking and calico at 11*d.* per yard; fans from 1*s.* to 10*s.* each; boots from

some Taranchi rings and representative jewellery, and we then went to the Chinese bazaar, where among the curious things exposed for sale were ready-made coffins "painted and all complete" for £4. Throughout this emporium there is ceaseless movement, bustle, and noise, for the vendors of wares scream out to the purchasers, and amongst the inevitables are crowds of children, some half naked, and others wholly so, chasing one another about and increasing the general hubbub of the restless scene. Among the crowds of men there is a fair proportion of Chinese women, in national costume, who, owing to their compressed feet, sway from side to side as if on stilts.

Trade in a Chinese bazaar is of three sorts: first, a regular business carried on in shops where the more expensive articles are sold, such as chintz, tea, sugar, iron, etc.; next, a casual trade done at a stall or table in cheaper things, such as common soap, mirrors, wooden combs, inferior tobacco, needles, handfuls of Russian sweetmeats: all being packed each night. Among these goods we observed snuff for nose and mouth—that is, for sniffing and chewing. It was done up in small paper packets at a halfpenny each. Then, lastly, there is the hawking trade, carried on from the familiar basket, or it may be from the hand, selling eggs, birds, and fruit. I could see very few Chinese curios that were worth buying. Up to the time of the Russian occupation, idols could be bought, and costly objects of silk and porcelain; but their purchase

2*s.* to 20*s.* per pair. A cow costs from 30*s.* to 50*s.*, a horse from £2 to £6, a sheep 6*s.*, and an ox from 50*s.* to £4. A log of wood 14 feet long and 14 inches in diameter costs 4*s.* A plank 6 feet long and 14 inches broad sells for 2½*d.*, but the same, 7 feet long, costs 1*s.* Kiln-burnt bricks may be had at 4*s.* per thousand, but sun-dried bricks for 10*d.* per thousand less.

by the Russians has sent up the price, and now they are both rare and dear. I secured some specimens of Chinese coinage in the form of large copper money, with Manchu inscriptions on one side and Chinese on the other.*

The Sart bazaar, called in Russian *Bazaar ulitza*,

"SHOP STREET" IN WINTER IN KULDJA.

or "shop street," we found inhabited chiefly, I think, by Dungans. Here it was amusing to see how every piece of old iron and tin was saved as precious and

* They are of three sizes, the largest (equal to 16 *tachan* or small coins) called *Urfunditachan* (or 2 lbs. of tachan), the medium *Yifunditachan* (or 1 lb., equal to 8 tachan), and the smallest *Banfunditachan* (or ½ lb.). I am uncertain whether it was the smallest of these three, or a separate coin called *Yarmak*, which, at the occupation by the

exposed for sale, even to empty sardine and blacking boxes. They positively gave me 1½*d.* as the price for an empty lobster tin! In this bazaar I purchased a pair of silver hair-pins, such as are worn among the Dungans by married women only. They are now in the British Museum.

A feature noticeable to a European in the Kuldja bazaars is the native restaurants, where those who can face the ordeal may be satiated for 6*d.* The variety of dishes in the restaurants is great. They are highly spiced with saffron, but it is not whetting to the appetite to have to pass through the kitchen and see the cook preparing the viands, or swinging the dough, as we saw one man doing, in pendulous fashion, for making long twisted loaves. Chinese bread, though white, is unleavened, badly baked, and tasteless. Again, it is not pleasant to remember that the Chinese eat all kinds of meat, dogs included, so that it is wise to give charge beforehand as to what shall be cooked. Chinese butchers sell mutton and beef without bones. The bones form a separate trade, and are bought by the poor, who make of them soup, and add morsels of meat.

The foregoing description of the bazaars of Kuldja does not give a lofty idea of the importance of its trade, which, in fact, is very small, though there are 650 shops in the town. Sarts from Tashkend, Khokand, and Kashgar, together with Tatars from Vierny and Kopal, carry on the best trade.*

Russians, were so numerous, and of so little value (125 equal a farthing) that they were exported by the ton to Tashkend to be used in the preparation of verdigris. Of other Chinese money may be mentioned the silver Yamb, weighing about 66 ozs. avoirdupois, and *Sar-kumysh* (value 4*s.*), equal to 10 *miskal* (value 5*d.*).

* In 1875 there were imported into the town—glass, iron, and manu-

We were taken from the bazaar through an oil-shop to one of the industries of Kuldja, which are at as low an ebb as the general trade. In this oil factory pressure was brought to bear upon the linseed and mustard seed softened by heat, by means of a long trunk of timber employed in a most clumsy fashion. The oil is used for eating, lubrication, and lamps, whilst the cake, out of which the oil has been pressed, is given as food to oxen. The soap they make is of the coarsest quality, and smells horribly. There are no large silk or carpet factories in Kuldja, though silk-spinning is prosecuted on a small scale. Cast-iron foundries exist, out of which the goods come for the most part blistered; also a large room where paper is made of hemp, very coarse and dark, but which the Chinese use for writing. The natives are fond of vermicelli, and manufacture it for 1*d.* per lb. They have also a factory for sweetmeats made of rice, boiled, and then allowed to ferment, the comfit being luscious, but sticky to the last degree. In the vinegar dis-

factured goods, khalats, dried apricots and raisins, tea, leather and wooden articles, chintz, nankin, calico, plush, cloth called *mata*, and felt, together with horses and sheep, to the value of £44,020, the merchandise coming from 15 localities, all Russian, except Kashgar and Bokhara. There should also be mentioned among imports from the East, gold, silver yambs, and nephrite, or jade, which the Chinese call "*Zischi*." This stone is used for mouthpieces of pipes, rings, and amulets, as well as for ornaments for the hats of the Kalmuks and Sibos. I was glad to secure from a man, on my visit to the Sibo encampment, an archer's ring, worn on the thumb, of exceedingly pretty jade. The stone costs from one shilling to eight guineas per lb. On the other hand, there were exported from Kuldja merchandise to the value of £24,016 to 8 localities, 6 of which were Russian: the articles consisting of brick tea, oil, flour, raw hides, grain, fruit, sheep's fat, tobacco, Chinese honey and vermicelli, salt, paper, dressed lambskins, horses, sheep, camels, horned cattle, small wares, iron goods, fox skins, and deer horns. These last are bought up by the Chinese at Kiakhta, and are said to be used by them as a

tillery they allow wheat to ferment, which, after boiling, produces a sour, green essence, very disagreeable to European taste, but appreciated by the Chinese.*

On leaving the bazaars, we were anxious, if possible, to get a peep at the Kalmuks. On our way to the suburbs, we saw a Chinaman in the street, surrounded by a crowd. He had a drum and iron clappers, and was entertaining his auditory by telling stories. On the previous day we had seen a street acrobat, one of whose standing or walking feats was to raise one foot to his breast and strike the sole with his palm; a second man meanwhile beating a gong. On reaching the Kalmuk tent we found the owner absent, though his wife was at home with some small, but by no means bashful, children. We looked round for ethnological objects. There was a leather kumiss bottle, but this the woman, in the absence of her lord and master, would not sell. She had in her ears, however, silver rings, with stones; and as she confided to us that she

medicine in cases of exhaustion of strength. At Kiakhta, in 1877, the Chinese merchants realized a profit on maral horns of £6,000. One Russian firm purchased 200 pairs for £1,200, and Messrs. Tokmakoff, of whom I know something, bought 40 pairs for £350. These prices, however, were unusually high.

* There were throughout the town, according to my statistics for 1878, 3,301 houses, 25 caravanserais, 1 school, 23 medresses, 1 Russian church, 57 mosques, 22 windmills, and 4 stamping mills or presses. The total number of industrial buildings in 1873 numbered 38, producing manufactures to the value of £3,000, and employing 131 workmen. The number of handicraftsmen in the town at the same date numbered 238 Taranchis, 5 Dungans, and 66 Chinese, concerning which last it may be observed that they knew all the trades, but neither silversmiths nor tailors were found among the other natives. Carpenters and masons earn wages at the rate of 1*s.* a day; labourers 2½*d.*, but with a horse 1*s.* 3*d.*, or with a pair of horses 2*s.*; a man with a bullock 1*s.* a day, or with a yoke of oxen 1*s.* 8*d.* Cattle breeding is not much prosecuted by the inhabitants of the town, who, in 1878, owned 300 camels, 6,000 horses and asses, 2,000 horned cattle, 27,000 sheep, and 3,600 goats.

was 57 years old, and had received them on her marriage, I perceived these could be of no Russian manufacture, but representative of Kalmuk art half a century ago. I therefore pressed her to sell me one, which she did, and it is now in the ethnological department of the British Museum.

Comparatively little is known in detail of the Kalmuk camping-grounds at the eastern end of the Ili valley.

A KALMUK WOMAN, WITH NATIVE EARRING.

The most renowned of Russian travellers who have passed that way out of the valley into Mongolia is Colonel Prejevalsky. In 1876 he started from Kuldja, made his way along the Ili, and its upper arm, the Kungess, until he reached its tributary, the Tsagma. This brought him by the Narat pass to the Yuldus plateau, described by the Kalmuks as "an admirable, cool, and productive country, fit for gentlemen and cattle to inhabit." From this place Prejevalsky pushed his way to Lob Nor, but not before he had shot some fine specimens of the Central Asian species of mountain sheep.

I saw at the Kuldja consulate, as also at Tashkend, specimens of the skull and horns of this remarkable animal, which is bigger than a donkey.*

The animal's horn is more than four times the length of the skull. All round the neck there is a pure white mane, and the light greyish brown of the sides shades off into white towards the belly, the legs being brown. It inhabits high hilly plains, and runs

OVIS POLII, OR THIAN-SHAN SHEEP.

with great speed. The Cossacks say that the wild sheep, in jumping from one rock down to another, alight on their horns—a statement that Dr. Severtsoff thinks improbable, though, since the head and horns of one he shot weighed upwards of 70 lbs., he seems to

* When Marco Polo, 600 years ago, told of the enormous sheep he had seen on the mountains, his words were regarded as "travellers' tales," but subsequent explorers have proved the traveller right, and the largest variety is now named after him, *Ovis Polii.* Dr. Severtsoff gives its length as 6 ft. 9 in. from nose to tail; height at shoulder, 3 ft. 10 in.; length of horn, 4 ft. 9 in.; distance between tips of horns, 3 ft. 6 in.; length of skull, 1 ft. 2 in.

think it just possible such a weight might cause the animal to lose its balance.*

Colonel Prejevalsky on the Yuldus saw herds of 30 or 40 of the *Ovis Polii*, and gives the measurement of the horns of the old males in his collection as 4 feet 8 inches, with a thickness of 18 inches at the base, and their weight about 36 poods.† Mr. Serge Alpheraky, however, another traveller from Russia, who has penetrated the Kalmuk camping-grounds, and who in 1879 followed Colonel Prejevalsky's track as far as the Yuldus plateau, with the object of collecting butterflies and moths, doubts whether any other species

* Dr. Severtsoff shot an old ram that proved too heavy for a strong mountain camel to carry. This camel required four hours to accomplish three miles, and was obliged to lie down several times during the journey. At low elevations a camel can carry 600 lbs. with ease, and on lofty plains, where the air is rarefied, 400 or 450 lbs., so that the weight of this specimen was estimated at about 600 lbs. The same authority distinguishes three other species of wild mountain sheep in Turkistan (*Ovis Karelini*, *O. Heinsi*, *O. Nigrimontana*), and gives an instance of the strength and tenacity of the *Ovis Karelini*, the next largest to the *Ovis Polii*. In hunting an old male it was hit by him five times, each time with a good-size bullet, and only the sixth bullet brought him down. The first bullet hit the animal between the hind legs in the left testicle, the pain of which hindered its running, though even then two men had to follow it for an hour. Two bullets had struck the horns, the animal each time falling to the ground, but within a minute rising again. Neither of the next two bullets sufficed to stop the creature, though one of them penetrated the liver and the other the lungs, and it was only on receipt of the sixth bullet, penetrating the heart, that the sheep succumbed.

† Sir Victor Brooke, who has studied the subject closely (Proceedings of Zoological Society of London, 1875), mentions the following mountain sheep found elsewhere than in Turkistan, but which he is disposed to think had their birthplace in the Himalayas, namely: *Ovis Ammon*, *O. Hodgsonii*, *O. Brookei*, *O. Nivicola*, and some others. Nearly allied to *O. Nivicola* is the *O. Montana* of North America. I have measured the horns and skull (weighing 32 lbs.) of a very fine specimen in the collection of Mr. H. Seton-Karr. It was shot by him in the Rocky Mountains, and measures: length of skull, 13 in.; of horn, 38 in.; circumference at base, 16½ in.; from tip to tip in a straight line, 20½ in.

but the *O. Heinsii* inhabits the Yuldus.* He observed 28 species of mammals, 6 of fishes, and 17 of reptiles, etc., and collected specimens of the greater part in series, which now belong to the Imperial Academy of Science at Petersburg. Among birds of the Ili valley may be mentioned pheasants, geese and ducks, cranes, bustards, grebes, snipe, plovers, etc., sea and other eagles, and kites.

Mr. Alpheraky's collection of lepidoptera numbered

* Mr. Alpheraky writes to me that he brought home a good series of the species of *Ovis* that inhabits the Yuldus. Both Dr. Strauch and he judge them to be *O. Heinsii.* He says: "We once saw a herd of 2,000 of these sheep. Herds of 200 and 300 are met with rather often. My 13 specimens are now at the museum of the Imperial Academy of Science at Petersburg. They are of immense size, and are the biggest of the rich collection of *Ovis* there. I have also given to the Academy a complete skeleton of an old and immense ram of this species." Mr. Alpheraky then adds a list of vertebrata observed by him in the Kuldja district, as follows:—

MAMMALIA.

Tigris Regalis (with thick and long fur).
Felis Irbis.
Felis Manul.
Canis Vulpes.
Canis Melanotus.
Canis Corsac.
Canis Alpinus.
Canis Lupus.
Ursus Arctos.
Ursus Leuconyx.
Mells Taxus.
Lutra Vulgaris.
Martes sp. (?)
Rhabdogale Sarmatica.
Putorius Gale.
Erinaceus Auritus.
Sus Scrofa Aper.
Cervus Maral.
Cervus Pygargus.
Gazella Subgutturosa.
Capra Sibirica (not *Capra Skyn*).
Ovis Heinsii.
Ovis Karelini (mountains west of Kuldja).
Lepus Lehmanni.
Meryones Opimus (sands west of Kuldja).
Hypudæus Amphibius.
Spermophilus Eversmanni.
Arctomys Baibacinus.

PISCES.

Schizothorax Anisolepidus, Kessler.
Schizothorax n.s., Iliensis.
Diptychus Dybowskii, Kessler.
Diplophysa Labiata, Kessler.
Perca Schrenckii, Kessler.
Alburnus, sp.

no less than 12,000 specimens, and it may interest the general reader to learn that among them were several of the well-known butterflies that bear English names.*

A third Russian explorer who has done good service to botanical science in the Ili valley, and the valley of

REPTILIA, ETC.

Eremias Velox Pallas (sands).
Eremias Variabilis (sands).
Lacerta Viridis (Kuldja gardens).
Scapteira Grammica (sands).
Gecko Kotchyi Steind. (rocks).
Gecko nov. sp. (Kungess and Tekess).
Vipera Berus (everywhere except high mountains).
Trigonocephalus Intermedius (mountains up to 8000′, extremely poisonous).
Phrynocephalus Caudivolvulus (sands).
Phrynocephalus Helioscopus (sands).
Tropidonotus Hydrus (near the Ili).
Elaphis Dione (Kuldja).
Taphrometopon Lineolatum (sands).
Eryx Jaculus (Kungess valley).
Testudo Horsfieldii (sands).
Bufo Viridis (Ili valley).
Rana Agilis (Ili valley and Yuldus plateau).

The Swallowtail (*Papilio Machaon*) is generally distributed throughout the Kuldja country, and differs in no respect from the form that frequents our English fens. The Wood-white (*Leucophasia Sinapis*) occurs in Kuldja, and also in the Ural mountains. The Large White (*Pieris Brassicæ*), so destructive to cabbage and other esculent plants, does not appear to be very common, one or two examples only coming in Mr. Alpheraky's way. The Bath White (*Pieris Daplidice*), that is such a prize to the English lepidopterist, seems moderately common up to 10,000 feet in the Thian Shan; and the Orange Tip (*Anthocaris Cardamines*), which adds somewhat to the charms of English lanes towards the end of spring, is also found near the Ili. The Silver-washed Fritillary (*Argynnis Paphia*) is as common on the Kungess as in the New Forest in Hampshire. There is a race of the female, which is intermediate between the type and the aberrant form *Valezina* (so well known to those who have taken the insect near Brockenhurst, Hants). On the Kungess it quite supplants the typical female. The Dark-green Fritillary (*Argynnis Aglaia*) is found along the course of the Kungess up to 8,000 feet, and even on the Yuldus it is said, 2,000 feet higher, where, however, it is rare. The High Brown Fritillary (*Argynnis Adippe*) is found in the same region, as also the Queen of Spain Fritillary (*Argynnis Lathonia*), which with us is a very rare visitant even on the south-east coast, but appears to be widely distributed in Central Asia, though nowhere common, occurring up to an altitude of

the Baratol on the north, is Dr. Regel, who travelled to Turfan in 1879. Of the two Englishmen who preceded me in this region, Mr. Ashton Dilke in 1873 went down into the Baratol valley from Sairam Nor to Ebi Nor, and then returning to Kuldja he ascended to

9,000 feet. The specimens from the Thian Shan are perhaps paler than those in British collections. The Glanville Fritillary (*Melitæa Cinxia*) is a mountain insect in the Kuldja district, and only to be met with here and there at an altitude of 4,000 or 5,000 feet. The specimens are inferior in size to those from the Isle of Wight; but the markings of the Asiatics are rendered more conspicuous by the dark ground colours, and especially so in the female, in which the yellow colour of the underside is almost entirely replaced by a grey blackish hue. The Small Tortoiseshell (*Vanessa Urticæ*), though not so abundant in Central Asia as in England, is nevertheless in many localities a common butterfly. Hybernated individuals are to be seen in early spring busy in securing a succeeding generation, which appears in the winged state in July, and continues abroad till the frost sets in, and forces it to retire into winter quarters. Some specimens are of much larger size than ours, and the warmer portion of the coloration of these giants assumes a brilliant red-yellow tint. The Central Asian peacock (*Vanessa Io*), found in August, does not differ from our own, whilst the Camberwell Beauty on the Ili agrees well with the European type, and specimens fresh from the chrysalis make their appearance in July. The Red Admiral (*Vanessa Atalanta*) was seen by Mr. Alpheraky, but the Painted Lady (*Vanessa Cardui*) was scarce in 1879. The Central Asian specimens of the latter do not exhibit any appreciable difference from our insular form so abundant on the southern coasts. The Green Hairstreak (*Thecla Rubi*) occurs around Kuldja, but not so commonly as with us, and the Brown Hairstreak (*Thecla Betulæ*), the female of which differs from European representatives by having the orange blotch on the fore wings of larger size. In the Thian Shan district the Small Copper (*Polyommatus Phlæas*) becomes a mountain species, flying at 8,000 or 9,000 feet, and it is noteworthy that these mountaineers are larger than lowland specimens. The Common Blue butterflies (*Lycæna Alexis*) from the Kungess are generally superior in size to English ones, the wings of some measuring from tip to tip 36 millimetres. With regard to the Holly Blue (*Lycæna Argiolus*), which is apparently of riparial habit in Central Asia, the black border of the wings in the female is often much broader than in the form taken in the British Isles. It also occurs earlier than with us—so early as the end of March,—so that possibly in the Ili valley there are three or more broods in the course of the twelve months. The Large Blue (*Lycæna Arion*), that scarce English butterfly (all but extinct, except at Bolt Head, Devon), is of

the plain of Musart, saw Khan Tengri, and went thence to Issik-Kul. Mr. Delmar Morgan visited Lake Sairam, and also went as far as the River Kush ; but for my own part I did not advance beyond the capital, having seen which, and distributed my books therein, I prepared for turning back.

common occurrence in Central Asia, at elevations from 3,500 to 9,000 feet. The Skipper (*Hesperia Alveolus*) occurs in the Talki defile in April. I am indebted for these comparisons between the butterflies of Central Asia and of England to the Rev. A. E. Hodgson. For further information concerning the lepidoptera of the Kuldja district, and of Turkistan generally, see Appendix.

CHAPTER XVIII.

FROM KULDJA TO ALTYN-IMMEL.

Proposed return by water.—Attempted steam navigation of the Ili and Balkhash.—A visit to Colonel Mayevsky.—Native preference for Russian rule, and why.—Kuldja restored to China.—Emigration of natives into Russian territory.—Our departure from Kuldja.—Destruction of cattle by beasts of prey.—Suidun.—Three classes of Chinese.—Interview with Chinese Governor-General.—Refreshments followed by questions.—Opium-smoking.—A Chinese artist.—Governor-General's present.—A messenger awaiting us at Borokhudzir.

SOMEONE suggested that I should float from Kuldja westwards on the Ili, which would have been pleasant enough but for my tarantass, if one may judge of the velocity of the stream as we saw it, and which Mr. Alpheraky says is three times as rapid as the Neva at Petersburg. Below Kuldja the river flows through a flat inhabited country between open banks (the right steeper than the left), with a wide and copious stream. The banks are marshy and overgrown with reeds. These, when the river is full, are frequently submerged, and then there are no fords, but at other seasons there is a ford at Old Kuldja 2½ feet deep, and another near the ruins of Chinese Kuldja 2 feet deep. The river is frozen for about 60 days, from the end of December to the end of February, but at other times timber is floated down

from its upper to its central course. The stream, indeed, is called navigable from 50 miles above Kuldja to 400 miles below it, where its waters enter the Balkhash.

When I was in the Ili valley the Russians had not succeeded in establishing steam communication on the river, but since my return I have heard from Mr. Gourdet that a "Mr. P.," an engineer, is sanguine of converting the Ili into a means of commercial communication between Kuldja and the Balkhash, and even of passing through this lake to the Irtish beyond, and so on to Siberia and Russia. To the realization of this project a small steamer of 20 tons was purchased in England, and launched at Ilisk, near Vierny, in 1883. The first voyage was made with a freight of corn, but under great difficulties.*

* These difficulties are mainly connected with the channel, the bottom of the river being of shifting sand, of which Mr. Gourdet tells me he has himself seen small islands form and disappear again in the course of a few days. Hence the water is not deep enough for craft drawing more than two or three feet, and although this particular steamer could go against stream 12 or 14 knots an hour, it could not sometimes on the Ili make more than a few miles in a day, and, of course, had to stop by night. So that during the whole season 50 tons only were carried instead of 300, as expected. What corn was sold brought a large profit, the cost in Vierny being 4*s.* or 5*s.*, the selling price at Jarkend on the Ili 15*s.* 6*d.* and 18*s.* 6*d.* per cwt., but this demand was exceptional and temporary, created by the purchasers being Taranchis and Dungans, emigrants whose first crop was not yet forthcoming. The ordinary small exchange to the annual value of a few thousand pounds sterling between Vierny and Kuldja is not sufficient to support regular steam navigation, whi h must also compete with land carriage by horses. Mr. P.'s commercial prospects on the upper portion of the river, therefore, are not promising. As for the project in the opposite direction, Russian goods are now brought to Irbit, thence up the Irtish to Semipolatinsk, and on by horses to Vierny. Mr. P.'s idea is to diminish this land carriage by taking the goods from Semiyarsk on the Irtish across the Steppe to the Balkhash, then by steamer to Ilisk, and on again by horses, which would save 285 miles by road, at a cost of 528 miles by water. This would be a doubtful gain as to time, and entail great expense. Besides, by the

We were invited, on our last evening in Kuldja, to visit Colonel Mayevsky, who was living some distance beyond the market-place in a house that formerly belonged to a Taranchi bek. This title is hereditary, and the young boy who had succeeded thereto was introduced to us. The house, I suppose, might be regarded as a specimen of a rich native's dwelling. Almost all the native houses are made of beaten clay, have thatched roofs, and are, externally, low and ugly. The courtyards are heaped up with impurities, and even the abodes of the well-to-do display an absence of ventilation and light; but we had no reason to complain on this last score, for it was dark before we reached the colonel's dwelling. We looked over the house, and perceived an attempt at ornamentation of the walls, the room of our host being adorned with carpets and rugs. We received, moreover, a hearty welcome from the colonel, who had great regard for

old route there are telegraph wires; the merchants can communicate with their caravans, and, in case of anything going wrong, provide for its reparation; but by the proposed route the owners would lose sight of their goods for six or eight weeks, as well as increase their risks by navigating the uncertain and sometimes stormy Balkhash. Mr. P. has another scheme, Mr. Gourdet tells me, to bring the goods from Irbit all across the desert through Akmolinsk to the Balkhash, which looks still less feasible, though in January, 1884, he had started for England to buy a lake steamer and iron to construct barges. In September, 1883, Mr. P. explored the Lower Ili, taking a month for a voyage of 500 miles, experiencing similar difficulties to those found on the upper waters of the river, one of the drawbacks being want of fuel; for though coal abounds in the valley away from the river, the Russians continue to use wood for fuel, and this has to be brought to the river banks at considerable cost. One more difficulty to be surmounted is that a screw steamer with a keel is found less suitable for the shallow Ili than would be a flat bottom with paddles, and to make such alterations to a boat in the heart of Asia can only be done at great expense; but it is interesting to see the effort of Mr. P. for opening up the country, and one can but hope that the result may prove more satisfactory than it now appears.

the English, speaking of them as rivals in Asia, though not as foes. He allowed that our infantry were better than theirs, but thought the Russian cavalry better than the English. He spoke, too, regretfully of having to cede the province to the Chinese, for it made so excellent a frontier, and alluded to the delicate position in which the Russians were placed with regard to the natives of Kuldja, who preferred the Tsar's rule to that of their old masters the Chinese.*

When it was decided that Kuldja should be given back to the Chinese, the inhabitants were told that they might remain or cross the border into Russian territory. When I was there, less than a year before the evacuation, numbers of the inhabitants were already gone; and to show that their hatred of the Chinese was not subsided, I may add that, after taking everything out of their houses that was of value, they set fire to the remainder, so that their former masters, on taking possession, should find as little as possible to appropriate. One report, probably exaggerated, said that

* The preference for Russian rule of the Muhammadan inhabitants, whatever may have been the case with the Buddhists, was, I believe, undoubtedly true, which need create little surprise, for, if Kostenko may be believed, the Chinese Government and officials of old were wont to show their intellectual superiority over the Westerns in a very haughty and conceited manner, burdening them, moreover, with various imposts. Besides this the Ili inhabitants were obliged to maintain the numerous herds of the *Bogdi-Khan*, or Chinese Emperor, and the property of the people was never safe. If any article pleased a Chinese official he would take it without parley, and it was the same thing if the wife or daughter of a Dungan or Taranchi pleased him. In addition to this the people were subjected to many galling humiliations. On meeting a Chinese, a native of the country was obliged to rise if sitting, or to dismount if riding. It was a course of such offences, humiliations, and insults, that at last exhausted all patience, and made the people rebel. Then it was the Russians stepped in and took possession of the land on behalf of the Chinese, who, when they had re-established their power in Kashgar, called upon the Russians to restore to them Kuldja. The Chinese ambassador went to Petersburg

THE MARKET PLACE WITH DUNGAN MOSQUE IN KULDJA.

nine-tenths of the people were leaving. Meanwhile the Chinese were doing their best to prevent this wholesale emigration by promising greater liberty and freedom from taxes for ten years. Such persuasion they could not attempt, of course, openly, but we heard that when possible they had recourse to coercion, waylaying and maltreating the emigrants. I suspect it was something of this kind that hindered our starting at midnight, as I intended on the evening we saw Colonel Mayevsky. At his house we met the assistant to the Uyezdi nachalnik, and he kindly arranged for us about post-horses, but the authorities sent to say that night travel was not safe, and advised us to wait until morning. Only the night before, they said, some travellers had been waylaid and an ox killed, but I did not learn whether it was a case of highway robbery or of Chinese intimidation. Nothing was said of danger on the post-road from beasts of prey,

to negotiate the points in dispute, and the terms he agreed to were these :—The Russians offered to restore Kuldja on condition that China defrayed the cost of the war in which they had assisted them, and gave also certain commercial privileges. But when the ambassador returned to Peking he was thrown into prison for having made concessions that were considered derogatory to the dignity of China. I heard the Russians had massed in Kuldja 15,000 men at the time war was on the point of being declared.

War was happily averted, but to show how little the natives wished for a recurrence of Chinese rule, I may mention that when the valley of the Borotal, which at first, under the Russians, formed the third portion of the Kuldja *rayon*, was handed back to the Chinese, and when the rumour spread that Kuldja was also to be ceded, the Dungans and Taranchis came in crowds to General Kolpakovsky in 1877, handing in memorials from both the inhabitants of Kuldja and the surrounding villages, expressing their unanimous desire to remain under Russian rule. The General gave them to understand that the matter depended upon the will of the Emperor, that Russia would keep watch over the proceedings of the Chinese, and protect the inhabitants from all violence, and he added that those who desired to emigrate would receive plots of land within the limits of Russian Turkistan.

though M. Alpheraky, further up the valley, lost two horses by tigers, which kept uncomfortably near the party, and some idea of the number of beasts of prey in the country may be gathered from the fact that in the southern portion of the province in 1877 the wolves killed 7 camels, 657 horses, 249 horned cattle, and nearly 8,000 sheep.

We drove out of Kuldja at half-past five on Tuesday morning, and thus had the opportunity of seeing certain parts of the country by day through which we had come by night. We passed through fields and gardens, wherein are grown, besides the crops I have mentioned, peas and Indian corn, also pumpkins, carrots, turnips, radishes, beet, cabbage, and garlic, but not potatoes, unless it be for Russian consumption.*

After a drive of some hours over a bad road, we arrived before noon at the residence of the Chinese Governor-General, Tsin-Tsiang Tsiun (the last word being his name, and the former two his title), at Suidun, which was more distinctly Chinese than Kuldja, for that was under the Russian authorities, but here was established the authority of the Tsin-Tsiang. In speaking of the "Chinese," it should be remembered that this term in the Ili valley includes three classes of people, all differing in language, abilities, and character. There are the Manchus, who hold

* Réclus mentions that the cultivation of the poppy has been authorized since 1878, and quotes from the *Turkistan Gazette* of 1880 the area under cultivation in 1874 as 7,650 acres, and the value of the opium exported from the Kuldja territory into the Chinese Empire as £33,235. The poppy fields extend from Suidun up the valley to the confluence of the Kash with the Ili, but I presume there must be some restriction upon the manufacture of the drug, since I found its importation into Ferghana prohibited, and a stick or two of opium were given me, that had been seized as contraband.

official posts, and were formerly the representatives in the Ili valley of the Celestial Empire. They wear dark-blue coats, with other raiment of yellow and pink, or, as some prefer, black and blue. Next are the Khambi, who came, about 3,000 strong, from the south-eastern provinces of China, and were, for the most part, labourers and soldiers. And lastly, the Tchampani, criminals exiled from Southern China, who, after a term of hard labour, got their living as best they could, only that in time of war they had to serve in the infantry. All of these three classes suffered terribly in the rebellion, and a few only were left, those living more especially in Suidun, which was the only large town in the province that outlived the events of 1863-66; but others had come since the promise of the retrocession of Kuldja, and more were expected in such numbers that I heard of a Russian officer purchasing house property in Kuldja with a view of selling it at a premium. From a letter I have received, however, I gather that things have again become prosperous and thoroughly Chinese, but that the Russian houses are standing empty.

I had looked forward, with some degree of curious interest, to the presentation of my credentials from the Legation in London to the Chinese Governor at Suidun.* The Russian post-house is in the suburbs, and not wishing to take up our heavy tarantass, we had driven into the town in another vehicle, that we could dismiss, and on reaching the

* According to my statistics for 1878, Suidun had 1,260 houses, with a population of 2,700 males and 2,300 females. Of these 4,300 were Dungans, and 700 Chinese. Divided according to classes, there were 18 clerics, 95 merchants, 31 mechanics, 4,400 farmers, and about 500 labourers; but these represent the town under Russian government. There must since have been added several Chinese authorities.

principal street, I sent my card to the Governor-General. We were asked to stay where we were, and having done so for some minutes, the messenger came back to say that his Excellency was changing his robes, and had summoned his officers of state. We then went down a narrow street, and were shown into an entrance chamber with many attendants, the walls being hung with English and American muskets, rusty, old, and apparently worthless. Dr. Schuyler said the walls of Suidun were wide enough at the top to serve for a carriage road, and, as we approached the town, labourers were increasing their thickness; but with such arms within, the Russians might well laugh, as one officer did, saying that a company of their Cossacks would set the Chinese flying.

Whilst waiting, I changed my dress for the occasion, and, when all was ready, crossed a yard to enter a square court. At the opposite side stood the great man, whilst on the right and left were men drawn up in martial array. The effect was meant, no doubt, to be imposing, and it certainly was curious. My host saluted me by lifting his hands in a "lullaby-baby" fashion, and then took us within, and invited us to be seated on two sides of a table, about 3 feet square, whilst he occupied a third. Opposite the Tsin-Tsiang, on a table, was the Government seal of office, wrapped in yellow material, together with a scroll containing his credentials. His officers, twelve in number, with various orders and feathers, stood behind him, perfectly silent, one of them fanning presumptuous flies from the grand man's head. On the table were plates with slices of apple, grapes, wafers, and some honeyed cakes, made apparently of the seed from which oil had been pressed, and such as we saw, but were not delighted

with, at the Kuldja oil factory. Our host then proceeded gravely to help us with his fingers, placing the eatables a few at a time on our plates, first wafers, then grapes, apples, and cakes. At the same time was brought tea of a strong jasmine flavour, called red, but pale and highly aromatic.

Tea was put into each cup, water poured thereon, and covered with an inverted saucer, a little smaller than the rim of the cup, and, consequently, keeping in the steam. This was well enough, but now came a feat of manipulation, for the cup had no handle, but had to be held with the fingers, whilst the thumb was left free to tilt the saucer into the beverage, in such a way as in drinking to hold back the floating leaves from entering the mouth. We succeeded pretty well, and I expressed admiration for his tea, which remark bore fruit, as will presently be seen.

He soon opened fire upon me by asking, in a stereotyped manner, who I was, and whence and how I had come. I at once showed him my map, and put to the test his Chinese geography. He asked whether Turkey was north or south of England, and how far, respectively, from London were Paris, Berlin, and Constantinople. He inquired how long I had been travelling, and whether I had left the Marquis Tseng in London, to which I replied that he had sent me my letter from Paris. I invited him to ask further questions, whereupon he inquired of what our daily food in England consisted. When my host had finished his queries, I began by asking if it were likely we should have the pleasure of seeing him in London. That depended, he said, entirely upon the Chinese Government, as to whether they chose to send him; but he did not expect it. I assured him that we should have

a great many strange things to show him, and inquired how soon he thought they would have railways in China. He thought "not at all"; for that in one instance where they had laid down a line, they had, after trial, taken it up again!

This I thought was "progress" with a vengeance, and I expressed my surprise. Meanwhile, after drinking tea, his Excellency began to smoke a pipe, drawing the cloud through water placed at the bottom of the bowl, which he did not hold continually in his hand, but took one long, long whiff, and then the bowl was emptied of tobacco, and taken away by an attendant until called for again. This suggested my asking him if the smoking of opium were general among the Chinese. He replied that many practised it, and when I expressed a fear that it was working evil in China, he replied that it was against the law, the penalty for breaking which was to have one's tongue cut. I fancy, however, this was said with a wink, for in Kuldja (under the Russians, it is true) I saw men smoking opium publicly, and the materials for opium-smoking appeared easily obtainable.

I then offered him a Chinese Bible and a Mongolian and a Buriat New Testament, which he accepted, after inquiring what they were. From the manner, however, in which he looked at them, I fancy he was a Manchu. After the gushing reception my Petersburg letters had secured me at the hands of the Russian governors, I had thought, perhaps, this good man would be at the pains to ask if he could do anything for me, or show me anything, especially as he said he had received official notice from London of my coming. But he seemed not to dream of such a thing, nor to get his official temperature above

freezing point, so that our conversation became somewhat dull, especially as what I said in English had to be twice translated into Russian and Chinese or Manchu, and *vice versâ*. It gave time, however, for meditation between the questions, and presently finding that he had nothing to propose for my pleasure or instruction, I asked whether I might go and see the men building the fortress, and also visit the bazaar. The first of these trifling requests he refused, saying that there were workmen about, and disagreements might arise. He asked me, therefore, not to go, but said he would send someone with me to the bazaar.

We then rose after this formal reception, and were dismissed with the same ceremony as when we came in, and taken again to the antechamber. Here I offered some Scriptures to the attendants, but they said they did not dare take them without permission.

One of the first things that attracted my attention in the bazaar was a street painter, whose pencil explained to me the want of perspective, apparent in a certain class of Chinese paintings ; for the man simply dipped the tip of his finger in Indian ink, and rubbed it round and round on the tablet till he made his picture, and only then touched it up with a brush, after seeing which I marvelled not, as I had hitherto done, at the clumsiness of the production, but that in such a manner, and so rapidly, the artist should have been able to produce anything so good. I noticed on the stalls packets of English needles, and found a few curiosities to buy ; and then, thinking that I should perhaps get on better alone in distributing my few remaining Scriptures, I intimated to our cicerone that I need not trouble him further. But he said the Governor had told him not to leave me, so that he was probably a spy. I

managed, however, to give a few Chinese and Mongolian books, and then prepared to return to the post-house.

To this end we chartered a native conveyance, the most uncomfortable of its kind, without exception, I ever entered; a two-wheeled cart, without springs or seat, and with an awning, against which one's head was constantly in danger of striking. It served us, however, to the post-station, and we were driving out

A DUNGAN PUBLIC CONVEYANCE.

of the town when a Chinese officer and interpreter came dashing up to our carriage, one of them carrying two small canisters of tea, and saying that since I had so appreciated the Governor's tea, he sent me two canisters for a present. His Excellency had apparently thawed a little since our visit, or if he had suspected me as a spy, he seemed to have by this time changed his mind. Anyhow I thanked him for his gift, but was at first inclined to look thereon as "a white elephant," for I hardly relished the trouble of carrying two canisters

of tea a distance home of 5,000 miles. When I reached Vierny, however, I was told that this yellow tea was of so choice a kind that it is reserved in China for the Emperor and great personages; that now and then Chinese generals sold it to Russian officers, and that its value was about 50*s*. per lb., whereupon I was reconciled to bringing it to England, but only to give to my friends in small quantities as a curiosity, for my poor taste is not sufficiently educated *à la Chinoise* to appreciate its super-excellence.

We reached Chinchakhodzi by night, and found the one room of the post-station occupied by a doctor. We were recommended not to proceed in the dark, as the road was bad, but to wait for the rising of the moon, which I did, our company being soon increased by an officer, his wife, wet-nurse and a baby; so that, rather than attempt going to sleep, I sat up reading and writing, and soon after midnight we sped forward. Early in the morning we crossed the two or three streams of the Khorgos, and breakfasted at Ak-Kent. The next station was Jar-Kend, that has now become colonized by Dungans and Taranchis who have left the Kuldja province to be under the Russians, rather than remain there to be subject to the Chinese. A wealthy Taranchi, who joined Mr. P. in the steam navigation project of the Ili, has removed from Kuldja to this place, and it is here that corn had to be brought, in 1883, to supply their immediate wants; but M. Gourdet tells me that now the emigrants are quite settled on their new lands, and have so finished their irrigation works that it is expected wheat will be cheaper in this neighbourhood than at Vierny.

We came next to Borokhudzir. We had succeeded well about horses thus far, but, to make matters still

better, we found awaiting us here, on the frontier of the uyezd, the secretary of the Uyezdi nachalnik, who, through General Kolpakovsky's kindness, had actually come all the way from Kopal to accompany us for the purpose of seeing that we were not delayed through lack of horses. An instance of greater official kindness than this I had never met. The secretary took us over the nursery garden in the place, and we then started forward, our cicerone preceding us a little so as to get to the next station first, and have fresh horses in readiness. The same evening, at Konor-Ulen, we came again to the station where was the sick telegraphist, whose kindness to us we returned by leaving him some fruit. Mr. Sevier attended again to the Tatar's tongue, who asked this time what were the books we had sold him, for he could not understand them. After this we reached the steep incline of the pass, up which we had six horses to drag us, before descending to the station beyond.

CHAPTER XIX.

FROM ALTYN-IMMEL TO VIERNY.

Route over Chulak hills.—The Ili bridge.—Trans-Ili Ala-Tau mountains.—View from the steppe.—Ala-Tau passes.—Jelanash plateau.—Fort Vernoe; its site, climate, and diseases.—Appearance of town and houses.—Diversity of population; races and classes.—Introduction to M. von Ghern.—Poor hotel.—Mercantile acquaintances and sale of Scriptures.—Market prices and local industries.—Scriptures for prisons and hospitals.—Town schools.—Visit to Archbishop.—Need of Scriptures and tracts in the vernacular.

IT was early on the morning of the 7th September when from Kuldja we arrived at Altyn-Immel. The bulk of my books had greatly shrunk, for everywhere the post-masters and others purchased them readily. Accordingly, our boxes repacked, we started for Vierny. Altyn-Immel station is 4,000 feet high, and in four stages we were to descend 2,700 feet to the Ili river. Our road lay over the round-backed spurs of the Chulak hills, and after the second station, Karachekinsk, across immense plains, dotted here and there with Kirghese yourts, and herds. At Chingildinsk, the next station, was a spring of water, roofed over in the post-house, that I was taken to see as something remarkable,—a veritable treasure, I suppose, in such a region.

Here we drank tea, and posted on to Ilisk, defended

by a small fort, and where a ferry took us across the Ili, here about 700 feet wide. Future travellers will be able to cross by a bridge. It was to be opened in the spring of 1884, as Major Gourdet wrote me, a wood and iron one built on the American Howe system, 850 feet long, at a cost of about £20,000. M. Gourdet had been sent to Europe to order the ironwork of the structure when I met him at Moscow.* At this river our official companion reached the frontier of his uyezd, and having now conducted us rapidly, and shown us every attention possible, he bade us adieu. Meanwhile, we pushed on to Kuntenta, after passing which I learned the use of sending on the wagonette ahead. I had insisted on this after our former mishap; and at about two o'clock on the morning of the 8th we overtook our vehicle, out in the cold, come to an utter standstill, one of the wheels having gone not a little wrong, but having fallen entirely to pieces. We could only trot forward in the tarantass to the next station, Kara-su, where the good-natured post-master lent us a wheel to recover the broken-down vehicle, and allowed

* The weight of iron is 130 tons, and consists of 160 tubular pillars and 7,000 bolts. M. Gourdet mentions an interesting fact about the metal—namely, that a rod of iron of 120 inches, with a section of 1 square inch, supported an elongation of 12 inches before breaking under a weight of 25 tons; to which should be added, that on account of the testing machine being a very primitive one, the tension was not made in the plane of the axis of the bolt, so that it was before breaking bent at an angle of about 15°. It was just at the bend that the bolt broke, showing that, if the tension had been quite vertical, it would have borne more than 25 tons weight. The pillars are made of ¾-inch sheet-iron, the quality of which may be estimated from one of the sheets having been folded, cold, like a piece of paper, *i.e.*, at 180°, without the least sign of cracking. Holes 1 inch in diameter have been punched at a distance of ⅛ of an inch from one another, and the narrow partition is left quite clean and entire, without any trace of breaking. M. Gourdet then adds, "I do not suppose there is much iron even in England that can rival this from Nijni Tagil."

us to take it on loan to our destination. When I offered this man books, he inquired whether he was *obliged* to purchase them. He did so, however, upon being assured that he was a perfectly free agent.

We now set off on our last stage across plains, from which we could see Vierny a long, long way distant among trees, and behind it, rising in majestic grandeur, the snowy peaks of the Trans-Ili or southern Ala-Tau. This range consists of two long, high, and parallel chains. The northern, of which we had a good

APPROACHING VIERNY.

distant view as we drove along the plains, presents an uninterrupted mountain mass, rising to an average height of 8,600 feet, and in its central portion to the limits of perpetual snow, but falling somewhat lower at either extremity, and, finally, in its eastern section, broken by the gorge of the River Chilik, and afterwards by the Charin. Tal-Cheku, the highest peak, has an elevation about equal to that of Mont Blanc, and its snows are visible for more than 30 miles; and, in addition, we could see many heights with snowy patches, fully entitling the range to its name *Ala-Tau*

or the spotted mountain. The porphyritic forelands are small in comparison with the height of the ridge itself.

Until comparatively recently, not only the slopes, but also the lower spurs of these mountains were covered with thick forests. Now grass alone grows on the summits, and the clear, bright emerald green of this mingles with the dark green of the few fir-trees that remain on the hill-tops. Rain often falls in the mountains, causing them to be veiled in dark mists, which, as they rise upwards, become whiter, taking all manner of quaint and fantastic forms, and finally melt away. The spectacle presented by the lower spurs in spring, as described by both Kostenko and Morgan, is said to be very beautiful; especially the Almatinka valley when its apple-trees are white with blossom, mingling with the delicate pink of the apricot bloom. At this season, moreover, the nomads set fire to the old grass in order to help the growth of the new, and the heavens become red with the glow of the flames, filling the neighbourhood with waves of light. Later on, the steep declivities, clothed with luxuriant grass, are stained with dark-red beds of pæonies, and from the ground, coloured with purple and lilac irises, shoot up tall flower-stalks of lilies and hollyhocks. This chain is crossed by five passes, of which three are higher than the Stelvio, the highest in Europe, the most elevated being that of Almata at 10,900 feet, from which there opens to the traveller's view the southern chain of the Ala-Tau, with an average height of 8,825 feet.

Between the low portions of the northern and southern ranges, north of the Chilik extends the

Jelanash plateau, 5,300 feet high.* In the Ala-Tau mountains fir-trees are most abundant; then, in lesser quantities, apple, apricot, *jida*, ash, juniper, and birch. Here, then, are materials to justify the remark of Kostenko, that however beautiful are the Ala-Tau mountains as seen from the plains, the scene in the mountains themselves is yet grander and more striking. The luxuriant growth in the valleys and gorges, the streams, as they burst forth seething between their rugged banks, the paths and tracks winding like serpents over the precipices, all combine to form views changing at each step forward as in a kaleidoscope, and each prospect appearing more striking than the one preceding it.

The Russians built Fort Vernoe, changed afterwards to Vierny, but at first called Zailinsky, in 1854, on the spot where in the Middle Ages stood Almata. This place was then known to the whole trading world, and was a station on the great road from Central Asia to China. Fort Vernoe was at first the centre of the administration of the Ala-Tau district, but subsequently became the provincial town of Semirechia. The oldest name of the place was derived from that of a little stream 7 feet wide by 6 inches deep, the Almatinka, so called because its mountain sources are thickly clothed with apple and apricot trees. The volume of

* Judging by the geological character of the soil, this plateau, Kostenko says, was at some time an enclosed mountain basin, which in a long period of time was gradually filled up by an accumulation of sand, mud, and pebbles, all of which formed a weakly-cemented conglomerate at the bottom of the mountain lake, filling the basin. Gradually increasing accumulations at last seem to have raised the level of the water to such an extent that it broke through its mountain enclosure, and found an exit where the Chilik and Charin now flow. The bed of the lake then formed the Jelanash plateau, the soil of which is so friable, and so little firm, that the rivers Merke, Kegen, and Kurkara, that flow by it, have cut themselves beds from 700 to 800 feet deep.

water in the stream is annually diminishing, partly because of the destruction of forests at its source, and partly because the waters are diverted into canals for irrigation. Two other small streams flow through the town, and with the Almatinka empty themselves into the Ili. The town lies at a height of 2,500 feet, and enjoys a warm, healthy climate.*

We had heard in the north of the delights of Vierny, and, as we drove along the flat and painfully uniform plain, were looking forward to our arrival with pleasure. We reached the town before midday on the 8th September, and drove to Aliken's Hotel, where, the best room being engaged, and the remaining one utterly dirty and uninviting, we made off to another inn to inquire for quarters. Here we heard of two French gentlemen, said to be travelling for pleasure and sport, who had gone to Issik-Kul, and for whom the room was retained. We were told we might have it on condition of turning out when the Frenchmen

* The summer heats rise to + 99°·5 in the shade. The climate, however, is becoming severer every year, owing probably to the loss of forests. The average temperature in 1861 was 44°·6, whilst the town of Marseilles, on nearly the same parallel, has an average temperature of +57°·42. Hence cherries, peaches, and oranges ripen there, but do not grow at Vierny. The vine, however, has been introduced with some success. Apples ripen in the beginning of August, apricots in the latter half of June, and barley and wheat in July. The prevailing winds are north-west and east. The former comes from the Balkhash, and raises in clouds the sand of the steppe, bringing also fogs. The easterly wind is more frequent in spring. In summer the heat is scarcely bearable during the day, but the proximity of the snow-clad peaks ensures cool evenings and nights. The sudden changes of temperature give rise to intermittent fevers, that constitute the prevailing sickness of the place. During the summer, bowel complaints must be added, caused by the immoderate use of unripe fruit, besides which all kinds of filth and impurity are either allowed to remain before the houses or are thrown into the stream. The Kalmuks, many of whom live in the town and neighbourhood, are celebrated for their extreme want of cleanliness.

returned; but as the chamber was in painful proximity to a billiard-room, from the noise of which it seemed likely disturbances might come, we returned to the previous hotel, and took the room with the promise that we should very shortly move upstairs when the occupant of the best room departed. The establishment had, however, one good feature about it—a Russian bath, of which we availed ourselves immediately, and then proceeded to see the town and make some calls.

We hired a droshky at the very moderate tariff of 7½*d.* an hour, and found that the town straggles over a wide area. There is the station Almatinka, forming the old part of the town, the settlement of Almatinka, the Tatar suburb, and new Vierny, the last built since 1870, and to which we drove through straight, wide, and fairly level streets, bordered thickly on either side of the footway with double rows of poplars. The older portions of the town, regularly laid out, are entirely built of red fir wood, whilst in the new town are several houses of brick, including the Governor's and the Archbishop's palaces, and the adjacent *gymnase*, all of them designed, if I mistake not, by M. Gourdet, a French architect in the Russian service, to whom I have alluded. The Governor's house, with its offices and gardens, occupies a whole "quartal," or square. There is also outside the town a public garden, with greenhouses and flowers, also a pavilion for music and dancing, supper and cards.*

* According to Kostenko, there were in Vierny, in 1863, only 1 stone or brick house, and 766 wooden ones, whereas, in 1871, there were 239 brick and 1,456 wooden houses, of which, however, only 4 brick and 9 wooden domiciles were of two stories. Thus, during 8 years, the number of houses doubled, and in similar proportion the number of inhabitants increased.

The great diversity of the population is more striking than its numbers, and gives the streets a curious appearance, as one sees Russian women driving in carts full of melons, side by side with Kalmuks riding on bullocks, or Kirghese on camels, and bringing raspberries, gathered from the surrounding hills, to sell, for as much sometimes as 6*s.* a day. I think I never met in a public square so many types of coun-

A STREET IN VIERNY.

tenance. Cossacks predominated—the original settlers; then followed Little Russians, recent arrivals, who occupy a suburb in the south of the city, and among the colonists are also a few Chuvashi, Mordvins, Cheremises, and other peoples from the Volga. In addition to these were Tatars; Sarts from various towns in Turkistan and Kashgaria; Kirghese who have adopted a half-settled mode of life; Kalmuks, Dungans, and Taranchis, who came from Kuldja after the

Chinese devastation of 1864, who do all the menial work, and some of whom have been baptized. Lastly, there are Jews and Chinese, come for purposes of trade.*

By the kindness of M. Gourdet I had been furnished at Moscow with an introduction to M. Vladimir von Ghern, the Procurator Fiscal, or examining magistrate at Vierny, upon whom we called on our first afternoon, and received a hearty welcome. This gentleman had been in Central Asia for some years, and had taken an intelligent interest in the people and country. He was

* The following is a summary of the population of Vierny according to races and occupations :—

	Males.	Females.	Total.
Hereditary nobles	109	46	155
Individual nobles	71	52	123
Citizens of note	8	5	13
Clergy	8	12	20
Merchants	174	107	281
Burgesses	1,176	1,306	2,482
Peasants	174	101	275
Colonists	5	3	8
Military class	2,512	250	2,762
Cossacks	2,048	1,839	3,887
Soldiers retired and on unlimited leave	583	180	763
Sarts	459	106	565
Chinese	9	3	12
Kirghese	271	132	403
Kalmuks	385	226	611
Other persons	194	83	277
Total	8,186	4,451	12,637

One noticeable feature about the population is the large number of males in excess of females. In 1871 there were for every 100 men 54 women. In 1863, for every 100 men there were only 43 women. The number of births and deaths among the Russian population for 1871 was 596 and 483 respectively, the excess of births over deaths being in the case of males 45, and of females 68. These are the latest full statistics within my reach, but according to a census of Vierny and its suburbs, taken three years before my visit, it appears that the population of both was found to be 14,837, exclusive of the troops, and with these added the figures amounted to 18,423 souls.

a collector of Chinese and other curiosities, and of objects of natural history. He had some Chinese arrows of state, jade ornaments, and Chinese spectacles of stone, rubies, and other gems. He not only gave me a great deal of information, but also presented me with some skins and skeletons for the British Museum, also with an old Bokhariot camel whip, made of maral skin, woven over with brass wire; a Kara-Kirghese knife of native manufacture, and some Kirghese threads, called *taramiss*, made from the tendons of horses' legs. When, therefore, we had dined at his house, and learnt such particulars as we wished to know concerning the town, we returned to our hotel feeling somewhat more at home.

But the so-called "hotel" was a sorry place, its staff consisting of two men—one to sell spirits at the bar, and the other, who had been a soldier, to act as waiter, chambermaid, and factotum. The latter was of Jewish nationality, dirty and unkempt, called hither and thither by day, and more than once (what is very unusual in a Jew) muddled by liquor at night. On one of these half-drunken occasions he confided to us that the hotel had been built and was owned by a man who came to the place a private soldier, and now possessed I know not how many thousands of roubles, and "the reason he gets on so well," said he, "is because he doesn't gamble and drink"; and then he stammered out, "No more do I, and that's why he keeps me." Fortunately for us we had found a firm friend in M. von Ghern, who insisted upon our coming every day to his house to dinner, so that the samovar with hot water, and such things as we could purchase in the town, were nearly all we had to trouble our waiter for.

Early the next morning we received a visit from

M. Ivan Ivlampivitch Pargatchevsky, a tea merchant, to whom I had an introduction from, I think, his former employer at Kiakhta. He seemed honoured by the introduction, and nothing could exceed the old man's eagerness to do for us all he possibly could. He brought me white bread, sent to an outlying village to procure good fresh butter, not easily obtainable in Vierny, and so entered into my scheme for the distribution of the Scriptures, that he begged me to send him five pounds' worth to circulate as widely as possible by sale at catalogue prices! He seemed pleased to meet one who had been to Kiakhta, and told me he was the first to propose the bringing of tea up the Amur, and across the Trans-Baikal steppe, instead of over the Mongolian desert. Another mercantile friend whose acquaintance we made was a German named Berg, whose cook had the reputation of being the best maker of bread in the town, so that the master appeared before me in the character of a baker, though his lawful calling was that of a watchmaker. I was also informed that, being a Lutheran, he acted as deputy for the pastor in baptizing Protestant children.

We received a visit likewise from the police-master, who came to take us to see the prison, and afterwards to the cattle-market, which presented a lively appearance with men for the most part mounted, and talking I know not how many tongues, where also I took the prices of sundry animals. For camels they asked from £5 to £6, and for horses from 30*s.* to £10 each. Sheep were valued at from 7*s.* to 10*s.*; a four-year-old cow at 24*s.*; and a goat at 5*s.* 6*d.* Greenmeat for cattle sold for 4*s.* a small cartload. Beef, I heard from Madame von Ghern, cost from 1*d.* to 1½*d.* per lb., mutton rather more, and veal from 4*d.* to 5*d.* per lb. Chickens fetched

5*d.* each, and ducks 1*s.* 3*d.* a couple. Ascending in the scale, servants on board-wages received from 10*s.* to 12*s.* a month, and a coachman £1 a month, whilst house rent was exceedingly dear. So, again, for things imported from Petersburg, M. von Ghern considered that, if they paid for an article only half as much again as it cost, it was not dear.* It was a comfort, however, to the Russian inhabitants, that if they wanted goods from Petersburg, from which they were distant 3,143 miles, they could have them sent by parcels' post at the rate of 9*d.* per pound, or by heavy transport at the rate of 4½*d.* per pound.

As we approached Vierny we overtook many cart-loads of melons making their way to the town, and the number of melons we saw in the market was surprising. M. von. Ghern gave us a water-melon for dessert as big as the largest of English pumpkins, and he said that water-melons had been brought to the town weighing as much as 36 lbs. They have also at Vierny a smooth melon raised from Kuldja seed. Melons and water-melons are sold for the moderate price of 6*s.* a hundred, and can be kept for use up to Christmas. In the market we also bought grapes, and, still better, small but luscious nectarines, the latter for a halfpenny each, of which, as I sat over my writing at night, I ate so many as to alarm Mr. Sevier, whose medical

* Kostenko gives the following list of prices in Vierny market:—Rye flour, 4 roubles a *kul* of 324 lbs., or 2*s.* 11*d.* per cwt.; the same quantity of wheat flour, 3*s.* 2*d.* For grinding rye or wheat the charge is 1*d.* per cwt. A cwt. of rice costs 15*s.* 6*d.*; a quarter of oats, 63*s.*; a cwt. of hay, 1*s.* 2*d.*; a pound of cow's butter, 8½*d.*; a pound of fresh fish, 1¼*d.*; a cwt. of salt, 4*s.* 6*d.*; a pound of stearine candles, 1*s.*; a pound of tallow candles, 4*d.*; a 7-feet cube of firewood, 8*s.* 3*d.*; a gallon of wine, 5*s.* 9*d.*; a gallon of spirits, 2*s.* 9*d.*; a pound of honey, 7*d.*; a ton of bar iron, £30. Pay of a workman *per diem*, by himself, 9*d.*; with a horse, 2*s.* 3*d.*; with a pair of oxen, 3*s.* 6*d.*

instincts led him to fear for the consequences. All went well, however, and I held with him a medical consultation as to whether no ill-effects having followed from my indulgence was a good or bad sign; and upon his assuring me that it evidenced a good digestion, I never stinted myself from that time onward from Central Asian fruit, and I am thankful to say was not once inconvenienced thereby.

The market was, of course, suggestive of the occupations of the people, of which the principal is agriculture. They cultivate spring and autumn rye, wheat, oats, barley, millet, buckwheat, and potatoes. The amount of grain raised just serves for home consumption, including that used for making alcoholic drinks, and for what is sold to the Kirghese. After agriculture and cattle breeding may be mentioned among the industries of Vierny, wine pressing, distillation of spirits, tanning, and brick-making. Thanks to the favourable position of Vierny, between roads leading from Kuldja to Tashkend and Khokand, and from Kashgar to Semipolatinsk, its trade has developed in a remarkable manner. In old times caravans passing Vierny did not stop there, but now they discharge and take up merchandise for sale elsewhere. Many merchants from Tashkend and other parts come here expressly to carry on a settled trade. There takes place yearly a considerable trade in cattle, the animals being purchased from the Kirghese not only to supply Tashkend and Kuldja, but Petropavlovsk also, that is more than 800 miles distant. There are at Vierny at least two bazaars: the Russian one of the ordinary type, and a Sart bazaar that we visited, as well as Dungan and other native eating-houses, the delicacies in which appeared to be pilau with rice, carrots, and

raisins, and small meat puddings, a farthing and a penny each ; also Lasagne bread for soup, and upstairs in a loft were small tables surrounded by mats, on which the natives sat drinking tea. There were two objects of interest I was able to secure in this town, the one a Dungan bridle, and the other a Kara-Kirghese leather bottle for kumiss, both of which are now in the British Museum.

Vierny is the centre of administration for the chief of the Cossacks and the police, besides being the residence of the Governor, who was away on official business during our stay. We called upon the Vice-Governor, M. Aristoff, who had read of my visits to the prisons of Siberia, and of my distribution of the Scriptures. The latter met with his hearty approval, and he readily undertook to carry out my wishes in the five hospitals and five prisons of the province, for which purpose I sent him, by the police-master, 80 Scriptures and 100 other publications on the following day.

It is encouraging to see that education has been attended with some success in Vierny. I think it was holiday time during my stay, but, according to Kostenko, there are now in existence there seven educational establishments * and a library founded in 1878 at the Military Bureau, of 2,000 volumes, to which, during a period of eight months, 1,474 persons were admitted, and to whom were issued 2,749 books.

There are in Vierny two churches and a mosque,

* 1. School at Almatinka, with 175 boys and 39 girls. 2. Parish school at Almatinka, with 45 boys. 3. A Mussulman school in the Tatar suburb with 70 pupils, under a mullah. 4. An industrial school, with 21 pupils, for learning trades. 5. School of horticulture, with 21 pupils, under a gardener from the Crimea. 6. An academy for women. 7. An academy for men.

and the foundation of a cathedral is also laid. The bulk of the people are of the orthodox faith.* On Sunday afternoon we went to see Alexander, Archbishop of Turkistan and Tashkend. Opposite his door was a large Buddhist bell. When ushered into his Grace's reception-room I was fairly taken aback at the furniture, the number of curiosities and pictures, and the taste with which they were arranged. On the wall were Italian paintings; on the tables photographic albums of Rome, and curios from the catacombs and Prague; from China and Japan coins and talismans, as well as antiquities from Lake Issik-Kul. But what was more remarkable for a Russian ecclesiastic, there was a good library, and in it Bibles in Hebrew, Greek, and Latin—such a thing, I was told, as was possessed by no other priest in Turkistan. I had been before into the houses of Russian priests and bishops, but had never seen anything to equal this, and the Archbishop's story soon showed that it was due to foreign influence. His grace was a widower, who, after losing his wife, had become a monk, and passed through the academy. He had served as priest in Petersburg, had been a member of the Russian Mission at Peking, and also chaplain at Rome. With great glee he showed me some rare and curious books

* The representatives of creeds, other than the Orthodox Church, in 1871 were as follows:—

	Males.	Females.	Total.
Roman Catholics	136	1	137
Protestants	22	2	24
Muhammadans	550	152	702
Buddhists	136	67	203
Jews	14	—	14
Raskolniks, or Dissenters	15	13	28
	873	235	1,108

against Popes and Romanists found on the bookstalls of Rome, and which he regarded as spoils from the Philistine's camp. He spoke Italian fluently, and Chinese, but French, unfortunately for me, he had almost forgotten. He had a splendid collection of Central Asian photographs, and gave me some in exchange for others I was to send from England. These have since served me in good stead for engravings. It must not be imagined, however, that the Archbishop counted his income by thousands. I was told it did not probably exceed £300 a year, and very many of the things I saw were presents, and the curios had been picked up in odd places at comparatively little cost. I should gladly have had much conversation with him, especially about the Russian Church, concerning which, from having seen other religious communities abroad, the Archbishop could form a better estimate than many of his *confrères*. I referred to the sad lack of preaching therein, whereupon he mentioned the harassing regulation that a priest before preaching a sermon must write and send it for approval to the censor, but he thought it likely, nevertheless, that preaching would revive in the Russian Church; saying that, as a matter of fact, many priests do now expound the Gospel for the day in the churches or in private houses. The old gentleman gladly showed us his treasures, and, had his strength and our time permitted, he would have entertained us longer, but we had to go to M. von Ghern's, close by, for our last dinner at his hospitable board.

My host was delighted to see the Kirghese New Testaments I had brought. He had some doubt, however, as to whether the translation was in the pure dialect of the people, though he did not think

they would be unable to read it. I afterwards had a similar opinion given me by some of the Kirghese themselves, who said it contained several Tatar words.*

I could hear of no books whatever in pure Kirghese, and was told that a translation of Scriptures and the simplest of tracts for the Kara-Kirghese, estimated at upwards of 250,000, and the Kazaks would be highly appreciated; as also for the Taranchis and Kashgarians, estimated at from perhaps 2,000,000 to 3,000,000, and of whom 4,000 or 5,000 come yearly as summer workmen into Semirechia. On my return I brought the matter before the Committees of the Religious Tract and the British and Foreign Bible Societies; with what result has yet to appear.

Thus we had a refreshing rest at Vierny, and made some pleasant acquaintances, and when we left next morning I felt we should have cause to look back thereon as one of the green spots of our journey.

* I have subsequently learned its history to be this:—A version of the Scriptures, in plain Turkish, was published in Oxford in 1666, having been translated by Mr. Seaman, chaplain at Constantinople. This, however, was found to be too Constantinopolitan to be readily understood by the Tatars, who speak a purer Turkish without the circumlocution and foreign words adopted by the Turks of the capital. Seaman's version served, nevertheless, for a basis on which Mr. Bruntin, a Scottish missionary, prepared another version, in Turkish, restored to its pristine simplicity, for the Tatar tribes about the Caspian, and that was called, from the place where it was printed, the Karass version. So well acquainted was Mr. Bruntin with the language, and so pure and idiomatic was his style, that the Tatars regarded him as a renegade Turk. He died whilst the work was going through the press, but the edition was finished by his fellow-missionary, Mr. Frazer, in 1813. Five years later Mr. Frazer accommodated this Karass version to the idioms and spelling of the Kirghese at Orenburg, the Gospel of Matthew being printed in 1818, and the whole of the New Testament in 1820, at Astrakhan, at the expense of the Russian Bible Society. It was this version, I believe, that I took with me as "Kirghese."

CHAPTER XX.

THE RUSSIAN OCCUPATION OF SEMIRECHIA.

Russians on the Irtish not troubled at first by Kirghese.—Kirghese occupation of Sungaria and submission to Russians.—Conciliation and trade at Semipolatinsk.—Suppression of Kirghese robbers and annexation of the steppe.—Pioneers into Central Asia.—Foundation of Sergiopol followed by scientific discovery.—Submission of Great Horde and foundation of Kopal.—Opening up to trade of the Ili valley.—Atkinson's travels.—Russian advance to Trans-Ili region.—Progress of trade and Russian administration.—Colonization of Semirechia.—Exploration of the Thian Shan, aided by feuds of the Kirghese.—Consolidation of Russian administration.—War with the Khokandians.

WHEN the Russians invaded Siberia at the end of the sixteenth century they were not at first troubled by the Kirghese Kazaks, who at that time were united under one khan reigning in the town of Turkistan. In the following century they were ruled by Tiavka, the khan to whom, Mr. Howorth thinks, may most reasonably be traced the threefold division of the Kazaks into the Little, the Middle, and the Great hordes. These divisions were at first, perhaps, merely administrative, but during the later years of Tiavka the hordes became more or less independent tribes, governed by their own princes, and this disintegration became the more complete when the Sungarian khan of the Kalmuks, after inflicting upon the Kazaks

several defeats, took from them their capital of Turkistan, and to a large extent drove them from their old quarters. So early as 1718 we have Tiavka, Kaip, and Abulkhair, each styled "khan," appealing to the Russians in Siberia, and offering submission, in the hope, no doubt, of receiving assistance against their inveterate foes the Kalmuks. Thirty years later we find the Kazaks coming to Semipolatinsk, where orders had been issued not to take from them customs' dues on account of their herds, brought to the Upper Irtish forts to be bartered for corn. So long, however, as the Kalmuks dominated the Irtish, the Kazaks seem to have kept at a respectful distance; but immediately after the slaughter of the former in 1758, the Kirghese hastened to appropriate the vacant pastures, dividing them under the rule of sultans. Thus Sultan Ablai settled on the streams Tchar-Kurban and Kyltchatz, and Abdul Faiz in that part of the steppe west of the Irtish, known later as the districts of Kar-karaly and Kokpety. Others, again, wandered between Omsk and Ust-Kamenogorsk, some of whom, in 1758, made a raid on the Russian frontiers, and carried off 220 Tatars from the district of Kuznetzk.

The Sultan Ablai, chief of a part of the Middle horde, coquetted with both Russians and Chinese, and, depending now on one and now on the other, assumed the title of khan, and gave the Siberians some little trouble; but Sultan Abdul Faiz, in 1760, sent ambassadors to Petersburg, promising to protect caravans from Central Asia going to Semipolatinsk, asked to be taken under Russian sovereignty, and for permission to trade at Semipolatinsk. This request was granted, and for the Kazaks was built the new exchange 10 miles above the old fort. It was surrounded by

palisades, and had a guard-house for the military, near which was a peculiar signal tower on four high posts, the upper part being filled with brushwood, to be ignited as a beacon fire.

To this exchange the Kirghese under the jurisdiction of Abdul Faiz came, in 1765, to the number of 120, thereby fulfilling one object the Russians had in view in building it, namely, to checkmate the Chinese, who opened a trading depôt in Sungaria, hoping thereby to attract the Kirghese to their sovereignty. The Russians afterwards transferred the whole of the town of Semipolatinsk to the new site, a portion of the traders being located in a suburb on the left bank of the Irtish, where the Tashkendians and Bokhariots were lodged. About a quarter of a century later, two other quarters were built on the same side of the river for the Kirghese, who had manifested a desire to settle, and to whom was granted, in 1808, 10 years' freedom from taxes.

Thus the Cossacks found the Kirghese more peaceable neighbours than the Kalmuks, and more pliable, so that they could afford to adopt towards them a policy of conciliation. Supposing their new *protégés* to be Mussulmans, the most Christian and orthodox Russians, in 1784, went so far as to pay mullahs to spread over the steppe the creed of Muhammad, and three years later, for the further benefit of their Islamite subjects, ordered the Koran to be published; and though the government was at this time sending into exile dissenters, like the *Dukhobortsi*, who dared to differ from the Church on the subject of the Trinity, they yet paid ignorant mullahs to proclaim "There is but one God, and Muhammad is His prophet." Hand in hand with this inconsistent propaganda went on a more

or less systematic reconnoitring of new ground for future occupation. The Russian merchants gave credit to the Kazaks, who came to Semipolatinsk, and were consequently obliged to go on the steppe to collect their debts, being allowed to do so, however, only by permission of the chief of the Siberian line, who, when permitting the traders to go, says Zemlianitsin, "invariably entrusted them with some secret inquiries regarding the condition of the steppe people."

These merchants always took with them, if only for current expenses, an inconsiderable quantity of Russian goods, which helped towards the growth of a trade that afterwards developed largely. In 1807 new regulations were issued for the further extension of export trade. For some time, however, the Semipolatinsk authorities endeavoured to confine the barter trade to the new exchange, opposing so strongly the going of merchants on to the steppe as sometimes to take away their account-books, declaring also that the continued stay of the merchants and their agents afforded opportunities for intrigues with the Kirghese women, that led to quarrels and pillaging.

In Semipolatinsk a frontier court was established in 1800 for the trial of cases with reference to the plundering of caravans by the nomads, where sat, side by side with the Russian commandant, Kazak elders. This court either cited the offenders and decided the affair leniently, or, having seized the culprits, exposed them to the severity of the Russian criminal laws. Thus the Russians were compelled to allow their new subjects to feel the weight of their arm, as well as to taste the sweets of their clemency. Ten Cossacks were supplied to each caravan proceeding southwards

through Bukhtarminsk or Semipolatinsk; and under the command of General Glasenap, that is from 1808-19, 10 regiments of the line and 9 batteries of field artillery were employed in subduing the Kirghese marauders, who were at last so reduced to subjection that not only caravans but even solitary travellers could proceed safely through the country.

Somewhat later, parts of the steppe west of the Irtish began to be brought under Russian administration. In 1827 Cossacks were stationed in Kokchetaf (17 years before the formation of the okrug of that name) and Karkaraly, and about five years later the okrugs of Akmolinsk and Baian-Aul were formed. In the latter a smelting foundry for silver was built in 1849, but things did not proceed to the permanent satisfaction apparently of the Tchubarpaly clan of Kirghese, who in 1855 wandered away from Karkaraly to the mountains of Khokand, whilst in 1838 Akmolinsk had to be vigorously defended by fourscore Cossacks.

The Russians had now set their faces aggressively towards the unknown south—unknown, that is, to Europeans. As far back as 1793 a ray of scientific light had been thrown on the mysterious Sungarian country by the Russian botanist Sivers, who penetrated to the Tarbagatai mountains, whither no scientific traveller followed him for 40 years. About the same time, however, the mining engineer Snéghireff penetrated to Chuguchak searching for gold; and in the archives of Omsk are said to be preserved documents recording a wonderful journey accomplished by a gentleman named Madatof, who left Semipolatinsk in the early years of this century, passed Issik-Kul, crossed the Celestial Mountains, and penetrated safely to India. In 1821 Bubeninof, a merchant, went from Semipolatinsk to

Kashgar; and so again, in 1826, Mr. K. A. Meyer reached the Arkat mountains, the Chingiz-Tau, and the Karkaraly district of the steppe. Two years later the illustrious Humboldt came to this region, but his utmost limit was the Chinese picket of Baty on the Irtish, and did not embrace Sungaria at all. Humboldt collected at Semipolatinsk several itineraries from Asiatic traders, and with the help of these, and materials derived from Chinese sources, was able to make some shrewd guesses respecting the geography of Central Asia, concerning which so little was then known.

In 1831 the Russians founded Ayaguz, that afterwards became the chief town of an uyezd, and the name of which was changed to Sergiopol. It was about this time that a portion of the Great Horde, under Sultan Siuk, son of Ablai Khan, gave in its submission, which helped to render not only Lake Balkhash, but also the mountain districts of Sungaria, more accessible to travellers, so that in 1834 the astronomer Federof was enabled to reach the mouth of the Lepsa, and to determine its geographical position. He also visited the southern shore of Lake Zaisan, and made a trigonometrical survey of the Tarbagatai.

A little later the relations of Russia with the Kirghese hordes became more satisfactory, and in 1840-1-2 the learned travellers Karelin and Schrenk penetrated to the snow-clad Sungarian Ala-Tau. Karelin explored the wild valleys of the upper courses of the Lepsa, Sarkan, and Baskan rivers, as high as the snow-line. An account of the plants collected by him was published at Moscow in 1842. Schrenk revealed to science the Ala-Kul, crossed over the Sungarian Ala-Tau to the Chinese side, and attained to the upper course of the Tentek. His limit eastwards was Chuguchak, and in

other directions the hills skirting the Koksu river, and, south-west of the Balkhash, the River Chu.

The voluntary submission of the remainder of the Great Horde in 1844 led to another Russian advance. In 1846 the Governor-General of Western Siberia, Prince Gortchakoff, founded, on a fertile plateau at the base of a snow-capped spur of the Ala-Tau, the town of Kopal, and in the following year 14,000 peasants, inhabiting 42 villages between the mountains and the Irtish line, were constituted Cossacks. This building of Kopal ensured the development of the existing relations of Russia with the neighbouring Chinese province of Ili, where at that time the trade suffered from its contraband character, the Chinese of the west being able to have dealings with the Russians only under a semblance of dealing with the Kirghese. This led to the mission, partly diplomatic and partly geological, of E. P. Kovalevski, accompanied by Vlangali, an officer of mining engineers. The expedition skirted the northern side of the Sungarian Ala-Tau, to the valley and upper sources of the Koksu, and then crossed over the range to Kuldja. The opening-up of the western Chinese region contributed largely to the increase of our knowledge of the geography of Asia, inasmuch as it involved the sending of two Russo-Chinese scholars (one of them M. Zakharof) to these towns in the capacity of consuls.

Two years after the foundation of Kopal, the town was visited by the artist Atkinson, the first Englishman to penetrate to these regions, who did so with his courageous bride. He visited many valleys of the Sungarian Ala-Tau, Lake Ala-Kul, the Tarbagatai, the rivers Narym and Kurchum in the southern

Altai, and, *he says*, many thousand versts of Chinese Sungaria.*

The town of Kopal was supposed to be built for the protection of the majority of the Great Horde, now become Russian subjects, from the Buruts, or the so-called Black or Dikokamenni Kirghese, who frequented the valley of Lake Issik-Kul and the neighbourhood of the sources of the Ili. Kopal was situated, however, on the northern confines of the horde, whose southern boundary beyond the Ili was quite unprotected. To remedy this, and with a view to securing the left flank of the Kirghese steppe by making it conterminous with the peaceful frontier and natural snowy boundary of China, General Hasford conceived the plan of occupying the so-called Trans-Ili country, extending between the river and the snow-line of the Trans-Ili Ala-Tau, and this plan was carried out. In 1853 the first Russian detachment was despatched beyond the Ili, where, however, it met with serious opposition from a strong body

* Unfortunately for Atkinson's reputation, M. Semenoff, who went over a large part of the ground less than 20 years afterwards, has thrown some polite, but very ugly, doubts upon the veracity *of this part* of his predecessor's story. Mr. Atkinson's narrative is singularly wanting, M. Semenoff complains, in data that a critical mind can lay hold of; but when the author does wish to communicate something a little definite, and locally characteristic, M. Semenoff says, he falls into numerous incongruities, such, for instance, as *seeing* from the Tannu mountains Bogda Ola, in the Thian Shan, which is about 750 miles distant! But a more serious objection is that of his 4,000 versts, said to have been travelled in Chinese territory, *accompanied by three Narym Cossacks*. M. Semenoff could hear nothing on the spot to confirm this from those who did accompany Atkinson in at least some of his journeys, nor from the officers who provided him escorts, nor was there any record of the alleged protracted absence of the Cossacks, as there ought to have been, in the official archives; besides which, M. Semenoff was convinced of the utter impossibility of this part of his alleged journey from then existing local conditions on both the Russian and Chinese sides.—"Semenoff's Dzungaria." See *Journal of the Royal Geographical Society* for 1865, p. 219.

of Kirghese, belonging to those tribes of the Great Horde, who remained hostile, having for their base Fort Tuchubek, on the River Kesken.

But in the following year the whole of the region was occupied by a force under Peremyshelski, who razed the Kirghese fort to the ground. After this, more of the tribes submitted to Russia, whilst others still inimical fled into the territory of Khokand, and to the banks of the Talas and Syr-daria. The Russian detachment wintered in the sheltered valley of the Talgar, and in the ensuing year, 1855, General Hasford founded Fort Vernoe.

Thus, within a quarter of a century, Russia pushed out her advanced posts to a distance of 600 miles beyond Semipolatinsk, which continued an important centre of trade, for the increase of which several measures were proposed. In 1821 the merchant Popoff had attempted to re-open caravan trade between Semipolatinsk and Kashgar, and in 1847 another merchant, Golubkoff, printed a pamphlet upon the advantage to Russia of an overland trade with India; whilst, seven years later, Tatarinoff, the consul at Chuguchak, reported in favour of establishing a line of steam-boats on the Irtish to the Nor Zaisan, and the construction of a shorter trade route to Chuguchak, through Kokpety and the Tarbagatai mountains.

Meanwhile the civil administration of the Russians was following in the wake of their military proceedings. In 1854 there was formed an oblast of Siberian Kirghese, with its chief town of Omsk, but it was not till 1862 that the stanitza of Akmolinsk, that afterwards gave its name to the oblast, was elevated to the dignity of an okrug town. Concurrently with the formation of the Kirghese oblast, the town of Semipo-

latinsk became the capital of a province, and vigorous measures were carried out for connecting therewith by roads the new outposts. In 1846 the Cossacks had been permitted to carry the post between Ust-Kamenogorsk and Kokpety, and two years later they received 4,477 roubles (say £670, that is reckoning the rouble at 3*s.* at this date) for doing the same to Kopal,

A RUSSIAN COLONIST.

and a like sum, six years later, for maintaining the postal service between Kopal and Vierny. It was not till 1859 that postal communication was established between Sergiopol and Urjar.

It was about this time that measures were taken to colonize with Cossacks and peasants the newly-acquired country; Russia illustrating, in so doing, her happy facility in making, as just before she had done in unmaking, a military population. In 1848 the

military line between Biisk and Kuznetsk in Western Siberia was discontinued, and its Cossack population changed into peasants. Six years later an Imperial ukase went forth that 200 Cossacks with 200 families of peasants and exiles should emigrate. The Cossacks were to be taken from Siberian regiments, those wishing to emigrate being first invited to volunteer, the remaining number being made up by lot. The first hundred were sent out in 1855, and the remainder in the year following. Pecuniary help was granted to them at the rate of 100 roubles each to the officers, and 55 roubles to the lower grades, whilst for the first three years they were to have regulation rations, forage for horses, and exemption from active service, with increased pay. They were also supplied with accoutrements, with seed-corn, returnable in three years, and an order was given that house-keeping utensils should be purchased at the Irbit fair, and supplied to them at reduced prices.

The peasants likewise came from Western Siberia. Each family received the release from all debts to the government, 3½ kopecks, or rather more than 1*d.* per head per day, money for guides through the steppe, and on their arrival about 80 acres of land, with seed-corn returnable in four years. Being enlisted into the Cossack regiments, 50 roubles was granted to each family for settling and purchase of animals, and two years' exemption from active service. In this manner was conducted the colonizing of Lepsinsk with 3,000, and Urjarsk with 1,000 souls, as also of Vierny, the emigration being organized and superintended by Colonels Shanbine and Spiridonoff. The circumstance should also be mentioned that the sums of money allotted to the settlers were drawn in a manner from

the Kirghese steppes—partly from a surplus accumulated under the Governor General in consequence of a short complement of civil officers, and partly out of the revenue on the metal mined in the district.

It was only natural that the progress of the Russians into Central Asia—a country that had been so long hidden from scientific eyes—should make a stir among lovers of inquiry, and the passion for geographical expeditions was so stirred thereby that in 1845 was founded the Imperial Russian Geographical Society, under whose auspices and at whose cost M. P. P. Semenoff was sent, in 1856, to explore those more accessible portions of Central Asia that had previously been little visited. To him belongs the honour of being the first scientific European traveller to ascend the Tengri Tag, though nine years previously the topographer Infantief had crossed the Ili, and compiled an enlarged chart of Issik-Kul, and of the roads leading past it to Kashgar and Uch-Turfan. Also the destruction of the kingdom of Sungaria had led to that country being surveyed for the Chinese by the European missionaries Felix d' Arocha and Hallerstein, by whom trigonometrical points were determined not only in the towns of Sungaria and Little Bokhara, but also at the foot of the Thian Shan or Celestial range, and on the southern shore of Issik-Kul.

The Russian occupation of the Trans-Ili region had the effect of protecting the Great Horde from the attacks of the Buruts, but placed the nearest tribes in the same position relatively as that occupied 10 years previously by the Great Horde. The powerful and numerous tribe of the Bogus, who occupied the picturesque valleys and the tableland between the Celestial Mountains and the Trans-Ili Ala-Tau,

received neither countenance nor support from the Chinese (on whom they were nominally dependent), in resisting the fierce attacks of the Sary Bogish tribe, and they had, at the same time, to repel from another quarter the depredatory incursions of some of their neighbours of the Great Horde. Consequently, soon after the Russian occupation of the Trans-Ili district, the high Manap of the Bogu tribe, the old Burambai, claimed the assistance of General Hasford against the attacks of his foes, and voluntarily tendered his submission to Russian government.

This led to the despatch of the first Russian detachment from Vierny to Lake Issik-Kul, for the purpose of pacifying the two contending tribes, and making a reconnaissance of the valley of Lake Issik-Kul. Unfortunately, this detachment, in consequence of its critical position amidst the marauding mountain tribes, the animosity of one of which against the Russians was decided, whilst the friendliness of the other was open to much suspicion, was soon recalled, and the surveying parties were unable to penetrate into the interior. Their southernmost point, attained at the foot of the Thian Shan, was where the Zauku rushes out on the Issik-Kul plateau.

Two months after the visit of this fore-mentioned expedition to Issik-Kul, M. Semenoff set out from Vierny, and with a small escort of 12 Cossacks succeeded in reaching the eastern extremity of the lake, whence he returned to Vierny for an escort of 40 Cossacks, and then proceeded through the wild Buam defile at the upper course of the Chu, and emerged on the base of the Celestial range, near the western extremity of the Lake Issik-Kul. Here he came upon numerous encampments of hostile tribes,

who had been recently chastised by the Russians, which caused him to return to Vierny. In the following spring, however, Semenoff was enabled to realize all his plans. He made a *détour* of Issik-Kul from the south side, and reached the summit of the imposing and terrible Zauku-Davan pass. He also succeeded in gaining the sources of the Narym, belonging to the system of the Jaxartes or Syr-daria. Shortly after he penetrated eastwards, and ascended one of the most elevated mountain groups of inner Asia, that of the Tengri-Tag, 21,000 feet high, crowned with a circle of Alpine glaciers, and covered with a dazzling mantle of eternal snow. M. Semenoff* was accompanied by the topographers Yanof and Varaksin, who worked out the survey to Issik-Kul.

On M. Semenoff's return to Petersburg in 1858 the Imperial Geographical Society organized a new expedition, under Captain Golubeff, for the purpose of determining trigonometrical points in Russian Sungaria and on the Lake Issik-Kul, in the execution of which he was able to fix mathematically the geography of the country north of the Ili, and of the Thian Shan near Issik-Kul; but, owing to the southern shore of the lake being occupied by the hostile Sary-Bogish tribe, he was unable to penetrate into the interior of the Thian Shan.

This was effected, however, by Captain Valikhanoff, the son of a Kirghese sultan, who, in the disguise of a Khokand merchant, joined a native caravan near Kopal,

* Articles on M. Semenoff's journeys were published in Russian in (1) *The Journal of the Imperial Geographical Society* for 1856, pp. 181—254; (2) (3) *The Proceedings of the Imperial Geographical Society*, 1858, Part xxiii., pp. 1—24, and for 1856, Part iv., pp. 243—258; as also in English in (4) (5) *The Journal of the Royal Geographical Society for* 1861, p. 356, and 1865, p. 213.

and travelled therewith, in 1859, even to Kashgar, in doing which, and returning, he twice crossed the whole of the Thian Shan range between Issik-Kul and Kashgaria, passing by Lake Chatir-Kul. In the following year, 1860, M. E. Veniukoff surveyed and mapped the whole of the Issik-Kul country, including the valleys of the Chu and Koshkur, and did good service in publishing information obtained about Lake Son-Kul, whilst Captain Protzenko made additions to Veniukoff's work in his survey of the country to the River Narym at Fort Kurtka, which he destroyed.

The Trans-Narym district became part of Russian dominions by the treaty of Peking in 1860, by which treaty the frontier line with China was fixed east of Lake Issik-Kul, along the southern spurs of the Celestial Mountains, to the Khokand territory, so including within the Russian boundaries nearly the whole of the mountainous district south of the Issik-Kul, which was formed into the Ala-Tau okrug, in 1862, with Vierny for its chief town.

In this mountainous region, wherein are situated the head-waters of the Syr-daria and the Alpine lakes of Son-Kul and Chatir-Kul, there yet remained an unexplored district south of the Narym, along the road to Kashgar. To the examination of this district Colonel Poltoratzky was sent in 1867. Baron Osten-Sacken accompanied him, and the two proceeded over the Kastek pass almost directly south, past Lake Chatir-Kul, to Teshek-tash, within 30 miles of Kashgar.* Baron Osten-Sacken, to whom I referred as having met him in Petersburg, is a botanist, and brought back

* Poltoratzky's accounts appeared in the *Journal of the Imperial Geographical Society*, No. 1, and a translation of Baron Osten-Sacken's narrative was published in the *Journal of the Royal Geographical Society* for 1870, p. 250.

numerous specimens of plants, besides mentioning many others.

Thus the land occupied by the Kirghese was being gradually annexed by Russian arms, and ruled by Russian administration. In 1867 the oblast of Semirechia was formed, including the Ala-Tau and the Sergiopol districts, the whole constituting the most easterly province of Turkistan, and in the following year the oblasts of Akmolinsk and Semipolatinsk were readjusted with new boundaries, the town of Akmolinsk being made into a provincial capital, though the oblast administration and all the chief administration of Western Siberia remained in Omsk; and so things remained nearly until the time of my visit, just before which Semirechia had been detached from Turkistan, to make, with the two Siberian provinces of Akmolinsk and Semipolatinsk, the General Government of the Steppe.

After the subjection of the Kirghese, the Russians had to meet another enemy in the Khokandians. In 1860 troops were sent from Vierny, under Colonel Zimmerman, to seize the Khokandian forts of Tokmak and Pishpek, 160 miles distant. This they accomplished, thereby exasperating the enemy, who collected his forces to an estimated number of 40,000, and tried to take the Russian troops, only 1,000 strong, by surprise. The attempt failed, thanks mainly to the skill of General Kolpakovsky, and the Trans-Ili country was henceforth secured to the invaders. These engagements, however, with the Khokandians from the Irtish line bring us to a foe the Russians had long been attacking on the Syr-daria line, from the direction of Orenburg, which opens up another field of history to be treated in subsequent chapters.

CHAPTER XXI.

THE KIRGHESE.

Resemblance of Kirghese nomads to Hebrew patriarchs.—Primeval character of the steppe.—Existence there of Biblical customs: whence came they?—Authorities on the Kirghese.—Etymology of name.—Their sub-divisions, habitat, and numbers.—Origin of Kara-Kirghese and Kirghese Kazaks.—Appearance of Kirghese: their physique, diseases, disposition, and character.—Their conscientiousness concerning an oath.—Their distribution, ranks, and governing authorities.—Kirghese habitations and tombs.—Dresses, ornaments, and weapons.

IT was with keen interest that I approached the tents of the Kirghese. As a Biblical student, it had occurred to me how intensely interesting it would be to witness people living in a stage of civilization nearly resembling that of the Hebrew patriarchs, and I had supposed that this might best be accomplished by a journey up the Euphrates valley to Palestine. But I came to the conclusion, after seeing the Kirghese, that in them I had met with more truthful representatives of the manner of life of Abraham, Isaac, and Jacob, than if I had gone to the soil those patriarchs trod, because the elements of change have been less busily at work in the Kirghese steppe than in the Holy Land. Since Abraham's day the Land of Promise has seen the rise and fall of the Jewish nationality. Later, the

country has been conquered by Assyrians, Egyptians, Babylonians, Persians, Greeks, and Romans; and now the features of its Eastern life are suggested rather than portrayed by Arab sheikhs, who have long had contact with Turks and Franks.

But the Kirghese steppe has not been thus influenced by foreign conquerors to anything like a similar extent, for it lay off the area of the great battle-fields of Central Asia. Maveraunnehar, or the country between the Oxus and Jaxartes, with the Zarafshan valley, has been conquered again and again from the west by Persians, Greeks, Arabs, and Turkomans, and from the east by Chinese, Mongols, and Turks; but these billows, tremendous as they were, did little more than burst upon the southern shores of the vast northern steppes, of whose history in early ages we know almost nothing. None of the armies from the west pushed their way beyond the Jaxartes, which represented to the old world of Central Asia the boundary between civil and savage life. We do not read of the Chinese generals penetrating there. Even the creed of Muhammad had failed to lay hold of the Kazaks, when the Russians ascended the Irtish to meet with a people who had never seen the face of a European, whose only other invading foe perchance had been their neighbouring, perhaps half-brother, Mongols, and who might, therefore, be supposed to be living with the primeval manners, customs, and laws, handed down from their forefathers. It should be remembered, moreover, that a quarter of a century has not yet passed since the Russians could with safety travel to all parts of the steppe, in some portions of which still they number less than one European to a hundred natives. There

must be masses of these children of the desert who as yet have scarcely seen, much less lived in, a town; who neither speak nor have heard any language but their own, and who know only their own patriarchal usages and laws; so that, when this is borne in mind, it will seem probable that in the Kirghese may be witnessed an earlier stage of pastoral life than could be seen in the countries made familiar to us by the Scriptures. I have been the more engrossed with this thought because I discovered still existing in the steppe certain laws and customs that obtained not only in the times of Moses, but in those of the great-grandchildren of Abraham. The question arises, then, Whence came these laws into the steppe? If from the Koran, matters will be simplified; but even then there will remain a further question whether they are due to Muhammadan influence only, or whether they may not antedate the Koran (which has many resemblances, we know, to the Pentateuch), and come from the Abrahamic times of which Moses wrote—in which case we are sent back to a very remote past that is full of both Scriptural and ethnographical interest. Apart from these problems, moreover, there remains the fact that the Kirghese occupy the largest territory, and are the most numerous of all the peoples of Russian Central Asia. It will therefore be proper that a space should be devoted to their consideration.*

* There are not wanting materials from which information may be drawn. Not to mention the few Oriental writers, and European mediæval travellers who allude to the Kirghese, there is first the classical work of Levshine, much of which, with information added from other sources, appears in the tomes of Howorth, and there are the simple descriptions of Kirghese customs by Mr. and Mrs. Atkinson. These were written, however (with the exception of Howorth), before the nomads were so well known to European scholars as now, and are

The derivation of the word "Kirghese," spelt also Kirgiz, Kirgeze, Kirghiz, and pronounced by themselves K^{y}rg^{y}z, has not been very satisfactorily explained. Radloff, whose knowledge of their language has been praised by M. Ujfalvy, derives the word from *Kyrk*, forty, and *ïs*, a hundred, there being two tribes so called; but a commoner etymology is that of *Kyrk*, forty, and *Kyz*, maiden, in allusion to a legend about forty girls and a dog, that is told also by the surrounding tribes, and by a Chinese writer as far back as the time of the Mongol supremacy.* They belong to the Turco-Tatar or Altai race, and their two principal divisions coincide with the surface of their territory, the Kara-Kirghese, or Kirghese proper, as they are sometimes called, inhabiting the mountains, and the Kazaks the plains.

The Kara (Black) or Dikokamenni (Wild Mountain) Kirghese, called also by Chinese and Kalmuks

probably within reach of my readers, so that I have used them but little. I have preferred rather to seek information from Russian authors, who, to a large extent, have drawn their inspiration from personal observation, as in the cases of Valikhanoff, at once a Russian officer and the son of a sultan, who travelled as a native among the Kara-Kirghese; Rollo, who lectured in the half Kirghese town of Orenburg, with Kostenko and Mayeff, all of whom wrote on the spot for readers who could test the accuracy of their statements by what they saw. M. Ujfalvy's work I have found useful for its anthropology, whilst through the kindness of Mrs. Telfer, in translating for me Kozloff and Gotobitzky, on the laws of the Kirghese and the characteristics of their songs, I have become acquainted with information hitherto unpublished in English.

* It is curious to note in connection with this, as Dr. Schuyler points out, the story given by King Hethum, the mediæval traveller, of the people living beyond Khatai—that is, east of the region inhabited by the Kirghese. "There is," he said, "beyond the Khatai, a country where the women have the shape of human beings, and are gifted with speech; while the men have that of dogs, and are dumb, large, and hairy, and of whose progeny," he adds, "the males are born in the shape of dogs, and the females like women.

Buruts (a Mongolian form of the plural, as seen in the Yakut, Torgut, Tangut), are sub-divided into two wings, "*On*" and "*Sol*,"—that is, right and left—among the latter of whom are certain tribes whose names we met with in conflict with the Russians, such as the Sarybaguish and Bogu. These wild Kirghese roam in Semirechia, Ferghana, and Kashgaria—that is, in the valleys of the Thian Shan, the Alai, and the Pamir, almost to Tibet and Hindustan.

The Kirghese of the plains call themselves (as my friend Mr. Howorth would have me always call them) "Kazaks," or horsemen (some say fugitive, vagabond, robber), whence is derived the Russian word "Cossack." They are divided into the Little, Middle, and Great Hordes, each of which is sub-divided into races, the races into tribes, the tribes into clans, and these into *auls*, or groups of tents, each living in independence.*

The number of the Kirghese can be estimated only by calculating 5 persons to each *Kibitka* that pays taxes.† I compute them at two and a quarter millions.

* These sub-divisions of the Little and Middle Hordes are given in some detail by Levshine; but he says little of the Great Horde, which in his day (from 1820-30) was not much known to the Russians, though Valikhanoff gives a short account thereof. The Little Horde occupies the Orenburg steppe, or parts of the provinces of Orenburg, Ural, and Turgai, and consists of three races broken up into 25 tribes. The Middle Horde inhabits the provinces of Akmolinsk and Semipolatinsk, and consists of 4 races or 37 tribes, whilst the Great Horde nomadizes in Semirechia, south of Lake Balkhash and Turkistan, and consists of 5 races, or 19 tribes. Besides these, M. Ujfalvy mentions two modern and less-known hordes—that of Boukei, or the Inner Horde, near the Caspian, dating from 1801, and the Kazaks of Chinese Turkistan. The Inner Horde was formed by about 7,000 of the Little Horde, led by Bukeief, grandson of Abul-Khair, who crossed the Urals to occupy the land left vacant on the flight of the Torgout Kalmuks.

† Thus reckoned, says Dr. Schuyler, "there are in all about a million and a half. In the Great Horde there are about 100,000 of both sexes, in the Middle Horde 406,000, in the Lesser Horde 800,000, and the

The origin of the Kara-Kirghese, Levshine says, is lost in the night of fable and of Turkish history. That they are one of the ancient peoples of Central Asia he argues because in 569 A.D. a Kerkhiz or Kirghiz slave (if this do not mean Cherkess or Circassian, as some think) was given by Dizabul, a Central Asian khan, to a Constantinopolitan envoy returning to Justin II. Abul-Ghazi mentions the power of the Kirghese anterior to the times of Jinghiz Khan, placing their location between the rivers Selenga and Ikar-Mourane.* Chinese historians of the seventh century knew them as Khakas, inhabiting a wide extent of country, and in intimate relations with the Chinese, Arabs, and people of Eastern Turkistan. In the tenth century the might of the Khakas declined, and they disappear from history. It is not improbable, Mr. Howorth thinks, that by Khakas, or Hakas, the Chinese meant the Oghuz Turks of the Arab geographers, called Odkhoz by the Nubian geographer. These were apparently the ancestors of the Kazaks, and were, like the latter, divided into three Hordes.

In the thirteenth century we again meet with Kirghese, called by the Chinese *Ki-li-ki-tsi.* The movements among the nomad tribes between the tenth and thirteenth centuries seem to have cut the

Inner Horde, perhaps 150,000." These numbers, however, seem to me too small, for according to Kostenko and the numbers I gave in previous chapters, they stand thus:—

Akmolinsk	339,003	Ferghana	126,006
Semipolatinsk	489,134	Zarafshan	695
Semirechia	595,237	Amu-daria	31,385
Syr-daria	709,370		2,290,830

* Levshine then gives the discussions upon this by Fischer and Klaproth, Part II., Chap. i., p. 119, upon which Valikhanoff, p. 271, throws further light in treating of the Dikokamenni Horde, whilst Dr. Schuyler puts their many pages in few words. Vol. ii., p. 136.

Kirghese in two, the greater portion being where the Kara-Kirghese now are, and the remainder in Siberia, on the upper waters of the Yenesei. This latter portion disappeared apparently in the eighteenth century, partly conquered by the Russian colonists, and partly cut off by or absorbed into the Kalmuks. At the end of the century the Kara-Kirghese were subject to the Chinese. Subsequently they came under the dominion of Khokand, but in 1842 they made themselves practically independent until, as I have shown in a former chapter, the disputes of the different tribes, especially those of Bogu and Sary-Bagysh, caused them, one after another, to ask to be taken under Russian protection. Réclus gives their number at from 350,000 to 400,000.

Concerning the origin of the Kazaks, sometimes called Kirghese-Kazaks, Levshine gives no less than seven traditions, the first of which makes them emigrants from the Crimea, and the third affirms that their ancestors lived on the banks of the Euphrates.

If this latter were true, it would help to throw light upon Kirghese customs now obtaining, which were known to the great-grandchildren of Abraham. From the Euphrates this tradition says they were driven by the Turks on the land of the wild Kirghese, to whose khan they submitted, and since he employed them only as "Kazaks" for fighting his enemies, they got the name of Kirghese-Kazaks—*i.e.*, Kazaks of the Kirghese Khan. Other traditions make them descended from the Turkish tribes of Central Asia and Siberia, that is, from the Ghuz or Oghuz of the Arabs, of whom the Comans of the Russian steppes and the original unsophisticated Turkomans were branches, which is the explanation favoured by

Mr. Howorth, who says that in the second half of the fifteenth century they followed Sultans Girei and Jani Bek to the neighbourhood of the Balkhash, where they were joined by others, and flourished into a community known among their neighbours as *Kazaks*, or refugees *par excellence*. Gaining more and more strength, they conquered, in 1598, under their khan, Tevvekel, the provinces of Tashkend and Turkistan, which latter was the seat of the Kirghese dynasty, as I have before mentioned, till they were dispossessed by the Sungarians in 1723. Rather than submit to the Kalmuk khan, the Middle and Lesser Hordes made a despairing movement westwards, drove out the Bashkirs between the Sea of Aral, the Caspian, and the River Ural, and thus became the immediate neighbours of the Russians, to whom they gradually submitted.

In appearance, as in geographical position, a Kirghese is midway between a Mongol and a Caucasian. M. Ujfalvy corrects M. Girard de Rialle, who says that the Kara-Kirghese have all the characteristics attributed to pure Mongols. The men are below rather than above the middle stature. The women are almost all short, perhaps accounted for by the hard work to which they are subjected.*

* From 11 Kazaks that he measured, M. Ujfalvy obtained a mean of 5 feet 1¼ inches, and for 25 Kara-Kirghese 5 feet 11 inches. Of these latter, 11 had ample beards, 15 scanty, and 2 none; whilst of the 11 Kazaks, 7 had scanty beards, and 4 none. All the Kazaks, and all the Kara-Kirghese, except 2, had the skin smooth. The head is not very large, the cranium round or pointed, rather than flat, and the cheek-bones stand out, though not so sharply as those of Mongols and Kalmuks generally. The skin is bronzed, yellowish, sometimes rather dark, the covered parts being white, especially with the women. Individual Kirghese of fair countenance are met with, but only rarely. The hair is usually black, sometimes chestnut, dark, glossy, and even stiff. The narrow, obliquely diverging eyes are brilliant and sharp, and in colour

The Kirghese are fairly strong, but clumsy, with slouching gait on foot, though bold riders, excelled in this respect only by the Kalmuks. Their sense of sight is so keenly developed, that on level ground they can see small objects at seven miles' distance; and when a European can perceive but the barest outline, the Kirghese is able to distinguish its details, as the colour of a horse, etc. Their capacity for finding their way is not less remarkable; the smallest elevation of ground serves a Kazak as a sign he never forgets; and if there be no mark, the presence of certain grasses and the direction in which they grow often show him the road. Eye-witnesses relate that, after having lost the road, a Kirghese has been seen to dismount, tear up a handful of dry grass, and, after smelling it, quietly change his direction. These qualities, says M. Potto, make them useful for reconnoitring duties, but their military valour and courage are doubtful.

They are, as a rule, fairly healthy. In the 3,111 cases (including 1,044 females) attended in 1881 by the district physicians of Semipolatinsk, the majority of Kirghese appeared to be suffering from ague, fever, catarrh, and diseases of the stomach and intestines.

brown, grey, and sometimes greenish. The nose is blunt, short, and wide. Lips nearly always thick, and slightly turned outwards; teeth large or medium, and of incomparable whiteness and beauty. The forehead is low, flat, and wide; the protuberance over the eyebrows little marked, and the depression separating the nose from the glabella is wanting; mouth large and wide; chin square and massive; aspect of the face, as a whole, is wide, flat, and angular; ears always large, and standing out. The body is very vigorous, sinewy, and squared; hands and feet small; muscles strong; calf, almost none; the legs curved and slim; waist thick and short; trunk vigorous; neck short, but often strong. A still fuller description of the Kirghese, and of other Central Asian races, is given at the end of M. Ujfalvy's volumes in his Tables of Anthropological measurements, ruled with 63 columns for particulars of each person measured.

They suffer also from scurf and skin diseases at the roots of the hair. Some suppose this proceeds from want of cleanliness; but M. Ujfalvy, and Khanikoff before him, attribute it rather to the constant wearing of a sheep-skin hat. I cannot say who is right, but I have a vivid recollection how, whilst wearing a native hat by night for warmth, when crossing the desert, my head became singularly heated and the skin irritated.

In character the Kirghese is unsophisticated, honourable, and brave, until he sees the chance of

A KIRGHESE.

gain; and then he is prone to thieving. They are also revengeful. They like to look as if they had control over their tempers; but let their equilibrium be overthrown, and then a terrible fury, little short of madness, comes over them. Their capability of bearing physical pain is remarkable, and renders them insensible to the sufferings of others, though it should be said, to the praise of the women, that many an unfortunate prisoner has been indebted to them for an amelioration of his fate. The men work hard only

when necessity presses, domestic labour being invariably left to the women. Having food and raiment, they are perfectly content, and prefer idleness to work. They are eminently hospitable, and love to hear news, which they are great hands at retailing. The most trivial event gives a Kirghese a favourable opportunity for riding off to the nearest *aul*, or collection of tents, to relate his *khaber*, or intelligence, to be in possession of which is a passport to gain the bearer admission anywhere to eat and relate his story. Some of his hosts will then make their newly-gained knowledge the excuse for hastening off to eat yet more at a neighbouring *aul*, and this explains the rapidity with which news is disseminated on the steppe.*

The Kirghese are unevenly located through Central Asia. Thus in the province of Semirechia they amount to 78 per cent. of the population; in the Syr-daria province to 62 per cent.; in the Amu-daria province to only 29 per cent.; in Ferghana to not more than 17 per cent.; and in the Zarafshan district to scarcely 0·2 per cent. Those in the mountains may be called "democrats," testified to by their name of Kara, or Black, Kirghese, which may be traced to the

* M. Ujfalvy contrasts the Kazaks favourably with the Sarts or settled people of Central Asia, and speaks of the former as cheerful, frank, intelligent, and honest. They appear, at all events, to keep a conscience, for frequent appeals are made thereto in the native courts. Should an accused person not plead guilty, and should there be no judicial proofs of his guilt, the judge demands that a relative of, and on good terms with, the prisoner, chosen by the plaintiff, should come forward and free the defendant by taking the oath. If he consent to take the oath the accused is free; but, on the other hand, if he decline, the defendant must pay the penalty. Again, in the calling of witnesses, only a person of good conduct is admitted as a witness on oath unconditionally. A notorious thief or a "frivolous" person may not take the oath, whilst a false swearer is supposed to be expelled from the community, and may receive from 25 to 40 stripes with the riding-whip.

undistinguished origin of their chiefs, the Manaps, who, according to native phraseology, do not spring of the "white bone" of the sultans. A Manap, however, enjoys great power, especially when he is likewise a Batyr—that is, a brave and dashing leader of marauding expeditions. Beneath the Manaps are the common people, *bukhara*. Among the Kazaks the title of Khan has been abolished, but there are several who are called "sultan." The people are said to be vainglorious in tracing their genealogies, especially when they number a khan among their ancestors. Anciently the sultans decided more important matters than were referred by choice to honourable elders,* called "*biis*," *beys*, or, further south, *beks*. This last title was given to men of approved honesty, who to their other abilities added a thorough acquaintance with their deep-rooted national customs. Under the Russian administration the Biis have been recognized as judges, and are elected by the people; but they make poor magistrates, and are open to corruption The Russians do not believe in them, nor do the people themselves.

Some of the Kirghese poor in winter live in holes or underground huts, where children and cattle sleep and play together. Others, as a protection against the cold, endeavour to winter in sheltered places, in hollows, or among reeds or sand-dunes. They conceal their kibitkas in the reeds, and throw snow over them, so as to protect them from the winds; but they are now commencing to build permanent winter dwellings, usually of turf plastered with clay, or of stone like the

* Reminding one of the "able men, appointed by Moses," such as fear God, men of truth, hating covetousness . . . to judge the people in very small matters.—Exod. xviii. 21, 22.

huts of the Caucasian mountaineers; in some places even wooden houses are met with, but these have belonged, for the most part, to former sultans. On the first approach of warmer weather they remove to their ordinary habitation, which is a conical felt tent, called a *kibitka* or *yourt*, that is easily taken apart or put together, and so light that a camel can carry it. Hence the nomads wander from place to place, carrying their residence with them, and it is not until a rich man dies that his body has for its habitation a stone or earthen building, with some little pretence to architecture. The tomb of the poor consists of little more than a funereal mound, but for the well-to-do is erected an edifice surmounted by a cupola, the wall of the principal façade being raised above the rest, and ornamented with a battlement. These tombs are frequently met with on the open steppe, generally standing alone, and sometimes enclosed by a wall. Levshine, however, mentions cemeteries where several persons are buried, and Réclus, quoting Nöschel, says that the Kirghese prefer to bury their dead on hill-tops, and leave on the graves various eatables, and money. I saw many tombs on high places, but none with such things as these left thereon, or on Muhammadan graves further south. I well remember, however, finding sweetmeats, and coins, in Eastern Siberia, on the graves of the Buriats, and the thought therefore suggests itself whether these offerings left on certain Kirghese graves are not, as they are with the Buriats, remnants of Shamanism, the old religion of the Mongols. These tombs, and the ruins here and there of small towns, constitute all there is of Kirghese antiquities, few of which present any points of interest. Levshine mentions upwards of

twenty ruins in Central Asia, but does little more than specify their localities.

The Kirghese dress like the other natives of Central Asia. Nowadays, those who are at all well off have shirts, but the poor continue to wear next the skin their *chapan*, as they call it, or *khalat*, closely resembling a loose dressing-gown, over which as many other like garments are worn as the weather requires. Commonly the khalat is made of cotton, or *armiachina*—that is, a mixture of cotton and silk; but for the rich they are made of silk of gaudy colours, or even velvet, which for grandees is embroidered with gold and silver. Some, again, are of fur—one I bought in Bokhara being lined with jackals' skins. Their trousers, both for men and women, are of buff or reddish leather, immensely wide and baggy, called *chimbar*, which are found to be so suitable to the climate that the Turkistan soldiers wear them. The shaven head of the Kirghese is first covered by a skull-cap called *tibetei*, and over this in summer a conical felt hat slit at the two ends for convenience in turning up the brim. On certain occasions the men wear tall, steeple-crowned hats with the brim turning up in two immense horns, made of felt or of velvet embroidered with gold. The foot coverings are slippers in summer, and leather boots in winter, for both sexes, those for women being coloured.

A Kirghese, however, is proudest of his girdle, often richly covered with silver, and from which hang bags, and wallets for money, powder, bullets, knife, and tinder box, or flint and steel, the whole apparatus being called *kalta*.

The women dress much like the men, except that the under-garment resembles a close-fitting shirt.

Above this they wear a khalat. The poor women swathe their heads with calico, forming a compound turban and bib; but the rich wear a square head-dress of huge proportions, enveloped in a white veil trimmed with gold.* The hair is plaited in small braids, and adorned with coins and tinkling ornaments. To these may or may not be added necklaces, bracelets, etc.; but there is one thing rarely omitted from female costume, which is a silver amulet, hanging from the neck in the form of a kernel, cylinder, or triangle, and containing Muhammadan writing, or perhaps prayers, given by the husband at the time of marriage.

The arms of the Kirghese continue of a primitive character, though contact with the Russians has opened their eyes to the value of percussion instead of flint muskets. Bows and arrows are gone out of use. Their national weapon is a straight, thin, pointed lance, called a *näita*, that on account of its length and fragility is not very dangerous, though they handle it not unskilfully. To these weapons may be added a thick, heavy whip, with a blade or lash about an inch in diameter, a blow from which on the head at the hands of a Kirghese is enough to kill a man or beast.

Thus far it will be seen I have described the personal characteristics of the Kirghese; in the next chapter I purpose to treat of their social relations.

* The Kirghese women, I believe, are never veiled closely, as with the Sarts, but they sometimes so far cover the face as almost to screen it from observation. This half-and-half plan seems to have prevailed amongst the women mentioned early in the Old Testament. Thus Abraham said to Sarah, "Behold now I know that thou art a fair woman to look upon" (Gen. xii. 11), from which we may suppose that Sarah did not usually wear a veil; nor Rebekah, when at the well she met Abraham's servant, though when about to meet her future husband "she took a veil and covered herself" (Gen. xxiv. 16, 65).

CHAPTER XXII.

THE KIRGHESE (*Continued*).

Settled agricultural Kirghese.—Semi-Nomads.—Nomad Kirghese: their cattle, sheep, and goats.—Losses from *joot*, storms, and murrain. — Changing pasture, when and how conducted.—Stationary pastoral life.—Polygamy.—Kirghese betrothal.—The *Kalim* and presents, with rules pertaining.—Marriage ceremonies.—The bride's departure.—Kirghese marriage, a civil contract.—Dissolvable by separation or divorce, with laws concerning each.—Marriage with deceased brother's widow.—Laws concerning inheritance.—Illustrations of Hebrew pastoral life, and suggested source of Kirghese customs.

THE Kirghese are essentially a nation of shepherds and breeders of cattle, and think it a "come-down" in life when, by force of circumstances, they are compelled to resort to settled occupations. In such an extremity they settle near towns or villages, let themselves out for labourers, as in the Kalbinsk and Altai mines, or flock to the peasant villages in hay-time and harvest, where they are in request as cheap and energetic workmen,* one result of which is that in a generation or two they become civilized, dress like Russians, and call themselves Christians. Others

* In 1881 there were taken out by the Semipolatinsk Kirghese alone, seeking work near home or in the neighbouring government of Tomsk, 29,392 passports, varying as to their length of absence as follows:—17,151 for a month, 1,675 for 2 months, 1,873 for 3 months, 7,054 for 6 months, 1,635 for a year, and 4 for 2 years.

turn their attention to agriculture. These poorer Kirghese are called *Iginchas*, and may be said to form the settled element of the Kirghese population.*

The Kirghese carry on their agriculture by irrigation, and it is worthy of remark that in the province of Semipolatinsk, in 1881, the average harvest gathered by them yielded four-and-a-half times more than was sown, whilst the Russian agriculturists, trusting to rain for moisture, reaped in that year rather less than a three-fold harvest. It should be remembered, however, that the natives sow large tracts of millet, which generally gives a more abundant increase than other grain, and yielded that year an eight-fold crop. The Dikokamenni Kirghese, many of whom are employed in agriculture at the eastern extremity of the Issik-Kul, have rich land, from which they get harvests yielding, according to Valikhanoff, for millet seventy and wheat eighty-fold. They cultivate a kind of millet (*kupock*), and distil therefrom a spirit.

Besides the absolutely settled, there is a considerable number of natives partially settled, whose fields are usually at a distance from their summer camps and winter quarters. These people, having sown the land, wander away, leaving the watering and care of the fields to a few poor Iginchi, often without family or cattle, and at harvest time return, to store the grain in furrows near their winter quarters, but only in the quantity necessary for maintenance throughout the

* In the Syr-daria province there are 124,325 *kibitkas*, or more than 50,000 communes of these Iginchas engaged in agriculture, their entire number throughout Turkistan and Semirechia being reckoned at 300,000 souls. In the province of Semipolatinsk, in 1881, the agriculturists were nominally 16,956, that is 15 per cent. of the Kirghese population, but really far less, since that number includes not only those immediately engaged in cultivation, but those also who help in harvest, even to the extent of advancing on loan money or seed!

year, and for seed, the surplus being sold, usually very cheaply, on the threshing-floor. They cannot retain any important reserves of corn near their winter habitations, because, for two-thirds of the year, the buildings are uninhabited and unguarded. As a precaution, therefore, against wholesale starvation in case of failure of crops, public corn stores are erected, such as those in several volosts in the Zaisan and Ust-Kamenogorsk districts. In the provinces of Akmolinsk and Semipolatinsk, in 1880, there were 91 and 69 stores respectively, one containing 27,897, and the other 6,366, quarters of corn. The poorer Kirghese are held down by the Russian shopkeepers, who lend on interest, and their example is only too closely followed by the rich Kirghese, whose usury is enormous; not less, according to M. Ujfalvy, than cent. per cent. per annum, and that at compound interest; so that the loan of one sheep has to be repaid next year by two, or the next year four, or the next eight, and so on.

Cattle-breeding, however, as I have said, is the normal occupation of the Kirghese, some of whom are said to possess hundreds of camels, thousands of horses, and tens of thousands of sheep and goats. They own, likewise, horned cattle, but not in such large numbers. The Kara-Kirghese are not so rich as their *confrères* of the Great and Middle Hordes. Very few of the Dikokamenni, for instance, possess as many as 2,000 horses, or 3,000 sheep. They keep fewer camels, but, on the other hand, have an excellent breed of oxen, employed for traversing the mountains. Their cows are large, but yield little milk, and then only just after calving. Yaks, which they call *Kudos*, are kept by them instead, since they yield more milk.

Speaking generally of the horned cattle of the steppe,

which are said not to have been introduced among the Kirghese before the middle of the eighteenth century, Dr. Finsch considers that they contrast favourably with those raised in Siberia, since they are stronger, and more imposing in appearance, and are recognized among others by short, tolerably erect horns, with small development of the belly. In their colour, as also is the case with the horses, there is no peculiarity. One meets with specimens of sheep black, white, and also variegated, whilst a fourth class varies from a bright to a dark shade of cinnamon.

The sheep of the steppe belong to the fat-tailed, or rather fat-rumped, race, for the very short tail proper is hidden in the cushion of fat, formed below the tail, spreading like a bag over the upper half of the hind legs. Seen from the rear, this lump of fat is pear-shaped, and acquires, when the animal runs, a trembling, "wobbling" motion that presents a comical appearance. As in time of famine the hunch of the camel almost disappears, so it is with the fat tails of the Kirghese sheep.*

More stately than the sheep is the Kirghese goat, which occasionally presents quite a grand appearance. The goats are large, well-built animals, with short heads, long beards, and a strong development of chiefly

* It is quite an error, Dr. Finsch says, to suppose that this peculiarity of race disappears by transplantation, for instance, to Russia, for it does so only by cross-breeding with ordinary sheep. The Kirghese sheep are of large size, powerfully built, rather long legged, with a roundly bent nose, and pendent ears. They attain a weight of from 150 to 180 lbs., of which the fat "tail" alone does not exceed 40 lbs. The fleece is coarse, and the hairy wool is therefore less employed for spinning than for making felt. The horns of the wether are moderately developed with a bend downwards and inwards, but sometimes they assume a spiral form. The ewes generally give birth to twin lambs in spring, by which season the snow is off the ground.

white hair, that falls to the knee, and on the brow covers the eyes like a mane. As with the sheep, the ears are pendent. These goats, however, are peculiar as to the formation of their horns, which usually stand erect, with their points either bent inwards towards each other, or else slightly inclining backwards. It is from these goats that the Cossack women about Troitzk comb the fine hairs for making the *kozy pookh*, or, as they are commonly called, "Orenburg shawls."

Considering the ample extent of the Kirghese pasture lands, one might suppose that cattle-breeding would be to them a highly profitable business, since it claims incomparably less labour than agriculture. It is, however, exposed to great risks. For the support of a nomad family for a year are required 11 head of large and 10 of small cattle; and to provide hay for the winter consumption, even of this number, exceeds the working powers of one household. When the snow lies loosely and is not deep, the larger beasts, and the smaller ones behind them, can get at the grass; but if, in consequence of unseasonable rains, the grass is covered by a thick layer of frozen snow and ice, or if the snow be too deep, then the beasts either cannot obtain food, or obtain it with so much difficulty as to exhaust them.

Then commences what the Kirghese call a *joot*, at which time a cattle owner is ready to give the Cossacks half his herd for as much hay as will feed the remainder until the spring. The first thing attempted is to drive the herds to more favourable localities, however distant, or to put the beasts to graze in the peasant villages. Should this not suffice, because of the "joot" extending over a large area, the animals have to be slaughtered, and sold for a song,

the nomad's prosperity then taking wings for a considerable time. But, in addition to the "joot," the *buran*, or terrific winter snowstorm, is a source of very serious danger. It scatters the cattle, and then many fall down ravines, or break through the ice on the salt lakes, and perish. Helmersen tells of a "buran" in January, 1827, in which the Middle Horde lost 10,500 camels, 280,000 horses, 30,000 horned cattle, and 120,000 sheep.

The Kirghese erect rough sheds of wattle and daub for their cattle in winter, but even under the most favourable conditions this season tells heavily on the herds, as up to the spring they scarcely move their legs, and become so weakened that many perish ere the disappearance of the snow, and notwithstanding the growth of fresh grass.*

The mode of life of the Kirghese is necessarily affected by their cattle-breeding, which requires constant moving about to find pasture. Nomadizing generally begins in early spring, and continues all the summer, the wanderers returning to their winter camps in late autumn.

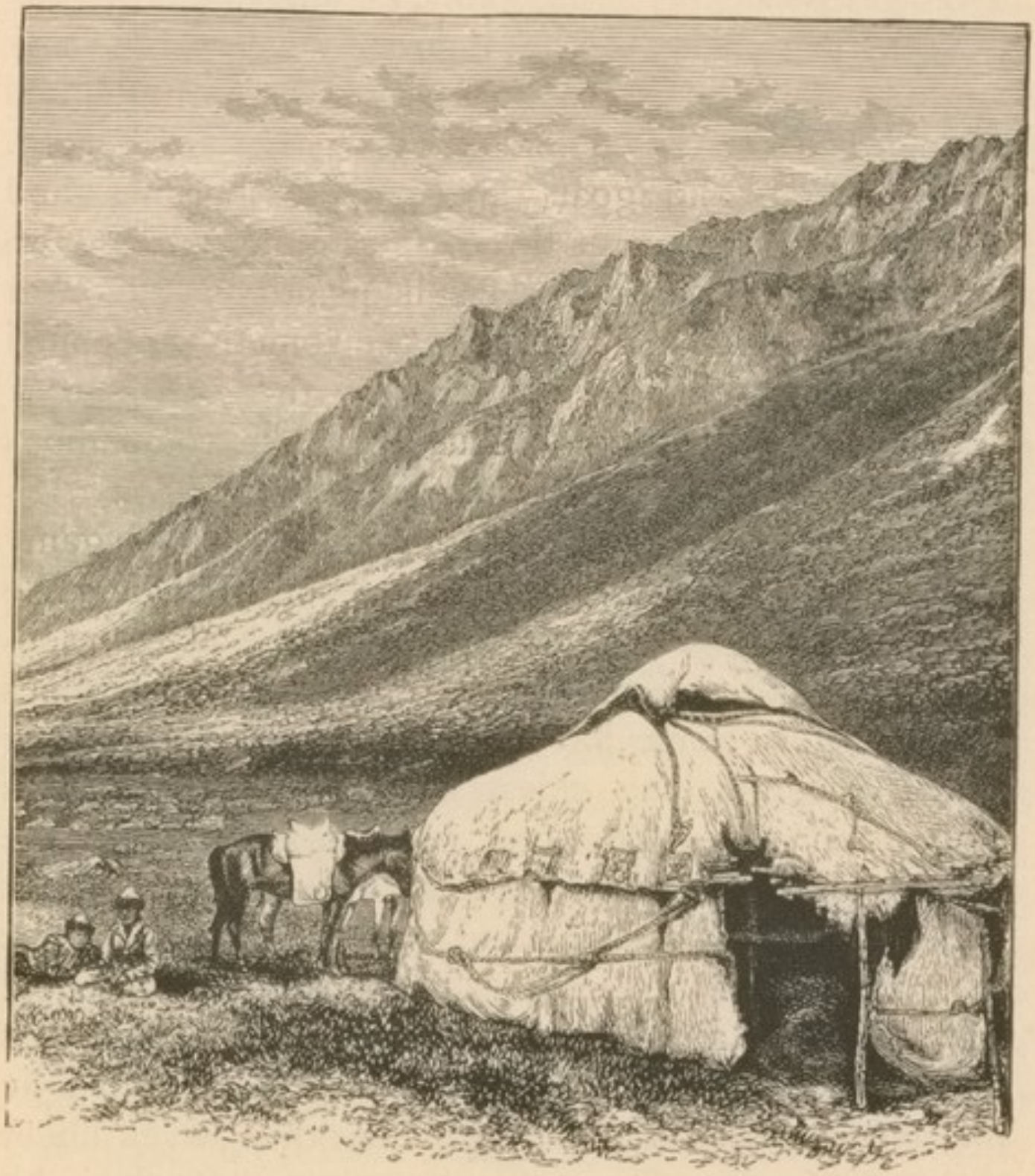
Ordinarily they wander in small *auls*, or collections of kibitkas, numbering up to 10 in the Orenburg region, but often of 15 or more further east. Their route depends on the time of year and the state of the

* Valikhanoff remarks of the cattle of the Kara-Kirghese that they are never subject to epidemics, the only disease attacking them being the *sarfa*, or dry rot, by which they generally lose their hoofs. In the report of the Semipolatinsk province, however, it is said that, soon after being housed for the winter, the herds become susceptible of epidemic disorders; and although the year 1881 was reported as generally favourable to cattle-breeding, yet the total number of casualties from sickness, want of food, and snowstorms, amounted to 3,100 camels, 15,000 horses, 7,600 horned cattle, and 70,400 sheep, besides 56,000 cattle destroyed by wolves, so that the total loss was 152,000 head, or rather more than 2 per cent. of all the cattle in the province.

grass, but, generally speaking, up to the middle of the summer, it is further and further from the winter quarters, to which they return by stages in autumn. The winter pasturages are often by the shores of lakes, from which the herdsmen are driven in April or May by the drought and insects. They then ascend the rich mountain slopes with their flocks, leaving the camels behind to shift for themselves, unwatched, feeding on the salt soil herbage. We saw several apparently thus left. In July or August the men descend to gather their crops, and then pay another visit to the mountains before winter, to gather the later harvest there. In the Orenburg district, if the grass is good, the summer nomads are distributed pretty equally over the whole steppe ; but if there is drought in the south, then masses of Kirghese, in their search for grass and water, proceed to the extreme north of the steppe, a distance of 600 or 700 miles from their winter quarters on the Syr-daria.

These wanderings the Kirghese call *perokochevka*, and they are thus conducted. The pasture in the neighbourhood being exhausted, first by the camels biting off the tops of the grassy stems, followed by the horses, which gnaw the grass closer, and the sheep, which nibble it down to the roots, one or two of the mounted young men are sent from the *aul* to select a suitable spot for a new encampment, and to clear out the wells. This done, the women pack the kibitkas, the head of the household merely looking on, whilst the other men form the cattle into droves. The camp is packed, and starts before dawn, the good woman of the family riding in front. We met one old lady in this honourable position, mounted astride a bullock, and looking anything but graceful. After her came the

other women; one young girl, I remember, sitting on a horse covered with a gay saddle-cloth, and wearing her best clothes, as is usual on such occasions. On the camels are packed carpets, *samovars*, tents, etc.,



A KIRGHESE TENT IN SUMMER PASTURE, NEAR THE SOURCES OF THE KORA.

the whole being made to wear a festive aspect. Since all the cattle do not move at the same pace, the herds soon straggle, so that a moving *aul* may occupy a length of several miles. Generally speaking, the men

during a march ride somewhere off the road, or go hunting. The length of a stage is from 13 to 17 miles, having done which they rest awhile, as also on summer afternoons, for an hour. The *aul* then again moves forward, traversing about 25 miles in 24 hours.

When stationary, the herds are milked in the early morning, and are driven to their pasture by mounted shepherds, who bring them back in the evening. Cows, sheep, and goats are milked morning and evening only, but mares three times a day, or oftener, in which latter case only a small quantity is given at each time. The lambs and kids are sometimes penned in extempore folds, or wander near the *aul*, guarded by children, who not unfrequently make companions of them inside the tents also.

Among the Kirghese the practice of polygamy obtains; but since the maintenance of wives and the money given to parents for their purchase are burdensome, the poorest Kirghese usually restrict themselves to one wife. Some have two or three, and the rich four. Generally the eldest brother of a family has more than one. The first wife is mistress of the household, and is called *baibiche*. To her are subject not only her husband's other wives, but also all the other females of the family. The head of a household will often send a portion of his herds several hundreds of miles away under the care of this wife, whilst he himself will either remain with his other wives about the grazing ground, or go and encamp somewhere by himself. In winter the family comes together again.

The manifold circumstances connected with marriage among the Kirghese are somewhat formidable. It is a custom for men, even before they are fathers, to strengthen the bonds of friendship by agreeing to a

marriage between their future offspring, so that many a couple are "engaged" before they are born, though it frequently happens, of course, that such arrangements are broken through. Fifteen is the marriageable age, and preliminaries are commenced by the parents of the bridegroom selecting from three to ten kinsmen, or friends, as matchmakers, called *kouda-tusser*, who proceed to the parents of the bride, offering presents, and among them a dish specially prepared for the occasion of liver and mutton fat, called *konyruk-baour*, which signifies that they "mean matrimony," after which the compliment is returned by presents and a similar dish, sent by the girl's parents to those of the bridegroom. These gifts are called *kiet*. The bride's father then calls together his kinsmen, to decide the *kalim*, or gross amount to be paid for the bride. Also a mullah should be present to ask three times of the parents or relations contracting the union, "Do you consent to unite your children?" and then to read prayers for the happiness of the future couple in the presence of witnesses, or of umpires, chosen to settle differences, should any arise between the parties making the contract. The *kalim* may be 40, 60, or 120 sheep, or 9, 17, 27, 37, or 47 head of cattle, according to the means of the bridegroom or *kouladar*. Levshine mentions in his day, for the poor 5 or 6 sheep, and even less; but with the rich, up to 200 horses, and from 500 to 1,000 sheep, also cattle, valuable effects, and sometimes male and female slaves. Besides the *kalim*, the bridegroom has to give presents called *bash-yakshi* (good head), and *ayak-yakshi* (good feet), that is, either nine camels, or one camel, a horse, a cow, and a firearm; or, if the man be poor, the *bash-yakshi* takes the form of 1 or 2 camels, with a horse, and the *ayak-*

yakshi of a horse, cow, and *khalats*. These things settled, the bride's father sends to the bridegroom's *aul* for the *kalim*, or two-thirds of it, and one of the *yakshi*, after which the bridegroom, having fed the bride's messengers, takes the other *yakshi*, generally the *bash-yakshi*, that is called the "*ilu*," and goes to see the bride for the first time. The delivery of the *ilu* has great importance, in that it virtually closes the bridal contract—so securely, indeed, that, should the bridegroom die thereupon, the girl has to go to his parents.

In some places, before the bridegroom starts, his father gives a family feast, clothes the youth with a rich robe, mounts him on a good horse, with the best of saddles and harness, and sends him away after a mullah's prayers for the traveller's safety. Arrived at the bride's *aul*, the young man states his business, and asks permission of her father to pitch his white tent. This he does for about three days, during which he gains over the women by presents to procure for him a private interview with his betrothed. The two now see each other for the first time, perhaps; but since the *kalim* and the *ilu* have been paid, the contract is virtually closed, and neither can draw back without some little difficulty. The interview is commonly by night, and supposed to be kept secret from the parents, to whom the bridegroom gives more presents for the right of visiting his betrothed by day. That to the bride's mother in return for some milk is called *sut-uk*, that to the father, *tui-mal*, this latter including what is necessary for the marriage feast, and among the rich amounting sometimes to fifty or a hundred horses, which are, however, on the completion of the marriage, returned to the bridegroom as the present of the bride. After this first visit the custom of some localities is

for the bridegroom to keep his white tent at the bride's *aul* for his courting visits, which of course are turned into festive occasions. In other localities he may not return until the *kalim* is paid and the marriage is agreed upon. Hence the period of betrothal is sometimes prolonged to a year or more.

If during this period the betrothed girl should die, her parents are bound to give instead their next daughter, or, in default of one, to return the *kalim*, and pay also a fine of one or two horses and *khalats*, or furs. So also, if the girl should refuse to marry, which she may do on account of a suitor's ill-health, his bad conduct, or poverty, or even, as allowed in some localities, her personal dislike. If the bridegroom or bride should die, inquiry is made as to whether between the betrothed there had been improper intimacy. If so, in the first case, only half the *kalim* is returned, and in the second case, when the first daughter has died, and the next is provided, the bridegroom has to add to the *kalim*. Should their conduct, however, have been irreproachable, four-fifths of the *kalim* are returned, the girl's parents retaining from four to nine horses. Yet another custom is, that if the bridegroom die, or refuse to marry the girl, his parents are bound to take her for their next son, paying a fine—usually a camel—in case of refusal. Should there be no brothers, the *kalim* has to be returned, subject to the limitations just alluded to. In cases of double marriages, where brother and sister marry sister and brother respectively, the *kalim* is omitted.

When the prescribed period of betrothal is at an end, the bridegroom, dressed and mounted at his best, goes with friends to the *aul* of the bride, where a kibitka has been prepared for his reception. Through-

out the ceremonies of betrothal, the bride's brother has the right of pilfering from the bridegroom whatever he pleases. But now the bride's relations come and take as presents almost everything he has: his coat, hat, girdle, horse, saddle, etc., pleading that they are for the education of the bride—a seizure that is afterwards balanced by the relations of the bridegroom on the visit to their *aul* of the relations of the bride. The bride's parents are bound to give up the bride when the *kalim* is paid, giving her in dowry a kibitka, a camel, or riding-horse, and cattle, also a bride's head-dress, called *saoukelé*, or, if poor, another kind, called *jaoulouk*, besides a bed, crockery, and a trunk of wearing apparel.

Whilst this "trousseau" is in preparation, the bridesmaids gather towards evening to dress the bride and to sing songs, and, all being ready, the happy couple, richly clad when possible, are led into their tent for the final ceremony. The mullah places them in the midst, puts before them a cup filled with water and covered with a cloth, and begins the prayers. Then he asks the contracting parties if it is with their full consent they engage themselves in the bonds of matrimony, and gives them three times the water to drink, offering the remainder to the bystanders, or, if they are numerous, sprinkling them therewith.* Some mullahs put in the water-vessel an arrow, with a tuft of hair tied to it from the mane of the bride's horse,† or one of her ribbons; others dip therein a paper of written prayers. This ceremony over, for the girl's head-dress,

* With this may be compared the custom at the marriage ceremony in the Russian Church of the bride and bridegroom draining alternately a cup of wine or water.

† This has a resemblance to Shamanism as practised by the Buriats, who, if they have nothing better to leave on a grave they pass, cut off and fasten near a piece of their horse's tail.

worn thus far by the bride, is substituted that of a woman, her friends singing the while. In some districts, the husband then comes on horseback to the door and asks permission to enter. This being refused, he obtrudes, as it were, by force, and takes her away to a private tent.*

The happy completion of a marriage is followed among the Kirghese by feasting and games; and when the newly-married are about to depart, the whole *aul* assembles; the father puts his daughter on her horse, which he leads to the side of her husband, and they depart, amid women's tears and men's farewells, with the camels carrying the trousseau, and the portion of his wealth which a father gives to each of his daughters on her marriage. On arriving at the husband's *aul*, his father gives a feast. Close at hand is pitched the new wife's tent, wherein are displayed all the articles of her trousseau. These are seized, according as they please, by her new relatives, who are greedy of presents, they giving others, but usually of less value, in return. The bride, having thus made her *début*, if she wishes to show her activity, rises very early during the first few days after her arrival, to uncover the top of the tents of her husband's parents. She retains her own tent † and trousseau; and even her cattle brought in

* In other districts the bridesmaids, after the ceremony, lead the bride to the same white tent where she first saw her husband, leave her there, and, later on, fasten to the tent a gaily-saddled horse and a robe. In the morning, the happy husband, under ordinary circumstances, dons the robe, springs on the horse, and hurries triumphantly to receive the felicitations of his father-in-law and friends; but if the wife has proved unchaste, he has the right to kill the horse, to tear the robe, and to hack the tent with his sword, after which he may exact from the father either the *kalim* or another of his daughters without further payment. This custom, Levshine says, half a century ago was dying out, but it may be compared, in passing, with the law of the Hebrews recorded in Deut. xxii. 13—21.

† Reminding one how Isaac brought Rebekah "into his mother

dower a wise husband does not mix with those of his other wives, because they descend to her children only, and not to other children of the husband.

Thus it will be seen that marriage *à la Kirghese* is, if committed only once, a somewhat expensive business, whilst for each repetition of the process the amount of the *kalim* rises higher. The whole affair has much of the nature of a civil contract, of which I imagine the woman generally gets the worse. Equality of position is sought by the parents, rather than suitability as to age and temperament; and "woman's rights" *chez les Kirghese* are few enough. In some districts, it is true, a woman, when she attains the age of twenty-three, may marry a husband of her own choice; but at that period of life, in the steppe, she is considered to have passed the flower of her age. Again, in case of ill-treatment by a husband, a wife may complain to a *Bi*, who will probably get the man to promise to keep the peace, or condemn him to be flogged.

Marriage among the Kirghese may be dissolved in two ways: by separation or divorce, either of which usually raises the *kalim* as a bone of contention. For separation, the following are admissible causes—(1) Mutual agreement. The husband permits his wife to marry another man on condition that he receives a *kalim* and costs. The document drawn up for this agreement is called *talag-kagaz*, a "paper of separation." (Like the βιβλίον ἀποστασίου, or "bill of divorcement of Isaiah l. 1; Mark x. 4.) Should the wife return to her parents, the father is bound to return to the husband half the *kalim* paid for her, and the other half on the moment of her marrying

Sarah's tent," and how Laban entered Jacob's tent, and Leah's tent, and Rachel's tent (Gen. xxiv. 67, and xxxi. 33).

again. (2) For a certain sum paid to him, or her dowry, the husband may give a paper of separation at the wife's request. So, likewise, (3) the husband, ceasing to care for the wife (as in Deut. xxiv. 1), may give her to another man for a *kalim*. This looks, according to Kozloff, as if the woman's consent were not necessary; but I was told further south, in Bokhara, that a man could not ordinarily put away his wife, except by her consent. (4) Should no *kalim* have been paid for her, a wife is at liberty to leave her husband. (5) Disrespect on the part of a wife justifies a husband in sending her away, after having supplied her with a portion of her dowry, and a khalat, and mounting her upon a horse. (6) So in the event of the wife's adultery, in which case the man retains the dowry. Should a wife appeal successfully to a Kirghese court for permission to leave her husband, the judges usually grant her thirty days in which to marry another. Failing to do this she is bound to return to her husband.

The marriage contract may be terminated by divorce, on the plea of poverty, minority of the parties, the husband's cruelty, or physical incapacity; in which cases the wife may marry her brother-in-law, or whom she pleases, and retain her dowry, but her future husband must pay a *kalim* to the first. In former days the Kirghese were strict in their observance of what the Jews called *yebamoth*, or levirate marriage, that if a man's brother die, and leave a widow, his eldest brother should take the widow; but nowadays the custom is dying out, and though the widow remains with her husband's relations, she is no longer compelled to marry one of them, or indeed to remarry at all. I remember seeing a Kir-

ghese widow come in a supplicating manner to a Russian civil authority, begging that she might not be forced to marry her brother-in-law, to which she was averse; but, then, so was she also averse to giving up the *kalim;* the Kirghese law being, in such a case, that if she were childless, and wished to remain single, she could retain only a portion of her husband's property, though if she had children she might keep the whole. Should a widow marry a man in her late husband's tribe, other than her brother-in-law, the man has to pay her brother-in-law a fine, varying from a horse and khalat up to nine head of cattle, for the slight done him by her preferring another to himself; and in the event of her marrying a stranger, she loses her dowry, which her deceased husband's relatives retain, and her children are left as wards of the said relatives, who are also bound to look after her cattle.

This brings us to the Kirghese laws concerning inheritance, that are said to have caused formerly much contention after a father's death. A father now divides his inheritance, as a rule, during life * amongst his grown-up sons, either on their marriage or soon after, care being taken that the children only receive the portion that comes to them from their own mother, and not that of the other wives. Such a division is made verbally in the presence of dignitaries, or it may be confirmed by a signature witnessed by them. †

I have thus entered somewhat fully into the Kir-

* As did Abraham (Gen. xxv. 5, 6).

† It is not necessary, moreover, that only children inherit a man's property, for faithful servants may be included, who have looked after the cattle, or watched the interests of the family. Abraham said: "The steward of my house is this Eliezer, of Damascus . . . and lo, one born in my house is mine heir" (Gen. xv. 3, 4). When the division is made, the wife receives one-fourth of the fortune, with the warning that she is not to squander it, since at her death it reverts to her husband. Should

ghese laws respecting marriage, family rights, the relation between man and wife, inheritance and division of property, partly because I have not seen them treated elsewhere so systematically and so fully in English, and partly because these customs of the steppe illustrate at so many points the pastoral life of the Hebrew patriarchs,* under which latter I shall

she outlive him, however, she keeps this share. As a rule, a father will leave his real property to his eldest son, but his doing so is quite optional. A childless widow receives one-eighth of the property on her husband's death, the residue going to his brothers or other relatives down to the fifth generation; but if the man leave children, the property is divided amongst them, the daughters receiving the seventh part, and the sons the residue.

* Thus in Gen. xxiv. we see the eldest servant of Abraham's house acting the part of what the Kirghese would call a *kouda-tusser*, or matchmaker, in seeking for Isaac a wife, and taking with him ten camels, a portion certainly of whose burden consisted, if not of a *kalim*, yet of presents of silver and gold, and clothing, which he gave not only to the bride, but also to her mother and brother. So again, in Gen. xxxiv., the Hivite prince, Hamor, acts a similar part on behalf of his son in proposing a marriage with Dinah the daughter of Jacob. Further, the young man Shechem recognizes the propriety of a *kalim* and presents, saying, "Ask me never so much dowry and gift" (מֹהַר וּמַתָּן), the former word, in each of the three cases where it occurs n the Old Testament, being always used in connection with marriage, and the latter word for a gift generally. The custom obtained also at the time of the promulgation of the law, in which we read (Exod. xxii. 17), of "the dowry of virgins," and which evidently had not disappeared in the days of David, who, thinking too humbly of himself to become a king's son-in-law, was told "the king desireth not any dowry." So again, one thinks, of course, of the question of the Sadducees (Mark xii. 19, and Luke xx. 28): "Master, Moses wrote unto us, If any man's brother die, having a wife, and he die without children, that his brother should take his wife, and raise up seed unto his brother." But though Moses wrote this (in Deut. xxv. 5), the custom had existed as far back as the days of Judah, the great-grandson of Abraham, whose two sons, Er and Onan, were successively husbands of Tamar, who afterwards waited for a third son, Shelah. The interesting question therefore arises, whence this custom was introduced among the Kirghese?† A somewhat

† The practice is common enough, I believe, among Muhammadan peoples; but if the Kirghese received it from the Koran, one would expect to find them observing other laws from the same source, regulating intercourse between the sexes. In many

now be able to point out further illustrations in things that came under my own observation.

bold suggestion has presented itself to my mind, which I put forward not as a theory, but as a suggestion only, that when Abraham dismissed his wife Keturah's sons (Gen. xxv. 1—6), giving them gifts, and sending them away from Isaac "eastward unto the east country," they may very well have taken the custom to, or learnt it in, the land of Chaldea, whence Abraham came, and from whence it might have spread further east beyond the Oxus and Jaxartes to the north of Central Asia. The distance from the Ur of the Chaldees to the Jaxartes would be easily covered in two summers' wanderings. Whether this suggestion involves any anachronisms or contradictions I know not; but, if true, it seems to confirm my idea, that in the Kirghese steppe one sees perhaps the type in the present day most nearly resembling the oldest pastoral life recorded in the pages of history.

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cases of assault upon women, under the Jewish law, the offender or offenders were put to death; and such is the punishment to this day for prostitution and adultery in Bokhara, where the Muhammadan law is in full force; whereas among the Kirghese this class of offences is punished by fine only.

CHAPTER XXIII.

THE KIRGHESE (*Concluded*).

Visit to Kirghese at Suigati.—Their tents.—A Kirghese memorial.—Milk and other beverages, with flour food.—A mutton feast.—Kirghese politeness, and right of precedence.—Connubial arrangements.—Myself questioning and questioned.—Kirghese poetry and songs.—Their religion: Muhammadan, Pagan, or Manichean?—Kirghese registered as Muhammadans.—New Testaments accepted.—Conversation upon the state after death.—Influence of the mullahs.—Kirghese election of judicial officers.—Native courts and fines.—Judgment and judges.—Election of a volost chief.—Laws concerning assault.—A fight quelled.

I EXPRESSED to the authorities in Semirechia my wish to visit a Kirghese aul, whereupon M. Troitzky, the *Pomoshnik-uyezdi-nachalnik*, or assistant chief of the Vierny district, kindly promised to further my wishes if I would meet him a day's journey in the wilderness at Suigati, where he was to hold a meeting of Kirghese representatives assembled to elect their *bis* or judges. On our arriving there the smiles of the post-master told us we were expected, and we made for M. Troitzky's tent. It was an unusually grand one, measuring 9 paces in diameter, with the roof supported by 120 rods. This the reader will better appreciate if I describe how a Kirghese tent is erected. I chanced in the Ili valley to see a woman begin to put up her tent, and so interested was

I that I would not stir from the spot till, note-book in hand, I had witnessed the whole operation.

The component parts of a kibitka are felt and matting, wherewith to cover a framework that consists of a lintel and side-posts for a door, and pieces of trellis-work, surmounted by poles fastened to a central corona. A piece of the trellis-work (called *kiriga*, as I took down the name phonetically from the woman's mouth) resembles a pair of lazy-tongs, or, better still,

A TRAVELLER'S HALTING-PLACE IN THE COUNTRY OF THE KIRGHESE.

an English child's toy on which he moves his little company of soldiers, the wooden laths or poles forming the trellis being fastened with a leather thong where they cross. Four of these *kiriga*, tied together and expanded so as to stand about 4 feet high, made, with the doorway, a circle about 6 paces in diameter, and the whole was girded by a broad band of worsted. Then was hoisted, perhaps 9 feet high, over the centre, a wooden hoop, called *chunrukh*, to serve as chimney ventilator, and window, into the

holes of which were thrust the ends of long wooden staves called *ookh*, the other ends being tied to the trellis-work, so that, when the woman had tied 55 of these *ookh*, the framework of her small tent was ready. Huge pieces of felt were then hoisted to the top on poles, and drawn to their position by two bands called *bau*, and afterwards fastened; the covering for the doorway being hung from the lintel like a curtain. The felts did not quite reach the ground, fresh air on this occasion being a desideratum; but there were placed on the grass two pieces of reed matting called *tchi*, fastened inside and encircling the tent to the height perhaps of 4 feet, a binding line being tied round to keep all taut. Besides this, ropes made of horses' manes hung from the hoop or corona inside to keep the tent down, and outside a stake was driven into the ground to windward for similar security. The floor was strewn with felts, a space being left in the centre for the fire.

A small tent such as that I saw erected would cost, when new, from 50*s.* to 60*s.*, and one of ordinary size about £5. In this case it was being put up for hire at 12*s.* a month. A large show-tent, such as that provided for M. Troitzky, would cost £100; for this last was 12 feet high in the centre, the felt was lined with silk, and the floor and sides strewn and hung with carpets. It was the property of Nogai Bi, one of the judges, who had provided it for the occasion. I have said that in the roof were 120 poles, or staves, each of which I was told in Vierny represented a sapling from the forest, and not merely a piece cut from a block of timber. M. von Ghern, in fact, said that the Kirghese take for making a yourt from 200 to 400 young saplings, and since in

the district of Vierny alone there are 40,000 yourts, it is not matter for surprise that the country is bare of wood.

But we were to be conducted to an aul to see a tent in working order. They mounted us on Kirghese horses, the first peculiarity of which I discovered to be that to stop my steed I pulled one rein instead of two. We set off with perhaps a score or two of natives, who seemed to be coming for the fun of the thing, our way lying along a valley flanked by low undulating hills, on which there was not to be seen a tree of the smallest dimensions. "What is that?" said I, pointing to a pile of stones, heaped on an eminence. "Oh!" said they, "a notable man recently died, and when a large number of people were gathered at the feast that followed his funeral, we raised the heap on that day to his memory." *

Arrived at the aul, we entered the first tent, the owner of which made me welcome, and I began to make note of my surroundings. On the trellis-work were hung all sorts of suspendible things—basins, bags, harness, firearms, leather bottles, skins, clothes, and a Kalmuk *bass*, or box in which to put cups and basins, to be slung on the back of a camel. Behind me were rolls of felt, cushions, carpets, and trunks full of effects, one box of Russian manufacture, with a good deal of metal thereon, being pointed out as something worthy of remark, the like to which is found only in the tents of the rich. In the middle of the tent a huge open saucepan does duty as the principal, if not the only, cooking utensil, whilst

* A living illustration, I thought, of patriarchal times, when Laban and Jacob's brethren made a heap of stones for a memorial between them, and ate thereon; or when Joshua pitched twelve memorial stones in Gilgal (Gen. xxxi. 46, and Josh. iv. 20).

around this stand *kurgans* or ewers of metal something like an English coffee-pot, and curious pails made of leather, sometimes having a spout. I caught sight, moreover, of a curious staff, the size of a broom-handle, inlaid with brass and steel, with an ornamented top, 2 spans long and 1½ round, that was used to stir the kumiss.

Some of this drink was offered us in a basin, and for the first time I tasted soured mares' milk. My teetotal conscience led me to ask first whether it was intoxicating, and I was told "No." On the other hand, I certainly have read that a certain alcoholic drink is prepared from mares' milk. Perhaps it becomes so when distilled, or when old and further fermented, in which last-mentioned condition they said it acquired astringent properties, whereas when new it is aperient. I detected nothing alcoholic in its taste, and liked it fairly well. Sevier pronounced it much the same as Scotch buttermilk. I can imagine a thirsty traveller in summer coming in from the steppe enjoying a basin to quench his thirst; but it was not nice to sip. Moreover, the fact that one is not accustomed to drink mares' milk, and the thought that the beverage had possibly been in the dreadful leather bottle, that is said never to be washed, was not appetizing to an English palate. Besides kumiss, they brought another drink called *aïran*, or curdled milk of cows, ewes, and goats, with water—mixed, I presume, for economy's sake, since they said that the rich drank cows' milk alone. They likewise offered dough nuts, made of flour and mutton fat, but no bread, for they live upon the flesh of their animals, fresh or smoke-dried, in winter, and on their milk only, generally fermented, in summer. They make also a

kind of cheese, called *irimtchik*, from cows' and ewes' milk.

How little corn is consumed by the nomads may be judged from the Semipolatinsk report for 1881, which states that, whilst every settled agricultural family in the province raised 22 bushels, each nomad family raised only 4 bushels.* Sometimes they boil meal and salt, sometimes butter and fat, in their tea, and they showed me in the tent a small seed called *proso*, that is made into gruel, or bruised and eaten when milk fails in winter, and upon which the very poor were said to live entirely. They make of this grain likewise a sort of beer, called *buza*, the effect of which, Dr. Schuyler says, is immediately to stupefy and deaden the senses rather than to inebriate; but they told me in the tent that it not only made the consumer drunk at once, but that the same result followed on his drinking water the next day.

I am not aware that the Kirghese have any stated hours for meals. They can go without drink for a whole day, and without food for several days, and then love to gorge themselves to repletion. At their great feasts they indulge in horse flesh, but their usual meat is mutton. Some of the extravagant Russian officers, who go to Central Asia to repair their fortunes, and are supposed to have been accustomed to the best cuisines in Petersburg, declare that nothing can excel the Kirghese cooking of mutton, which I can so far confirm that, when we entered a second tent in the

* The Kirghese, however, chiefly those in Karkaralinsk and Pavlodar, bought besides, from the provinces of Tomsk and Semirechia, 14,187 tons of wheat and rye. When they do use corn food it is almost exclusively in the form of gruel, prepared by boiling, in milk and water unground corn till it is soft. This method contiuues even in localities where Kirghese agriculture is well developed.

aul, and they brought us a dish of this meat boiled, we found it very good.

It was much greater fun, however, to be spectators than partakers of the feast. We had entered the second tent a numerous body, and had placed ourselves, as I supposed, anyhow. But it was pointed out to me that I had been seated in the place of honour opposite the door, whilst my *vis-à-vis*, a few feet off, was my host, who had for the occasion taken the position of her who would have been his wife in attendance, had he been dining *en famille*. On my left sat a sultan (who formerly had been chief in these parts), and four others of note; on my right were seven *bis*, and in front some aristocratic youths; whilst in the outer circle, "below the salt" and standing, was a crowd of lookers-on. Accordingly, when the meat was brought, the dishes were put before us according to our supposed rank; one to myself, Mr. Sevier, and the Russian officer; another to the sultans' party; a third for the judges; and so on. I heard nothing of "grace before meat," but, dishes placed, I never saw anything to exceed the alacrity with which they were cleared. Hands were knives, and fingers were forks, the meat being torn from the bones as by the teeth of hungry dogs. On such occasions as this, it is a piece of Kirghese politeness for a superior or an elder to take a handful of pieces of meat from his dish and stuff them into the mouth of an inferior or younger guest —an elegancy I saw practised on another, but which, I suppose, my position precluded being exercised on myself.

After the meal, as also before, an attendant brought round a basin and ewer for all to wash their hands; and although there was room for doubt whether one's

fingers were the cleaner before or after using the grimy cloth intended for a towel, yet remembering that in the New Testament times forks were not invented, and that equals then ate with their fingers out of one and the same dish, I confess that seeing the custom in the Kirghese tent led me rather to sympathize with the Pharisees, to a degree I had not previously done, in their observance of the custom when they came from the market, of not eating except they had first washed their hands (Mark vii. 3; Luke xi. 38).*

Dessert in the desert comes before instead of after meat, and on this occasion consisted of apples, dried apricots, pistachio nuts, raisins, and walnuts. Feasting over, I continued to apply myself to getting information. My inquisitiveness in the first tent led me to ask what was behind some straw matting I saw, and I was told "a store closet," and a similar inquiry in the second tent as to what was behind a curtain elicited the fact that it was the husband's sleeping place, that was shared with him by one of his wives, the wife or wives left out in the cold sleeping on the opposite side of the tent. This brought on the tapis topics matrimonial, in the discussion of which it transpired that my host had two wives, the sultan on my left had three, and the one next him four, whilst they informed me that some had five or six;

* Our location in the tent likewise, and serving of classes apart, was so far reminiscent of Joseph dining with his brethren, that they set on for him by himself, and for them by themselves, and for the Egyptians by themselves. They set also before him the firstborn according to his birthright, and the youngest according to his youth. Also Joseph's sending messes to his brothers *from before him* is something like, but an improvement upon, the delicate attention of superior to inferior to which I have just alluded (Gen. xliii. 32—34).

and then came out the surprising intelligence to them that I had none, which seemed to exercise them greatly, for they subsequently asked how it was I had no wives, whilst "these boys here," said they, "has each of them a wife!"

After having peppered them with questions, I thought it only fair to give them a turn, and I therefore inquired, in a vainglorious moment, whether they would like to question me. Shoemaker like, they began to talk of "leather," and asked whether in my country we had cattle, horses, camels, and cows. This I was able to answer with confidence, and though not very well posted in Smithfield prices, I thought if I told them that our cows cost £20 each it would surprise them. And so it did, but the answer led to another question that utterly non-plussed me, for they wanted to know how much milk a twenty-pound cow would give in a day! Had I known the correct quantity, it would have been difficult for me to have translated it extempore into a Russian standard; and as for Kirghese measures—well, I doubt if they have any. We therefore proceeded to the "next question," which was whether we had nomads in England who were judged by *bis?* also whether the English and Russians were ruled by the same Emperor, and if not, were we neighbours and friends? to which I was pleased to be able to reply that though we were not under the same Emperor, and could hardly be called neighbours, yet that we certainly were friends.

I now asked for a song, which was no sooner begun than some women put their heads in at the door, and we soon had a full house.*

* The poetry of the Kirghese, according to M. Gotobitzky, is now in that stage of development where any and every literary creation is

On the occasion of my visit none of the women sang, but two men exercised their powers by extemporizing a song aimed at the judges, the burden of which was that formerly their *bis* were chosen with reference to age and integrity, whereas now it was solely for pelf; and this hit was emphasized by the comparison of a lion and a mouse, to show that ignoble persons were chosen to office instead of the mighty. Others of their sentiments were that "a man who rides one horse can also lead another"; that "a bear is as strong as a lion"; and that "he cares little for a good horse who feeds him badly." I asked if they would like to hear an English song, and gave them

still the heritage of a people at large, and not of a chosen few. Without mannerism or literary effect, their songs strike one at times by their real poetic beauty, joined to artistic simplicity and truth. The Kirghese are fond of singing, and one may often hear a solitary horseman during his long rides thus beguiling his time, modulating his voice by holding his hand to his mouth and withdrawing it alternately; or, on approaching an aul, the words of a widow may fall on the ear, soliloquizing somewhat thus: "There was a time when my protector, the source of all my happiness, was alive, when his handsome figure was seen on a velvety steed—when I was not solitary! No traveller then, whether sultan or Kazak, rich or poor, ever passed the aul without visiting *our* kibitka, whilst I, anxious to please him who was the best among riders, ordered my servants and looked to the comfort of his guest. We were esteemed by all, and he who now calls himself 'master' has more than once held the bridle of my lord and husband's horse. Times are changed—a sorry horse outruns a noble charger. Who will care now to visit me, the solitary one?"

All the Kirghese, especially the young men, have a keen appreciation of singing and improvisation, and hold those who possess such gifts in esteem. No young girl commands such admiration of men as one who is clever at singing repartee, and no men are so liked by the Kirghese girls as a good and able *oiliantchi*, or professional singer. Dramatic poetry in the Steppe is still in its infancy, the theme being frequently cast into the form of a dialogue. The singer not unfrequently prefaces the song with an introduction, giving the *dramatis personæ*. The subject is generally a contest at wit—a conversation between a man and a woman. Riddles are given and intricate questions proposed, which have to be cleverly solved, and answered,

"God Save the Queen," whereupon I was not a little pleased to find that, though they knew nothing of England, nor whether I was, with the Russians, a fellow-subject of the Tsar, yet they had heard of Queen Victoria, and asked about the Heir Apparent.

I took occasion in this tent to inquire respecting their religion, concerning which Levshine says that it is difficult to decide whether it be Muhammadan, Pagan, or Manichean. All recognize a supreme Creator, but some worship Him according to the Koran; others mix their Islamism with remains of ancient idolatry, whilst others believe that besides a beneficent God, whom they call *Khoda*, there exists an evil-doing spirit called *Shaitan*, which name I remember our Kirghese drivers used when seemingly they were swearing.*

or a tangle is the consequence. This termination of the conflict is generally made to fall to the lot of the gentleman who, as the song will have it, has been educated at Bokhara, and enters into conversation with a young girl whom he admires. He is thoroughly beaten, and the telling hits of his fair opponent against his khanship, dignity, and white turban, are not unfrequently returned with the loss of temper and abusive expressions.

* Veniukoff speaks of the religion of the Dikokamenni Kirghese as Islamism, which, however, he says, is very superficial (as Bishop Alexander told me in Vierny), particularly among the tribes adjacent to China, some not knowing even the name of their prophet, much less the 99 names of the Deity. Of the five periods of prayer they observe only those of the morning and evening, and to the fasts the Kirghese in general have a decided objection as leading to subsequent gluttony and indigestion. Some customs, too, of Shamanism, Veniukoff says, are retained among the people, some of the Kara-Kirghese worshipping fire on Thursday nights, prayers being read if a literate person be present, during which the worshippers remain prostrate. The fact is that the Kirghese have very little religion of any sort, and, as Kostenko says, if asked what form of religious creed they hold, they do not themselves always quite know. Some Russians do not scruple to say that, so far as the Kirghese are Muhammadans, the orthodox Russian Government, by paying mullahs and erecting mosques in the Steppe, has made them so, though Kostenko adds that the Government

In the Russian registers, the Kirghese are entered as Muhammadans, and regarded as Sunnis; for though many of them have only a very confused notion as to the two sections of Muhummadanism called *Sunni* and *Shia*, yet they so far espouse the cause of the Sunnis that they consider every one else an infidel, be he Shia, Buddhist, or Christian. Also their religious indifference seems to be preserved only so long as they do not come in contact with people more civilized than themselves, on which occasions they are sometimes fanatical. M. Troitzky, who took me to the tent, told me that, some time before, the Kirghese had been on the eve of an outbreak, because the Government, wishing to take a census, had distributed amongst the auls tablets or cards to be marked so as to show the number of the people. On these tablets, however, the Kirghese discovered a device, whether the Imperial two-headed eagle or what else similar I know not; but thinking it to be intended to make them Christians, they were almost ready to mutiny. It was the knowledge of this, I suppose, that led the Russians to warn me against the distribution of the Scriptures in the Steppe.

I had not forgotten the exhortation, but finding that my host could read, I asked if he would accept a copy of the New Testament, telling him it was the best book we had in England. He took it joyfully, and was evidently pleased to get it. I then asked what

no longer concerns itself to appoint Kirghese mullahs or build mosques. How little respect some have for the creed of Islam may be judged from an incident recorded by Gotobitzky, who says that the Muhammadan rule of faith never has existed among the Kirghese, and in support of which he states that on one occasion, at Akmolinsk, a Kirghese was called upon to take his oath on the Koran and to kiss the book, whereupon he snatched the volume out of the mullah's hand, struck him on the head with it, and subsequently tore it.

they thought became of us after death? Upon which they replied that God had made good angels, called *Mankir*, and bad angels, called, *Nankir*, though when He made them their books did not say, and that two of these angels sit invisibly on the shoulders of every man from his birth, Mankir being always on the right. Further, that they see all the man does, and write the good and bad in their respective books, which at death are both taken to God, who decides whether the good or ill preponderates, and gives sentence accordingly; the bad being sent into the fire, and the others to the enjoyment of another life in the world of spirits, where the good find all that they can desire.

It was then my turn to tell them the Christian creed; how for the putting away of man's sin Jesus Christ came into the world and made atonement on our behalf, offering us freely the benefit of what He has done; and then, by way of showing them how thoroughly I believed in this, I went on to say that I had travelled some thousands of versts to spread this news, in doing which I had distributed more than 100,000 publications. I hoped, therefore, that they would read the book I was leaving, and that we might hereafter meet again. How much they appre hended of what I said I am not at all sure, for I spoke in French to M. Troitzky, who turned my speech into Russian, and then communicated it through his Kirghese interpreter; and the reply travelled back to me, by the same channel, to the effect that we all come from one Parent, that God is merciful, and that for a little good in us He pardons the evil. I tried to trace this pardoning love to Jesus Christ, whereupon one of them brought forward a Muhammadan book, in which the Christian prophet was spoken of. This was all

done with perfect good temper, and apparently without offence, but I was told afterwards that Nogai Bi, who had accompanied us, was a fanatic, and often harboured in his dwelling *hodjas*, or religious pilgrims, who have been to Mecca, and who, when discovered by the Russians, are sent about their business, because of their evil political influence, and because they fleece the people.

What little religious knowledge the Kirghese have is kept alive by mullahs, who go from aul to aul, assisting at marriages and at the burial of the dead; but very often their services are dispensed with, because the civil ceremony is the principal part of Kirghese wedlock, whilst the poor for funerals cannot afford the expense. Amongst these mullahs are some who have received a certain religious education at Samarkand or Bokhara. These enjoy the respect of the people, but the majority are pitifully ignorant, and lazy to a degree; they take advantage of a credulous race, and resort to sorcery and kindred devices.

Having finished our visit to the aul, we returned to the stately tent of M. Troitzky to find it surrounded with a crowd of Kirghese, who had come to the place for a popular election. The Russians have, to a very large extent, left the Kirghese to maintain order among themselves by the exercise of their own patriarchal laws. The judge is chosen by the people, and trials are oral and public, conducted according to conscience, relations being defended by relations. Thus every important case becomes a public matter, and popularly judged, its brightest features being the frequent appeals made to the consciences of the contending parties, and the spirit of reconciliation that

generally accompanies the verdict. A marked feature in the transaction is the importance attached by the Kirghese to an oath. They call it *jan-beru*, or "giving one's soul." *

Concerning judgment and judges, every volost or district has to select from 4 to 8 *bis*, each of whom may decide cases not involving more than £30.†

Thus I had arrived at Suigati on an important occasion, for the Kirghese had assembled for the purpose of electing not merely judges, etc., but a *volostnoi nachalnik*, or chief of the volost, whose office is a paid one, whilst the *bis* are unpaid. On such occasions a representative, called in Russ a *piatedesiatnik*, or fiftieth, is sent by every 50 tents throughout the volost. Their office it is to choose a *bi* for every 200

* The Kirghese idea of what constitutes a crime is anything but a legal one, and they are quite unable to distinguish between criminal and civil law. Thus thefts are hardly considered criminal. "So-and-so," they say, "has stolen a horse, and has not *returned* it." But as such matters are considered purely personal, they are, in most cases, settled privately among themselves, there being scarcely a scale of *punishment* for such offences, but of *fines*, varying from a *chapan*, or coat, to a *koum*, that consists of 1,000 rams, 100 horses, or 50 camels. This last fine used to be imposed in earlier times for murders—half a *koum* for a woman, the whole *koum* for a man. Other cases, such as offences against a man's honour, blows, robbery, dishonesty, etc., are punished by the following scale:—

1. *Chapan*, or a *khalat*, or coat, of stuff or fur.
2. *At-chapan*, or a horse and khalat (for trifling offences, etc.).
3. *Mouinouke-Koussak, Koumoune-Terkan*, which means that when a stolen animal is restored, two others have to be returned with it, tied to the head and tail of each other.
4. *Togous*, or nine head of cattle (for violence, fraud, etc.).
5. From $\frac{1}{10}$ to $\frac{1}{3}$ of a *koum* (for various bodily hurts).

Of late years fines in money have also come in vogue; confinement for periods varying from 3 to 30 days; and birching, up to 25 stripes, the last being inflicted for offences against order and decency, refusing supplies in time of war, resisting authorities, but not being applicable to the aged or to children.

† Everything exceeding that limit must be settled by a meeting of

kibitkas, as also a volostnoi, or chief of the volost. The first thing to be done on the present occasion was to call these representatives from out of the crowd by name, the *bis* severally testifying as to their identity.

M. Troitzky then asked the representatives, of whom there were 27, and all sitting in front of his tent door, how much they would pay their chief per annum. Three hundred roubles was the sum first proposed, and then 500, with some dissentients, who were requested to rise, and who did so to the number of 5 only. Five hundred roubles, or £50, being carried, they were asked how much they would allow the chief for his *mullah*, or secretary, and how much for his *djiguitt*, or mounted messenger, whereupon they voted £6 for each. The emoluments of the office being settled, they proceeded to elect the officer, M. Troitzky first reminding them that the office would be held for three years, and that they should, therefore, be careful to choose a good man A table was placed at the door of the tent, and on it two hats half covered with handkerchiefs, to prevent the contents being

bis from different volosts, to be convened periodically, besides which the contending parties may, if they please, appeal to a Russian tribunal, whose decision is regarded as from a third court, and must be final. In conducting a case, the accused and accuser choose their own *bi* or *bis*, and the litigants bind themselves by a written promise to the head of the volost to abide by their decision. This is accompanied in the Orenburg district by a custom of the litigants throwing down their whips at the feet of the judges, as a token that they deliver themselves up to be dealt with as they may deserve. No objection can be received against a judge after the verdict is given, and any one uttering a false suspicion against a judge is liable to the fine of a khalat for defamation. On the other hand, should a judge impose a fine on unjust grounds, he is deprived of his position. A judge is answerable to God for a prejudiced verdict, which has this much of meaning, that if a *bi* be found to have been bribed to give an unfair verdict, custom subjects him to popular indignation and deprivation of office.

seen, whilst before it, in a semicircle, were seated the 27 representatives, to each of whom was given a nut, to be placed in the receptacle for ayes or noes. M. Troitzky told me that on a previous occasion he had endeavoured to ensure privacy of voting by having two basins for ayes and noes put in his tent, but that some of the rascals had taken the nuts from one basin to place in the other. The names of four candidates were proposed, and on the first being named, aged 48, all gave "their pebble" for him but three; in the case of the second candidate the numbers were exactly reversed; the third candidate secured 21 votes in his favour, but the fourth only 7, the election ending in favour of Nogai Bi, who, according to old-fashioned Kirghese custom, ought to have been, like a bridegroom, nearly stripped, then and there, by congratulatory friends of everything upon him, and his belongings seized by one and another as a keepsake. But he was a rich man, and powerfully built, and when they surrounded him with congratulations his demeanour soon showed that he personally thought the custom more honoured in the breach than in the observance.

Thus ended this part of the day's proceedings, and we were taken into the tent for refreshment and to talk over what we had seen. It was very clear that M. Troitzky had no sinecure, for he was single-handed in so far that he had no Russian help, but only that of one or two Kirghese interpreters. In his uyezd there were 25 volosts, containing in all 40,000 tents. All these he had to inscribe, and to help choose their officers. He was telling us of his multifarious duties, when he was suddenly called to action by some one rushing into the tent, saying that there was a fight going on.

Now the Kirghese laws concerning personal offences are better defined than some others. Thus, to insult a senior has to be atoned for by the fine of a khalat, or bowing to the ground to ask pardon. To insult an equal entails having to ask forgiveness only, and abuse behind a person's back does not count, but naughty children are punished as the parents may desire.*

In the present instance M. Troitzky quickly left the tent, and I wondered what gentle methods of persuasion he, the only European there be it remembered except ourselves, would use to pacify the two combatants, surrounded as they were by hundreds of these Kazaks, whose very name bespeaks them ruffians. Would he place himself between, and entreat them to be reconciled? Not a bit of it! I left the tent a minute later to see what he would do, when behold! he had sprung upon his horse, rushed into the crowd, and, whip in hand, was dealing out blows right and left, and scattering the crowd like a pack of curs. His interpreters followed suit, and so speedily had everyone taken to his heels, that it was

* Cases of assault are punishable by fines, to which is added, in serious cases, the defraying of the sufferer's medical expenses; whilst disturbance of the peace, offences against order, or resistance to authorities may be visited not only with a fine, but 25 stripes with the rod. Certain of the Kirghese laws concerning criminal assaults are very like those of the Hebrews. Thus, a person committing an offence against an unbetrothed maid is obliged to marry her, with the consent of her parents, who may demand, besides the *kalim*, 9 head of cattle for the dishonour inflicted on their daughter, which practically is similar to the Jewish law, recorded in Exod. xxii. 16, and Deut. xxvi. 28, 29. In other cases, however, as I have observed before, the Kirghese law is much less severe than the Jewish code, or even the Muhammadan law, as enforced in Bokhara. Thus, an offender against a betrothed maid may atone for his crime by paying from 27 to 45 cattle to the bridegroom elect; and should the bridegroom refuse to go on with his marriage, the offender, in Turkistan at least, must pay a kalim and take the girl to wife. In the case of the seduc-

not easy to find the combatants. M. Troitzky then returned to the tent, having given orders that the man who began the quarrel should be brought to him. One was led forward, shaking in his shoes, and declaring that it was not he who povoked the quarrel, whereupon the Russian officer adroitly answered, "Very well; then go and find me the man who did!" which he left the tent to do, whilst we went on our way towards Aulie-Ata, the best specimen we saw of a town of settled Kirghese.

tion of a betrothed maiden, the offender and her parents are bound to provide a bride for the bridegroom elect, and to pay him a kalim besides. Again, an offence against a married woman involves the payment of a fine to the husband, and in Akmolinsk is accompanied by the strange custom of the offended, in proof of the veracity of his accusation, cutting off the tails of the offender's horses. A man who has enticed the wife of another is free to take her for his own on payment of a kalim to the offended husband, or on giving him an unmarried woman for whom the kalim has been paid. Incest is punished by relatives of the offending parties as they may choose; and illegitimate children have to be supported by the father.

CHAPTER XXIV.

FROM VIERNY TO AULIE-ATA.

Departure from Vierny.—Journey to Kastek.—Branch roads to Issik-Kul and Kashgar.—Old road to Tokmak.—Arrival at Suigati.—Nogai Bi's cattle.—Kirghese language and literature.—Education by mullahs and Russian schools.—The River Chu.—An aul of Kirghese.—Birth and naming of children.—Pishpek botanical garden.—Alexandrof mountains.—Telegram to General Kolpakovsky.—Setting a Yemstchik's leg.—Aulie-Ata.—Kirghese wares, industries, and commercial customs.—Visit to Aulie-Ata's tomb.—Muhammadan offerings and religious feasting.—Analogies in Christendom.

WE left Vierny at 10 o'clock on September 8th to continue our journey westwards, our good friend M. von Ghern trotting by our side to give us a Russian farewell. It was beautiful weather for travelling, and not too hot by day, but it became chilly immediately after sunset, and by the small hours of the morning grew cold enough to make one thankful in the tarantass for an Ulster and shawl. For some distance out of the town the land was cultivated on either side of the road, and beside some of the settlers' dwellings were stacks that might have been mistaken for peat, but were in reality *kiziak*, or dried dung, that is still used as fuel by the natives, even in wooded localities. On our left were the mountains, partially covered with forests, whither many of the inhabitants

go to live in châlets in summer, and the governor of the province among them. At our first station, Kiskilenskaia,* we were offered pretty ornaments of agalmatholite, or "figure stone," called by the natives *kalyptash*, or stone for bullet-moulds (from *kalyp*, form, and *tash*, a stone). The stone is found within a few versts of Kiskilenskaia, as also between Kopal and Vierny, likewise in Kashgar, and is so soft that it can almost be cut with a knife, or scratched with the thumb-nail. It is sold in Vierny fashioned into paper-weights polished with wax, and pen-trays, two of which M. von Ghern had given me as geological specimens. Our second station was Uzun-Agach (Long Tree), the scene of the battle of 1864, to which I have alluded, between the Russians and the Khokandians. The killed were buried on the top of the hill near the picket, the spot being marked by the erection of a cross, covered with tin, on a white stone pedestal, since which time there has sprung up, close by, the hamlet Kasansk-Borodinsky. Thus far we had travelled only fairly well, for though the broken wheel of our luggage-cart had been mended at Vierny, the vehicle twice broke down before even-

* Our stations from Vierny, with the distances between in versts, were:

Vierny—		Chaldavar	29
Kiskilenskaia	27	Merke	29
Uzun-Agachaia	27	Munkinskaia	16
Sam-Su	23	Tarty	19
Targap	20	Kum-Aryk	24
Otar	30	Maldabaevskaia	22
Kurdai	32	Akyr-Tiube	15
Suigatinskaia	30	Ak-Chulakskaia	21
Konstantinovskaia	23	Uch-Bulak	17
Pishpek	23	Aulie-Ata	22
Suku-Luk	24		
Ak-Su	15	Total	507
Kara-Balty	19		

ing, by which time we reached Sam-Su, near the ruins of Fort Kastek. Here a message from the authorities at Vierny had preceded me that horses should be in readiness, and the amiable old post-master, thinking that some one of importance must be coming, had put out bread and salt for a welcome, and he inquired privately of Mr. Interpreter by what titles he should address me.

Had we intended to visit Lake Issik-Kul, this would have been the point from which to turn our faces southwards over the Kastek Pass, 3,300 feet high, to the

SUMMER RESIDENCE OF THE GOVERNOR OF SEMIRECHIA.

head waters of the Chu, along the bed of which the post-road runs through the Buam defile, called by the natives the Happy Pass, to the station Kutemaldi.*

* From Kutemaldi there goes off a sumpter post-road, directly south, along which there are pickets as far as Fort Narin. Beyond this is a bridle-road to Kashgar, 200 miles in all as the crow flies, but not less than 260 miles distant by this route. Kutemaldi lies at a height of 5,300 feet above the sea level, and the path proceeds along the bed of the Kochkur to the Dolan Pass (10,100 feet), then descends into the Narin valley to the river and fort (7,100 feet) of that name, which is practically the Russian outpost. Beyond it a bridle-path ascends along the Kara-Kain stream to the Kash-Rabat Pass (12,930 feet),

The beauty of this defile is greatly extolled by travellers. The road then skirts the northern shore of the Issik-Kul, between its extreme western and eastern points, and turns off at a right angle to Karakol, at a height of 5,430 feet, and distant from Kastek about 170 miles, or from Pishpek, the point of departure that would be taken from the west, 14 stations and 250 miles.*

THE BUAM PASS ON THE ROAD TO ISSIK-KUL.

skirts the eastern shore of Lake Chadir-Kul, 11,080 feet high, then crosses the Turgart Pass at 12,800 feet into Chinese territory. After this, for about 90 miles, the traveller gradually descends some 8,000 feet to Kashgar, passing on the way four or five stations.

* Karakol may be approached also by another carriage-road proceeding eastwards from Vierny at the foot of the Trans-Ili Ala-Tau as far as the River Chilik, and then ascending the mountains to Tabdi-Bulak, which is about 30 miles east of Karakol, and a point of road near to the giant Tengri-Khan, towering aloft to the height of 21,000 feet. General Walker's map indicates a carriage-road proceeding from Tabdi-Bulak for about 80 miles to the Chinese frontier at Muzart, 40 miles north of the famous pass (12,000 feet) of that name; but I can find no authority

From Kastek or Sam-Su, where we had arrived at even, the old post-road would have led us up into the mountains to Tokmak,* and then on to Pishpek, a route that M. von Ghern had been desirous that I should take, with a view to seeing the Kara-Kirghese in their native haunts. But the road was said to be almost too bad for a carriage, and I had determined accordingly to keep to the lower road, which had been made in 1870 to avoid the steep and dangerous gradients of the old route. Accordingly we drove along the Kopa valley, passing three stations during the night, and arriving in time for breakfast at Suigati, where the diversion awaited us, described in the last chapter, of a visit to the Kirghese election.

Nogai Bi, whom we saw elected chief of the volost, was reckoned a fairly rich man; but not like Nabal, who had 3,000 sheep and 1,000 goats (1 Sam. xxv. 2), or Job, with 14,000 sheep, 6,000 camels, 2,000 oxen, and 1,000 she asses (Job xlii. 12); though these numbers need surprise no one after hearing of the millions of cattle on the Kirghese Steppe. This modern patriarch of our acquaintance owned to possessing merely 150 horses, 500 sheep, 30 cows, 20 camels, 2 tents, and—4 wives! His rich tent, erected for the Russian officer, also bespoke its owner's opulence, as did his massive silver girdle, four or five

either in my Russian post-book or maps, for anything more than a bridle-path.

* Dr. Schuyler points out that about 15 miles from the present Tokmak, a place of 2,000 inhabitants, there are the ruins of an old town of the same name that was formerly the capital of a principality, and gave to the Mongols the name for all the country to the west—the realm of Kipchak, and accordingly that when we read, as in the "History of East Mongolia," by Sanang Setzen (1196-1452), of wars between the Mongol Khan and the Sultan of Tokmak, the latter means the Shah of Kharezm or Khiva.

inches wide, and nearly half-an-inch thick, the value of which he put at a prohibitive figure, though I secured one of his Kirghese rings that is now in the British Museum.*

I took occasion at Suigati to ask the official interpreters, who seemed intelligent fellows, what they thought of the version I had with me of the New Testament. They replied that it was not true Kirghese, but "a mixture of Turkish and Arabic, which," said they, "makes Tatar." †

The wandering Tashkendians, who go from aul to aul of the Kara-Kirghese, teach their scholars from

* Nogai Bi's girdle reminded me by contrast of that of John the Baptist. "a girdle of a skin about his loins" (Mark i. 6), and enabled one the better to realize the indignity put upon the Jews in Bokhara by the Emir, who allows no Israelite, however rich, to gird himself with other than a piece of string. Nogai Bi had also four servants, but whether formerly slaves I know not. The Kirghese made slaves of all heretics they could, and even of Shiite Mussulmans, though it is forbidden to Muhammadans to make slaves of their co-religionists, as it was to the Israelites to treat as bondmen their fellow-countrymen (Lev. xxv. 42). They evaded the precepts of the Koran by regarding the Shiites as heretics. This is not allowed under Russian rule; but reference to the custom helps to illustrate another feature in Jewish patriarchal life, where we read of Abraham's "servants born in his own house," and others "bought with money of any stranger." The same practice obtained in Mosaic times, with bondmen bought of the heathen round about. Abram's wealth is seen in his 318 trained servants, with whom he attacked the 4 kings, and delivered men, women, and goods, that had apparently been seized very much in the fashion of a Kirghese *baranta* or Turkoman raid (Gen. xiv. 14, xvii. 12; Lev. xxv. 44).

† Dr. Schuyler says that the Kirghese language differs from Tatar in the interchange of certain letters, *j* for *y*, *b* for *p*, *zh* for *j*, *sh* for *tch*, *t* for *d*, *p* for *f*, *d* for *l*, etc.; that few Persian or Arabic words are used; and that there are many peculiar to the Kirghese dialect. I heard of no Kazak literature in the plains, but Captain Valikhanof says the Dikokamenni possess a remarkable epic called the "Manas"—an encyclopædic collection of Kirghese mythological tales and traditions, grouped round one person—the giant Manas, and also an *epos* called the *Samyatei*, the former of which he designates the Iliad of the Steppe, and the latter the Burut Odyssey. The language of the Diko-

the Koran, but there are few who study. As a rule, only the mullahs and official persons know how to read and write. At the same time it should be observed that, as far as can be judged from the number of those who have received a certain education, the capabilities of the Kirghese are good, and sciences are said to be quite within their reach. The girls have rarely any mental education, but are taught to sew, spin, and weave, to make clothes, curtains, and felts, to embroider in silk, gold, etc., and to cook.†

On leaving Suigati, after a pleasant stay with M. Troitzky, we once more proceeded westwards, and approached the River Chu. This stream, rising in the Thian Shan, and consisting of the Eastern Karakol and the Suiok, is called at their confluence the Kochkur, a mountain torrent that flows in an easterly direction to within about 3 miles of the western shore of Lake

kamenni Kirghese, he says, is Turkish, resembling more closely than any other that spoken in Little Bokhara or Kashgaria. In it there are scarcely any Arabic or Persian words, it being composed principally of Mongolian and primitive Turki.

* The instructions of the youths under native teachers is undertaken by mullahs, who live for this purpose during the winter among the more thickly-peopled localities, where they gather the boys for a certain number of hours per day. Their instruction consists of committing to memory, of singing in chorus, and in writing out Tatar phrases from dictation. There is no method in the instruction, and it often happens that the pupils of one mullah can with difficulty make out the written instruction of another, the art of writing being taught according to different rules.

† I notice, from the *West Siberian Kalendar* for 1881, that in 1865 a Kirghese school was ordered to be opened in Omsk for the training of copyists for the Kirghese volosts, and that, subsequently, a number of Kirghese institutions called *internats*, or boarding-schools, have been opened for boys, and in some cases for girls, in Pavlodar, Zaisan Post, Petropavlovsk, Kokchetof, Akmolinsk, Ust-Kamenogorsk, Atbasar, Omsk, and Karkaraly. The schools and internats are supported from the rates paid by the Kirghese, amounting in 1881, in the province of Semipolatinsk, on an average, to 2*s*. 9*d*. for each tent, in addition to the 6*s*. for Crown taxes. For the Kirghese school in Omsk was expended £404; for that in Ust-Kamenogorsk £240; and for the internats £2,651.

Issik-Kul, where it gives off the small stream of the Kutemaldi, through which a portion of its water finds its way into the lake.*

Certain parts of the river banks are frequented by the Kirghese only in winter, because the meadows and grazing grounds are few. As we approached Constantinovsk, where the inhabitants devote some amount of time at least to agriculture, we passed by the largest aul we had seen. The number of children running about attracted our attention, many of them nude, and evidently brought up under circumstances as rough as those in which they began life; for the mother, having been at work to the last, and having little rest allowed her after childbirth, simply wraps her new-born infant in a cloth in summer, or in a sheepskin in winter, and there ends the business. It is only in cases of difficult birth that relations give assistance as accoucheurs, magicians, and sorceresses. Under the most favourable circumstances these make grimaces and whisper, but commonly have recourse to

* From this point the river takes a sharp turn to the west, and flows through the picturesque Buam defile, the river being now fordable, while before it was not. Here the Chu is bridged in two places, and, the defile being passed, the valley opens out to a width, at Tokmak, of 27 miles, affording the nomads excellent pasture. Below this point the river distributes its waters over numberless branches, forming a whole archipelago of islands, with an average depth of only 2 feet. From Fort Tokmak the Chu is practicable for raft floating, and 10 miles lower, even for navigation, for 200 miles, until the river begins to distribute itself in channels overgrown with reeds. In this 200 miles the channel is not less than 4 feet deep, whilst its maximum may reach 14 feet. The width of the river nowhere exceeds 140 yards, and in its lower course does not measure half this width. Its attenuated waters, after an entire course of 633 miles, finally run into the Steppe lake, Sauman-Kul, thus falling short of the Syr-daria by 67 miles. The Chu is rich in fish, and contains Bream, *Suig*, Pike, Perch, Roach, *Chebak* (a sort of Bream), and Crucian Carp; also a few *Silurus* and Sazan, or Perch-Pike.

more pernicious measures. The one right the mother possesses is to name the new-born child,* which she exercises in an original manner, sometimes calling her infant by the first object that meets her eye after delivery, whence such curious names as *It-Ayak*, or "dog's foot."

We crossed the Chu by a wooden bridge, and, after driving 15 miles, arrived at 6 o'clock at Pishpek, where the new road, by which we had come, joined the old one from Tokmak. Pishpek is a village with wide streets and a school, wherein the master showed us a small local collection of butterflies and beetles, but the principal object of attraction for us was a large botanical garden, to the superintendent of which, M. Fetissof, we had an introduction. To his house the obliging *starosta* took us, but, unfortunately, he was not at home, whereupon the schoolmaster accompanied us to the garden.

The trees were only young, and the weeds were high, but it was evident that M. Fetissof had before him a vast undertaking, and that he had brought together a considerable collection of trees, shrubs, and plants indigenous to the region, and that he was

* With this might be compared the circumstances of birth and giving of names in the cases of Rebekah, the mother of Esau and Jacob; of Rachel, who, in departing, called Benjamin "son of my sorrow"; and of Pharez, who was born before his twin brother, and, in consequence, called a "breach" (Gen. xxv. 25, 26, xxxv. 16, 18, xxxviii. 28, 29). M. Ujfalvy describes the Kirghese as fond mothers, who sometimes suckle their children up to four years of age. They have a custom, he says, of pulling, with a view to extending, their children's ears, from earliest infancy, that they may hear the better. As the children grow up, they get scanty attention from either father or mother. Up to the age of 12 or 13 years they go about in summer, as we saw, almost naked, or in tatters; and in winter, because of the cold, they crowd among the sheep under cover, and only their half-shaven heads peep out from amongst the animals as they gaze with surprised and rapid eyes on any visitor who may approach.

making experiments with a view of introducing others. As it was uncertain when M. Fetissof would return, I determined not to stay at Pishpek, but push on through the night, now warmer than heretofore. Morning found us still skirting the mountain range we had had on our left all the way from Vierny. It was a continuation of the Trans-Ili Ala-Tau, that, west of the Buam Pass, is called the Alexandrof range. Judged by its Alpine vegetation, it is said to be from 9,000 to 10,000 feet high.*

In the course of the night we passed Sukuluk, a settlement with a score or more of houses, and arrived at the fortified place Ak-Su, near which is a village called Belovodsk, with wide streets lined by willows, with a church, a school, and nearly a hundred houses, occupied for the most part by Russian colonists from the government of Voronej and from Little Russia. Dawn found us two stations further, at Chaldavar, where we bought two "Astrakhan" melons, that were considered choice, and by breakfast time we had reached Merke. It is not many years since the line of pickets between Tokmak and Aulie-Ata, with the

* Perpetual snow appears on it opposite the town of Tokmak, and its highest peaks rise to 15,000 feet. The line of perpetual snow, from 13,000 to 14,000 feet high, stretches as far as the sources of the Kara-Balta. From hence the range gradually falls towards the west as far as Merke, near which its height does not exceed 9,200 feet. Further westward, the range rapidly rises again above the snow-line, and sinks towards Aulie-Ata, near which it has not an absolute height of more than 2,600 feet, or of 150 feet above the level of the River Talas. Down the northern slope of the Alexandrof range flow numerous rivers, whence the ancients called this district *Ming-Bulak*, or the "land of a thousand springs," and the same slope is covered with forest up to a height of from 5,000 to 8,000 feet, but the southern slope is quite bare of wood. The low passes over the range are covered with excellent pastures. Tall grasses, mountain poppies, and peonies grow at a height of 7,500 feet, and the common juniper and black currant bushes are occasionally met with.

fortress of Merke, used to form the left flank of the province of Turkistan. Now all wears an aspect of peace. Colonies have been settled about some of the pickets, newly-planted woods constantly appear, the fortress is abolished, the surrounding country is dotted over with the huts of Kirghese labourers, and Merke is enlivened by the presence of post-office and telegraph clerks.

I took advantage of the presence of these latter individuals to send a telegram to General Kolpakovsky, for not until now had we reached the frontier of his General Government of the Steppe, and were about to pass out of Semirechia into Turkistan. I could not but feel how much I owed to his Excellency's care and attention. All had gone well, and I telegraphed to thank him, and to say how much I had enjoyed my stay.*

We were delayed for an hour or two at Merke for the repair of the box I had fastened in the rear of the tarantass, and wherein I had stowed my saddle. This post-house was a vast improvement upon any of

* I cannot pass from the mention of General Kolpakovsky without saying how much I heard of his worth, and what marks of careful administration he has left in Semirechia, over which he was Governor. His Excellency was born, Dr. Schuyler says, in 1819. He was the son of a subaltern officer in the province of Kherson, and at 16 years of age entered the service as a private soldier. In 10 months he was made a non-commissioned officer, and so remained until 1841, when he received a commission. He served for a long time in the Caucasus, and afterwards in Transylvania during the Hungarian war, until, in 1852, he was transferred to Western Siberia, where he has spent the remainder of his life. At first he was stationed at the inhospitable town of Berezof, but in 1858 was transferred to the district of the Ala-Tau. He knows Semirechia well, having passed whole days in the saddle riding over it, so that the Kirghese, whose language he knows, have given him the name of "the iron seat." I heard that the Kuldja natives placed great confidence in him, which will, no doubt, be shared now by the more numerous inhabitants of the general government of the Steppe.

those we had recently seen, and was kept by a Pole, who bought a New Testament. From the next station, Munkinsk, we gave a lift to the starosta, who seized the opportunity of our coming to start on a journey, and begged for a place on the luggage vehicle, which vehicle, two stations further on, threatened to delay us through the tire of the fore-wheel coming almost off. Fortunately we found a wayside smith, who quickly put it to rights for 4*s.*, pleading by way of apology for his charges that coal was dear, as indeed it well might be, we thought, in such an outlandish place.

At the next station, Moldabavsk, we had drunk tea, and were preparing to start, when one of the horses kicked a Tatar yemstchik and fractured his leg in the upper third. This was clearly a case for Mr. Sevier's attention ; so he first ordered the man to be put to bed, when it turned out that his sleeping-place was in a sledge, under an open shed. Here, therefore, we bandaged up the limb in a box splint, extemporized splints of split boards, bandaging with towels, and tied round the limb with string. The patient was then laid in the sledge with his leg somewhat elevated, and with pendent stones for weights to straighten the limb. He was told what to do for a month, given some money, and the keeper of the inn enjoined to take care of him, after which his good Samaritan left him, roughly doctored, no doubt, but much better than would have been his lot had no surgeon been there. We then passed three stations during the night, and arrived in the morning at Aulie-Ata.

Aulie-Ata stands on classic ground, as will be seen hereafter, in connection with the ancient history of Central Asia. To-day it is a town of 4,500 inhabitants, living in 741 houses, of which only 50 are occupied by

Russians, the remainder by natives, of whom Kirghese form the largest proportion. I had, in fact, at Vierny been told that I could purchase the best articles of Kirghese manufacture in Aulie-Ata. Soon after our arrival, therefore, we went to the offices of the *uyezdi-nachalnik*, or chief of the district, where we again found that a telegram had preceded us to facilitate our procuring horses.

The assistant chief and a military officer kindly volunteered to accompany me to the market and bazaar. The advantage of this we soon found; for not only were these officials accompanied by interpreters, but by *djiguitts* also, mounted forerunners, who preceded us in the narrow crowded bazaar, and speedily cleared the way. Indeed, it was ridiculous to see how unceremoniously the djiguitts unhitched standing horses, and set them adrift.

I found exposed here several articles of Kirghese make and use, among which were native hats, boots, and bridles, some rude jewellery for ear-rings, ornamental tassels for suspending in the tent, and a piece of female headgear called a *tara*, to hang in a double row across the breast of an under-garment, also a *tchinikap*, or wooden receptacle, in which to suspend a basin when travelling. I bought specimens of all these. I also saw exhibited a drink called *airan*, made of whey sweetened with honey and cooled with ice; likewise *tursuks*, or goat-skins, for holding liquids.

The manners of the people were as novel to me as their wares. Here was a man striving to allay the dust, not with a water-cart, but by carrying a skin of water, and sputtering it out of the aperture. Behind the charcoal fire of a Kirghese smith sat an unfortunate individual, whose calling in life was to blow the

bellows, consisting of two leather bags he had to press alternately for 12 hours a day, and for which he was paid 2*s.* a week. At many of the stalls they exhibited in cages, for 8*d.* each, quails or other small birds caught by hawks. They teach them to sing and to fight. A specimen of the latter exhibition they wished to show me, but I declined. A little further I noticed another curiosity in the case of a hawk, through whose eyelids they had passed and tied a piece of thread in such a way as to draw the lids nearer together for a day or two, the object, I was informed, being to converge the axis of vision, so as to improve the bird for hawking purposes. The market prices did not strike one as exorbitant. For soap was asked 2½*d.*, and potatoes ½*d.* per lb. Large radishes cost ¼*d.* each. Salt, found in the neighbourhood, cost 1*s.* 3*d.* per cwt., and barley 1*s.* 6*d.* per cwt. Timber, however, was expensive, a crooked log, 10 feet long by 6 inches in diameter, being valued at 4*s.*, and a roughly-made wooden bedstead at as much as 24*s.*

Everything had to be purchased of course by haggling, fixed prices being unknown, and I observed in the course of my purchases an illustration of a custom as old as the time of Job (xvii. 3), that of "striking hands" in connection with suretyship or agreement. A man had asked me too much for an article, and the Russian officer, who accompanied me, offered a second price, and then, after the Kirghese custom, held out his hand, whereupon the salesman, hesitating a moment, raised his hand, and, in token that he agreed to the bargain, brought it down with a slap on the officer's palm. We chanced to pass a barber's shop, where a man, after having water poured on his head, was shaved without soap with a Chinese razor, and

then put through a series of squeezings like those experienced in a Turkish bath, this Eastern barber, as usual, ending by kneading his body, pulling his joints, slapping his back, and cracking his knuckles. Whilst witnessing this operation my eyes fell upon a pair of pincers, the length of curling-tongs, and nearly powerful enough to extract a tenpenny nail. I made bold to ask what they were for, and was told they were for extracting teeth! which so tickled my fancy, that I bought them forthwith as a curiosity.

The "lion," however, of Aulie-Ata is the tomb of the local patron saint, that gives its name to the town. The Kirghese make much of the resting-places of the dead.*

If in such a spot a tree or bush grows (a rare thing in the steppe), the sanctity of the tomb is confirmed, and prayers offered there are considered specially efficacious, and oaths administered to be peculiarly binding. Aulie-Ata (holy father) is said to have been a certain Kara khan, and a descendant of the Sheikh Ahmed Yesavi. We went out to the cemetery, and found there two principal tombs. That of the saint, said to have been buried 800 years ago, is built of

* The Buruts, according to Veniukoff, reverence even the remaining monuments of an ancient race formerly inhabiting their country, notably a high brick column near Tokmak, in which, according to a popular tradition, a certain khan built up his daughter after her death! The old relics of their own people are yet more highly reverenced, the tombs of famous ancestors being held sacred as places of prayer, from whence to remove the remains or any appurtenance belonging to the dead is considered a crime. To become a Kirghese saint (*aulia*) was not formerly a difficult matter. A man had only to be a bold plunderer, and to leave behind him good possessions, and then his descendants would place his body in a large tomb. Such tombs were at first visited by relations only, but others followed, and made the place sacred by their prayers and their gifts. These gifts are simple enough, and generally consist of variegated rags and bones, especially horns and skulls.

dried ornamental bricks, is of no architectural beauty, and is fast falling to ruin. The doors leading to the tomb are carved, and there are remains on the walls of ornamented plaster. Near at hand was erected a pole with a banner, called a *bairak*, usually placed about the tombs of saints, and also near were rams' skulls and horns, the remains, perhaps, of offerings. When thus placed on a tomb, horns indicate that those buried were saints or heroes, or at any rate powerful or eminent persons. Alexander the Great, who lives in the traditions of the people further south, is called "the double-horned one," as in other parts of the East, I am told, because on his coins are the horns of Jupiter Ammon. This also illustrates the frequent mention in Scripture of the horn as a symbol of power.

We were near coming in for a feast as we approached the next tomb, that of Aulie-Ata's son, for there were gathered about it a small crowd of women and children, who had come there to pray and eat and play. As it was to be my first and probably my only visit, I wanted of course to see the place, and for that purpose pushed my way into the enclosure, among the women and children, but committed thereby, I fear, a breach of Oriental etiquette, for the women crowded together, and hid their faces, leaving, however, an eye uncovered, that they might have a good look at the strangers, but without bestowing a reciprocal favour upon us. We then learned that several club together and buy a sheep, and bring it there, usually on Thursday, to eat, and hold a feast.*

* This reminds one of those Jewish feasts in which religious ceremonies were to be accompanied with eating and rejoicing before the Lord (Deut. xii. 18), and illustrates the doings of the Israelites before the golden calf, when they offered burnt-offerings, and brought peace-offerings, and the people sat down to eat and drink, and rose up to

We did not remain long in Aulie-Ata, whence we set out for Tashkend; but we were now in the general government of Turkistan, which I must accordingly proceed to describe.

play (Exod. xxxii. 6). There is also the case of Aaron, and all the elders of Israel, eating bread with Moses' father-in-law "before God" (Exod. xviii. 12). It is interesting to notice that a remnant of this practice still lingers in at least one branch (and that one the most corrupt, perhaps, that I have seen) of the Christian Church—namely, the Armenian. The charge is sometimes brought that they continue to offer animal sacrifices; but, upon inquiring of an intelligent Armenian in the Caucasus, he told me that what they do is the lingering remnant of a heathen practice found in existence by the early teachers of Christianity in the Caucasus, and which those missionaries did not forbid; but that in the present day it is not until after the services on their great festivals that the people slay the animals they have brought, and so feast together.

CHAPTER XXV.

THE GENERAL GOVERNMENT OF TURKISTAN.

Definition of "Turkistan."—Origin and composition of the general government.—Its dimensions, boundaries, and surface.—Turkistan temperature compared with that of Asia generally.—Results of dryness of climate on soil and vegetation.—Meteorological observatories and tables.—Four vegetal climatic zones.—Fogs, *aurora borealis*, and earthquakes.—Geology of Russian Turkistan, and minerals.—Decrease of mining operations, and why.

"TURKISTAN," in its widest acceptation, signifies the country of the Turks, and is bounded on the north by Russia, on the west by the Caspian, on the east by Mongolia and Tibet, and on the south by Hindustan and Afghanistan. That portion lying between the Thian Shan and the Karakoram mountains is called Eastern or Chinese Turkistan, the low country south of Bokhara is sometimes called Afghan Turkistan, whilst the Aralo-Caspian depression, with which we are chiefly concerned, has now received the name of Russian Turkistan. By the year 1867 Russian conquests in Central Asia had led to the acquisition of so much new territory that it appeared desirable to the authorities to place it under a separate administration, to be called the "Government-General of Turkistan,"*

* This was formed of the pre-existing province of Turkistan, the Tashkend district, the country occupied in 1866 beyond the Jaxartes, and that part of the Semipolatinsk province which lies to the south

which, in its widest extension, consisted of the provinces of Semirechia, Kuldja, Syr- and Amu-daria, Ferghana, and Zarafshan. It is well to remember this, because some of the best authors upon the country wrote during this golden age, if I may so call it, and in their mouths Russian Turkistan means this wide extent of country which amounted to one-twentieth part of the entire Russian Empire,* and exceeded in area each of the other first-class states of Europe. I shall constantly have to refer to "Russian Turkistan" in this wider meaning, but it should be borne in mind that Kuldja has been given back to the Chinese, and Semirechia forms a portion of the general government of the Steppe, so that the general government of Turkistan now includes only the four provinces of Syr-daria and Amu-daria, Ferghana, and Zarafshan. Its greatest breadth along the 43rd parallel is 750 miles; its length, on the 84th meridian, is 460 miles; the entire area of the vice-royalty being 257,000 square miles, or the extent of the Austrian Empire and Switzerland. It is bounded on the north by the

of the Tarbagatai range. To this was added in the following year the Zarafshan circle with the town of Samarkand; then in 1871 the Cis-Ili district, with the town of Kuldja; the Amu-daria section in 1873; and lastly, in 1876, the Khanate of Khokand was annexed thereto, and renamed as the province of Ferghana.

* The following table concerning Turkistan gives its larger extent, inhabitants of both sexes, and density of population:—

Provinces.	Extent in square miles.	Inhabitants.	Population to square mile.
Syr-daria	182,000	1,094,557	6
Amu-daria	36,000	107,209	3
Ferghana	28,000	729,690	26
Zarafshan	10,000	348,413	35
Semirechia	156,000	758,250	5
Total . . .	412,000	3,038,119	—

governments of Irgiz, Turgai, and Akmolinsk; on the east by Semirechia and Kashgaria; on the south by Bokhara, and on the west by Khiva and the Aral Sea. The surface is of the most varied character. After the Himalayas, it contains some of the highest mountains in the world. It possesses also enormous plains, fruitful valleys, and barren wastes, as well as sandy, brackish, and marshy tracts. If Semirechia be included in the calculation, more than half the soil is desert, nearly a half is pastured by nomads, and the portion under cultivation is only 2 per cent. of the whole.* The province of Syr-daria is divided, according to Kostenko, into 6 districts, that of Ferghana into 7, whilst the Zarafshan province is composed of 3 sections, and the Amu-daria of 2; making 18 in all.

The climate of Russian Turkistan is as varied as its surface. It is interesting to notice in the first place its temperature in relation to other parts of Asiatic Russia. This may be conveniently studied in a series of 13 charts, published in an atlas by Mr. Wild in 1881, giving the isothermal lines for each month, and for the yearly average. On the chart for the year, two things that immediately strike the eye are the irregularities of the isotherms in the region of Yakutsk, and their

* The following table from Kostenko gives the character of the soil and the extent of its surface in square miles:—

Oblast.	Total Land.	Cultivated.	Nomad Pasture.	Waste.	Per Cent.		
					Cultivated.	Nomad Pasture.	Waste.
Semirechia .	845,873	18,364	402,796	406,824	2·22	49·14	49·64
Syr-daria . .	962,236	8,011	402,796	551,428	0·83	41·86	57·31
Amu-daria .	192,447	1,022	29,090	162,333	0·53	15·12	84·35
Ferghana . .	149,929	13,426	67,132	69,370	8·96	44·78	46·26
Zarafshan . .	53,706	4,287	29,090	24,803	7·98	54·17	37·85
Total . .	2,186,291	45,112	924,194	1,214,761	2·06	43·30	54·64

Turkistan mountains, valleys, and plains, is the gradual drying up of the soil during the present geological period. The basins of the Syr- and Amu-daria show abundant traces of this process. Here are seen old river beds partially filled up, and numerous rivers that of old were tributaries of some principal stream, now stop half-way to lose themselves in the sands, or end in brackish marshes. Small lakes have evaporated by hundreds and by thousands, leaving behind only beds of salt. Great lakes, like the Balkhash, Aral, and the Caspian, have shrunk; others in the mountains are partially emptied, like Issik-Kul; whilst some have disappeared, like those now represented by the plains of Kuldja and Ferghana. By reason of this continued desiccation a large portion of the country has been transformed into steppe, not only in the lowlands, but also in the mountains, where a depression in the surface is often a steppe, with the vegetation singularly limited both as to the number of species and their period of growth. The climate, in fact, in such cases is scarcely more favourable to vegetation than the Arctic regions, the development of the plants being limited to about three months, in the north by the snows of winter, and in Turkistan by the dryness of the summer. Consequently forests are not met with, even in the mountains, in the province of Syr-daria. It is only towards the east in Semirechia, where the amount of river water is comparatively greater, that, as I have already said, one meets with trees in any number.

The Russians are expending great pains in taking observations at no less than 22 meteorological stations, but since many of them date only from 1873, it is at present unsafe to make positive deductions

concerning the Turkistan climate.* We must have recourse, therefore, as Colonel Kostenko points out, to observations referring to the life and locality of the vegetable world, to enable us to form a general idea of the climate, for which purpose the vice-royalty may be divided into four tracts or zones, distinguished as the northern zone, the apricot zone, the peach and almond zone, and the zone of pistachio nuts.

The first zone takes in the whole of the country above the 45th parallel, including the lower courses of the Syr-daria and the Ili, and the tract north of Kopal. The whole of this extent has a fairly cool climate. Hence the more delicate fruits, as apricots, vines, etc., do not thrive here. Snow lasts for two or three months during the winter. In the lowlands of the Syr-daria snow is always accompanied by stormy winds from the north or west. At Fort No. 1 the summer lasts 5 months, without rain, and is sultry; and in winter the river is frozen there for 123 days. The average winter temperature of this northern zone is about equal to that of Russia north of Petersburg.

The apricot zone lies south of the preceding one, and includes Perovsk, and the towns of Hazret, Aulie-Ata, and Vierny. In this zone the winter is not so protracted. The Syr at Perovsk is frozen only 97 days, but the winds blow almost as violently as they do further north, while at Aulie-Ata and along the Alexandrof and Trans-Ili Ala-Tau ranges the winds are noted for their violence. The summer heats of this tract run up to 100° in the shade, and the cold reaches 22° below zero. The snow lasts for two months, and the winter here may be compared with that of Central Germany.

* See pp. 376-7.

The peach and almond zone comprises the towns of Chimkent, Tashkend, Tokmak, Ura-Tiube, Jizakh, Samarkand, Petro-Alexandrovsk, Nukus, and the Kuldja oasis. In this tract of country the vine is but little cultivated, except in the northerly parts, where it is covered up in winter, though from Tashkend southwards it needs not to be so protected. Although Ura-Tiube, Jizakh, Samarkand, and Katte-Kurgan lie considerably to the south of Tashkend, yet ow ng to their greater altitude they all enjoy a similar climate.

In the pistachio nut zone is included the valley of Khojend and the neighbouring Khokand mountains. The character of this tract is such that the vine may

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MEAN

The following table gives the mean temperature at various points in Russian years, the figures in italics

PLACE.	No. of Years.	What Years.	January.	February.	March.	April.	May.
Akmolinsk . .	5	1870-75	0·55 *−17·47*	−4·72 *−20·40*	12·15 *−11·03*	42·67 *5·93*	57·15 *13·97*
Aulie-Ata . .	6	1870-75	25·12 *−3·82*	26·91 *−2·82*	42·71 *5·95*	55·31 *12·95*	65·53 *18·63*
Baku . . .	28	1848-75	38·3 *3·50*	38·12 *3·40*	42·98 *6·10*	51·98 *11·10*	63·81 *17·67*
Khojend . .	4	1866-7, 1870-71	34·16 *1·20*	33·08 *0·60*	50·63 *10·35*	63·5 *17·50*	74·30 *23·50*
Kasalinsk . .	16	1855-8, 1862-6, 69-75	11·37 *−11·46*	11·55 *−11·36*	25·84 *−3·42*	49·10 *9·50*	65·39 *18·55*
Kuldja . . .	4	1853-4, 1856, 1860	14·40 *−9·78*	20·70 *−6·28*	36·41 *2·45*	54·46 *12·48*	65·21 *18·45*
Nukus . . .	2	1874-5	25·88 *−3·40*	21·92 *−5·60*	36·86 *2·70*	57·20 *14·00*	67·46 *19·70*
Perovsky Fort .	10	1856-8, 1862-8	13·14 *−10·48*	11·77 *−11·24*	29·68 *−1·29*	52·00 *11·11*	67·41 *19·67*
Petro-Alexandrovsk	2	1874-5	28·58 *−1·90*	24·80 *−4·00*	41·54 *5·30*	59·72 *15·40*	69·80 *21·00*
Samarkand . .	2	1870-71	35·60 *2·00*	34·70 *1·50*	46·40 *8·00*	60·44 *15·80*	77·00 *25·00*
Semipolatinsk .	18	1854-70, 1875	1·98 *−16·67*	1·67 *−16·85*	11·86 *−11·19*	39·67 *4·26*	57·07 *13·93*
Tashkend . .	9	1867-75	30·09 *−1·06*	33·62 *0·89*	45·68 *7·60*	58·89 *14·93*	69·98 *21·10*
Ura-Tiube . .	2	1873-4	26·15 *−3·25*	31·19 *−0·45*	39·38 *4·10*	53·42 *11·90*	68·45 *20·25*

be cultivated on high ground, whilst its climate allows of the growth in the open air of the more delicate plants and fruits. The average winter temperature is about the same as that of Central France, though the latter is some 5° further north.

It remains to be noticed in connection with the climate of Turkistan, that fogs are frequent only in the northern portions, especially about Sergiopol and Kopal. They are rarely seen in summer—that is, from May to September—at Tashkend. The *aurora borealis*, or Northern Lights, are sometimes visible in Turkistan, as, for instance, on the night of the 4th and 5th of February, 1872. On each occasion they

TEMPERATURES:

Central Asia, derived from observations extending over different numbers of representing the scale of Celsius:—

June.	July.	August.	September.	October.	November.	December.	Year.
65·66	69·62	66·29	52·66	35·64	20·26	9·28	35·53
18·70	*20·90*	*19·05*	*11·48*	*2·02*	*−6·52*	*−12·62*	*1·96*
70·38	73·44	70·25	63·00	49·91	39·15	35·20	51·37
21·32	*23·02*	*21·25*	*17·22*	*9·95*	*3·97*	*1·78*	*10·76*
72·79	78·44	78·53	71·46	61·93	52·45	42·85	57·78
22·66	*25·80*	*25·85*	*21·92*	*16·63*	*11·36*	*6·03*	*14·32*
82·58	84·92	82·13	73·04	57·02	43·07	38·75	59·72
28·10	*29·40*	*27·85*	*22·80*	*13·90*	*6·15*	*3·75*	*15·40*
73·49	77·20	74·12	61·48	44·15	29·89	20·44	45·25
23·05	*25·11*	*23·39*	*16·38*	*6·75*	*−1·18*	*−6·41*	*7·36*
70·56	76·68	73·08	64·58	48·16	32·90	26·02	48·56
21·42	*24·82*	*22·82*	*18·10*	*8·98*	*0·50*	*−3·32*	*9·20*
72·50	77·72	74·84	65·12	48·65	42·08	31·64	51·82
22·50	*25·40*	*23·80*	*18·40*	*9·25*	*5·60*	*−0·20*	*11·01*
74·79	77·99	74·12	60·31	44·56	29·91	20·08	46·26
23·77	*25·55*	*23·40*	*15·73*	*6·98*	*−1·16*	*−6·62*	*7·92*
75·20	83·30	75·56	67·55	50·72	44·06	33·26	54·50
24·00	*28·50*	*24·20*	*19.75*	*10·40*	*6·70*	*0·70*	*12·50*
80·06	82·40	79·88	76·46	58·10	40·10	44·24	59·61
26·70	*28·00*	*26·60*	*24·70*	*14·50*	*4·50*	*6·80*	*15·34*
67·91	72·32	67·60	54·46	37·54	20·80	7·05	36·61
19·95	*22·40*	*19·78*	*12·48*	*3·08*	*−6·22*	*−13·86*	*2·56*
78·33	80·55	75·34	66·33	53·49	44·65	39·65	56·37
25·74	*26·97*	*24·08*	*19·07*	*11·94*	*7·03*	*4·25*	*13·54*
72·95	78·80	75·38	66·11	49·64	46·04	37·40	53·71
22·75	*26·00*	*24·10*	*18·95*	*9·80*	*7·80*	*3·00*	*12·06*

appeared at 10 o'clock, and lasted till the following morning. The light was of a red, fiery colour, and imparted a roseate tint to the snow that covered the ground. Its configuration varied but slightly, and though it was more clearly defined towards the north, where it reached the zenith, it was visible even on the southern horizon.

Earthquakes in Turkistan, as throughout Central Asia generally, are frequent, especially in the mountain region, where the shocks are severe. The most violent shocks occur towards the end of February, and during the month of March. In Bokhara, where the new year is held to begin after the spring equinox, it is believed that that period must be ushered in by an earthquake. Hence the "wise men" of Bokhara stick a knife in the ground beforehand, and when this falls they consider themselves in a position to meet the new year.

Passing to the geological features of "Russian Turkistan," I may observe that it was with some difficulty I succeeded in finding a work on the subject, but did so at last in the brochure of M. Mouchketoff * on the mineral riches of the country. Attached thereto is a geological map drawn up by the author from his own

* M. Mouchketoff complains of a like difficulty, but refers to the following works, the enumeration of which may be useful to the geological reader:—

(1.) Tatarinof, "Journal des Mines," 1867, p. 53; "Annales de la Société géographique de Russie," 1867, t. III., Idem, 1868, t. IV., p. 327; "Gazette du Turkestan," 1872, Nos. 8, 9, 10, et autres notes. (2.) Romanovsky, "Mémoires de la Société Russe de Technologie," 1875, t. II. (3.) Guilef, "Gazette du Turkestan," 1876, No. 35. (4.) Kraievsky, "Journal des Mines," 1868, partie II., p. 308. (5.) Lehmann, "Reise nach Buchara," Bearbeitet von G. v. Helmersen. (6.) Bogoslovsky, "Journal des Mines," 1842, No. 10, p. 1. (7.) Davidoff, "Journal des Mines," 1872, No. 2, p. 183. (8.) Fabian, "Journal des Ingénieurs," 1872, No. 1, p. 83.

observations, together with those of G. D. Romanovsky. In this map the Thian Shan mountains, as far east as the 82nd meridian, are tinted, to show the geological features of the region. The colouration of the low country between the Syr and Amu denotes that portion to be of Tertiary and Secondary formations. Taking the country as I passed through it (in which I have had the help of my neighbour, Mr. Robert Slater, F.G.S.), it appears from this map that from Sergiopol, in the neighbourhood of which are found mines of graphite and coal, the road passes in a southerly direction for some 60 or 70 miles through alluvial deposits, as well as Tertiary and Secondary formations, embracing red marine sandstone of the Upper Trias, interspersed occasionally with Jurassic and Cretaceous rocks, showing that there have been several eras of denudation and deposition. The road afterwards, on higher ground, strikes Metamorphic Schists and Palæozoic rocks, whilst Carboniferous Limestone, Devonian, and even Silurian formations are occasionally met with, capped by mountain chains, towering above all, composed of erupted rocks, such as Granite, Syenite, Porphyry, Diorite, Diabase, etc., across and along which the road proceeds in a south-westerly direction to the River Ili. Near its valley are several veins of manganese, lead, copper, and iron.

Crossing the river, the road runs a little south of west, over a spur, and then at the base of a chain of granitic and palæozoic rocks until Chimkent is reached. Around this locality are found deposits of Coal, Iron, Silver, Lead, and Rock Salt, whilst in some few spots Gold is found in workable quantities. The presence of these minerals is sufficient evidence of the geological interest attaching to a country

whose palæontological history still remains to be written.

The mineral wealth of Central Asia made it one of the *El-dorados* of the ancients. Beneveni, says M. Ker, sent to his imperial master "a handful of sand mixed with gold dust, gathered in the Lower Oxus," and Minera (who penetrated to Balkh) told how the mountaineers of Badakhshan "sink large fleeces of wool in the sand of their rivers, and after a while dig them up covered with gold dust"; how "there are mighty treasures of gold, silver, and musk in the cities of Kaskar (Kashgar), Dizan, and Margilian"; how the river that flows past Samarkand "is called Zar-Affshan (gold-giving), because of its bringing down much gold from the eastern hills," and so forth, the truth of which tales the Russians, upon their conquest of the country, took an early opportunity of examining, with the result that there are now known to exist in Turkistan deposits of the following substances—namely, Gold, Silver, Lead, Copper, Iron, Manganese, Arsenic, Turquoise, Agalmatolite, Graphite, Mineral Oil, Petroleum, Mineral and Lake Salt, Native Sulphur, Sal Ammoniac, Alum, Copperas, Iron Pyrites, Porphyry, Gypsum, Marble, Limestone, Sandstone, and Clay.

Besides limestone, gypsum, and clay, some 6,500 tons of oil are obtained annually, of which three-fourths come from the Kuldja region, and the remainder from the Syr-daria territory. The Kuldja district likewise produces about 5,000 tons of coal a year, and that of the Syr-daria about 1,600 tons more; but of the other useful minerals, notwithstanding the abundance and diversity of the deposits, very few are worked. Of many the quality is far from being uniformly good,

and in some cases the beds are so inconsiderable as scarcely to be worth the attention of traders.

Yet, on the other hand, considerable wealth may undoubtedly be acquired. Many of the beds of valuable minerals were known to the natives before the coming of the Russians, and were worked by them, but not to any great extent. With the arrival of the Russians their working has diminished; for the natives have abandoned their works, and the Russians have commenced to import all useful minerals from Russia. The low condition of metallurgy may be ascribed, Kostenko says, chiefly to the sparse population, and the limited cultivation of the soil. The roads leading from inhabited localities to places that contain minerals are difficult, whilst the small number of people in the country limits the demand. It is, therefore, more profitable to import metals, etc., than to establish furnaces on the spot, where the yield would not compensate for the cost of production.

Upon the incorporation of the Turkistan district into the Tsar's dominions, numbers of Russians vainly hurried thither in search of gold. The fact is, that gold exists there; for the natives have for a long time past found it in the sands of the Chatkal, the Upper Chirchik, the Talas, the Ili, and the Zarafshan, but the amount of the precious metal thus obtainable is very scanty, and could only pay a native for his trouble. Indeed, only the poorer even among them are employed in searching for it, and they pay no duties. All that a native needs is a *ketmen*, or wide and round iron shovel, fastened at right angles to the shaft, and a trough to act as a cradle, and he is content if he earns thereby 3*d.* or 4*d.* a day. But with the Russian trader it is very different, for by the time he

has expended capital upon his works, instruments, and dues, he has paid away more than will recoup him for the outlay. Gold has been found nowhere in Turkistan in the vein, but only in very small grains, or pieces not bigger than a pin's head, most frequently in the form of dust. The richness of the deposits varies from 0·01 to 0·017 grains to the ton of sand. In certain places, however, in the Sungarian, Ala-Tau, and the River Tentek, it rises to 1·23 grains.

There are no silver mines, properly so called, in Russian Turkistan, but silver is found allied with lead in veins of galena. The silver contained in this ore, whilst not exceeding 16·8 grains to the ton, admits of extraction along with the lead. Others of the minerals I shall have occasion to refer to hereafter; but having now treated of certain broad features of the government-general of Turkistan, I shall proceed to describe the most northerly of its four provinces.

CHAPTER XXVI.

THE SYR-DARIA PROVINCE.

Extent and boundaries of Syr-daria province.—Its mountains and deserts.—The Aral depression, and its geological changes.—Turkistan rivers: their peculiarities and direction.—Sources of the Syr-daria.—Its characteristics at Khojend; from Chinaz to Perovsk; and onwards to the Aral.—Its affluents and banks.—Communications of the province.—The road from Orenburg, and towns thereon.—Caravan routes.—Turkistan population according to races.—Russian inhabitants, and Kuramas.—Population according to creeds.—Progress and density of settled and nomad communities.

THE Syr-daria province, so named after its principal river, extends over the whole of the northern portion of the present Turkistan. It measures 636 miles on the 44th parallel from east to west; and the post-road, entering at the north-west corner and passing south-east to the border of Semirechia, traverses 1,000 miles. The area, which occupies two-thirds of the entire government-general, extends to 182,000 square miles, or the size of Norway, Sweden, and Denmark. It is bounded on the north by the districts of Irgiz and Turgai, and the government of Akmolinsk; on the east by Semirechia and Ferghana; on the south by the districts of Zarafshan and Amu-daria; and on the west by the Sea of Aral. It includes, in fact, the basins of the middle

and lower Syr-daria and Chu rivers, with the eastern shore of the Sea of Aral. The province, for the most part, is flat, the western spurs of the Thian Shan occupying only a relatively small portion of its surface.*

The surface of the Syr-daria province may be divided into four zones—namely, of deserts, steppes, oases, and mountains. Of these the first is by far the most extensive, and includes the huge desert of Kyzyl-Kum, between the Syr and Amu rivers; the Kara-Kum, north-east of the Aral Sea; and Ak, or Muiun-Kum, almost filling the space between the Chu and the Kara-Tau mountains. How large a proportion of the province is desert may be estimated from the fact that out of its entire area of about a million square miles, more than half are waste lands, 400,000 square miles are pastured by the nomads, and only 8,000 square miles are under cultivation; or, to put the same thing in another way, out of every 100 acres

* The Alexander range extends into the Syr-daria province, as I have stated, and in the neighbourhood of the sources of the Talas, the Talasky-Ala-Tau is detached from the Thian Shan mass, and stretches westwards to the sources of the Aris, north-east of Chimkent. Running off thence to the north-west is the Kara-Tau chain, whose western slopes the traveller from Orenburg sees from Julek after passing Perovsky. The mountain heights of the Kara-Tau range do not exceed from 5,000 to 6,000 feet, and in summer are free from snow, thus giving rise to their name of *Kara-Tau*, or "Black mountain." The south-western slopes of the chain are steep, whilst the central mass consists of an elevated plateau with deep valleys. The most elevated portions of the range lie west of the River Kamir-*Tas*, and rise to 7,000 feet. These mountains are crossed by many passes, of which the Turlan Pass is at an altitude of 6,800 feet. South-west of the Ala-Tau are the Chatkal mountains, some of the ramifications of which constitute the frontier between the provinces of Syr-daria and Ferghana, whilst its principal spurs separate the Chirchik basin from that of the Jaxartes. After shutting in with its northern spurs the Chirchik valley, the Chatkal range breaks out into numerous second-rate ridges known as Kendir-Tau and Kurama-Tau, which separate the Kurama district

57 are waste, 42 are pasture, and less than 1 is cultivated.

Not only the Syr-daria province, but the entire government-general is comprised in the Aral basin, in which the two largest rivers are the Syr-daria and Amu-daria. To the same depression also belong the Sari-Su and Chu, which flow towards the Syr, but are lost in the sands. To the same basin also belong the rivers Talas, Ters, and Asu, which flow in the same direction as the Chu.

It is evident, says Colonel Kostenko, that the Sea of Aral and lakes Balkhash, Ala-Kul, and Ebi-Nor once formed one united basin.* Whether it was from geological causes, or from the effect of evaporation, that the Sea of Aral became separated from Lake Balkhash is not known. Only a chain of lakes, bogs, and salt marshes now mark the former connection, but the firm soil between the two is obviously a subaqueous formation.

The rivers of Turkistan have several interesting peculiarities. They flow in a north-westerly direction, yet their lower courses, as in the cases of the Syr, Talas, and Chu, curve towards the east. Again, their right banks are steeper than the left, because the mountain ranges that hem in both banks of their

from Ferghana. The most western end of the Kurama-Tau continues to the bed of the Syr, north of Khojend, and is called the Mogul-Tau. Between this and the Kurama-Tau my route lay on the postal road from Tashkend to Khojend.

* Professor Romanoff, however, denies this, at any rate during the pleistocene period. He says that, at this period, the belt of tertiary tableland, which, with the Kara-Tau range, evidently formed the north-east shore of what was then the Sea of Aral, would have hindered any connection between that sea and Lake Balkhash. But the Professor admits that, at a much earlier period, the Turanian lowland presented a vast water basin, comprising what are now the basins of the Caspian, the Aral, and Lake Balkhash.

upper courses continue to skirt the right bank only after the rivers reach the plains. This is seen in the Chu, the Karatal, and the Syr below Khojend. The Turkistan rivers are all remarkable for their velocity. Hence, on changing from mountain torrents to steppe streams, they continue to flow at a rapid rate. Fed by the snows, they are from spring until the middle of summer surcharged with water, the bulk of which, however, often sinks within twenty-four hours. Some of the mountain streams, that are impassable from noon till morn, are fordable from dawn to midday.

The direction of the Turkistan rivers is not favourable for commercial utility, since the caravan trade routes cross rather than skirt them. The roads from Khiva, Orenburg, and Petropavlovsk are more than once intersected by the Amu and Syr, whilst those leading from Bokhara are also similarly crossed by the Syr. Consequently the natives have never used these rivers as a means of communication. It was not until 1847 that the Russians, appearing at the mouth of the Syr, converted it into a route for advancing into Central Asia. Whether the Syr and Amu will ever become trade routes is exceedingly doubtful. They are, however, navigable, as are the Zarafshan and Chu.

The great river of our province, to whose basin all the others belong, is the Syr-daria, that was known to the Greeks under the name of the Jaxartes, and to the Asiatics as the Sihun, but concerning which we had little geographical information before 1850. Its whole course now runs through Russian territory, and Colonels Maief, Kostenko, and others have in recent years supplied full information about it.*

* The Syr is composed of two affluents, the Naryn and Kara-daria.

The Syr is of copious volume, and flows in a south-westerly direction along the Ferghana valley, but without any of its water being appropriated to human needs. Not a single canal is diverted therefrom in this locality, for it flows through a barren and uninhabited country. The Upper Syr, as far as Khojend, a distance of 133 miles, allows of timber rafts being floated down in summer, at which season of the year the river is not fordable, but is crossed at six points in ferry-boats. At Khojend the river descends in rapids as far as Fort Irjar, below which point navigation is once more possible, and the water again becomes deep, copious, and of extraordinary velocity. Below Chinaz the banks are steep, and the water close by is 7 feet deep, but the bed is not without shallows.

From Chinaz to Fort Perovsk, a distance of more than 400 miles, the river flows between low banks that are submerged when the waters rise, and are transformed into reed-grown swamps from 1,000 yards to 3 or 4 miles in breadth.*

The former is considerably larger than the latter in length, volume, and number of tributaries, and so claims to be the parent stream, but the latter aligns more with the course of the main river. The Naryn rises near Issik-Kul in Semirechia, the Kara-daria in the Osh district of the province of Ferghana, and the two unite in the centre of the Ferghana valley, 8 miles south of Namangan, from which point the river is called the Syr. The Kara-daria is formed of two streams, the Kara-Kuldja and the Tar, of which the latter is the longer—namely, 90 miles, which, added to 73 miles from the spot whence the stream is called the Kara-daria, make this affluent of the Syr upwards of 160 miles long. The upper course of the Naryn comprises three main branches, the largest of which issues from underneath a majestic glacier. All three streams, before they unite, receive a large number of small affluents. They together form the Kara-Jai, and keep this name until joined on the right bank by the Kurmenti, when the river gets the name of Naryn, and so rolls on till it joins the Kara-daria and makes up the Syr. The whole valley of the Naryn from its source to this point is 466 miles long.

* The width of the river below Chinaz varies from 300 to 900 yards,

Ten miles below Perovsk the Syr divides into two streams, the Yaman-daria and the Kara-Uziak. Hence the Yaman-daria, or bad river, is the principal channel, but becomes shallow in consequence of the division of the stream, so that at low water a boat, with a draught of 2 feet, is only able to navigate it with difficulty. This lack of water in the Yaman-daria is the chief obstacle to the development of navigation on the Jaxartes.*

The Syr gives off several branches, that after being nearly drained by irrigation canals, end in swamps.† The passage of the river is not everywhere possible, because the banks in some places are not approachable,

and the depth is seldom less than 21, and often as much as 35 feet. The rapidity along the main stream reaches 4½ miles an hour, but varies greatly. The water is muddy, but clears quickly, and is pleasant to the the taste. It is said to have the property, however, if used continuously for washing, of making the hair fall off. The bottom of the river is chiefly composed of mud and sand, though rocky in places. From the mouth of the Arys to Uch-Kayuk the tortuous course of the river gives rise to many islands, some of them being 2 miles long. There are three principal inundations, the first in March, after the thaw of the ice; the next in May, at the melting of the mountain snows; and the third in June, which is the greatest; but these floods are not always regular.

* The other branch of the Jaxartes is quite unnavigable, and spreads out into a large number of reed-grown lakes. At Fort No. 2 the two streams reunite, and are again called the Syr-daria, which, from Fort No. 2 to its mouth, has a straight, deep channel accessible to boats of considerable draught.

The embouchure of the Syr forms three estuaries, of which the central stream is the principal, but here the shoals are still more in the way of the passage of vessels than in the Yaman-daria. At low water the main channel is not more than 2 or 2½ feet deep, and at high water only from 3½ to 4 feet. The left arm of the Syr is blocked up and overgrown with rushes, and the right arm is almost the same. The banks are of saliferous clay. The silting up of the mouths of the Jaxartes is the river's own doing, and is produced by deposits of sand and mud, which also have formed the island of Kos-Aral, covering the entrance of the river into the sea.

† It receives two principal affluents, the Yengi-daria and Kuvan-daria, of which the former, according to tradition, was formed arti-

but the stream can be crossed at all forts by means of ferry-boats, etc. The Kirghese use also reed-rafts and native boats dragged by swimming men or horses. The lower banks of the Jaxartes are infertile and uncultivated, and only south of Julek do fields begin, and then only in places, until the town of Hazret or Turkistan is reached.

Passing from water communication to communication by land, the roads of the province are found to be of two kinds—namely, for caravans and for wheeled vehicles, the former of ancient date, the latter of Russian introduction. The traveller from Petersburg, who would speed to Tashkend as quickly as possible, reaches Orenburg by rail in 60 hours, after which, with post-horses, he trots beside the River Ural, a distance of 175 miles, to Orsk, where he leaves the Orenburg province, and continues, a distance of 259 miles, to Irgiz, the capital of the province of Turgai, whose frontier is only 65 miles distant. At Julius begins the Syr-daria oblast, and the road skirts the western edge of the Kara-Kum desert, touching the north-east corner of the Sea of Aral, till, having driven 162 miles, he arrives at the fifteenth station in the province, called Kazalinsk, formerly Fort No. 1.

This fortress had considerable importance in days gone by, and round it sprang up a population that

ficially at the end of the last century, when the Karakalpaks, driven from the lower part of the Syr by the Kirghese of the Little Horde, had to seek a fresh locality. They quickly dug a large canal, from which was formed a branch of the Syr, called, at first, Karakalpak-daria, and afterwards Yengi-daria, or New River. From Khojend to its mouth the Syr has not a single affluent on its left bank, but on its right bank there enter, besides small streams, three very large rivers, the Aris, Chirchik, and Angren. The Syr is closed by frost at Kazala, near its mouth, for 4 months in the year; at Perovsk 3½ months; at Chinaz for 3 weeks; but at Khojend rarely at all.

made the place the market town of the steppe. Kazalinsk has now 3,000 inhabitants, and, being situated at the junction of the Khivan, Bokhariot, and Tashkend caravan routes, is a place of considerable trade, and the chief post on the River Syr. Not far distant are the ruins of the ancient town of Janekend. After leaving Kazalinsk, or Fort No. 1, the road keeps company with the Syr a distance of 117 miles, and past seven stations to Karmakchi, or Fort No. 2, whence it makes a détour to the left of the marshes, called Bakali Kopa, to the ninth station, distant 119 miles, at Perovsk. This was originally a Khokandian fort and town called Ak-Mesjed (white mosque), which in 1853 was captured by the Russians under General Perovsky, and the place called after his name. It is now a town of 3,000 inhabitants, peopled, like Kazalinsk, by Kirghese, but having also an element of Sarts.

For the next 72 miles to Julek the road passes six stations through a district abounding in game, after which the monotony of the steppe is relieved by the beautiful outlines of the Kara-Tau mountain range. Four stations, or 60 miles further, bring the traveller to Yani-Kurgan, the great interest of this portion of the road being its adjacent ruins. An old legend says that the valley of the Syr was once so thickly settled that a nightingale might fly from branch to branch of the fruit-trees, and a cat walk from wall to wall from Kashgar to the Sea of Aral. The numerous traces of old canals give some colour to the story at this part of the river bank. Here once were large and flourishing towns, and noticeable amongst them were Otrar, the place of Tamerlane's death, Savran, and Jend.

It is on arriving, however, at the fifth station, 78

miles further, that the great monument of these parts looms in view, the famous mosque of Hazret Khoja Akhmed Yasavi, in the city of Turkistan, commonly called "Hazret." The building was commenced by Tamerlane in 1397, over the tomb of Sheikh Akhmed Yasavi, who died about 1120, the founder of the sect Jahria. He is the patron of the Kirghese, and one of the most celebrated saints in Central Asia. The city of Turkistan has now a population of only 5,000, and contains little of interest except the mosque. A journey of 102 miles further, at the seventh station, brings the traveller to Chimkent, the chief town of the uyezd. The steppe, undulating at this portion of the road, is in spring rich in flowers.

At Chimkent the post-road branches westwards to Semirechia, and continues south to Tashkend. Thence it bifurcates, leading, on the right, through Chinaz and Jizakh to Samarkand, and on the left through Khojend and Ura-Tiube to Jizakh. As I traversed most of the road, however, beyond Chimkent, I shall describe it in the course of my travels, merely observing here that the length of the post-roads throughout the Syr-daria province amounts to 1,450 miles, the road being everywhere accompanied, if I remember rightly, by telegraph lines. Besides the post-roads of the province there is a great caravan route from Khiva to Kazalinsk, with a branch going off to Perovsk, another going north-west from Hazret to Turgai, and a third to the north-east, bifurcating to Atbasar and Akmolinsk. Besides these are many small longitudinal caravan routes, with scarcely one, however, going in a lateral direction.

The peoples of Russian Turkistan, as Kostenko observes, are of two races, the Caucasian and the Mongolian. The Caucasian group has two branches, the

Aryan and the Semitic, to the former of which belong the Russians and Iranians. Of Iranians also there are two branches,—namely, the Iranians of the Upper Oxus, called Tajiks, who are descended from the aborigines of Bactriana, Trans-Oxus, and Sogdiana, and the Iranians proper—namely, the Persians and the Afghans, the Hindus and the Gypsies. The Mongolian race, in its turn, is divided into two branches, the Turko-Tatar people of the Altai and the pure Mongols. To the first belong the Kazaks, the Kara-Kirghese, Uzbegs, Karakalpaks, Kipchaks, Turkomans, and the Tatars. To the second belong the Kalmuks, Chinese, Sibos, Solons, and some others.*

The Sarts, the Taranchis, and Kuramas are a mixture of several races, but may be numbered among the Turco-Tatar races, since Sarts and Taranchis, in type and language, resemble the Uzbegs; whilst the Kuramas resemble the Kirghese. The Dungans

* The following shows their sub-divisions :—

- CAUCASIAN
  - Aryan
    - Russians.
    - Iranians
      - Iranians of
        - Upper Oxus,
        - Tajiks of Bactriana, Trans-Oxus, and Sogdiana.
      - Iranians proper
        - Persians,
        - Afghans,
        - Hindus,
        - Gypsies.
  - Semitic
    - Jews.
    - Arabs.
- MONGOLIAN
  - Turks
    - Kazaks,
    - Kara-Kirghese,
    - Uzbegs,
    - Karakalpaks,
    - Kipchaks,
    - Turkomans,
    - Tatars.
  - Mongols
    - Kalmuks,
    - Chinese,
    - Sibos,
    - Solons.

serve to connect the Turkish and Mongol races, but in type they resemble more closely the Turks, and are therefore better classified as such. Thus it will be seen that in Turkistan the Turk peoples predominate. The Kirghese are the most numerous, then come the Sarts, but after this, owing to the difficulty of obtaining accurate statistics, the relative numbers of the peoples are somewhat doubtful, but Kostenko places them in the following order : Uzbegs, Tajiks, Kuramas, Kip-

A SART.

chaks, Russians, Karakalpaks, Taranchis, Kalmuks, Manchus, Dungans, Tatars, Turkomans, Persians, Hindus, Jews, and Gypsies.*

The civil population of the Russians forms about 1 per cent. of the people of Turkistan and Semirechia, in which latter they are principally grouped, and where the Russian element forms 7 per cent. of the entire population of the province.†

* See pp. 394-5 (*a*).

† In the Syr-daria province they number 8 per cent., and are chiefly centred in Tashkend (5,000 souls) and Kazalinsk (about 1,500), few being found in other towns of the same province. In the Zarafshan

With regard to the natives I have already described the Kazaks and the Kara-Kirghese; the Sarts I shall describe hereafter, as I saw them, and other peoples in connection with the localities they inhabit. The Kuramas, however, should be noticed here, because, with the exception of a village in Ferghana, between Andijan and Namangan, they are confined to the Syr-daria province, and live along the Chirchik and Angren. They number 77,000 souls. Kostenko calls them simply Settled Kirghese.*

Passing now to classifications of the population, we find that Muhammadanism is the belief of the mass of the people in Russian Turkistan. The Christians

district they number 4,000 souls, or about 1 per cent. In the Amu-daria section the same element numbers a population of 1,184, of whom the greater portion are exiled Cossacks from the Ural, and in the Ferghana province there were in 1876 Russians to the number of 1,229.

* Ujfalvy, however, pronounces them a mixture between Kirghese, Uzbegs, and Sarts, calls them an ugly race, regarded as inferiors by their neighbours, and says that when an Uzbeg becomes sedentary, without mixing with Sarts or Tajiks, he presents a number of physical characteristics that bring him strikingly close to the Kuramas. The Kirghese, who have mixed with the Sarts, have lost all tradition of their own origin, and have borrowed what civilization their new neighbours possessed, but without losing that frankness and sympathetic nature

(*a*) The following table from Kostenko shows the

Province.	Russians.	Tatars.	Sarts.	Tajiks.	Uzbegs.	Karakalpaks.	Kipchaks.	Turkomans.
	1	2	3	4	5	6	7	8
Semirechia .	44,585	2,978	3,365	—	—	—	—	—
Syr-daria .	8,477	4,321	210,774	57,841	25,771	—	—	—
Ferghana .	1,229	—	344,023	11,580	19,852	7,060	70,107	—
Zarafshan .	3,838	—	132,138	67,862	140,154	—	—	—
Amu-daria .	1,184	10	5	110	16,195	51,710	—	5,860
Total . .	59,313	7,309	690,305	137,393	201,972	58,770	70,107	5,860

come next in number, then the Pagans, and last of all the Jews.* A noticeable feature of the Turkistan population is that the male sex far outnumbers the female; whereas in Europe the preponderance is of females over males. This abnormality in Turkistan is not accounted for by the existence of troops, for among the natives also there is a marked preponderance of the same kind. As to the progress of the Turkistan population, it would appear, according to Kostenko, that it increases at the rate of 3 per cent. per annum. The birth-rate among the natives is high, and though the death-rate also is considerably above that of European nationalities, yet the percentage of

that distinguish the Kirghese. The Kuramas are among the most capable and industrious of the Turkistan races.

* Muhammadans		2,900,000
Christians	Russian Church	57,000
	Romanists	2,000
	Protestants	1,000
Pagans		50,000
Jews		3,000

The 60,000 Russians, exclusive of the army, may be thus approximately classified as to trades: Privileged class, 2,600; merchants, 920; citizens, 10,076; peasants, 10,708; Cossacks, 25,694; and temporary residents, 10,000.

number of the races in Russian Turkistan:—

Dungans.	Taranchis.	Kirghese.	Kuramas.	Kalmuks.	Manchus.	Persians.	Hindus.	Province.
9	10	11	12	13	14	15	16	
19,657	36,265	595,237	—	24,787	21,932	—	—	Semirechia.
—	—	709,370	77,301	—	3	—	135	Syr-daria.
343	—	126,006	—	—	182	—	370	Ferghana.
—	—	695	—	—	—	2,211	352	Zarafshan.
—	—	31,385	—	—	—	715	—	Amu-daria.
20,000	36,265	1,462,693	77,301	24,787	22,117	2,926	857	Total.

actual increase is thrice as great as the increase of European Russia, where it only amounts to 1 per cent.

The annexation of fresh countries, and the colonization of them by Russians, and by natives who come from neighbouring states, during a period of 11 years, increased the population in a three-fold degree,* in connection with which Kostenko points out that the freshly-occupied provinces not only added to the effective population of the country by nearly 60 per cent., but that the relative positions of the settled and nomad races, under Russian rule, became reversed.†

The density of the Turkistan population amounts to only 7 per square mile, the thickest population being found in the Zarafshan district, and next in that of Ferghana. In the *valley* of Ferghana there are 26, and in that of Zarafshan, 35 to the square

* The following table shows the increase of population from 1867 to 1877:—

Year.	Population.			Proportion of Population per 1,000.		
	Settled.		Nomad.	Russian.	Native.	
	Russian.	Native.			Settled.	Nomad.
1867	24,689	146,650	887,975	23	138	839
1868	24,589	309,835	1,048,585	18	224	758
1869	31,956	482,630	1,014,975	21	316	663
1870	30,815	531,790	1,031,585	19	334	647
1871	37,743	623,290	1,087,880	21	356	623
1872	38,726	645,108	1,095,431	22	363	615
1873	40,334	769,208	1,171,041	20	388	592
1874	44,995	787,188	1,194,841	22	388	590
1875	51,414	907,262	1,276,730	23	406	571
1876	51,414	1,404,027	1,381,533	18	495	487
1877	59,273	1,561,262	1,417,584	19	514	467

† In 1867 the nomads comprised from 70 to 80 per cent. of the entire population, whilst in 1877 the nomads were less than the settlers by 200,000 souls, having sunk to 47 per cent. of the entire population. Also it is found that the increase of the settled population advances more rapidly than that of the nomads.

mile. The population of the valley of the Ili may be compared with that of the Zarafshan, and a fair number of inhabitants are found on the banks of the Chirchik, Angren, and Keles, where there is abundance of water to assist the labours of the agriculturist; but the bare mountain tracts and the sandy, waterless steppes are given up to the nomads. There are many places, however, in Turkistan, such as the valleys of the Aris, Talas, and Chu, that could well support a larger number of both nomads and settlers than they now possess.

Throughout Turkistan the density of population is higher, naturally, where the settled element preponderates; * whilst, as regards locality of the population, the number of inhabitants in the towns is 373,382, and outside the towns 1,247,153 settlers, and 1,417,584 nomads.† Again, if we take the relative population,

* Kostenko, dividing the whole of Turkistan into unequal portions, compares the cultivated region, consisting of Zarafshan, Ferghana, and two southern districts of the Syr-daria province, with the steppe country consisting of the remainder of Turkistan, and shows the relative number of inhabitants, and the corresponding development in each of settled life, thus:—

	Percentage of Population.				Souls to square mile.	Percentage settled.
	Area.	Total.	Settled.	Nomad.		
Cultivated region	17	52	85	15	23	87
Steppe country .	83	48	15	85	4	17

† Thus:—

Province.	Number of Inhabitants.		
	In Towns.	Outside Towns.	
		Settled.	Nomads.
Semirechia‡ . .	37,822	89,239	631,189
Syr-daria . . .	146,272	326,660	621,625
Ferghana . . .	133,278	472,422	123,990
Zarafshan . . .	55,051	293,362	—
Amu-daria .	959	65,470	40,780
Total . .	373,382	1,247,153	1,417,584

‡ Including the Kuldja district, in which 14,633 souls live in towns, and 863,477 settlers and 61,550 nomads dwell outside the towns.

town and rural, settled and nomad, we have for every 1,000 inhabitants throughout the country 123 who dwell in towns, 410 settled away from towns, and 467 nomads.* The populated points, which, in an administrative and economical signification, can be classed as towns, are 38† in number (containing 74,000 domiciles),

* Thus:—

Province.	Per Thousand of the Population.		
	Town Inhabitants.	Rural Inhabitants.	
		Settlers.	Nomads.
Semirechia	50	118	832
Syr-daria	134	229	567 *a*
Ferghana	183	647	170
Zarafshan	158	842	—
Amu-daria	9	611	380
Russian Turkistan	123	410	467

† Name of Town.	Population.	Domiciles.
Vierny	17,544	983
Kopal	2,309	344
Sergiopol	112	37
Tokmak	427	119
Karakol	2,777	257
Semirechia Total	23,169	1,740
Tashkend	81,900	15,000
Kazalinsk	2,010	448
Perovsk	3,417	230
Turkistan	6,700	1,620
Chimkent	5,121	1,476
Aulie-Ata	4,455	844
Chinaz	77	20
Kailuk	87	29
Khojend	29,000	8,409
Jizak	8,701	1,765
Ura-Tiube	4,805	1,328
Syr-daria Total	146,272	31,169
Khokand	34,805	7,804
Namangan	15,920	1,309
Margilan	26,195	5,260
Andijan	42,879	10,602
Churt	3,326	725
Osh	3,307	1,049
Wadil	1,461	328
Kassan	2,000	400
Makhram	385	77
Isfar	3,000	600
Ferghana Total	133,278	28,154

Name of Town.	Population.	Domiciles.
Samarkand	35,910	4,411
Katte-Kurgan	7,029	1,435
Penshambe	4,600	1,143
Penjakend	1,789	380
Urgut	5,543	948
Zarafshan Total.	54,871	8,317
Petro-Alexandrovsk	50	10
Shurakhane	196	40
Chimbai	713	801 *b*
Amu-daria Total	959	851
Kuldja	10,953	2,906
Suidun	2,781	540
Chinchakhodzi	349	127
Luiutsugun	570	200
Kuldja Total	14,653	3,773
Grand Total	373,202	74,004

a There is a discrepancy here of 70.
b Including empty houses and shops, which are occupied only on market days.

of which Tashkend alone has a population exceeding 80,000 souls, thus taking the seventh place according to number of its population of all the towns of the Russian Empire, and coming after Petersburg, Moscow, Warsaw, Odessa, Kishinef, and Saratof. Of other Turkistan towns 5 have a population of more than 20,000, 4 of 10,000, 5 of 5,000, 4 of 3,000, 2 of 2,000, and 5 of 1,000. The number of villages, so far as is known throughout the country, is 3,171.

Among the varied races mentioned above, there are found, of course, great varieties of ethnological interest, to which I shall refer hereafter; but having now described certain features of the general government of Turkistan and the Syr-daria oblast, I shall proceed to describe briefly how the Russians obtained a footing there.

CHAPTER XXVII.

HISTORICAL SKETCH OF THE RUSSIAN ADVANCE TO THE SYR-DARIA.

Russia's advance eastwards.—Conquest of Tatars of the Golden Horde, 1480, and of Kazan, 1552.—Submission of Bashkirs, 1574.—Contact with Kirghese-Kazaks, 1718.—Their nominal submission under Abul-Khair.—Commencement of Orenburg line of forts, 1735.—Feuds of the natives.—Mistakes of Russian administration.—Khans abolished and Sultans appointed, 1833.—Insurrections of Kirghese.—Forts planted in the Steppe and on the Syr-daria, 1847.—Russians on the Aral Sea.—Advance of Russian civil administration.—Determination to connect the Irtish and Syr-daria forts.

IN two previous chapters I have indicated the series of events beginning in the reign of John the Terrible, whereby the Russians, in taking possession of the Irtish, were brought into contact successively with the Barabinsky Tatars, the Kalmuks of Sungaria, and the Chinese of Western Mongolia; and how, as they continued to the Balkhash region and the Thian Shan, they secured the submission of the Kazaks of the Great Horde and the Kirghese of the mountains, first coming in contact with the Khokandians near Vierny. I have now to describe in outline the successive stages by which the Muscovites received from the Bashkirs the country between the Volga and Ural rivers, how they then advanced through the steppes

of the Kirghese of the Lesser Horde to the Sea of Aral, and came into contact with the Khokandians on the lower portions of the Jaxartes or Syr-daria.

The swarms of Mongol and Turkish barbarians who invaded Eastern Europe, under Jinghis Khan and Tamerlane, left behind them a number of khanates and petty kingdoms, some of whom exacted tribute from Russia, and most of whom quarrelled with each other. During the reign of Ivan, or John, III., the "Golden Horde," whose head-quarters were at Saraï on the Volga, still arrogated to themselves the right of exacting tribute, but their rivalry with the Tatars of Kazan and the Crimea enabled the Russians to act in combination with these latter powers and paralyze the oppressor's strength. Assisted by the Tatars of the Crimea, Ivan III. tore up his written agreement with the Khan of Saraï, and forcibly ejected his ambassadors; and when the main bodies of the combatants at last confronted each other on the opposite banks of the River Ugra,—Saraï having been destroyed by the Russians,—so little stomach had either party for the fight, that on the 7th November, 1480, the two armies broke up without a battle, and from that day the rule of the barbarians may be said to have ceased.

The Tatars of Kazan, thus delivered from a troublesome neighbour in the east, perpetrated without ceasing predatory raids on the Russian borders, which led to Kazan being brought under the Russian yoke. The Kazanians, however, availed themselves of every opportunity to repudiate their subjection. Before this, certain distinguished Tatar princes, called "Moorzas," had emigrated to Russian territory; and when, in the year 1518, the throne of Kazan became vacant, the Tsar nominated a Moorza named Sheikh-Ali as suc-

cessor, but the Kazanians would none of him. So they revolted, and placed upon the throne a Crimean prince named Edegar. Accordingly Ivan IV. resolved once and for all to crush Kazan, which he did with 150,000 Russians, who laid siege to and took the city, having breached the walls by what was then the novel expedient of a mine containing 48 barrels of gunpowder. This occurred in 1552, and to the Khanate of Kazan thus incorporated into Russia was added, four years later, the powerless Khanate of Astrakhan that had sprung up on the ruins of the Empire of the Tatars.

It was towards the end of the reign of Ivan IV. that Yermak crossed into Siberia, and commenced a conquest that in a single lifetime extended all across Asia. But things went more slowly further south. Russia had advanced her border to the Volga, but there lay between that and the Ural river the country of the Bashkirs, who had formerly been tributary to the Kazanians. The Bashkirs tendered their submission to the new conquerors, but did not desist from making incursions into the territory of Russians, who were thus compelled to fortify their frontier settlements, and to make an uninterrupted line of earthworks from village to village. In 1574 the Bashkirs voluntarily petitioned for the construction of a Russian town in their country, and with the foundation of Ufa and Samara Bashkiria became permanently attached to Russia, whilst the Don Cossacks, who in the sixteenth century had settled on the River Ural, or Yaik, as it was called, swore fealty to the Tsardom of Moscow on the accession of Michael Fedorovitch in 1613.

Russia had now annexed the territories, and put down the incursions of two predatory peoples, but only to find that she had a third beyond that was just as

bad, for east and south of the Ural mountains lived the roaming Kirghese-Kazaks, who at this time were united under a khan living in the city of Turkistan; their territory extending laterally to the Irtish, and bounded on the south and west by the Thian Shan mountains, the Khanates of Khokand, Bokhara, and Khiva. Neither the internal condition of Russia nor the political circumstances of the period imparted any significance to the movement of the Muscovites eastward. Peter the Great, however, with characteristic penetration, perceived the importance and significance for Russia of the Trans-Volga region, and when in Astrakhan in 1722 is reported to have said: "Although these Kirghese are a roaming and fickle people, their steppe is the key and gates to all the countries of Central Asia." Ever on the watch for the opening of new Russian trade routes to the east, and incited, perhaps, by the report of Prince Gagarin concerning the fabulous riches of Central Asia, the great Peter not only ordered spies to be sent thither by way of the Irtish to Yarkand, but despatched also Lieutenant Bukholtz, in 1716, to survey the Caspian, and to find out whether there was a water-way through Central Asia to India. In the same year also Prince Bekovitch Tcherkassky was sent to inspect the rivers Jaxartes and Oxus, and to subjugate to Russia the Khans of Bokhara and Khiva, Shah Kniaz of Khiva having declared his readiness to accept Russian sovereignty 16 years before.

Peter did not succeed, however, in realizing his cherished plans, and bequeathed to his successors the work of first bringing the Kirghese to acknowledge their subjection to Russia. Nominally this took place five years after the great Tsar's death; actually it took scores of years to accomplish.

So early as 1718 the Kirghese, pressed by the Kalmuks, or Sungarians, sought assistance of Russia, which she was not then able to give, and hence came the displacement of tribes in the Steppe. The Sungarians, in 1723, captured the town of Turkistan, occupied the valley of the Syr-daria, and drove the Kirghese of the Lesser Horde to the north-west, in the direction of the rivers Emba and Ural. Here they found themselves in dangerous proximity to their old and implacable foes, the Kalmuks, Bashkirs, and Karakalpaks, who incessantly disturbed the *auls* of the Lesser and Middle Hordes of the Kirghese. These latter, however, made an effort under a leader Bukan Bai, drove back the Bashkirs and Kalmuks to the Urals, and occupied the northern part of the Steppe on the borders of Russia. At this time Abul-Khair asked that the Lesser Horde, of which he was Khan, should be taken under Russian sovereignty ; but this was not the wish of the people generally, though at a national assembly in 1732 the Kirghese of the Lesser and Middle Hordes were persuaded to submit. From this compact the latter Horde immediately broke away, but the Lesser Horde was removed along with its Khan to the lower valley of the Jaxartes, where they showed their respect for their protectors by plundering Russian and Bokharan caravans indiscriminately, though two years later the Khans of the two Hordes again tendered their submission.

In order that this subjection should involve practical results it was necessary to remove the Russian boundary further southwards, and on the organization of the south-eastern frontier, in 1735, a fortified town called Orenburg (removed to its present locality in 1742), was built on the site of the existing town of Orsk, and

made the head-quarters of a military Governor. A fortified line of Cossack settlements was established, extending both up and down the River Ural, so that ultimately it reached from the Tobol in the north-east to the Caspian in the south-west. This proved of use in quelling the insurrections of the Bashkirs from within, by cutting off their retreat into the Steppe, but was quite insufficient for the repression of the nomads without, who made prisoners of the people, and plundered caravans almost at their pleasure. This condition of things was fostered by the enmity, already alluded to, of the tribes. After one of the Bashkir rebellions, in 1755, some of the insurgents fled to the Steppe for shelter, where they were remorselessly hunted like wild beasts by the Kirghese, who sold their wives and children into slavery, and caused the death of about 50,000 persons, only a few succeeding in making their way back to the European side of the Urals. In turn, the Bashkirs for a long time terribly avenged this massacre on the Kirghese.

Again, in 1764, the Kirghese of the Lesser Horde attacked the Kalmuks on the ice of the Caspian, and took 700 prisoners, among whom were several Russians. Seven years later the Torgout Kalmuks fared still worse in their celebrated flight from the Volga to the number of 30,000 kibitkas, when the Kirghese pitilessly spoiled them as they crossed the Steppe, and allowed but a weak remnant to reach the Ili.

These disorders were anything but favourable to the development of the country, nor was it until the commencement of the present century that trade relations were set on foot with Khokand and Bokhara. Murders and robberies, however, soon suspended this trade, and the Russian administration was too weak

to bring the offenders to justice, so that practically it may be said that for a century the Kirghese were the most turbulent of subjects.

Of course there was a cause for this unwillingness on the part of the Kirghese quietly to submit to Russian authority, which M. N. Maieff * attributes largely to mistakes in administration. The government was, so to speak, taken unawares, in 1732, on the submission of the Kirghese, and on many occasions acted at random, having no trustworthy information concerning the affairs of the Steppe, and not understanding the habits and aspirations of the people. When Abul-Khair swore fealty he stipulated that under the new *régime* the Kirghese Khans should be selected from his heirs; and Russia, in acceding to this, sowed the seeds of lasting discontent; for according to the immemorial customs and ideas of the Kirghese, the dignity of Khan should have passed to his brother. Then, again, the governors at Orenburg, when appointing a new Khan, were less anxious about his being a favourite with the people than his devotion to Russian interests. It often happened, therefore, that the Khan, not having the good will of the people, could enforce his command only by the help of the Russian authorities. The government, moreover, were not assisted by the various institutions they introduced among the Steppe people, who were not acquainted with Russian administrative formalities. Hence the establishment of a frontier expedition in 1782, a frontier court two years later, and an arbitration court in 1787 led to no good results. The people regarded their Khans not as national chiefs, but as foreign inspectors, and

* "Sketch of the History of the Kirghese People, 1732—1869," in the *Turkistan Annual* for 1873, to which paper I am much indebted in compiling this chapter.

the guardians of foreign interests; and for a period of fourscore years, from 1732 to 1812, showed their dissatisfaction by constant disorders and pillage; and, wherever possible, grouped themselves in factions around popular leaders, who were naturally opposed to Russian interests.

In 1817, Essen, the Military Governor of Orenburg, initiated a new policy; for, seeing the weakness and incapability of a certain Khan Shirgazi, he entered into relation with the Khan's opponents, and so tried to win the popular favour, till, about 1833, the dignity of Khan was abolished altogether, and the whole Steppe was divided into three *rayons*, or districts, the administration of which was confided to three native "Sultan-rulers." Here again no attention was paid to the electoral principle long firmly established in the Steppe, nor was a national council appointed to control the sultans' actions, but to each sultan was given a detachment of 200 Cossacks for assistance in the prevention of pillage, whom he did not fail to employ to his own advantage. The sultans grew rich by their unjust exactions, and the Kirghese expressed their discontent in their own way by plunder and extortion, incited thereto, it is said, by the Khivans, who bought of them for slaves their Russian captives.

At first it was hoped that the Kirghese would be subdued by sending after them flying detachments to punish them for their robberies, but the culprits usually managed to escape into the frontier tracts of Bokhara or Khiva. It was then decided that when caravans went into the Steppe they should be accompanied by a military escort, and, in 1824, the first caravan proceeded to Bokhara with a guard of 500 men, but was nevertheless met by the Khivans and plundered.

This led to a new line of action, or rather to a return to an old one; for in order to diminish the depredations and incursions from which the Russian fisheries in particular suffered, the first fort, called Novo-Alexandrovsk, was founded, in 1834, on the north-east coast of the Caspian, whilst for the defence of other frontiers a continuous rampart was commenced like a miniature Chinese wall, that was to extend along the Steppe frontier in places where there was no natural protection. In 1836, the formation of this earthwork had extended 12 miles, after which it was abandoned.

It now seemed clear to the Russians that so long as their territories did not possess a definite natural boundary it would be useless to expect a secure frontier. The only adjacent rivers, however, were the Syr-daria and the Chu, to the former of which, according to Terentief, the Kirghese had invited the Russians to advance so far back as the time of Abul-Khair, who "begged the Russians over and over again to build a fort at the mouths of the Syr-daria, the Kirghese desiring to have a point of support in the midst of their own camping grounds, as well as a market where they might be able to purchase manufactured goods and dispose of their own raw produce." To this end a detachment was sent under Gladyshef, in 1740, to look for a suitable spot for a fortress; but there, for the time, the matter ended, till a century later Obrucheff reverted to the old system that had been tried with the Bashkirs, namely, to encircle the Kazaks by a chain of forts.

In 1847 the Steppe was agitated by an insurrection of the Kirghese under a popular leader, Kenisar Kasimoff, around whom the discontented flocked in crowds, and hence in this year were built the Orenburg fort on the Turgai, and the Ural fort on the

Irgiz, to which must be added, in 1848, the Karabutak fort on the Karabut, constructed for protecting the communication between the Steppe forts and the line.

This advance of Russia in the Steppe had the effect of pacifying the districts adjoining the line, but exercised no influence over those Kirghese who roamed beyond the Emba, on the Ust-Urt and the Syr-daria. Russia, therefore, conceived it necessary, in order to make her influence felt by the Khanates of Central Asia, who were said to foment the Kirghese insubordinations, as well as for the protection from unjust exactions of the Kirghese subject to her, and for the safety of Russian caravans, to lord it without a rival on the Sea of Aral, and at the mouth of the Syr, where the Khokandians and Khivans had erected a line of forts to intimidate the Kirghese.

In 1846 General Obrucheff, then Governor-General at Orenburg, obtained the sanction of his Government to establish a stronghold with a Russian settlement on the shore of the Sea of Aral. This was done in the following year, and the fortification was called Raimsk, though its name was afterwards changed to Aralsk.

With the erection of this fort commenced the navigation of the Sea of Aral by Russian vessels. Early in 1847, two ships were constructed: one, a vessel of war, the *Nicolai;* the other, a merchant ship, the *Mikhail;* the first being intended for surveying purposes, the second for establishing fisheries, with which object a public company had been formed the same year. Both vessels, having been constructed at Orenburg, were taken to pieces, and transported in the spring 600 miles overland to Raimsk, where they were put together again, and launched. Shortly afterwards, a larger war vessel, the *Constantine*, was built at

Orenburg, in which Lieutenant Butakoff commenced, in 1848, a thorough survey of the Sea of Aral.

In 1850 General Obrucheff proposed to construct a steamer of forty horse-power for the purpose of plying on the Syr-daria, to carry goods from Khokand territory that otherwise had to be carried across the Steppe. This steamer, and a screw steam barge to act as tender, were ordered in Sweden. Meanwhile difficulty arose respecting fuel, for no coal could be found in the immediate vicinity of the Aral Sea, and the use of saxaul did not answer well. Ultimately it was decided to transport Don anthracite to the Orenburg line for consumption, in 1852, at a cost of about £12 a ton. This was done, and the steamer *Perovski*, with the barge *Obrucheff*, were launched on the Syr-daria in 1853, the total expenditure being about £7,500.

Meanwhile the Russians were consolidating their advance by the introduction to the Steppe of their own forms of administration. Up to 1812, as I have shown, they interfered very little with the internal life of the Kirghese, being only too thankful if they could prevent their incursions, and secure trade relations with Central Asia. The Khans acted almost independently until that dignity was abolished, and it was nearly the same with the Sultan Governors, who secured so little sympathy from the people that it was necessary in their summer peregrinations to travel with a whole sotnia of Cossacks.

In 1837 a tax of 3*s*. per tent was imposed on the Orenburg Kirghese, which was less than that paid by their Siberian kinsmen on the Irtish, though eventually it was found possible to introduce Siberian regulations and institutions further west. In 1844, the Kirghese along the Russian frontier line were placed under the

orders of special protectors, selected from Russian officials, and, in 1848 and 1849, the whole Kirghese Steppe was divided into 54 "distances," in each of which was a chief and secretary, besides the native authorities, all, however, being subject as before to the "sultan rulers." Also a part of the Steppe, along the banks of the Syr-daria, was placed under military administration. In 1859, the administration of the Steppe was transferred to the Ministry of the Interior, and so continued for five years, till the Kirghese of the Syr-daria were transferred to the Ministry of War in 1864, at which time the government of the Steppe underwent a radical change.

Concurrently with these changes the Russian criminal laws were by slow degrees introduced, those laws being of course adapted to local circumstances. To this end a special commission was formed, whose labours terminated in 1868, with the issue of certain regulations, on the basis of which all the lands occupied by the Kirghese nomads were proclaimed as Imperial, and reserved for the exclusive public use of the Kirghese, and the rights of all Kirghese in the general Imperial service were assimilated to the rights of the ordinary rural populations of the Empire.*

For certain crimes, such as treason, murder, highway robbery, intertribal robbery, and making counter-

* The land thus given to them as a community is divided into winter encampments (*kishlau* or *kishlaks*) and summer encampments (*djailau* or *lailaks*), the enjoyment of both being grounded on hereditary right. The apportionment of land among families is effected by an authoritative meeting of representatives, and made according to the number of cattle possessed by each family. The permanent possession of land is arranged between neighbouring owners, landmarks being used to prevent boundary disputes, which, when they arise, are settled by an assembly of arbitrators, who occasionally require a person to be sworn in to confirm his right of ownership.

feit coin, the Kirghese were made amenable to the general criminal code of the Empire, but for tribal matters they retained their native courts.*

Notwithstanding the efforts of the Russians to introduce civilization and order into the Steppe, it was many years before they succeeded. When Fort Raim was built in 1847, the Government endeavoured to make friends with two well-known *batyrs*, or popular favourites of the day, Jan-Khoja and Iset-Kutebaroff. Jan-Khoja at first helped the Russians against the Khokandians, but his fidelity was undermined by the intrigues of the sultans, and, in 1856, he appeared at the head of the Kirghese rebels, who attacked the Russian forts, drove off the herds, and burnt the stores of hay and fuel. He was at length quelled, and died in 1860, the third national defender.

The other batyr, Iset-Kutebaroff, soon broke loose from his patrons, and pillaged on so extensive a scale that the Orenburg authorities had more than once to send a considerable detachment of troops against him. He usually evaded his pursuers by escaping to the Ust-Urt, but at length gave himself up. He was deported to Petersburg, pardoned, and sent back as an assistant uyezd chief, but was always of doubtful loyalty.

* It is interesting to notice that cattle constitutes almost exclusively the object of theft among the Kirghese, who hardly reckon theft as a crime, and repair the loss by exchange of cattle. Should cattle that have strayed, or any other object, be found with a man who professes the intention to pay for it, he must be able to produce evidence thereof or run the risk of being accused. Generally speaking, the loss and legal costs are borne by the offender, or, if he cannot pay them, his nearest relatives are called upon to do so. If caught thieving a second time the offender becomes liable to corporal punishment, and a known thief is put under the surveillance of the tribe. A highway robbery by an armed man is punished over and above the restoration of the stolen property by the loss of the offender's horse and weapons.

Thus between 1732 and 1864 may be distinguished five different measures taken for the consolidation of Russian power and influence in the north-west portion of the Steppe—namely, the appointment as khans of the heirs of Abul-Khair; the subsequent suppression of the rank of Khan, and the substitution of sultan rulers; the erection of fortifications on the Yaik or Russian line to consolidate Russian power; the erection of forts on the Syr-daria, to cut off the Kirghese from Khivan and Khokandian influence; and, lastly, the introduction of civil administration on the Russian model.

It now remained only to connect the forts on the Syr-daria with those of Semirechia, completely to surround the Kirghese, the doing of which introduces us to the Russian occupation of Khokand, whose people, of course, could not regard with indifference the encroachment of her northern neighbour on the Lower Syr-daria. But this story must form the subject of a subsequent chapter, the way to which I shall gradually lead by continuing my journey to Tashkend, and describing the former Khokand provinces.

CHAPTER XXVIII.

FROM AULIE-ATA TO TASHKEND.

Departure from Aulie-Ata.—Ornithology of district, and of Turkistan generally.—Birds of prey.—Passerine birds.—Crows, Finches, Thrushes, Warblers.—Gallinaceous birds.—Waders, Swans, Geese, and Ducks.—Cattle of Turkistan.—Journey along the Aris, and description of the river.—Chimkent uyezd, its houses and chief town.—Wayside geology.—The River Keles.—Road through gardens irrigated by canals.—Arrival at Tashkend.

WE drove out of Aulie-Ata about noon on Thursday, September 14th, having before us a journey of about 200 miles to the capital.* A djiguitt preceded us, thanks to the courtesy of the local authorities, to show us the burial-place of Aulie-Ata, already referred to. Having examined the tomb, we crossed the plains in a south-westerly

* The following are the stations, with the distances between in versts:—

Aulie-Ata—		Ak-Tash	14
Golovachevsk	15	Bekler-Bek	14
Kuiuk	17	Sharapkhan	22
Tersk	18	Djeri	12
Chak-Pak	24	Ak Djar	17
Tiulkubash	24	Koplan-Bek	14
Yas-Kichu	24	Tashkend	18
Mashat	19		
Mankend	15		288
Chimkent	21		

direction for 30 miles, and drank tea at the third station, Tersk, on the stream of that name. We were now approaching the watershed that sends its rivers on one side into the Talas, and on the other into the Jaxartes. The surface here and there was somewhat uneven, as we were reminded at one spot by the driver, who coolly suggested our getting out, informing us that he was going to dash down a place where it was very possible our coach might upset. The vehicle came to no harm, however, and we had a pleasant evening's drive, the horizon to the left being bounded by one of the western spurs of the Thian Shan, the Talasky Ala-Tau. This district was visited by Mr. Severtsoff, to whom the scientific world is indebted for much information respecting the zoology of Turkistan. We saw examples of bird life as we drove along; but rather than notice these in particular, I prefer to speak for a moment of the birds of Russian Turkistan generally.

Among diurnal birds of prey are found, in various parts of the country, the Himalayan Laemmergeyer, and five species of Vultures; about a dozen kinds of Eagles; the Osprey; six kinds of Buzzards; Black and Brahminy Kites; the Goshawk and Sparrow-hawk; the Saker and Peregrine Falcons, Merlin, and Hobby; likewise the Kestrel, Lesser Kestrel, and Orange-legged Hobby, which, with 4 kinds of Harriers, make up a list of 36 species of this order. The Kirghese train some of these birds to hunt, not only smaller birds, but even wild beasts. Only the day before writing these words, Dr. Sclater, the Secretary of the Royal Zoological Society of London, told me that Baron Benoist Méchin had lately arrived from Central Asia, bringing one of these trained birds, and a Kirghese to attend it.

Of nocturnal birds of prey are found 9 species of Owls. Corvine birds prevail to the number of about 13 species, including the Cornish and Alpine Choughs that are interesting. More particularly they are the Raven and Brown-necked Raven, Carrion and Hooded Crows, Jackdaw, Rook, the Bactrian and White-winged Magpies, the Nutcracker, Pander's *Podoces*, Rose-coloured, Common, and Purple Starlings.

The Finch family comprises no less than 40 species, with one new species of sparrow (*Passer Ammodendri*), named by Severtsoff, and found in the salt plains of north-west Turkistan. Then follow the White-winged Grossbeak, Greenfinch, Brambling, Chaffinch, Snowfinch, and Gray-crowned Finch; two kinds of Linnet; the Twite, Mealy Redpoll, the Himalayan and European Goldfinch, Red-fronted Finch, the Eastern Bullfinch, and eight species of Grossbeak; White-browed and Meadow Buntings, the Ortolan, and 11 other kinds of Bunting, two of them being found throughout the country and in the loftiest districts below the perpetual snow-line. The Yellow and White-capped Buntings have not apparently been found so high.

The Thrush family is represented in Turkistan by the Blackbird, Black-throated and Mistletoe Thrushes, Fieldfare, Redwing, and some two or three more besides the Common and Blue Thrush. Some 9 or 10 species of Wheatear, including that so well-known in England, the Whinchat and Stonechat, of which last there is also a local race, begin the family of Warblers, of which more than 40 others are found in the country. Many of these are well known in Western Europe, as the Greater Nightingale, the Bluethroat, Redstart, Redbreast, Barred and Orphean Warblers, both Whitethroats, both Reed-Warblers, Savi's, and

the Grasshopper-Warbler, besides the Golden-crested Wren and the Yellow-browed Warbler, which last occasionally strays to this country. The Hedge-Sparrow does not occur, apparently, in Turkistan, but 3 or 4 allied species are found there.

Six species of the Titmouse family are found in Turkistan, only one of which, the well-known Oxeye, is common to England, but the Bearded Reedling, often referred to this group of birds, occurs there as well. Two species of Dipper are found throughout the country. Other small birds are the Nepalese and European Wrens, the Syrian Nuthatch, Wall- and Tree-Creepers, and no less than 10 forms of Wagtails. Of Pipits there are 7 species, and 14 of Larks. There are also 10 kinds of Shrikes; the Golden Oriole and Waxwing; the Spotted and Red-breasted Flycatcher; the Swallow and Red-rumped Swallow; Siberian, Sand, and Crag Martins; White-rumped, Alpine, and Common Swifts; the Goatsucker and Egyptian Goatsucker, and the Hoopoe. This last I saw in the north of Semirechia and in the streets of Vierny. It is common in Turkistan, and breeds up to an altitude of 8,000 feet.

Other Turkistan birds are the Roller, the Common and Persian Bee-eaters, the Common and Indian Kingfisher, of which the latter seems to be plentiful, but the former rare; the Pied and Three-toed Woodpecker, the Wryneck, and the ubiquitous Cuckoo, which lays its eggs as high as the apple and ash groves of the Lower Thian Shan. To these must be added the Darjeeling Wood-Pigeon, and the Stock and Rock Doves, with the Collared and Egyptian Turtle-Doves, also the Black-bellied, Pin-tailed, and the wonderful Pallas's Sandgrouse, which last, some twenty years ago, invaded Europe in such an astonishing way.

We now come to gallinaceous or game birds, which interest both the sportsman and the gourmand; and of these are found in Turkistan the Black Grouse and Capercally or Capercailzie, the Caspian Snow Partridge, with the Chukar, Grey, and Daurian Partridges; also the Quail, the Mongolian Pheasant, the Peafowl, and common Cock. Next come the common Siberian and Numidian Cranes; Black and White Storks; four species of Herons, the Bittern, Spoonbill, and Glossy Ibis, with Bustards, of which 3 species are found.

Wading birds again are found in great variety, vying with the Finch family, in that the species in each case number 40, save one. Among these are the Dotterel, the Lapwing, Pratincole, Turnstone, Avocet, Black-winged Stilt, Oyster-Catcher, 3 species of Snipe, the Woodcock, Ruff, 11 species of Stint or Sandpiper, the Sanderling, about 10 of Plovers, and the Stone-Pigmy, and Red-billed Curlew. This last was thought to be a new species, and was named by Severtsoff *Falcirostra Kaufmanni*, after General Kaufmann, but the bird was known long ago on the flat mountains of Tibet, and was described and illustrated in 1835 by Mr. Gould, under the name *Ibidorhynchus Struthersi*. There are four specimens in the Moscow Museum, and two in the British Museum, there being no difference between the Thian Shan and the Tibetan specimens. It is found at heights of not less than 5,000 feet, and the flight of the bird strongly resembles that of a lapwing. It has red legs, and a remarkable, long, red beak, bent at the end, well adapted for picking up worms and other live creatures from between the pebbles and stones which form the bed of the mountain streams it frequents.

Turkistan boasts further of 4 species of Crake, and

the Moorhen, but the latter is rare; likewise the Coot, 5 species of Grebe, the Roseate Pelican, and Cormorant, and 6 species of Gulls. Six kinds of Tern breed throughout the country.

When we come to the Swan, Goose, and Duck tribes, we have nearly 30 species, as, for instance, the Wild original of the Tame Swan, the Whooper, and Bewick's Swan; of Geese, the Larger, Bean, Greylag, White-fronted, Swanlike, Red-breasted, and Painted Goose; to which must be added the Ruddy and Common Sheldrake, the Mallard, Gadwal, Garganey, Teal, Shoveller, Wigeon, Pintail, Velvet Scoter, Tufted Duck, Pochard, White-eyed, Golden-eyed, and White-headed Ducks, the Red-breasted Merganser, and the Smew.

Lastly, the gaudy Flamingo completes the list of 384 species that were known to Severtsoff in 1873. Since that date others have been identified.* Not all the species thus mentioned are settled birds, some being migratory, and others birds of passage merely; but the mention of their names will suffice to show that a very large proportion of the Turkistan birds are found in Europe, though Severtsoff indicates upwards of 30 species in Asia, he regards as new.

The traveller who keeps to the post-road, I need hardly say, will not meet with a large variety of birds or wild animals. Turning, however, to useful animals, as we approached the hills, we saw several enclosures surrounded by high mud walls, admirably suited to shelter cattle, in which respect the Aulie-Ata uyezd is the richest in the province, the domestic animals therein being valued at £608,000.†

* For further particulars of the ornithological fauna of Turkistan see Appendix.

† Kostenko gives the following statistics of domestic animals in

The uyezd that comes next in the value of its cattle is Kazalinsk (£595,000), and the third Chimkent (£533,000), into which we entered at the next station after leaving Tersk. Our road now proceeded west for 47 miles along the course of the upper waters of the Aris to the station Yas-Kichu, through a narrow valley that cuts off from the Urtak mountains, the offshoot of the Thian Shan, that forms the Kara-Tau.

The upper course of the Aris terminates at the station of Yas-Kichu, where it emerges from the mountain gorge, and enters the level steppe. The country through which the Aris flows is unusually fertile, and along the course of the river are raised wheat, *jugara*, barley, maize, and a small kind of millet; as also vegetables, and even cotton, though this is the extreme limit of the distribution of cotton in the Syr-daria province. Natural meadows are very numerous in the neighbourhood of this river, the great fertility of the soil arising from the fact that it consists of a black porous mud, well adapted for

Turkistan, which figures I have correctly copied, though in the original the totals are sometimes wrongly added :—

	Semirechia.	Syr-daria.	Zarafshan.	Ferghana.	Amu-daria.	Total.
Camels . . .	97,412	242,130	1,258	38,294	11,267	390,361
Horses . . .	892,807	395,563	51,991	213,760	47,995	1,602,116
Cattle . . .	523,222	293,539*	84,463	220,717	38,070	1,160,000
Sheep . . .	6,295,767	3,182,767	283,000	1,260,138	329,606	11,351,278
			VALUE IN POUNDS.			
Camels . . .	389,648	968,520*	5,032	153,176	45,068	1,561,444
Horses . . .	1,785,614	791,126	103,982	427,520	95,990	3,204,232
Cattle . . .	784,833	440,308	126,694	331,075	57,105	1,740,000
Sheep . . .	1,888,730*	954,830*	84,900	378,041	98,881	3,405,383
Total . . .	4,848,825	3,154,786	320,608	1,281,812	297,044	9,903,075

* Correctly copied, but wrongly calculated.

ploughing and retaining moisture. The highest cultivation, most irrigation, and largest corresponding amount of settled population exist in the vicinity of the Aris, Badam, and certain of their affluents, and grain raised in these districts is exported to the towns of Turkistan and Tashkend.

We passed along the road near the Aris during the night, and so well did we travel, that between drinking tea at Tersk and arriving early next morning at Chimkent, we accomplished 83 miles. Early in the Russian occupation the uyezd of Chimkent had a nomad population of 17,493 tents. This was in 1868, when the city of Turkistan was included in the uyezd, and when the number of occupied houses in the two towns numbered 3,467. Ten years later it amounted to 7,474, showing an increase of 4,009 inhabited houses, or 116 per cent.; a growth exceeded, however, in the Aulie-Ata uyezd, where 363 houses in 1868 increased, during ten years, to 932, or 156 per cent.*

At Aulie-Ata we heard that 72 families of Mennonites had lately settled in the vicinity, and had received a goodly portion of land.

The town of Chimkent has a population of 5,121, and had, so long ago as 1870, land under cultivation amounting to 71,500 acres in 670 gardens. Its name,

* The houses in the district of Khojend and Jizakh increased 63 per cent., but in the Kurama uyezd only 13 per cent. This shows an increase of houses throughout the southern portion of the Syr-daria province amounting to nearly 40 per cent. The 18,196 new houses may be assumed to contain approximately 100,000 souls. In the Zarafshan district the number of houses increased from 44,794 to 52,171, that is, by about 25 per cent. in five years, and Kostenko states that the total of the new colonists in the province of the Syr-daria between 1867 and 1877 may be put down at about 300,000 souls. How many of these are Russians I know not; but in 1870 there were only 6 Russian houses with 40 inhabitants throughout the uyezd.

according to Dr. Schuyler, is derived from the Turki *chim*, turf, and Persian *kent*, town.*

It presents but little that is remarkable, except a lofty citadel, of which I saw nothing as we drove through the town and bazaar in the very early morning. The post-station is provided with a double number of horses, and has an extra importance by reason of its being at the junction of the two roads from Orenburg and Semirechia, the distance from Petersburg by the former being 2,612 miles, and by the route I had travelled 4,720 miles.

We had nothing to detain us at Chimkent, and therefore posted on 10 miles further to Ak-Tash, where we breakfasted. Thus far from Aulie-Ata we had travelled for about 50 miles over metamorphic schists and palæozoic formations. In the valley of the Aris the road passed over granite, syenite, and other igneous rocks, and we had in the mountains, both to right and left, deposits of gold, iron, lead, and silver, as also of mineral oil on our left when leaving Chimkent. We now ascended from an altitude of 1,650 feet over a number of hills, and about noon arrived at the station Bekler-Bek, 700 feet higher, and remembered by me by its old *medresse* or Muhammadan college, turned into the Russian post-house. Beyond this station the road, continuing south, passed a ruined fortification on the frontier of the Kurama uyezd. Into this we passed, gradually descending to the valley of the Keles, near which river is situated the next station, Sharapkhan.

* The terminations *kent* and *kand*, according to this author, are the same; *kent* being used when the vowels of the first part of the word are *i* or *e*, and *kand* when they are *a*, *o*, or *u*, as in Khokand, Yarkand, and, it ought to be, as the natives still call it, Tash*kand*, but Tashkend is now generally accepted.

So well did our horses take us on that we accomplished the next stage of eight miles in three-quarters of an hour, and we drank tea at Djeri, where the post-master evinced his thankfulness for the New Testament I sold him by regaling us with cakes. Two stations further we came to Koplan-Bek, where it became manifest that we were approaching a large town. We no longer had open country on either hand, but the road was confined by the high mud walls of gardens and summer-houses. These gardens are watered by canals.*

And so we approached Tashkend, the head-quarters of the Russian administration. In size and extent, it covers as much ground as Paris. It is one of the largest towns, not only of Turkistan, but of the whole of Central Asia, wherein the number of its population is said to be equalled only by Bokhara, and its extent by Khokand. Tashkend is, moreover, an ancient town, with a beginning lost in the depths of time. It is situated on a high plateau we had commenced to mount twenty miles from Chimkent. On one side Tashkend touches the Russian quarter, but on the remaining sides it is surrounded by gardens, through which we were passing. Like all large Central Asian towns, Tashkend was surrounded by a high castellated

* Thirty miles south of the city one large canal, in appearance like a river, has been diverted from the Chirchik, and passes at a distance of 7 miles north of the town. Another canal, the Bossu, leads from the Chirchik 21 miles from the town, through which its branches flow under different designations. A third canal has been diverted from the same source near Niaz-Beg, 17 miles to the east, and passes in a direct line through the Russian quarter; and having joined the Hadragan canal, it branches off by small channels for the purpose of irrigation. Besides the above-mentioned canals, there flows, a mile-and-a-half south of the city, the small stream of the Salar, a tributary of the Chirchik.

wall, and was pierced by twelve gates, called *darwazas*. The wall took a circular form, and had a circumference of 13 miles, the gates bearing the names of the towns in the direction of which they faced. Now, towards the Russian quarter, the whole of this wall has been taken down and the ground levelled. The gates, too, here have been removed, though they still remain in the other directions.

Through one of these gates we entered about eight o'clock on the evening of the 15th September, not a little pleased at being back once more within the region of comparative civilization, and perceiving Russian cabs and soldiers about the streets, though there was little enough of light proceeding from the street oil lamps to see them very clearly. We made for what had been recommended to us as the best hotel, but where they had no room, so that we had to try the Hotel "Nicolaeff," a sorry place, yet we were glad of a rest, and still more of a bath, after which it was a real comfort once more to get into beds, to which we had been strangers since leaving Vierny.

I have now glanced at Russian Turkistan in general, and more particularly at one of its two northern divisions — namely, the Syr-daria province, within the capital of which we arrived. Before describing it, I think it better briefly to treat of the Amu-daria province, and thus avoid the necessity of coming back to Russian affairs after our boat is launched in Bokhariot and Khivan waters.

CHAPTER XXIX.

THE AMU-DARIA PROVINCE.

The Amu-daria province; its boundaries and dimensions.—The Kyzyl-Kum Steppe: its sands, marshes, and mountains.—De Marny on its geology.—His deductions questioned.—Lake Aral: its dimensions, climate, and shores.—Its islands and lessening circumference.—Meteorology of the province and health of population.—Classification of inhabitants according to races.—The Karakalpaks.—Recent statistics concerning habitations.—Agriculture of settled population.—Improved condition of natives.—Difficulties of the nomads.—Introduction of Russian administration.—Revenue.

THE Amu-adria oblast is bounded on the north and east by its sister oblast of the Syr-daria, on the south by Bokhara, and on the west by the Lower Oxus and part of the Sea of Aral. Oblong in shape, it measures on the 32nd meridian 86 miles by 318 miles on the 43rd parallel. It has an area of 33,363 square miles, or the size of Portugal, of which no less than five-sixths of the whole, or a tract the size of Bavaria, forms the south-west portion of the Kyzyl-Kum desert. The remainder is made up of 1,549 square miles of river-bank country, and 4,456 square miles of islands in the Amu delta. These figures may be regarded as the latest. I have them from a report drawn up by command of the Governor-General, a copy of which was obligingly given me

by the Governor of the province. Kostenko divides its area into 84·35 waste land, 15·12 pastured by nomads, and 0·53, or about one-half per cent. under cultivation.

The Kyzyl-Kum Steppe, that stretches from the Oxus to the Jaxartes, is not a mere barren waste of shifting sands. It consists largely of low hills, from 30 to 60 feet above the general level of the steppe, and covered with *rang*, a species of sedge. The roots of this plant form a network to the depth of five or six inches, and fix the sand. Rang affords excellent fodder for sheep, but the supply is too scanty for larger animals. Another characteristic feature of the Kyzyl-Kum is the extensive growth of shrubs dotted over the sand, whilst nearly the whole of the Amu delta is covered with reeds. The western portion of the Steppe is more covered with sands than the eastern half, where rocky hills abound. South-east of the Aral Sea, and about 50 miles from it, there is a strip of bare clay steppe about 80 miles long and 20 broad, on either side of a supposed ancient water-course, and further south, near another dry river bed, there is a smaller patch about 25 miles broad and 12 long. A salt marsh fringes the desert near the east of the delta, and extends partly into the delta itself, whilst other portions are boggy, or partially cultivated.

Along the centre of the Kyzyl-Kum runs the almost unknown range of the Bukan-Tau. We learn something also of the existence of hills running off from the Amu, midway between the apex of the delta and the Bokhariot frontier. In the summer of 1874 Mr. N. P. Barbot de Marny made a geological exploration across the Amu delta, then up the east bank of the Oxus to the Bokhariot frontier, and thence along the caravan route towards the Bukan mountains, and so on to

Samarkand. From his paper read before the Russian Geographical Society, it appears that in the centre of the delta there is an isolated hill about 300 feet high, called the Kashkana-Tau, with a flat top. Its western slope is steep, forming two terraces, the upper consisting of greyish-yellow sand, containing concretions of gypsum, the lower of greyish-green sandy loam. This latter terminates in cap-shaped hillocks, which are generally ascribed to the action of the waves of an ocean that travellers imagine to have existed here, but De Marny says they are due to atmospheric erosion.*

After continuing his researches to the Bokhariot frontier, he gives as the geological result that the whole of the country to the north of the Amu is covered with limestone, above which rises the Sheikh Jeili, a mountain mass 35 miles in length, and consisting of crystalline rocks, gneiss, and granite.†

* The strata of this hill dip slightly towards the north-east. They contain no fossils, and resemble mineralogically the north-west shore of Lake Aral. Travelling from the apex of the delta up the right bank of the Oxus, clay is met with close to the river; but, on leaving it, sandhills, called *barkhans*, abound, beneath which limestone strata, containing fossils of cretaceous age, are occasionally exposed. Continuing south, the country rises gradually, and isolated hills make their appearance, of which the Besh-Tau contains many fossils, including ammonites. One of the two summits of the *Chalpyk* mountain, from whence can be seen the Sheikh Jeili mountains, is capped by black ferruginous sandstone. In the transverse valleys of the Sheikh Jeili, near the river, gneiss, and occasionally crystalline limestone, are met with; also chlorite, talc, and hornblende schists. The schists frequently contain small crystals of magnesite and pyrites, and are traversed by veins of quartz. Copperas also occurs in small quantities. Eastward from the Sheikh Jeili is the Sultan-Waiss-Tau, consisting of layers of white marble. In the eastern portion of the Sheikh Jeili one of the ranges consists of black gneiss, another of reddish marble, others of chlorite and talc schists. De Marny saw also a large mass of white rocks that turned out to be protogine, containing almandine-garnets and beryls.

† It is the result, he says, of successive upheavals, and existed

From the Amu littoral De Marny proceeded through Shurakhane. Beyond that place the elevation of the country and the sand increase, the sand overlying solid rocks, which form ridges running north and south. Ferruginous calcareous sandstones are occasionally exposed on the surface. The road leads over ridge after ridge to the Kara-Choku mountain, consisting of yellow sand, capped with ferruginous sandstone. At Myn-Bulak is a spring of excellent water, and, as one approaches it from the west, the Bukan-Tau rises in the north.*

From the Bukan-Tau the road proceeds south-east to the Tamdy-Tau, and onward to Samarkand.†

The hydrography of the Amu-daria province is confined to the Sea of Aral and the River Oxus, the only existing stream of importance. There are, however, several dry beds of either rivers or canals, one of which, 30 miles long, runs south of and parallel to

already when the whole of the surrounding country was covered by the ocean in which the chalk was deposited. The lower valley of the Amu and its delta are covered with grey clay, which is most useful, both for purposes of irrigation and for building, as also is the marble and other kinds of building stone, but other minerals did not appear in sufficient quantity to be useful. Report said that gold and silver are to be found in the Sheikh Jeili, and traces of mining operations are to be found, but De Marny doubts if they ever were remunerative.

* The name Bukan-Tau is not applied by the natives to the whole of these mountains. They have special names for various parts of them, such as Tobi-Bergen-Tau, Yirlir-Tau, etc. The main direction of the chain is north and south, and, at the spring of Kuldur, is composed of crystalline limestone, resting upon clay slate, and covered unconformably by strata of conglomerate. The barren summit of the Yirlir rises to the east of Kuldur, and near is the caravan route leading from Bokhara to Kazalinsk.

† The geological features of the journey from the Oxus are—(1) Marine formation along the whole of the route, proving, De Marny thinks, that the Aralo-Caspian at one time extended to the foot of the Thian Shan. (2) Many isolated mountain ranges rising in the Kyzyl-Kum, resembling geologically the Sheikh Jeili. Their strato-

the Sultan-Waiss range. There is indicated, too, upon the best maps, the supposed channel by which the Jaxartes once reached the bed of the Oxus. Lake Aral is supposed to take its name from its many islands, the Kirghese word *aral* meaning an island. It is 260 miles long, and in breadth from 130 to 180 miles, with an area of 1,456 square miles. Its surface level is 48 feet above the ocean, and some 130 feet higher than the Caspian (some say 243), relatively to which it lies about 200 miles to the eastward. So shallow is the water on the eastern coast that the Kirghese, with their cattle, wade to the island of Kut-Djitmes, 8 miles from the shore. In the centre the depth attains to more than 90 feet, and close to the western shore it exceeds 220 feet.

The prevailing winds are from the north-east. They rise suddenly, cause great disturbance of the water, and leave behind a swell, against which it is impossible for a boat to make headway. There usually reigns either a dead calm, or a violent wind that frequently increases to a furious storm. Of natural harbours completely sheltered from the wind there are five

graphical relations are likewise similar, for their strike is generally N.W., varying between W. 15° N. and W. 45° N. It is assumed, therefore, that the mountains in the Steppe form part of the system of upheaval of the Thian Shan. (3) The sandhills are often said to mark the shore of an ancient ocean which at one time covered the steppes. De Marny found, however, that the material of which they consist may be derived from any geological formation, as long as the sand is not sheltered against the action of the wind. (4) The salt swamps met with in the desert do not derive their salt from recent marine deposits, which are not met with at all, but from the efflorescence of cretaceous strata. I ought to add that several of these conclusions of the Russian geologist are questioned, and some of them apparently controverted by Major Herbert Wood, who assisted in the Russian survey of the Sea of Aral, and who visited the Kashkanatao hill in the delta of the Amu in 1876. See *Markham's Geographical Magazine*, January, 1876.

only, though the configuration of the shores of the sea forms numerous bays, peninsulas, and headlands.*

The mouth of the Jaxartes is encumbered with sandbanks, that are continually shifting the bed of the channel. In spring the ice accumulates at the mouth, and overspreads the sandbanks. The water rushing under the ice scoops out the sand from underneath, and forms a new bed, which again silts up in summer and undergoes fresh changes. The north-eastern portion of the sea is partially shut off by the island of Kug-Aral † from the so-called lesser sea (Kichkine-Denghiz), out of which the Gulf of Sari-Chaganak runs deep into the mainland, and is thought to have been once a strait connecting the Aral Sea with the Lake Aksakal-Barda.

The southern part of the Aral is not frozen every year, and immense numbers of birds winter there. In

* The northern shores are usually composed of clayey, salt-impregnated cliffs, rising to a height of from 100 to 300 feet. The line of the western shore follows the edges of the high tableland of Ust-Urt, which is made up of sandy, clayey, and limestone layers, sometimes attaining the height of 500 feet. Throughout the whole of the western coast no suitable anchorage can be found, owing to its precipitous character and the great depth of the water. The low southern shore is composed either of reed-covered alluvial deposits brought down by the Amu-daria, or of waves of sand. The eastern shore is also low.

† The island of Kug-Aral measures 26 miles by 7, and contains a quantity of mica. Another island with an area of 86 square miles is Barsa-Gilmaz, which means, "You may go, but not return," in memory of some natives who once crossed on the ice just before it broke up. A third island is that of Tokmak-Ata, that derives its name from a saint's tomb found there. It has an area of 57 square miles, and, being separated from the mainland by a strait about 2 miles wide, and only 2 feet deep, it is approached by the Khivans either in small boats or by wading. Another island of the Aral Sea, and the most remarkable of them all, is that of the Emperor Nicholas, with an area of 133 square miles. It is almost covered with an extraordinarily thick growth of saxaul and tamarisk. There are numerous *saiga* Antilopes upon it. Hedgehogs also have been found, and the traces seen of Foxes. It also contains Snakes and Land Tortoises.

other places the Aral freezes near the shores, and the ice is sufficiently strong to bear camels. An interesting point connected with the Aral is that its waters are perceptibly drying up, and its circumference diminishing. The natives account for the disappearance of the water that flows into the lake by saying that in the middle there is a terrible whirlpool, and that the waters of the Aral pass into the Caspian by an underground channel. The real cause, M. Maieff points out, is the physical law that, if rivers flow into any water, the body of the latter continues to fill up and extend in area until its surface is such that the quantity of water yearly evaporated equals the quantity brought down by the rivers.*

This drying up, however, is little enough in comparison with the decrease that would take place should the Oxus again from any cause flow into the Caspian. In this case, the Aral, deprived annually of more than a million millions (1,175,000,000,000) of cubic feet of river water, would lose the first year the twentieth part of its contents. In 10 or 12 years Réclus reckons it would have no more than half its present volume, all

* The most patent illustration of the lessening of the waters of the Aral is seen in the site of the Gulf of Aibughir, which still figures on many maps west of the mouths of the Oxus. In 1848, according to Réclus, it measured 3 feet deep. In 1858-9 the Emperor's mission sailed on it in boats. In 1870 it had become a marsh, completely separated from the Aral, and two years later the Russian geographers in the Khivan expedition undeniably established the fact that the salt Gulf of Aibughir had disappeared, and that trees were growing in the former bed. If now it is sometimes covered with water it is no longer as part of the Aral, but from inundations of the Oxus, and with fresh water. This represents a lessening of the basin of the Aral, according to Réclus, of about 2,000 square miles. At the beginning of the present century, the water washed the base of hills that are now more than 40 miles from the edge, and the Kirghese, according to Wood, show a mosque, built originally upon the eastern bank, that now is several miles off.

its flat bottoms—that is to say, the most extended parts of its basin—would be dried up ; in 80 years there would be water in only five cavities, of which the two principal would be found to be one in the centre and the other on the western portions of the present lake, and the divers remains of the Aral Sea would be reduced to the dimensions of other *denghiz* or Steppe lakes.*

The shores of the Aral are desert, and during summer, with the exception of certain parts in the south-west, are quite uninhabited ; but in winter Kirghese nomads are met with along the northern and eastern shores and their off-lying islands. There are yet other points of interest connected with the hydrography of the Amu-daria oblast, such as the description of its great river and the history of the Aral, to which I shall allude hereafter.

Very detailed meteorological observations have been made at two points in the province—namely, at Forts Petro-Alexandrovsk and Nukus.† At the latter place, during the year preceding my visit, the temperature in summer had gone up to 102·74, and had sunk in winter to −10·66. Notwithstanding these extremes, the climate was reported to me to be salubrious, though

* Kostenko, however, thinks that the amount of the reduction of the Aral in modern times cannot be definitely ascertained, though he points out that future investigators will be able to compute to what extent the level may become changed, from the fact that in 1874 MM. Mukhof and Solimani showed that the level of the Aral lay at a height of 243 feet above that of the Caspian.

† The following are the mean annual readings of the thermometer and barometer for 1875-6 :—

	Thermometer.		Barometer.	
	1875.	1876.	1875.	1876.
Petro-Alexandrovsk . .	55·04	53·96	29·638	29·697
Nukus	49·46	51·98	29·756	29·815

Dr. Schuyler seems to imply the contrary. At Petro-Alexandrovsk, at the time of my visit, there were 4,750 soldiers, and the year had commenced with 47 patients in hospital. Up to the 15th of October only three fresh patients had been admitted, and though none had been dismissed as cured, neither, on the other hand, had any died.* I learned from the Governor's wife that children's diseases, such as croup and hooping-cough, as also scarlatina, were unknown, though some of the young die of stomach diseases. Again, the natives of the place are not attacked with the Sart skin disease, though they get small-pox; and in August and September, when particles from the cotton pods are flying about, they contract ophthalmia, causing eversion of the eyelids, that is painful and dangerous.

The population of the Amu-daria oblast (amounting in round numbers to 150,000 souls) consists of Karakalpaks, Uzbegs, Kirghese, Turkomans, Tajiks, liberated Persian slaves, colonists from the Ural, and Russian troops.† The Uzbegs and Tajiks are settled. The Kirghese are nomads. The Karakalpaks derive their name from the black kerchiefs some of them wear.‡

* Their diseases were as follows: Fever, 17; dysentery and diarrhœa, 3; inflammation of eyes, lungs, urinary and genital organs, and intestines, 10; anæmia, 1; heart disease, 1; arterial disease, 1; rheumatism, 1; scurvy, 2; chronic eruptions, 1; wounds, 3; venereal diseases, 6; diseased bones, 1: and there were on trial for military service, 3.

† According to recent calculation they prevail as follows:—

	Dwellings.		Families.
Karakalpaks	14,260	Ural colonists	300
Uzbegs	6,456	Tajiks	80
Kirghese	5,706	Liberated Persian slaves	181
Turkomans (Ata tribe)	998	Russian troops (men)	3,250

‡ They are a branch of the Uzbeg family, forming 2 per cent. of the Turkistan population, and comprising about half of the people in the Amu-daria district. Kostenko gives their number at 58,770, of whom 7,060 live in the province of Ferghana. They are also to be found in

The province is divided for administrative purposes into the two divisions of Shurakhane and Chimbai, and the principal populated points are at Forts Petro-Alexandrovsk and Nukus; Shurakhane, the principal native town; Chimbai, in the delta; and Sheikh-Abas-Ali. From the statistics published in 1880 by Kostenko, it appeared that the 13,286 dwellings of the settlers, and 8,156 tents of the nomads, had 130,000 acres and 3,700,000 acres respectively of land, giving to each house 8½ and to each tent 450 acres.* The more recent data embodied in the report I received show a considerable development of agriculture among the natives, notwithstanding very unfavourable physical conditions, for in the two divisions the cultivated land during three years increased in Chimbai from 75,000 acres to 120,000 acres, and in Shurakhane from 45,430 to 50,840 acres.

the Zarafshan province and the Kurama district. Up to the middle of last century Karakalpaks inhabited the lower course of the Jaxartes, but they were driven thence by the Kalmuks to their present places of abode. The ruin that befel them was so complete, Kostenko says, that they could not recover themselves until they came under Russian influence. In appearance they are somewhat stout, and are distinguished for industry and the peaceful pursuits of agriculture and cattle breeding. On the Lower Amu the Karakalpaks have been joined by 20 different tribes, who till the soil on the communal principle.

* The following table from Kostenko gives the latest statistics of their kind that I have met with, though evidently taken some years ago in the case of the Amu-daria province:—

Oblast.	Houses of the settled population.	Kibitkas of the nomads.	Acres of Land.		Acres.	
			Under the settled population.	Nomad pasture land.	To each house of the settled population.	To each Kibitka of nomad population.
Semirechia	25,891	162,561	1,990,000	51,830,000	77	317
Syr-daria .	94,681	124,325	614,900	50,580,000	6	417
Ferghana .	121,140	24,798	1,716,000	8,580,000	14	460
Zarafshan .	69,683	—	547,900	3,718,000	9	—
Amu-daria	13,286	8,156	127,700	3,718,000	9	454
Total . .	324,681	319,840	5,003,000	118,426,000	—	—

This increase of cultivation, and therefore of the well-being of the population, is traced to the feeling of security inspired among the natives by the Russian administration protecting them from pillage, and distributing among them equality of taxation: "such conditions," says the report, "as always accompany Russian conquests in Central Asia." Another fact contributing to the same end was the good harvest of 1881 in the Amu-daria province, whilst a lack of corn that year in the neighbouring districts sent up its price in the local markets. It was thus anticipated that the settled population was well supplied for a time, should it be visited by no extremely bad year. Indications of such prosperity appeared in the absence of arrears for taxation, the ease with which the full liabilities were cleared off, and the comparative scarcity of coin—the last being caused, it was supposed, by the hoardings of the people.

With regard to the nomads of the southern portion of the province, their condition was reported to be slowly improving. One great disadvantage under which they laboured was that they had to remain inland near wells far from the river, and had not easy and safe access to the pastures along the banks of the Amu-daria; for although the right bank was supposed to be protected by Bokhariot guards, yet in spring and autumn, when the cattle need abundance of water and fodder, the Turkomans cross the river and plunder. Accordingly, the Governor recommended that, with a view to assist the Shurakhane nomads to develop their herds, a strong military post should be stationed at Uch-Uchak on the Bokhariot frontier, where there are large and abundant *tugais*, or spits of land in the basin

of the river, to which the wandering tribes might approach the water for sheep-shearing.

The Amu-daria oblast was annexed by the Russians in 1873, and was at first divided into the Amu-daria and the Kyzyl-Kum districts, the latter comprising the country in the south of the oblast about Myn-Bulak and Tamda. The administration, military and civil, was committed to Colonel (now General) Ivanoff, assisted by an official for special commissions, a director of the offices, a secretary, and a field-officer, the last-named being entrusted with matters relating to military administration. This division of territory and constitution of the staff was found afterwards to require some readjustment to the present divisions of country, and when I was at Petro-Alexandrovsk I found Colonel Ivanoff, whom I had met at Tashkend, replaced by General von Grotenhielm.

Dr. Schuyler intimates that, when the territory was annexed, it was thought that a revenue might be obtained from the province of £20,000 a year; but, according to the report in my hands, the first year's taxation (1874) yielded only £12,385.*

* A two-fold tax was imposed, a kibitka tax and a land tax, 20,948 dwellings being liable to the former kind of taxation, and to the latter 6,736 houses in the Shurakhane division, possessing 45,430 acres of land. Besides this, cultivated land in Shurakhane, the whole of which is in small holdings of less than 50 acres, is taxed on the same scale as land of a similar class throughout Turkistan—namely, 1*s.* 9*d.* per acre. This latter tax yielded for the province about £3,677 a year; but, by reason of readjustments in 1877 (when an Imperial tax was substituted for the land tax), was expected to yield in 1882 about £400 more. The number of kibitkas, too, at this subsequent revision, was found to be increased by 670.

Besides the Imperial taxes just mentioned, local liabilities in money and in kind, for the maintenance of native administration, are met by the Amu-daria population, as in other parts of Turkistan, by a Zemsky tax, or rate of 2*s.* 6*d.* per kibitka, from the nomads, and a proportionate amount from the settlers. The yearly figure for this rate amounts to

Having taken advantage of this latest information afforded me to enter somewhat fully into the economic condition of the Amu-daria oblast, and the more so since no previous English author has described it in detail, and having now treated of all the ground behind me, I proceed to describe what I did and saw in Tashkend.

about £3,462. A further rate is levied in Chimbai of 2*s.* 2*d.*, and in Shurakhane of 2*s.* 4*d.* per dwelling for expense connected with vaccination, native schools, etc., the whole amounting annually to about £3,271, so that the total revenue of the province in 1880 was £20,662. The following items give a good idea of the revenue of the province and whence it comes :—

Kibitka tax, £5,919; Imperial tax (substituted for land tax), £3,676; Zemsky tax, or rate, £3,462; rent of Crown gardens and lands, £65; tolls from ferry boats over the Amu, £1,071; for native schools, £365; vaccination, £90; for cost of native administration, £2,422; from caravans and additional duty on tea, £1,506; for collecting fuel from Crown lands near the river, £10; pasturing cattle on, and collecting dung from, Crown lands; traders' tax, £626; merchants' certificates, £77; excise on beer, £81; excise on spirits, £396; licences to spirit dealers, £104; stamps, £768; sale of paper, 10*s.*; passports, 4*s.*; fines for minor offences, £3; fines imposed by magistrates, £1 6*s.*; tax from Bokhariots for making charcoal on Russian territory, £13; sale of cattle, £1 10*s.*

CHAPTER XXX.

TASHKEND.

Asiatic Tashkend; its four divisions, and their characteristics.—Its buildings and population.—Russian Tashkend; its streets and houses.—Population according to creeds, occupations, and ages.—Visit to the Governor-General.—Arrangements for distribution of Scriptures, and my onward journey.—Visits to synagogues and the military hospital.—Statistics concerning patients.—Diseases prevalent in Tashkend.—Dispensary for the natives.—Asylum for the aged.—The officers' club.

TASHKEND, deriving its name from *tash* stone, and *kand*, town, is a dual city, of which the two parts are so distinct and so unlike that a visitor may sometimes walk a considerable distance without meeting a Russian in one or a native in the other. European Tashkend is but of yesterday—Asiatic Tashkend of more than a thousand summers, the Arabs having conquered it so early as A.D. 738. Asiatic Tashkend is, for administrative purposes, divided into four *yurtas*. Formerly these were under the government of certain officials called *min-bashis*, the *yurtas* being known as Shah-i-Khan-Tur, Sibzor, Kukchi, and Bish-agach.*

* The first comprises the north-east part of the town, where, situated on a level spot, the *yurta* is divided almost in two by a deep ravine, at the bottom of which flows the wide and swift canal of the Ankhor. This Shah-i-Khan-Tur *yurta* consists of 48 *mahalas*, or wards, some

The population of Asiatic Tashkend, for the more part, is grouped according to trades, and the number

of them having been suburban settlements, afterwards incorporated on the enlargement of the town. Some of these settlements were very large, and as all the inhabitants of a *mahala* have to be invited when any family rejoicing is going on, the calculating Sarts have, in certain cases, subdivided them. The population of the Shah-i-Khan *yurta*, according to Kostenko, numbers 10,194 souls, who occupy 3,030 tenements, and have in their midst 3 medresses or colleges, and 60 mosques, with 10 schools attached for 230 pupils. The principal industries of this *yurta* are cast-iron foundries, saddleries, oil-presses and looms, the number of trades in 1870 being reckoned at 567. The local looms for *mata*, or cotton cloth, used for shirts and drawers, were established by Divan Burkh, who was the first to engage in this industry, and from hence they were distributed far and wide. Apart from the land occupied by buildings, this *yurta* has the least surface devoted to gardens, namely, 300 acres, but there are 860 acres under pasturage, and 900 acres devoted to rice cultivation.

The Sibzor *yurta* occupies the north-west corner of the town, and is divided into 38 wards. It has also four settlements, one of which, Ibrahim-Ata, is noted for agriculture, and the raising of *jenushki*, or lucern (*Medicago sativa*). The 2,230 houses in this *yurta* contain a population of 18,650 souls, and on the banks of the principal canal, the Kei-kaus (so named after a former ruler of Tashkend), are centred all the grinding mills of Sibzor. The chief industry of this quarter is confined to the boot trade, Sibzor boots being exported to other Turkistan towns. Weaving and dyeing of cotton goods come next in importance. These two industries have long been practised by the inhabitants, amongst whom the richest class are the wholesale merchants. Three medresses, one of which is the famous Beklar-Bek, containing 260 students, comprise almost the whole of the educated portion of this *yurta*. There are, however, several *makhtabs*, or schools, attached to some of the private houses, and also 10 principal mosques.

The *Kukchi*, or western *yurta*, with its 31 wards, 2,511 houses, and 22,088 souls, is situated on undulating ground cut by deep ravines. Its principal industries are connected with leather, there being in 1871, out of 695 craftsmen, 341 workers in hides, and 218 bootmakers. There are besides 6 brick-kilns, 7 potteries, 22 mills, and 22 oil-presses; also 2 medresses, 34 schools, 51 mosques, and 18 tombs, of which last one is noteworthy, namely, that of Sheikh Zenejin Baba, an exile from Bagdad, who was buried about 400 years ago.

The fourth, or Bish-agach *yurta*, occupying the southern corner of the town, has 32 wards, 1,400 houses, and 12,450 inhabitants, many of whom are proprietors of good gardens and fields. This is one of the

of buildings is about 17,500, the population, according to the census of 1868, being 76,000.*

European or Russian Tashkend is divided from Asiatic Tashkend by the Bossu canal, and, though founded only so recently as 1865, has developed rapidly. The streets are wide and regular, lined with narrow canals and stately poplars. Most of the houses are of one floor, of sun-dried brick, roofed, in some cases, with iron, and painted green or red. Each house has its garden, that attached to the palace of the General-Governor being thrown open to the public on certain days, when a military band performs. There is also a public garden that was laid out by the natives. The canals do good service for watering the streets, thereby rendering the quarter less dusty, and the temperature also is lower than in the native town.

There are several good shops in the Russian quarter, where European articles can be procured at nearly the double of European prices, and, considering the

causes of the limited population, for the landowners, in order to look more closely after their fields, often remove to live near them. Thus the village of Zengata became established about 180 years ago, when the Bish-agach people began to remove there from the town. This village is so called because in it is situated the tomb of the much-respected *Zengi-Ata*, and to it vast crowds of people flock yearly, when the fruit is beginning to ripen, from various towns in Turkistan. The principal industry of Bish-agach is brick-making, with which it would appear they have erected 3 medresses, 16 private schools, and 68 mosques.

* The buildings were as follows:—Private houses occupied, 13,260; empty, or reserved for guests, 322; Serais (containing 519 shops) 23; medresses, 8; baths, 8; mosques, 255; corn mills, 116; other mills, 42; shops in the great bazaar (1) occupied by traders, 2,324; (2) empty, 307; (3) booths, 594; (4) booths empty, 96; and shops occupied by Sarts in the Russian quarter of the town, 69—in all 17,424.

The population was as follows:—Sarts, 74,848; Tatars, 610; Kirghese, 261; Persian, 1; Afghans, 25; Russians, 38; Jews, 213; Hindus, 93; Chinese, 3; the whole consisting of 41,377 males and 34,715 females, in 16,775 families.

distance and difficulty of transit, this is not perhaps exorbitant. Russian Tashkend boasts, too, of an observatory, about a mile out of the town, a Central Asian museum, and public library, all of which I visited. There is likewise a theatre, and last, though in its pretensions by no means least, an officers' club. In 1875 the inhabitants of Russian Tashkend, exclusive of troops, numbered 2,982 males and 1,870 females, their religious beliefs predominating in the following order: Orthodox, Muhammadans, Jews, Romanists, and Lutherans. Of the total of 4,852 persons, classified under about 100 trades, there are 532 women who have fixed occupations; but 1,691 persons exist without a definite calling; and it is worthy of note that the population, classified according to ages, is found to consist, for the most part, of people in full vigour from the ages of 20 to 40.*

My hotel, so called, was situated in the Russian part of Tashkend, where, having arrived on Friday night, my first care next morning was to visit the Governor-

* According to *religious beliefs* the population stands as follows:—Orthodox, 3,473; Muhammadans, 938; Jews, 159; Romanists, 155; Lutherans, 115; Hindus, 4; Evangelists, 4; Armeno-Gregorians, 2; Reformed, 1; and Anglican, 1.

According to *occupations*, as follows:—Ecclesiastics, 10; military and civil-service employés, 1,138; medical officers, 23; traders and hotel and restaurant proprietors, 150; owners of factories, 3; clerks and shop assistants, 151; contractors and undertakers, 4; cab proprietors and drivers, 102; dealers in hides, 2; distillers, 3; vine-dressers, 3; photographers and assistants, 9; compositors and printers, 12; agent, 1; postal employés, 17; tax-gatherers, 2; carters, 14; Mullah and *Azanchi*, or assistant, 2; watchmen, 40; porters (mostly Sarts, Kirghese, and Tatars), 241; cigarette manufacturers and tobacconists, 4; confectioners, 2; sausage makers, 4; beer brewers, 2; hair dressers, 5; billiard markers, 3; housekeepers, 5; apothecaries, 4; tutors and teachers, 10; copyists, 31; soap-boiler, 1; engraver, 1; bookbinders, 2; lucifer-match makers, 2; chimney-sweep, 1; farrier, 1; locksmiths, 3; coopers, 6; blacksmiths, 30; carpenters and cabinet makers, 76; thrashers, 3; planer, 1; water-carrier, 1; harness-makers, 3; store-

General. General Chernaieff, recently appointed to the office, had not yet arrived from Petersburg, but was represented meanwhile by General A. K. Abramoff, Governor of the province of Ferghana. The chief administration of Turkistan being centred in Tashkend, the vice-regal palace, as might be supposed, is the finest house in the town. It is surrounded by gardens, with fountains and pavilions, used for fêtes, agricultural exhibitions, etc., in summer, whilst the large saloon serves in winter for social and philanthropic gatherings, such as meetings of the Red Cross and other societies. General Abramoff, however, at the time of my visit was staying in the Governor-General's summer villa, in the outskirts of the town—a charming residence buried amongst trees, that, in Turkistan, would be considered fine. Thither we drove, and were ushered into the study of the General, who impressed me favourably by his unassuming dignity and apparent thoroughness.

Having presented the letter I received from General Chernaieff at Petersburg, my first care was to arrange for the distribution of such Scriptures as I had for the

sellers, 8; tailors, 55; bootmakers, 37; painters, 11; plasterers, 2; turner, 1; maker of French flooring, 1; wheelwrights and coach builders, 5; market gardeners and florists, 16; bakers, 37; embroiderers in gold and silver, 3; watchmakers, 3; fishermen, 5; music-sellers (principally Jews), 11; hawkers of bread and cakes, 6; bath proprietors, 5; armourers, 3; bricklayers, 18; hatters and hosiers, 2; upholsterer, 1; butchers, 3; goldsmiths, 4; tiler, 1; sawyers, 3; translators, 5; glazier, 1; keepers of licensed houses (all Mussulmans, the women included), 18; prostitutes, 66 (including those married and living in the licensed houses, with husbands, brothers, fathers, children, etc.); servants (including officers' orderlies), 314; coachmen, 32; female cooks, 111; male cooks, 41; grooms, 16; nurses, 71; parlour-maids, 25; dressmakers, 31, and laundresses, 61.

According to *ages* as follows:—Less than 10 years of age, 880; from 10 to 15, 230; from 15 to 20, 461; from 20 to 30, 1,588; from 30 to 40, 1,156; from 40 to 50, 396; from 50 to 60, 100; from 60 to 70, 24; and more than 70, 17.

prisons, hospitals, and public institutions throughout Turkistan. I inquired how many would be needed for Ferghana, and was at once struck with the minute acquaintance his Excellency appeared to possess concerning his own province. "In the prison at Khokand," said he, "there are 6 rooms; in Marghellan, 16; in Namangan, 8; Andijan, 4, and Osh, 3; whilst the rooms in the hospitals are, Marghellan, 20; Khokand, 10; Andijan, 6; Namangan, 5; and Osh, 5; or you may send 100 in all, in about equal proportions of Russian and Tatar." These his Excellency undertook to distribute as I wished, so that there should be at all times some portion of Holy Scripture within reach of every prisoner and patient in Ferghana, and he kindly undertook also to see the same arrangement carried out for the Syr-daria province.* By a fortunate coincidence it happened that General Ivanoff, Governor of the Zarafshan district, was staying at Tashkend, and paying a visit to the Governor-General at the same moment as myself. He therefore heard my request to General Abramoff, and gladly accepted a similar offer of books for his own province. There were 15 rooms in the prisons, and 25 in the hospitals, he said, of Samarkand, 4 in the prisons and 6 in the hospitals of Katte-Kurgan, and 2 each in the prison and hospital of Penjakend. "About 40 books," he added, "might be sent in Russian, 5 in Tatar, 10 in Persian, and 2 or 3 in Hebrew." Thus at a stroke I had arranged for all the prisons and hospitals of Turkistan, except the mere handful that would be required for the province of the Amu-daria.

* I subsequently learned that in the Syr-daria oblast the prisons and hospitals were situated at Aulie-ata, Chimkent, Tashkend, Khojend, Ura-Tiube, Jizakh, Turkistan, Perovsk, and Kazalinsk; and that I might reckon on an average four rooms to each, except Tashkend, and that had fifty.

My next business was to inquire respecting my journey onwards. I wished to go to Khokand, Samarkand, and Bokhara, from whence, I asked, could I go by Charjui to Merv, or could I float down the Oxus to Petro-Alexandrovsk, and thence to Khiva, and across the desert to the Caspian? The General seemed to think that I ought to see more of Ferghana than the town of Khokand, against which, however, I pleaded lack of time, but he said that they could not protect me from Charjui to Merv, and that it would be impossible or far too dangerous a thing for me to attempt to travel there from the eastern side, whatever might be the possibilities of getting there from the west. As for passing through Bokhara, and floating down the Oxus, this he thought might be done, though with difficulty, perhaps, as to the tarantass; and with regard to crossing the Aralo-Caspian desert they could best advise me as to the safety or otherwise of attempting that when I reached Petro-Alexandrovsk. There lived General Grotenhielm, to whom a letter should be given me, as also to the Emir of Bokhara, and the authorities at Khokand. Nothing, therefore, could have been more satisfactory; and all this kindness was capped by General Ivanoff, who invited me, during my sojourn in Samarkand, to stay in his palace.

A third officer in the room was Colonel Mailievsky, the Vice-Governor of the town of Tashkend, with whom I made arrangements to be taken on the morrow to the local prison and hospitals, and then drove back to the hotel, with a mind considerably relieved. Not only had I now virtually accomplished the major part of my desire respecting the distribution of the Scriptures, but I began to see the feasibility of entering Khokand and

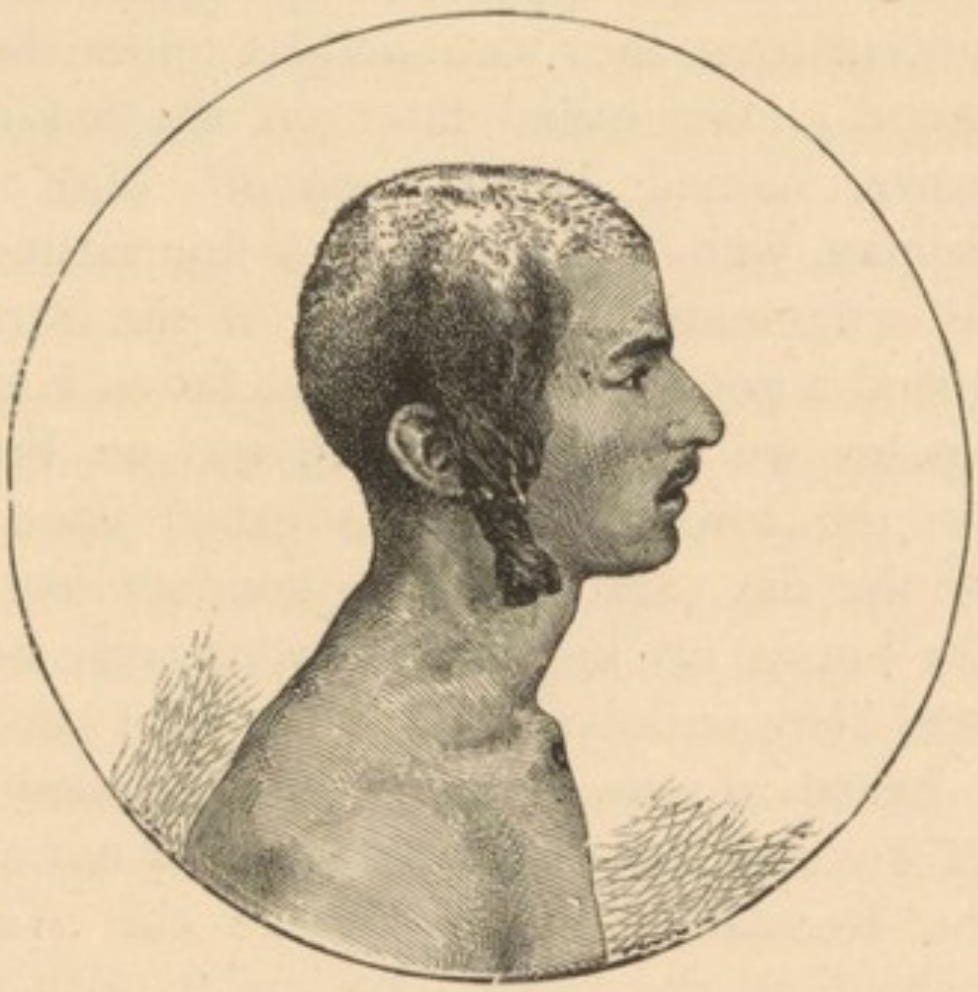
Bokhara, upon which no Englishman living had set eyes, and on the realization of which by myself my friends had been so sceptical. I had feared, too, from various reports on my way, that I might have to return by the less interesting Orenburg route, where the postal service had broken down; or still worse, I might be obliged to retrace the way that I came.

As it was Saturday, I thought that I could not do better than spend the afternoon in a visit to the Central Asian Jews. I had been favoured by Sir Whittaker Ellis, Bart. (who, at the time of my leaving London, was Lord Mayor, and Chairman of the Committee for raising funds on behalf of the persecuted Russian Jews), with a letter, stating that I was travelling with a philanthropic object in connection with hospitals and prisons, and commending me to the courtesy and attention of any who might be able to assist me. This had been translated for me very kindly by Dr. Herman Adler, the delegate chief rabbi in London, into rabbinic Hebrew, and, in addition, I had had the document translated into Russian, Persian, Arabic, and Turki. When, therefore, we were taken to the synagogue in the Russian quarter, I presented this letter as an introduction, and asked whether they had any ancient manuscripts; but so far were they from having things antique that everything appeared almost new. I had rarely before entered a synagogue so clean and bright. The walls had been newly whitewashed and ornamented with native painting; and though there was no service going on, there were several men and boys reading. They manifested the utmost interest in my letter, but had nothing of great ecclesiastical interest to show, whereupon I discovered that we had been brought to the new synagogue of

the European Russian Jews, most of whom had come to Turkistan as soldiers, and, on their discharge, had preferred to settle in Tashkend rather than go back to Russia.

We drove, therefore, to the native town to seek the meeting-place of the Asiatic Jews, and after going as far as the *izvostchik*, or cabman, could take us by reason of the narrowness and miserable paving of the streets, we took to our feet, and passing through narrow lanes and alleys, came into a small yard, on one side of which was a miserable shed with a lean-to roof of poles, wretchedly covered, whilst under and all around sat a crowd of people assembled for prayer and reading. On the Friday evening the Jews assemble in the synagogue, which is compared to a bridegroom, to welcome the coming in of the Sabbath, that is beautifully personified in one of their prayers as a bride, whilst on Saturday evening they gather to bid the Sabbath farewell. Whether, on the present occasion, it was this stated Sabbath evening service, or something of a less formal character, I am not sure; but so surprised did they appear at our sudden visit, and, above all, so curious to get a peep at my letter, that, the service being speedily concluded, all crowded around. From hence we were led to an adjacent part of the bazaar to another assembly, where, within still narrower limits, under a straw roof, a number of grave and reverend elders were sitting on the ground and praying, or reading and intoning. This struck me as a remarkable sight, by reason of the magnificent faces of some of the old men. With their huge turbans, of spotless white, and Oriental flowing robes, they reminded me of the typical Israelites, depicted by Holman Hunt in his picture of finding Christ in the Temple, and

other works.* The miserable accommodation of the Tashkend Jews, even for Divine worship, brought vividly to one's mind to how low a condition this people are sunk in some parts of their dispersion. They read my letter, and received my visit evidently with pleasure, and both showed me their copy of the law, ornamented with silver and precious stones, and also



A JEW OF CENTRAL ASIA.

permitted me to look into the cupboard containing their books. These last did not appear very plentiful, and as I had brought some Hebrew Old Testaments with me, I offered to sell them at reasonable prices

* The Jews of Central Asia, like the Sarts, shave their heads, except that they leave a lock falling in a curl from each temple. This patch of hair is left uncut, in obedience to Lev. xix. 27, xxi. 5—"Neither shalt thou mar the corners of thy beard," which, by transference from the beard to the hair, is fairly intelligible; though it is not so patent how they evade the other command—"They shall not make baldness upon their head," for this appears to be the very thing these Jews do.

if they would come to the hotel. Their *Torah*, or manuscript of the law, had been written and mounted in Bokhara, but was not remarkable. Their having no synagogue, together with the poverty and ill-furnished condition of their hired place of prayer, was explained to a large extent by the fact that almost all the Jews in Tashkend are traders and sojourners only, as also by the oppression to which, before the Russian occupation, they were subject under the Khans of Khokand. We called later on the leading Jew of the town, named Abdurrhamanoff, said to be a very rich man, who was living in a fine native house, built and ornamented in the style of the Sarts. He had travelled a good deal, but not so far as England.

On Sunday we found that there was no Protestant service in the town, and I was called upon in the course of the day, and asked to conduct one for the Germans; but as my linguistic powers were not equal to this, and they understood no English, I was powerless. I heard of one countrywoman settled in the town, but was not so fortunate as to find her at home. After the Russian morning service the *Nachalnik gorod*, or head of the town, took me to visit first the prison, which I shall describe hereafter, and then to the military hospital, where we were received by Colonel Serpitzky and Dr. Proskouriakoff. In both places I distributed something for the inmates to read, and found my pamphlets readily accepted. Whilst driving through the principal open place, we stopped for a few minutes at the grave of General von Kaufmann, who is buried in the middle of the town. A few wreaths remained on the mound, but no permanent monument was as yet erected.

The hospital is in the suburbs, near the Salar Canal,

on ground 850 yards long by 550 at its widest part. The high road passes through it, and on the west are the houses of some of the staff. The ground east of the road is allotted about equally between the winter and summer buildings, and is thickly planted with poplars. The institution ranks as a Russian hospital of the second class, for 15 officers, 380 soldiers, and 20 women, with 300 beds in readiness and 100 in reserve.* The houses in the winter quarters are all of burnt brick, with iron roofs, each having a bath and a retiring place. One house has a surgical room, and the amount of air in the six is a total of 3,877 cubic feet.†

On the 17th September, the day of my visit, there were in the hospital 14 officers, 260 soldiers, and 31 women,‡ 305 in all, out of which number 35 were prisoners. On the corresponding day of the previous year there were in hospital 358 patients. The most common diseases in Tashkend are fever and diarrhœa. This is explained by the climate, which favours the development of fevers and their results—catarrhal in-

* The winter quarters comprise wards for (1) venereal diseases, (2) diarrhœa, (3) skin diseases, (4) fevers, (5) prisoners, (6) officers and female patients. The summer quarters consist of 16 barracks, each for 20 patients, and tents of three sizes for 14, 4, and 2 patients respectively.

† The hospital has a church, a dispensary, dead-house, lodgings for the staff and for two sisters of charity, two kitchens, a bakehouse, office, bath, and cellars; besides store-rooms and an anatomical theatre, with mortuary chapel. The hospital staff consists of a head doctor, with 6 clinical assistants. The administration is in the hands of an overseer, a commissaire, and a book-keeper, whilst to look after the patients there are 105 soldier servants.

‡ Their ailments were as follows: Fevers, 16; typhus, 20; diarrhœa, 106; ophthalmia, 9; diseases of the chest, 20, and kidneys, 4; syphilis, 15; venereal diseases, 25; bruises, wounds, and fractures, 15; abscesses and skin diseases, 10; rheumatism, 29; scurvy, 3; nervous diseases, 10; insanity, 10; undecided, 8; women's diseases, 5.

flammation of the intestinal canal. Next may be mentioned a peculiar skin disease, called by the natives Pascha-charda (*Lupus*), besides some other skin diseases, the nature of which had not been fully determined; and thirdly ophthalmia, induced by the glare of the sun and the dust. Tertian ague also prevails. Notwithstanding the unfavourable climatic conditions, however, the result of the treatment has been considered satisfactory, the death-rate for the previous four years having been 5, 7, 7¾, and 4¼ per cent. respectively.* The daily cost of a patient with food, medicine, lighting, heating, and repairs of buildings, etc., is about a shilling a day. In the summer the patients who need mountain air are transferred to a temporary sanatorium in Chimgan, 60 miles from Tashkend. I learned that autumn is the season when they have most patients, on the arrival of the young recruits from Russia, and when fruit is plentiful and cheap. The hospital is chiefly tenanted by Russians, the natives not having yet sufficiently overcome the dread of their conquerors to come in numbers.†

Colonel Serpitzky took us from the hospital to an asylum close by for old men and women, so spotlessly

* Thus:—

Year.	Number of Patients.	Deaths.	Percentage of deaths.
1879 . . .	2,292	114	5
1880 . . .	2,452	188	7
1881 . . .	2,913	232	7·7
1882 (to 12th Sept.)	1,988	85	4·3

† The Russian authorities established a dispensary for the natives in 1874. It was built at the expense of the Asiatic portion of the town, whose inhabitants are therefore supplied with medicine without cost. Russian inhabitants may receive medicine on payment. The natives at first, as I was told, avoided the dispensary, but by degrees began to

clean and nice that I was constrained to write "*almost too good.*" The asylum had been built largely through the means, I believe, of the Colonel, and is supported by voluntary contributions; but, though they could accommodate 30 inmates, their income allowed of only 7 being admitted. I tasted the soup, and found it so good as to lead me to exclaim, "Would that I could have obtained the like on the road hither!" This falling short of an original conception, as apparent in the asylum, is, I am beginning to think, a failing in the Russian character, of which we were reminded a second time on the same day, when Colonel Serpitzky kindly introduced us to the officers' club, where we could comfortably dine during our stay. "Go to," the committee had said, money in hand, "let us build a club that shall be worthy of so important a place as Tashkend!" and thereupon they had designed a building more pretentious by far than any provincial military club I have seen in England, with lofty rooms for billiards, balls, and dinners, with a piano that cost the trifle of £200, and other things in proportion; till this sage committee found their money spent, their club incomplete, and themselves exposed to the taunt that they had begun to build, but were not

understand the benefit to be derived therefrom. In 1879 a free dispensary was opened in the Russian town of Tashkend.

The following shows the working of the Tashkend dispensary:—

Year.	Number of Recipients.	Cash received for Drugs.	Value of Drugs given gratis.	Ready-money sale of Medicines.	Yearly Total.
		£	£	£	£
1874 .	4,511	197	44	79	320
1875 .	8,350	375	103	193	672
1876 .	10,187	469	127	244	841
1877 .	14,451	655	192	268	1,116
Total .	37,499	1,696	466	784	2,959

able to finish. Three times a week in the summer there is music in the garden, and in winter there are dancing parties. They provided us an excellent dinner—the best we had eaten for many days—and we then returned to our grand hotel, to find that during our absence the Governor-General had honoured us with a call. Later in the evening two German gentlemen paid us a visit, one of whom said that he had come from Khiva in a tarantass, but under exceptional circumstances, and we heard from another quarter that the road was exceedingly difficult. But before we could think of starting south, I had many persons to visit, places to see, and arrangements to make, to the doing of which we addressed ourselves on the Monday morning.

CHAPTER XXXI.

TASHKEND (*Continued*).

Bible work at Tashkend.—Visit to M. Oshanin at the Museum.—Antiquities and curiosities.—Assistance from Colonel Maieff.—Visit to Asiatic Tashkend.—Purchase of Sart curiosities.—Household commodities.—Imports and exports of Tashkend.—Spring and autumn fairs.—Russian trade in Central Asia.—Excess of imports into Russia.—Influence of English competition.—Visit to seminary for training teachers.—Tashkend schools.—Visit to observatory.—Climate of Tashkend.—Visit to Colonel Serpitzky at the camp.—Distribution of religious literature.—The public library, and its Turkistan bibliography.—Dining with the Governor-General.—Arrangements for departure.—My carriages and Kamensky.

I TOOK an early opportunity at Tashkend of looking into the prospects there of the British and Foreign Bible Society. For a long time the eyes of the Committee in Petersburg had been turned in the direction of Central Asia before a suitable agent presented himself by whom they could commence operations. At length it came to pass that a body of German sectaries, called Mennonites, to avoid military service in Russia, determined to proceed to one of the independent khanates in Central Asia. Among them was a man who had previously acted as a colporteur, and he proposed that he should take with him copies of the Scriptures, and endeavour to open a depôt. The Governor-General had given permission that the depôt might be opened, and I went on the Monday

to see the house that had been hired. It was well situated in one of the best business streets of the town, and in the care of Mr. John Bartsch and his brother, but not yet properly fitted. A few books had been sent by the post, by the route I travelled, at great cost and much damage to the volumes; but a large caravan consignment was expected by way of Orenburg, which not having arrived, my hopes of replenishing my stock of Asiatic Scriptures were doomed to disappointment. This was the more unfortunate, because I could not send so many copies as I wished in Asiatic languages for the hospitals and prisons, though I left directions at the depôt that they should be supplied; nor could I increase my scanty store for distribution amongst the Muhammadans. I was able to get 150 additional Russian Scriptures, for which I left 27 copies of Hebrew, Sclavonic, and German to render more complete the stock of the depôt, and then I made up at the hotel three parcels of Scriptures and other publications for the prisons and hospitals.* From the acting Governor-General I received a very appreciative note, written thus: "With special acknowledgment I accept the books you have sent, and will order them to be distributed and made use of according to your wish. The report concerning their distribution I shall have the honour of sending you to London. Allow me to thank you with my whole heart for your truly Christian work on behalf of the moral enlightenment of the poor and unfortunate in our district."

* They were sent as follows:—To General Abramoff, for Ferghana, 51 Scriptures and 160 tracts; to General Ivanoff, for the Zarafshan district, 47 Scriptures and 120 tracts; and to Colonel Maïlefsky, for the Syr-daria province, 67 Scriptures and 400 tracts; together with, in each case, 6 copies of the illustrated *Russian Workman*, and 3 of the "Prodigal Son."

We took an early opportunity to call, at the school of silkworm culture, on M. Oshanin, to whom I had more than one introduction, and whose name I had frequently heard mentioned on my way in connection with scientific pursuits. He gave us a hearty welcome, and afforded me much information. He had been a pupil of Professor Bogdanoff, of Moscow, and entomology was his strong point; his speciality being the study of what are vulgarly called "bugs," but in scientific parlance *hemiptera*, or one of that order of insects that feed on animal or vegetable juices by means of a sucking-tube. Of these he had a very fine collection, exceedingly well arranged, and such was his love of the study, that he had learned English chiefly for the sake of mastering the treasures of its entomological literature. He was able to give me sundry hints as to where I might find information respecting the natural history of Turkistan, and it was from his lips, curiously enough, at Tashkend, that I first heard of a well-known naturalist, Mr. Robert MacLachlan, F.R.S., living in the next parish to my own in England. M. Oshanin secured for me a valuable book I have not yet seen in England on the fauna and flora of the Kyzyl-Kum desert and the Khivan oasis. He had to tell also of an interesting expedition he had made four years previously beyond the Russian border in Karategin.

M. Oshanin is curator of the Tashkend museum, through which we walked and noticed a number of interesting ethnographical specimens, as well as a few antiquities. There was, for instance, a good collection of enamelled tiles and bricks from Kuldja and Samarkand, and a vase with a pedestal found in the mountains near Aulie-Ata, so near the ancient episcopal Almati, that it was thought it might be a baptismal font. There was

also a bronze bell, found in the neighbourhood of Tashkend, 6 inches high, with a diameter of 4 inches at the base, with metal ¼ of an inch thick, but the clapper is wanting. We saw also ancient coins, and some Greek fire bombs of earthenware, with grooves on the convex side.* To the foregoing may be added sundry Buddhist idols, in metal, and one in trachyte. There were, likewise, certain botanical specimens, as the sponge plant, having a fruit resembling sponge inside, that is used by the natives; and *chigi*, a textile plant cultivated at Kuldja. M. Oshanin not only showed us all that he thought might be interesting, but kindly gave me a small collection of Turkistan seeds, chiefly cereals, and two live tortoises, which it was supposed I might be able to get safely to England.

There was another gentleman to whom I had an introduction, and whose acquaintance I was thankful to make, who has done so much, both by his travels and his pen, to make the country known. I mean Colonel Nicolai Alexandrovitch Maieff, the well-known editor of the *Turkistan Gazette*. I could have had no better authority than he for information and statistics concerning Central Asia, and I was gratified by his telling me that the Governor-General, who seemed to expect that I should make a longer stay than I did, had asked Colonel Maieff to be of use to me, which he was abundantly ready to be, both in making excursions, and in providing me with a number of Russian books not easily accessible, and in some cases not existing, in England. He also gave me several photographs, and put me in the way of getting others, many of them by amateurs, which have helped to adorn my writings.

* Illustrations of some of these may be seen in M. Ujfalvy's "Expedition Scientifique," Vol. ii.

I had introductions to nearly a score of persons in Tashkend, and so need hardly say that our time was fully occupied. Early on Tuesday morning Colonel Poukoloff came to invite us to dine on the day following at the palace of the Governor-General, and he then conducted us to the Asiatic part of the town. We took a droshky for this purpose, our conductor remarking that he could not take his own carriage into the native town by reason of the roughness of the roads,

SARTS IN THE BAZAAR.

and their consequent damage to any but the strongest of carriage-springs. Before us rode a djiguitt and two *aksakals*, or native elders, with a rich Sart, said to be a friend of the Colonel's, as interpreter, and these signs of importance going before, and our conductor being known as the head of the town, we had a good opportunity of witnessing the respect that is paid by Orientals to one high in office. When the crowds caught sight of us they not only respectfully made way and stood on either side of the street, but those who were

sitting arose, and such as knew the Colonel personally stroked their beards. Men on horseback dismounted, stood, and bowed, and laughing children running about suddenly pulled up at the roadside in perfect order until we had passed. It was, in fact, just as if I had suddenly sprung back to a stage of civilization portrayed in the Book of Job.*

The only building we saw in Old Tashkend that I deemed worth making a single note about was the Medresse Beklar Bek, built of brick, now having only about 50 students, but from the top of which we gained a view of the uninteresting Asiatic town. The low, flat housetops of earth, the want of regular lines of streets, and the absence of colour about the houses, made the city one of the most dismal I had ever looked down upon. Few of the buildings had an upper story, the dull monotony of the plain of roofs being relieved only by bald mosques and minarets, or, sometimes better, by trees. We continued our way through very narrow, ugly streets to the old bazaar, composed of rows of dirty-looking shops, there being frequently stretched overhead a loose roofing of dried branches, that had doubtless a few weeks back done service in keeping off the rays of the summer sun.

The new native bazaar in Russian Tashkend is cleaner, and better stocked, and therein we had procured abundance of excellent fruit; but we were now in search of antiques and native curiosities. We saw displayed Bokhariot and Kashgar carpets or rugs, the former about £4 each, the latter half that price. A very handsome Sart tent, lined with native silk through-

* Job xxix. 7, 8: "When I went out to the gate through the city, when I prepared my seat in the street! The young men saw me, and hid themselves: and the aged arose, and stood up. The princes refrained talking, and laid their hand on their mouth."

out, that would have looked exceedingly well on an English lawn, was offered us for £12. It was, of course, too bulky for me to carry, or at least I thought so, and I had to confine myself to the purchase of smaller things. Prominent among these was a *chambar*, or pair of chocolate leather pantaloons, gorgeously embroidered in all the colours of the rainbow. At the bottom they are big enough for a lady's waist, and none but a Falstaff could ever hope to fill them at the top, so that when first offered to me, who am of proportions "Slender," I laughed outright. I was bidden, however, not to despise them, for that when I came to horseback travelling I might find them both warm and at the same time useful, when tied at the bottoms, for stowing away one's linen or other goods as in veritable "bags." I was glad to get some native pockets* and purses, together with the leather suspender to which they are tied, and hung from the girdle, something after the fashion of a lady's chatelaine, and of which they are so much a part that the whole girdle and things suspended therefrom are called by one name, *kalta*.† We purchased pocket handkerchiefs and skeins of native silk, the latter very glossy, and dyed and sold largely by the Jews, who from the numbers we saw in the bazaar, and their begrimed appearance, gave one the idea that they engage a good deal in handicrafts, especially dyeing. There were on sale, too, *tibeteikas*, or skull caps, constantly worn by the Muhammadans, even in-doors. Some of these caps from Shahr-i-sebz in Bokhara show great taste and skill in needlework.

* One of these, now in the British Museum, is of black glazed leather, stitched with green and white thread; with two pockets, and flap fastening, the thongs being of rough white leather.

† Similarly we read, "Provide neither gold, nor silver, nor brass, in your purses"; εἰς τὰς ζώνας, literally, in your *girdles* (Matt. x. 9).

A specimen Central Asian padlock I secured is of iron, with a cylindrical body, the key being formed of a tube with a female screw, which, fitting on a screw in the lock, on being turned, withdraws the bolt from the hasp. Fairly good Russian knives were plentiful, but the native scissors, with blades angular in section, were so clumsily made as to be worth buying for a curiosity. Embroidered slippers, such as I had seen in the Caucasus, were offered for sale, but were not so

A SART IN TIBETEIKA AND KHALAT

remarkable as some thin muslin handkerchiefs or shawls, embroidered in flossy silk, with the peculiarity that the work is alike on both sides. This constantly attracts the attention and puzzles the skill of my lady friends, who say they could not do the like. It reminds one of Sisera's "prey of divers colours of needlework *on both sides*, meet for the necks of them that take the spoil" (Judges v. 30). A typical object I bought for the British Museum was a Central Asian *chilim*, or

water-pipe. The body is formed of a gourd mounted in engraved brass, filled in with red and black, and set with imitation turquoises. The stems are of reed, engraved and blackened, and the bowl of pale red ware painted in cream colour on a brown or red ground, with green borders, brilliantly glazed. But the purchases in Tashkend I treasure most are an embroidered cushion cover of soft leather, and a very handsomely embroidered table-cloth, in which the colours are boldly but beautifully blended, never failing to call forth the admiration of those who see them.

Thus far I have spoken of curiosities and fancy articles. Domestic expenses in Tashkend may be judged from the following mention of prices. House rent is dearer than at Petersburg, and as costly, I should think (judging from one house and grounds quoted to me at £80 per annum), as in provincial towns in England. Domestic servants on board wages receive from 12*s.* to 18*s.* per month, a nurse 16*s.*, and laundress from 16*s.* to 20*s.* Russian men-servants expect 30*s.* a month and upwards, but natives from 16*s.* to 18*s.* White bread costs 1¼*d.* a lb. ; cooking butter 8*d.*, and fresh butter 3*s.* a lb. ; a sucking-pig from 2*s.* to 4*s.* ; the best beef and veal, 1¾*d.* a lb. ; a turkey from 12*s.* to 14*s.* ; a chicken 8*d.* to 1*s.* ; and pheasants 10*d.* each.

With regard to the import and export trade of Tashkend, some faint idea may be formed of its extent from the fact that in 1876 goods arrived at the town from Russia, Bokhara, Semipolatinsk, and various parts of Turkistan and Semirechia, on 23,669 camels, 804 carts, and 1,355 horses. Over against this there were sent away goods on 2,323 camels, about half of which went to Russia, and a fourth each to Khokand and Asiatic Tashkend.

There is a spring and an autumn fair at the capital.*

Leaving now the trade of Tashkend in particular, and passing to the trade of Russian Central Asia in general, I may observe that the first authority upon this subject is M. Petrovsky, whom I met in Petersburg, and who in 1873 published a report on the trade statistics of Turkistan, since which date I am not aware that anything so complete has been issued.†

M. Petrovsky, in his table of exports leaving Turkistan at four points of exit—namely, Tashkend, Aulie-Ata, Kazala, and Khojend in 1872, enumerates about fourscore articles of merchandise, of the total value of £648,392,‡ whilst in his corresponding table

* The administration of the fair in 1879 cost £1,103 for office rent and salaries of secretaries, treasurer, storekeeper, etc., besides £60 for keeping clean and watering the bazaar square and streets, and £80 for supplying the bazaar square with water. This fair was established by the Russians. Dr. Schuyler, who was in Tashkend in 1873, judged it anything but a success. Whether it is likely to become so I know not, but it would appear that in 1877 the value of the goods, cattle, fruit, and corn imported there amounted to £100,323.

† This report, I have no doubt, was in the hands of Dr. Schuyler, and probably helped him in his treatment of the subject, which is so masterly and full that I shall deem it sufficient to give the outlines of Turkistan imports and exports from M. Petrovsky, adding thereto such information as I have received of a more recent date.

‡ They are as follows:—

	£		£
Cottons	157,393	Native Silk Stuffs	985
Tick	22,040	Carpets	1,208
Mitkal and Biaz	13,595	Half-silk Stuffs (Native manufacture)	6,110
Cambrics	730	Plush	608
Sarpinka	1,715	Russian Shawls and Kerchiefs	3,203
Nankin	44	Native Shawls and Kerchiefs	996
Reps	627	Wearing Apparel, Horsecloths and Covers	2,834
Lasting	198	Khalats and other Native Clothing	19,284
Picqué (Quilting)	124	Hosiery	4,855
Native Cotton Stuffs	54,255	Harness	1,304
Russian Cotton Yarn	13,055	Raw Cotton	86,770
Native Cotton Yarn	2,006	Raw Silk	76,246
Linen and Flax Cloth	185	Sarnac Silk	817
Cloth Tricot and Half-cloth	8,467	Wool and Camel's Hair	1,384
Woollen and Half-woollen Stuffs	1,026	Goat's Hair	39
Camel's Hair-cloth	106	Goat's Wool	544
Woollen Fabrics (Felts, Ropes, and Sacks)	4,676		
Russian Silk Stuffs	586		

of imports entering Turkistan at Tashkend, Kurama, Kazala, Khojend, Perovsk, and Samarkand, he enumerates a few more items,* with a total value of £1,397,982, showing an excess of imports into Turkistan of £749,589. This was the condition of things in 1872, since which time commercial prospects, from a Russian point of view, do not appear to have improved, but rather grown worse—if, that is, the

	£		£
Horsehair	1,011	Steel	807
Pelts	17,225	Cast Iron ware	4,213
Black Tea	22,148	Leather goods	25,800
Green Tea	13,437	Scythes and Sickles (?)	135
Brick Tea	666	Russian Soap	64
Sugar	6,966	Native Soap	34
Sand Sugar	1,674	Tallow	1,612
Candies	2,655	Stearine Candles	112
Russian Honey	435	Tallow Candles	27
Native Honey	76	Oil	244
Fruit, fresh and dried	15,416	Clover Seed	44
Stationery	1,088	Various Seed	42
Wine and Brandy	2,491	Poppy Husks	125
Spices and Narcotics	914	Rice	2,419
Drugs and Medicaments	2,987	Bread Stuffs, etc.	517
Dyes	8,878	Various Utensils	438
Native Tobacco	492	Writing Paper	287
Manufactured Tobacco	397	Wood-work	3,429
Cigars and Cigarettes	21	Printed Books and MSS.	70
Tin (pewter?)	74	Glass	126
Mercury	32	Haberdashery, Trinkets, etc.	2,705
Copper	3,000	Various	1,707
Chinese Copper	594	Small articles	3,077
Copper in manufacture	811	Silver (Khokands and Yambs)	385
Iron	5,126	Cattle	1,489
Sheet Iron	335	Total	£648,392
Iron in manufacture	1,678		

* They are as follows :—

	£		£
Cotton Fabrics	293,674	Native Silk Fabrics	7,088
Tick	89,087	Carpets	8,666
Mitkal and Biaz	44,345	Native Half-Silk Fabrics	22,023
Cambrics	12,364	Plush	1,565
Sarpinka	5,339	Russian Shawls and Kerchiefs	14,501
Nankins	186	Native Shawls and Kerchiefs	596
Reps	847	Tents	88
Lasting	1,013	Quilts, Horsecloths, and Covers	2,518
Quilting	114	Khalats and Native made-up Clothing	15,397
Native Cotton Fabrics	97,647	Hosiery	2,401
Russian Cotton Yarn	24,690	Harness	1,543
Native Cotton Yarn	4,003	Raw Cotton	78,508
Linen and Linen Cloth	582	Raw Silk	81,685
Cloth, Tricot, and Half-cloths	19,118	Sarnac Silk	5,965
Woollen and Half-woollen Stuffs	19,455	Sheep's Wool and Camel's Hair	582
Camel's Hair Cloth (Armiachina)	144	Goat's Wool	77
Woollen Fabrics (Felts, Rope, and Sacks)	7,728	Horsehair	880
Russian Silk Fabrics	1,674	Pelts	15,769

*St. Petersburg Gazette** is right, when it sees much to deplore in the present condition of the Russo-Asiatic trade. All the expectations of a large and profitable trade with Central Asia, which were raised, it says, by the conquest of Turkistan, have been doomed to disappointment, and it has been found that Russians cannot compete with the English, whose goods, it is affirmed, fill the caravansaries of Bokhara, Ferghana, and Samarkand. In a report published by the Russian finance ministry, it is shown that between the years 1851 and 1881 the balance of Central Asian trade has turned to the disadvantage of Russia. Thus the exports from Russia to Central Asia—

In 1851 amounted to	£1,114,029
In 1861 ,, ,,	1,345,812
In 1871 ,, ,,	890,402
In 1881 ,, ,,	1,306,700

	£		£
Black Tea	56,766	Leather in manufacture	44,737
Green Tea	28,787	Russian Soap	465
Brick Tea	2,527	Native Soap	435
Sugar	17,234	Tallow	2,402
Sand Sugar	2,917	Oil	728
Candies	2,190	Stearine Candles	3,004
Russian Honey	575	Tallow Candles	252
Native Grape Honey	1,872	Clover Seed	371
Dried and fresh Fruit	46,589	Various Seed	173
Stationery	5,569	Poppy Husks	592
Spirits, Wine and Brandy	9,101	Rice and other Grain	210
Spices and Narcotics	2,585	Vegetables	10
Drugs and Medicaments	6,132	Fish	180
Dyes	23,428	Various Utensils	4,298
Native Tobacco	4,125	Writing Paper	2,190
Russian Manufactured Tobacco	8,245	Articles of Stationery	262
Cigars and Cigarettes	719	Wood-work	7,904
Tin (pewter?)	198	Carriages	98
Lead	3	Printed Books and MSS	1,076
Mercury	170	Glass	558
Copper	9,801	Silver (Khokands and Yambs)	432
Chinese (?) Copper	826	Haberdashery	10,280
Copper in manufacture	4,314	Various	10,535
Iron	13,572	Sundry small wares	16,689
Sheet Iron	3,611	Bread Stuffs, etc.	25,741
Iron in manufacture	4,061	Timber, etc.	8,946
Steel	639	Cattle	109,334
Cast Iron ware	5,913		
Scythes, Sickles, etc.	1,708	Total	£1,397,982

* 2nd, 5th, and 9th January, N.S. 1884.

whilst, on the other hand, the imports have steadily increased, thus :—

In 1851 they amounted to . . .	£1,573,483
In 1861 ,, ,, ,, . . .	2,213,934
In 1871 ,, ,, ,, . . .	1,592,994
In 1881 ,, ,, ,, . . .	3,119,000

In the year 1882, the value of imports from Central Asia amounted to £3,300,000. Thus, on her eastern as well as on her western frontier, Russia imports far more than she exports, paying the balance in gold. The *St. Petersburg Gazette* expects to see English manufactures penetrating through Central Asia, unless the Russian trade is better conducted.

Among the causes militating against the interests of Russian trade in Central Asia are said to be the defective means of communication. "Russian merchandise is despatched into the Steppe in the most primitive fashion, and the firm sending the goods sometimes hears nothing of them for a year. The goods are priced high, and the system is chiefly credit.' The agents sent with the caravans are said "mainly to seek their own profits, to defraud their employers, and impose unscrupulously upon the Asiatics, all which tends to involve the native population in debt and to impoverish it." How far all this is true I know not, but it is instructive to see that the panacea proposed by the *Gazette* is the formation of a Russian company that shall vie with English commercial houses.

On leaving the bazaar in Asiatic Tashkend we returned to the Russian quarter of the town to visit the seminary for training schoolmasters, and here we met the Vice-Governor. There were 55 pupils, 11 of whom were Kirghese. The institution reminded me of one similar I visited in 1879 at Kasan, where youths

from the surrounding native tribes were educated without payment, and sent back to their various nationalities as instructors. Upon mentioning that I had visited the place at Kasan, the director of the Tashkend seminary told me that he was trained there. The course at the seminary comprises the studies followed in the first four classes of the *gymnase*, or high school. I was much pleased with their singing, and noticed that each member of the choir, singularly enough, had light hair. They produced a powerful body of harmony, that was heard to good effect in the "Prayer of Alexander Nevsky," Lvof's "National Anthem," and in the chromatic progressions of the beautiful "Cherubim" by Berdniansky. I sent a few Scriptures for distribution in this seminary.

Tashkend has a town school of two classes, for giving to children of all grades a secular and moral education. The town schools, supported by the government, are of one, two, three, and four classes, and the full course of teaching lasts six years. The subjects taught are: Religion (to children, that is, of the orthodox faith); reading and writing; Russian and Sclavonic; arithmetic; practical geometry; geography and history in general, and those of Russia in particular; elements of natural history and physics; drawing and gymnastics. Trades also may be learned out of school hours, the pupils paying half the expense incurred. Children are received at the age of 7, of all classes, conditions, and faiths—admission taking place once a year. The number of children under instruction in the schools of Tashkend is 1,360 males and 1,064 females, or, including 37 pupils who belong to Tashkend, but are being educated out of Turkistan, 2,461 children in all. The rules for the reception of

children into the Tashkend Boys' Pro-Gymnase, or preparatory school, provide that application for admission must be accompanied by certificate of age, of rank, and a signed agreement that the pupil shall be clothed according to the prescribed uniform, and be provided with all that is necessary for a pupil. Payment is at the rate of £3 a year for the higher, and £2 for the lower classes; drawing being 6*s.* extra.

Our visit to the seminary over, we drove to the observatory, getting on the way a good view of the broad streets of Russian Tashkend, and in the suburbs of some of the substantial merchants' houses with their gardens. We received a hearty welcome from M. Pomerantzoff, the director of the astronomical observatory, to whom I presented my introduction from Captain Rykatcheff, chief of the meteorological observatory in Petersburg. He willingly showed us all that was of interest, and gave me a record of the local temperature and precipitation (or fall of rain, snow, sleet, and hail) of the preceding year.* In the astronomical portion of the observatory, which ranks in Russia as of second class, we were shown a transit circle by Repsold, of Hamburg, that cost £400, furnished with an object glass, made by Merz, of Munich, for £300.

The average yearly temperature at Tashkend is 40·10, equal to that of Baku, whilst for the month of February it is about the same as that of Sevastopol.†

* See p. 469.

† The winter is not of long duration, for the snow melts quickly, beginning to fall about the end of December and ceasing at the end of January. The snow is intermingled with rain, which falls by degrees from the beginning of October. From the middle of December there is a great deal of rain, and it ceases altogether in March. It may sometimes fall in April, but in May Tashkend begins to experience drought. The winter frosts at Tashkend reach —6°·25, and the summer heats go up to 106°·25 in the shade. At Tashkend, and places to the south, spring

After seeing the observatory, we went to pay an evening visit to the camp, where we found Colonel Serpitzky in command of a battalion of a thousand men of the 12th Turkistan infantry. We were shown the canteen and barracks. They struck me as decidedly lacking in comfort, and, although the men looked cheerful enough, I could not help suspecting that English soldiers would not have been so amiable in such quarters. The *St. Petersburg Gazette*, alluded to earlier in this chapter, speaks of a recent revision of the Turkistan province by Senator Giers, who found that enormous sums of money had been recklessly spent on handsome buildings, club houses, luxuriant dwelling-houses for military and other officers, while the troops have been located in unhealthy and hastily as well as cheaply- and badly-built barracks. This last charge, judging from the one barrack I visited, I should be disposed to confirm. There were not wanting tokens, however, that Colonel Serpitzky personally took great interest in the welfare of his men, for whom he evidently spent both time and his private means. Their leisure hours were thought of, and I saw not only reading material of a secular character provided for them, but in a small cupboard was a stock of

begins in March. In April the trees are in foliage, and in May the grass is already parched. Apricots begin to ripen in Tashkend at the end of May, peaches and the earlier kinds of grapes at the end of June or beginning of July. There are no strong winds at Tashkend. Those blowing from the east and north-east, as well as from west and south-west, are always warm. The former sometimes bring rain, the latter always. The north-west and also the southerly winds are uniformly cold. As a rule, about five earthquakes in the course of the year are felt at Tashkend, but they are usually so slight that they are not noticed by everybody. In 1868 occurred a shock, that lasted 30 seconds, and threw down several old buildings in the Asiatic quarter and killed 20 persons. For the observation of earthquakes, the chemical laboratory at Tashkend has a mercury seismometer.

Russian copies of the Gospels, one of which I heard was presented to each soldier on the expiration of his term of service, to the number of about 1,000 a year, and that about 10,000 copies had been put into circulation by sale or gift. The Colonel had done this, if I mistake not, in connection with the *Russian* Bible Society. I need hardly say that I was glad to meet a fellow-volunteer, as I also was to come upon the track of another at Vierny, where I found in the prison some New Testaments, Gospels, and other works that had been provided by a M. Pantusoff from a Russian society for the distribution of religious books.

Meteorology of Tashkend for 1881. In Fahrenheit and *Centigrade*:—

	Temperature.			Days of	
	Max.	Min.	Mean.	Rain.	Snow.
January	66·92	18·32	46·58	1	0
	19·4	*−7·6*	*8·1*		
February	63·86	19·04	40·10	8	2
	17·7	*−7·2*	*4·5*		
March	81·50	20·84	50·54	4	1
	27·5	*−6·2*	*10·3*		
April	83·84	46·76	62·42	10	0
	28·8	*8·2*	*16·9*		
May	93·02	53·42	69·98	10	0
	33·9	*11·9*	*21·1*		
June	107·96	53·42	76·64	5	0
	42·2	*11·9*	*24·8*		
July	103·82	53·96	82·04	0	0
	39·9	*12·2*	*27·8*		
August	101·48	59·00	78·08	1	0
	38·6	*15·0*	*25·6*		
September . . .	103·64	42·62	67·10	4	0
	39·8	*5·9*	*19·5*		
October	83·48	34·52	53·78	10	0
	28·6	*1·4*	*12·1*		
November . . .	75·92	20·12	41·54	5	3
	24·3	*−6·6*	*5·3*		
December . . .	58·28	−11·56	21·38	1	7
	14·6	*−24·2*	*−5·9*		

(Signed) H. Pomerantzoff,
Director of the Astronomical Observatory.

The Tashkend public library we visited on a subsequent day. It was established under the auspices of von Kaufmann, Governor-General of Turkistan, and consists of 5,381 works in 9,734 volumes, and in languages predominating in the following order:—Russian, 2,695 works; French, 1,444; German, 850; English, Latin, Italian, Swedish, Dutch, etc., 392. The *magnum opus* of the library, however, consists of a collection of information relating to Central Asia generally and to the Turkistan district in particular. I was told that almost everything that had been published since 1867 on Central Asia, such as articles in papers and journals, and likewise every pamphlet and book, had here been gathered by the bibliographer Mejoff, and placed in chronological order in large volumes, now upwards of 300 in number, in uniform binding—an excellent work, truly, and one for which I, who have searched the London libraries through in making a similar list, ought of all men to be thankful. And so I am; though I doubt the absolute completeness of Mejoff's work, for I have found some publications other than Russian in the languages of Western Europe that are not in his list. I, however, think that his great work and my own little bibliography combined must approach very near completeness, as regards *books* published on Central Asia. There is just one peculiarity in the work of my distinguished co-labourer, to which I cannot resist playfully alluding. I mean the binding the books all of one size, which entails this amusing result, that when a book comes to hand that is smaller than the procrustean binding, the leaves are cut at the back and pasted singly on pages of blank paper cut through to the size of the letterpress; which is uncomfortable,

but bearable. When, however, a book has come to hand larger than the regulation size, the leaves have actually been turned in to reduce the dimensions; the consequence of which is that the reader must unfold, and in so doing not improbably tear, each leaf before he can read it! To these wonderful tomes is attached an excellent alphabetically-arranged index,* whilst the contents of volumes 1—300 have been published at Petersburg.

On the Wednesday evening we had the honour of dining with General Abramoff. Our host is a bachelor, and there were no ladies present, but several officers of distinction. Unfortunately for me, the General did not speak French, and though there was no lack at the table of persons who did, yet having to speak through an interpreter to the Governor-General prevented that full enjoyment of intercourse which I feel sure I should have experienced could we have communicated our ideas directly; for what I saw and all I heard of him led me to form a high estimate of his character as a governor. One of those in office under him told me that his subordinates simply "adore" him. It had been suggested to me that I should ask for two or three Cossacks to accompany us for security when out of Russian territory, but the General said that he could not grant that, for even embassies, when going

* The Tashkend library receives from the State a yearly subsidy of £130. Of this amount £80 are devoted to the maintenance of the library, and £50 to purchase of books, periodicals, and binding. During 1878, 183 men were admitted as subscribers, to whom were issued 2,780 volumes, or an average number of 15 or 16 to each man. The library is well supplied, of course, with the back numbers of the *Turkistan Gazette*. This newspaper sells for 2½*d*. per copy, and about 500 copies of each number are printed. It represents an effort to introduce Russian civilization into Central Asia, and the Government gives it a subsidy of £500 a year.

to Bokhara, did not have them ; but he would give me letters, open and otherwise, that would help me everywhere on my route. He said, moreover, that he should hear about us, and requested that, if we got into difficulty, we would send to him at once. On leaving the vice-regal residence we called at a small house in the grounds, where General Ivanoff had taken up his quarters, to whom I am afraid I had not paid sufficient attention in calling earlier at his private dwelling, though I had done so at his offices. His Excellency was not to return to Samarkand for some time, but promised to write to his servants that we should be entertained in his palace.

Our official arrangements being now adjusted, we had to think of personal affairs, for we were about to plunge into a region comparatively unknown, and be lost for a while to European civilization. Even now I had received no postages since we left Tiumen—that is, for six weeks—though I had had the satisfaction of sending many cards and letters. This, also, would have now to stop, or almost so, for a time. So I wrote to my friends that they should not be alarmed if they did not hear from me till I reached the Caspian. Also thinking to reduce my luggage as much as possible, I sent off to Odessa, "by parcels post," two great boxes of curiosities, unitedly weighing 100 Russian pounds, and at a cost of £3 6*s.*, and 2*s.* more for insurance, to which I may add that they arrived in excellent condition before my advice, and scarcely scratched, doing nothing worse than frighten my consignee, who wondered what Nihilistic manœuvres might be contained in boxes from such an unexpected quarter, and spoke thereon to the authorities.

Another thing requiring management was my money.

I had sent a large proportion of it from Petersburg to the bank in Tashkend by post, and, on calling, found it there; but since I was now starting for a region where robbers abound, it seemed to me a question whether I had better not take as little as was necessary with me, and telegraph for the rest when I reached some place of safety; and seeing that I could not tell, until I arrived at Petro-Alexandrovsk, whether I should cross the Aralo-Caspian desert, or go by the Orenburg route, I promised to telegraph from Krasnovodsk or the Syr-daria whether the balance should be sent to Tiflis or to Orenburg.

It was not quite easy to decide whether or no to take forward my tarantass, for some were very confident (and not without reason, as I afterwards learned) that we should never be able to get the carriage from Bokhara to the Oxus. We were advised, however, by Major Bukoff, whom we met at the club, to get to Khiva if possible on wheels, and I determined accordingly to attempt it. I had no further use, however, for the wagonette, since my Russian books were nearly all disposed of, and those I had remaining in other languages could all be packed in one box. I proceeded accordingly to sell the wagonette, and in so doing met with a piece of unusually generous dealing. Finding at Moscow, in the office of Kamensky Brothers, carriers and transport agents, when I was sending some goods, that they had a branch office at Tashkend, I had asked for an introduction, which in due course I presented, and was asked by the manager what he could do for me. Finding that I wished to dispose of my telega, he inquired the price. The wagonette had cost £5 at Tiumen, where I was told that by the time we reached Tashkend the vehicle

would be worth nearly double, either because they do not make them, or do not make them well, in the south. I was too old a traveller, however, to expect much gain of this sort, but I remembered that the Russian plan is for the buyer to beat down the salesman's price, and so I began by asking £6, when, to my surprise, without having seen the vehicle, my customer said that they did not want it, but that as I had the introduction and to oblige me, he would give that price if I could sell it to no one else. Of course, I did not think it necessary to try, and on the morning we were to leave, the money came by the hand of a messenger, who seemed as pleased to get the carriage as I was to have bargained in such a pleasant way, and to have received such attention on the strength of a mercantile introduction.*

It only remained, then, to have our tarantass put in thorough repair, and to lay in our stores, and a few articles of warm clothing in prospect of cold in crossing the desert. By the advice of our hotel-keeper, we had a large sheet of felt nailed on the hood of the tarantass, so that if we met with a sandstorm we might cover up the front of the carriage; and then we were ready to

* I may here mention that the pioneer of Russian trade with Central Asia was Ivan Feodorovitch Kamensky, partner in the well-known firm of Kamensky Brothers. He at first managed the Siberian branch of their business, establishing himself at Tomsk. Thence he removed to Kuldja, where the change of Imperial policy towards the Chinese—first their being eager to assist and then anxious to prevent the transport of supplies—left him stranded and ruined, so that his health broke down, and a few months after my visit, on the 24th December, at Pishpek, he died. Kamensky was not only an enterprising merchant, but a lover of science and patron of learning. In 1860, he himself founded, at an expense of £4,000, an agricultural school at Tomsk. He also assisted in several scientific expeditions, and for substantial aid furnished by him to Potanin's expedition to Mongolia in 1879, the Russian Geographical Society awarded him their diploma of honorary corresponding member.

depart. We ate our last dinner in Tashkend at the officers' club, where the French manager told us the experience of an English gentleman, who many years before managed to push his way, without permission, as far as the capital, and on the first night after his arrival accompanied this Frenchman to a feast at a circumcision, where von Kaufmann, the Governor-General, was present, and who, seeing the Englishman, ordered him to leave Tashkend within four-and-twenty hours. It was well for me, I thought, that my lot had fallen under a more amiable authority, who was willing that I should go where I pleased, especially in Ferghana, towards which I was now to wend my way from Tashkend to the Syr-daria at Khojend.

CHAPTER XXXII.

FROM TASHKEND TO KHOJEND.

Central situation of Tashkend.—Post-road to Jizakh.—The "Hungry" Steppe.—Stations to Khojend.—Chirchik and Angren rivers.—Vegetation of Kurama and of Turkistan generally.—Forest trees and shrubs.—Fruit trees.—Garden and dyeing plants.—Kurama soil and cultivation of cereals.—Journey from Tashkend.—Steppe vegetation.—An unruly horse.—Fortified post-stations.—Approach to Khojend.

TO the traveller leaving Tashkend, the city is seen to be well situated, for though not built upon a river's bank, yet the snows of the Talasky Ala-Tau and the springs in the Chatkal mountains send down sufficient water in the River Chirchik to allow canals diverted therefrom to afford a constant supply. Also Tashkend is centrally situated in the zone of the watered region that stretches from the country about Samarkand to the valleys of Semirechia, and there are paths permitting of easy communication with the upper valleys of the Syr, the Talas, and the Chu. I have frequently noticed in Russia, and even in out-of-the-way places in Siberia, how fond the people are in summer of leaving their town houses for a cottage in "the country"; and this practice prevails, with good show of reason, at Tashkend, where those who possess property in the suburbs follow the custom of the natives, and live in

tents in the midst of their gardens. Zengi-Ata, south of the capital, which the traveller passes on the road to Chinaz, is a fashionable resort of this kind.

This road goes direct from Tashkend to Samarkand, a distance of 190 miles. Of this route I need here speak only of the journey to Jizakh, since I traversed the remainder coming from Khokand.*

We set out for Khojend on Thursday evening,

* Stations from Tashkend to Jizakh, with the distances between in versts :—

Tashkend—		Agachty	31
Niiazbash	21	Uch-Tiube	22
Starotashkentskaia	21	Jizakh	15
Chinaz	22		
Malek	23	Total	189
Murza-rabat	34		

About 5 miles beyond Zengi-Ata is the first station, Niiazbash; the second is called by the natives Eski-Tashkend, or Old Tashkend, a pretty and rather picturesque, but a tumble-down place, about half a century old, whence the mass of inhabitants have been driven to New Tashkend by the inroads of the Chirchik. The third station is situated at the confluence of the Chirchik and the Syr-daria at Yani-Chinaz, or New Chinaz; Old Chinaz, which is more populous than the New, being passed on the road. At New Chinaz is a fort, 800 feet above the sea, guarding the ferry over the river. The expectation of the conquerors that this spot would become a place of commercial importance has been thus far disappointed, and it remains a Russian settlement of a few houses, though nominally the "port" of Tashkend; but the navigation of the Syr is so uncertain that there is no regular service of boats, either of the Aral flotilla or of private companies. The river is here about two-thirds of a mile wide, the current rapid, and the water yellow and muddy. The banks are thickly covered with high reeds, affording an excellent covert for tigers.

Beyond the river, almost to Jizakh, there extends a parched and barren waste, known as the "Golodnaia," or Hungry Steppe, the route across it being marked by four stations, with wells and cisterns of brackish and unpleasant water. Between the river and the first station, Malek, there are traces of old canals and ditches, showing that there at least the land at one time had been cultivated. It is known also, Dr. Schuyler says, that some portions of the Steppe, on the opposite side, near to the mountains, were formerly inhabited and worked by means of a canal, brought from the River Zarafshan through a small mountain

September 21st, a distance of 94 miles, in 7 stages.* On our way we had to pass over or through several rivers, the Chirchik, Kara-Su, and more than one stream of the Angren. The most important of these is the Chirchik. One of its branches is the Kara-Su. It gives some of its water also to the Keles.†

The two valleys watered by the Chirchik and Angren form the richest, most fertile, and thickly populated part of the uyezd or district called Kurama. It is the granary of Tashkend and the surrounding country, so that, in passing southwards, the traveller has the opportunity of seeing something not only of the ordinary vegetation of Turkistan, but also of

pass. It appears, however, from the Chinese traveller, Tch'ang-Tch'un, in 1222, and from the memoirs of Hiouen Thsang, 600 years previously, that this steppe was, for the more part, in much the same condition as now. At the next station beyond Malek are the ruins of an old caravansary, called Murza-rabat, said to have been built at the end of the sixteenth century by Abdullah Khan. The building is made of large square bricks, and consists of a central room, surmounted by a dome, and surrounded with small vaulted rooms, each having its little cupola. It is now occupied as a post-station, and affords to the summer traveller a cool retreat from the hot steppe. At the next station, Agachty, there were formerly similar buildings, under the ruins of which chambers are now hollowed out. Jizakh is 25 miles further on, and as it is approached, mountains come into view, and the barrenness of the Steppe is exchanged for trees and fields, which continue more or less to Samarkand.

* The stations and intervening distances in versts are as follows:—

Tashkend—		Djan-bulak	27
Chirchikskaia	13	Murza-rabat	25
Kara-Su	14	Khojend	25
Bskent (Pskent)	20	Total	142
Uralskaia	18		

† The Chirchik rises in the western continuation of the Alexander range, and for about 25 miles flows at the bottom of a narrow and deep defile, from which no *aryks* are cut. Rapidly falling and opening out, the valley of the Chirchik at Tashkend has a breadth of 25 miles. In its further course the valley approaches that of the Angren till they merge in one, and the Chirchik falls into the Jaxartes about 7 miles from what should be the mouth of the Angren, only that the river has run dry, exhausted by its numerous canals.

Central Asian agriculture. The surface of Russian Turkistan, viewed with reference to vegetation generally, may be conveniently divided into the mountain country, oases, steppes, and deserts; and of these last I shall speak when they come in my path. I have already touched upon the arboreous vegetation of the mountains in Semirechia, quoting such authorities as Semenoff, Osten-Sacken, Regel, Severtsoff, and others. To these travellers in the eastern portion of the Thian Shan must be added Dr. Capus, who travelled in the western portion, preceding me by one year only, and to some of whose papers, since published, I am indebted for information.

Taking first the upper and lower limits of the growth of trees, they run, says Dr. Capus, parallel to the line of perpetual snow, which varies in the western Thian Shan, according to MM. Kaulbars and Osten-Sacken, from 8,800 to 9,800 feet.*

* At Issik-Kul the Juniper (*Juniperus pseudosabina*) is found, according to M. Regel, up to 14,000 feet. Dr. Capus found its lower limit in the Bokhariot mountains of Baissoune to be 4,000, and in the Zarafshan valley about 3,800 feet. In the Alexandrof range, the farther to the west, the larger is the tree. In the Kirghese Ala-Tau at Urianda, the trunks are about 14 feet high. The 21-feet stems in the Badam heights are from 14 to 18 inches thick. The high-stemmed junipers seen by Severtsoff had generally a bare trunk for half their height, the sparse branches measuring about one-fourth of the altitude of the tree, the top of which was generally broken. Above a certain height this tree becomes stunted, and becomes almost horizontal, with the branches only jutting upwards. Towards the south, where the woods decrease, the juniper grows higher, but it is replaced on the mountains by firs and birches. The limits of the Birch tree (*Betula*, sp. not European) are from 3,200 to 8,800 feet. Its lower limit depends upon the nature of the valley in which it grows, and the specimens are small, crooked, and with broken tops, probably from the snowfall. In the Kirghese Ala-Tau the inferior limit of the birch nearly coincides with that of the fir, whilst in the Kara-Bura mountains, at the sources of the Chatkal, the superior limit of the birch and the tall-stemmed junipers coincides with that of the sorb apple. The

Among the Turkistan shrubs are found two species of Hawthorn in the valley of the Talas. In some places it grows to the dimensions of a tree with a straight trunk 18 feet high and 18 inches thick. About the sources of the Tchaian it attains to 20 feet in height. In Semirechia M. Semenoff found two species of Buckthorn, the Spindle Tree, and three varieties of Cherry, the Cotoneaster, and Mountain Ash. The Tamarisk, too, is there represented by six varieties.*

Turning from forest trees to those of the gardens, one meets in Central Asia with a kind of elm called Karagatch, frequently planted, I observed, for the shade it affords, near pools of water. Its trunks yield timber, often to be met with as carved pillars in native mansions. There is also a species of Plane (*Platanus orientalis*), called *chinars*, and a wild Olive called *jida* (*Eleagnus hortensis* et *E. angustifolia*). We often

Willow, of which there are upwards of nineteen varieties, is found in the valley of the Talas and in the Kara-Bura at heights varying from 5,200 to 9,900 feet, whilst the *Picea Schrenkiana*, one of the rare conifers of the Thian Shan, descends in the Alexander range to 5,300 feet, and ascends in the Ala-Tau to 8,000 feet. Of five kinds of Poplars, that like the Russian aspen is found in the woods along the Talas; and on the River Kara-Bura are two thickets of similar large old trees, but of an intermediate form between the black poplar and the aspen. The Turanta poplar (*Populus diversifolia*) is found in the woods on the Arys. To these trees may be added two species of Ash in the gorges along the Boroldai and its affluents.

* To the foregoing may be added the rare shrub called Boialysh (*Atraphaxis*), found in the dry sandy clay lands at the mouth of the Boroldai; also the insignificant *Ephedra*, or jointed fir, in the grey parched soil of the Steppe, between the canals of the River Asa. In the valley of the Kitch-Kine-Kara-Bura are several small prickly shrubs, like those near the Syr-daria, and with the same reddish flowers. They grow principally at an altitude of between 4,000 and 5,000 feet. I was surprised not to find in the gardens of Turkistan either gooseberry or currant bushes. Black currants, however, are said to grow wild at the source of the Chatkal, and in Semirechia there are red currants, and four others of the *Ribes* tribe. Dr. Capus mentions also in Kohistan the

saw the latter, with its yellow-reddish, olive-like fruit, hanging over the garden walls. I recalled having met with it in the Trans-Caucasus, near Etchmiadzin, where I did not care for the taste sufficiently to eat it. When growing wild in thickets, the *jida* has smaller fruit, which, when ripe, is of a greenish-grey hue. The white Mulberry (*Morus alba*) is one of the commonest trees in Turkistan, and is cultivated along the first river we crossed, the Chirchik, chiefly for the sake of its timber. It attains to a height of 35 feet, and to 14 inches in diameter. North of Tashkend the tree is less common, and is particularly small at Aulie-Ata. Dr. Schuyler mentions four distinct varieties: the *hassak*, or wild Mulberry tree; the *shah-tut*, brought originally from Persia; the *Balkhi*, introduced from Balkh, the largest and most beautiful variety of all; and the *Khorasmi*, from Kharezm or Khiva. Of some species the fruit is so little esteemed

Honeysuckle, Barberry, Medlar, and Sea Buckthorn, growing in great abundance at a height of about 8,000 feet, whilst in the Chirchik mountains the wild Plum, Pistachio nuts (*Pistacia vera*), and wild Almonds are found 4,000 feet lower. In Ablatoune the same explorer found the superior limit of the nut and the wild Apple to be about 4,500 feet, with the Ash (*Fraxinus Sogdiana*), and a species of Maple. In the same valley wild Apricot trees grew up to 4,000, and on the shores of the Iskander-Kul even to 7,000 feet. Lastly, I must not omit to mention one shrub which grows abundantly in the valleys of the Syr-daria, because on its thorns there collects a sugary material called *Yantak-shakar*, or *taran-jobin;* but it is remarkable that the same shrub, when growing on the mountains, yields no saccharine matter. It resembles *baialig*, is acid in taste, and liked by the camels. From this plant, after rain, *taran-jobin*, or manna, is collected, of which, with the Pistachio, are made *ruckta* and other well-known Bokhariot confections. Concerning this manna, the Bokhariots have a story that beyond the Syr the steppe is covered with dust of a grey-yellowish colour, called taran-jobin. This dust is supposed to fall early every morning during the three summer months, specially near the holy city of Turkistan, along the left bank of the Syr-daria, where it is collected by the natives up to sunrise, but with the first rays of the sun it becomes mixed with the soil and sinks.

that the natives in Bokhara told me they did not take the trouble to gather it; but they use for food the large white berries, both fresh and dried, as well as made into a flour, and mixed with water for a beverage, or with wheat flour for a paste, called *tut-halvah*. The chief use of the Mulberry tree, however, is for feeding silkworms, for which purpose not the twigs merely, but all the branches are cut off, and the tree reduced thereby to a pollard. In the gardens of Kurama grow, in addition to the fore-mentioned, Peaches, Apricots (which form the staple of Khokand gardens), Pomegranates, Apples, Pears, Quinces, Plums, Almonds, more than a dozen varieties of Grapes, and Figs. Some of these last, of a whitish colour, and smaller than the green fig commonly seen in England, were offered us in the Tashkend bazaar.

Cucurbitaceous plants abound in Turkistan, among which the Melons are of exquisite flavour. Gourds (*Cucurbita lagenaria*) are grown in large numbers, and serve the various purposes of tobacco boxes, pipes, and water cruses. Amongst umbelliferous plants Coriander is used as seasoning for food, and as a carminative. For seasoning or against flatulence, *shabit*, or sweet Fennel (*Anethum fœniculum dulce*), is used, which does not grow wild in Turkistan, but is cultivated in kitchen gardens, as is also another kind of Fennel (*Nigella Romana*). The grain is greenish and oily. To these should be added certain plants for dyeing, such as *Khana*, giving a green powder, containing an essential oil. On blotting-paper it gives a stain that evaporates, whilst cold water infusion easily extracts from it a pigment of a reddish colour. The colouring matter of Spariak (or Ispariak, a recent addition to the Larkspur

family) is dissolved in boiling water, and produces a yellow mixture, with a peculiar smell and bitter taste. It is procured from the dried flowers of a species of Larkspur (*Delphinium ochroleucum, Mey.*), growing wild in the neighbourhood of the Turkistan mountains, and also throughout Turan. Like the English species, it grows about two feet high. Byzgunj is also a vegetable dye, used for making substances black, and is obtained apparently from galls of the Pistachio tree. Madder (*Rubia tinctorum*) is sown in submerged places, and Saffron (*Carthamus tinctorius*) grows in the fields.

I have said that the district of Kurama is the granary of Tashkend. Now land under culture in Central Asia is of two kinds: that which lies near the mountains, and receives the rain, is called *lialmi;* whilst that which is watered by irrigation, *abi.* Comparing an average barley harvest on rain-land with one on irrigated land, the result, according to the *Turkistan Kalendar*, appears to be the same; but whilst a batman of wheat sown on 3 acres of rain land yields from 17 to 20 cwt., it gives on irrigated land in the same locality from 17 to 23 cwt.

Turkistan wheat (*budai*) is of two kinds: red and white, or winter and spring. Maize is cultivated, but in small quantities. Oats will not grow, it is said, in Central Asia. They, and barley also, to a considerable extent, are replaced by *jugara* (*Holcus* sp.), a kind of Sugary Sorghum or Indian millet, the grain of which is used for gruel, and the old stems for fuel, whilst the young stems and leaves, which are not very sweet, make good fodder for cattle. One species of oat grass, being considered less heating than barley, is cultivated principally for horse fodder,

as also is *Kunak*, which resembles fox-tail grass. The tablelands of the Boroldai and Katurnan-su are said to be the true native land of rye. Here it grows luxuriantly, and, with full ears, flowers in May and ripens in June; but this crop does not appear to have been cultivated before the advent of the Russians, who raise a little for their own use. Rice is sown on land where water abounds, and also millet, of which there are three varieties. Millet ripens early, and is therefore used for the second crop after winter wheat. Flax and Rape are cultivated, but chiefly for the sake of the oil they yield. In Kohistan, both flax and wheat were met with by Dr. Capus at an altitude of 10,000 feet. The cultivation of Hemp has been introduced into certain suburbs by lovers of the intoxicating *hashish*.*

I have thus entered somewhat fully into the

* The following information from the *Turkistan Kalendar* for 1880 gives the returns of summer crops on irrigated land:—

Seed.	On Acres.	Are sown.	Are gathered.
		Cwts.	Cwts.
Barley	2½	3½	17 to 20
Wheat	3	3½	17—24
Millet	10	3½	27—33
Kunak (small millet)	15	3½	33—50
Flax	7	3½	13—17
Kunjut (Sesamum)	33	3½	84—100
Kukuruza (Maize)	8	3½	17—20
Peas	8	3½	20—27
Jugara (Indian millet)	6	1¾	60—74
Mak (similar to Jugara)	6	½	24—30
Rice	4	3½	24—27
Grapes	1	—	66
Clover	1½	½	2,100 snaps†
Melons	½	—	400

† 115 snaps or bundles of clover make a cartload; a camel-load is about 50.

There are yet one or two seed plants to be noticed, such as *Anjir*, or Anise, which grows wild. The seed, when candied, is called *Candalat khili*, and constitutes an article of exportation. Sesamum also is

subject of trees and corn crops of both the mountain and oasis districts of Turkistan, as suggested by typical growths in the Kurama gardens and fields through which we passed. Our journey onward did not equal in despatch our approach to Tashkend. We were kindly supplied with letters, as before, to the post-masters, to expedite our journey, and had intended to start on the morning of Thursday; but not having given notice, there were no horses to be had until evening, at which time there were two other travellers to be supplied, who were proceeding in the same direction, one the *uyezdinachalnik*, or chief of the district of Khokand, and the other, M. Ushakoff, a judge, whom we had met at the officers' club, and at the dinner table of the Governor-General, and who had invited us to stay with him during our visit to Khokand. He had been spending a short holiday in Tashkend, and now asked us, as he was returning, to allow him to get first to Khokand, to be in readiness to receive us. Accordingly, he trotted out of Tashkend ahead, we next, and the district chief third ; but at the first station the chief came in close upon our heels, and by some means managed to get his horses changed, and to leave before us. This was against "the rule of the road"; but the yemstchik said that the starosta had told

cultivated. *Santolina* seed, an anthelmintic, is obtained from a wild plant from 10 to 14 inches high, found in abundance both in the plains and in the mountains of Central Asia. The Tashkendians employ the Kuramas and Kirghese to cut and harvest the green stems, at the extremity of which is a sort of purse, or little bag, about 4 inches in length, and a finger thick, containing the seed. These native gatherers, to facilitate their work, often pull up the plant by the roots, and thereby lessen the abundance of future collections; but in a fruitful year there is exported from the district between Tashkend and Turkistan from 2,500 to 3,000 camel-loads, or from 570 to 730 tons.

him to let the chief drive out before us. This placed a second traveller in our front, unless, indeed, we could outstrip him. There was little chance of this, however, since he had a mere handful of baggage and a light telega, whilst our poor tarantass was more heavily laden than it had been before. Added to this, when we reached the Kara-Su the floods had risen, making the road so heavy that we could travel only slowly. Pskent and Uralsk we passed in the night, but at the latter station they gave us three such miserable horses that, after going four miles, we stuck in the mire. How long we so remained I have but a hazy idea, for I was safe in the arms of Morpheus, and learned only *post factum* that we had been obliged to send back to the station for two more horses. Hence, by breakfast time, we had only reached Djan-bulak, the fifth station, to find there were no horses.

The aspect of the country had now changed considerably. We had left behind the oasis, and had entered the steppe, the third typical division of the surface of the Turkistan country. The steppe, however, is of varied character, and in some parts presents in spring the appearance of a vast flower garden covered with herbage, amongst which Tulips and Anemones alternate agreeably amidst brilliant spots of yellow, white, and scarlet blossoms of other bulbs. This portion of the Kurama district is exceedingly valuable, because the quantity of land irrigated by the Chirchik and Angren is at best but limited, and a large portion of the natives consequently devote themselves to stock-raising, for which, of course, a certain amount of fodder is grown, though it is not customary here to stable the cattle for the winter, or to provide them with hay. For the winter pasture, therefore, a

place must be chosen where the wind is not too violent, nor the snow too deep.*

The journey was too late in autumn to allow of our seeing much beauty in the vegetation of the steppe, but there was a large quantity of fodder stored at Djan-bulak, where we arrived in the morning and ordered the samovar from a post-mistress who appeared fully able to speak for herself, and was smoking. The station-rooms were large, and the post-master obliging. He had received no notification of our coming, but when he saw my letter he said that if he had he would certainly have kept back the district chief, who, happily for himself, had gone before. At this juncture a wily Tatar, keeper of a caravansary, appeared on the scene, and offered private horses, which, to my cost, I accepted, inasmuch as his right-wheeler was the only one out of the 800 horses I hired in Central Asia that alarmed me as to whether it would not dash the carriage to pieces; for when the traces were fastened, he gave such a bound forward as to burst away from everything. We therefore caught and harnessed him

* Among the varieties of steppe vegetation that serve for fodder is a poor one called *Ibelek* (*Ceratocarpus* sp.), on which the Kirghese, in winter, feed their herds; also in other places of limited extent are met with *Kyiak* (*Centinodia polygonum latifolium*), and *jusan* (*Absinthe*), both of which serve as fodder for sheep and goats. A more nourishing fodder, found on the Myn-bulak, is called *Kipets*, and another not so good is *Kamys-chob*, or reed grass. This latter grows so abundantly on the swampy banks and islands of the Turkistan rivers that it chokes other similar grasses. It is used as food for cows and horses, but it is so tasteless and little nourishing that the cattle eat it very unwillingly, and animals unaccustomed to it, especially Russian horses, are often made sick thereby. This reed serves as a common article for fuel, and a similar plant, called *Shye*, furnishes material for the double matting with which the Kirghese cover their kibitkas. There is yet another class of fodder grasses, known by more than a dozen different native names, that grow wild abundantly in unwatered localities in Turkistan. In taste they are sour and salt, though some-

again, and trotted over a flat, stony steppe, the road now proceeding for 25 miles in an easterly direction, instead of southerly as heretofore, and having on our left ranges of hills rising in peaks, for the most part bare, rough, and rocky, but here and there showing patches of verdure. Though late in the season for butterflies, we took a few specimens, and passed through what appeared to be a swarm of dragon flies, so numerous that Mr. Sevier caught several by merely holding out the net from the carriage.

On reaching the next station, Murza-rabat, we found it, like the last, to be nothing less than a miniature fortress. It was surrounded with a dry moat and lofty walls, measuring inside 60 paces square. There was a well in the centre of the yard, and against the wall stables and buildings, some of which struck me at first as intended for an *étape* prison. Outside by the road was a grave, with a monument raised by travellers' gifts to the memory of the starosta Jacobleff and his yemstchiks, who on the 18th of August, 1875, had defended the post-house against a band of Khokandians, by whom they had been killed, and subsequently to which event the fortress had been erected.

what succulent. The majority of them have prickles and thorns, and of domesticated animals the camel alone eats them. One is called *Jantak* or camel's tail (*Alhagi camelorum*). The roots of another, *Kukpek*, are collected in large quantities for fuel in winter; as also are a species of lily called Suran, and *Alabyma*, or goose-foot. *Jungurcha*, or clover, is cultivated, but there is also a kind called *Jan-shikeh*, (*Medicago* sp.), that grows wild along the canals of some of the rivers. Another allied species is the *Dlany-shkeh*, possibly the same as the Chinese *Mu-sue*.

I have thus endeavoured to give the reader some idea of the vegetation of Turkistan (omitting some things that have been admirably treated by Dr. Schuyler), and getting my information largely from a list of Turkistan plants drawn up in Russian by a committee for the expedition of M. Fedchenko, and not before translated, so far as I am aware, into English.

Our road now turned again to the south over a depression in a mountain chain, which gave us the Kurama-Tau on our left, and the snow-capped elevations of the Mogol-Tau on the right. Eagles were flying about, and larks and wagtails, all of which we had time to admire, for, as the road continued to ascend, the carriage proceeded so slowly that it was pleasanter to walk ahead and enjoy the scenery; and when at last, towards 3 o'clock, we reached the crest of the hills, and looked down upon the ancient Jaxartes, and Khojend nestling among the trees, the view was one of the prettiest we had seen in Russian Central Asia. The town with its old earthen forts looked well by the river side, as did the Russian church and wooden bridge. By the latter we crossed the stream, and drove to the house of Colonel Putimsoff, the uyezdni nachalnik, there to enjoy a hospitable meal before quitting the Syr-daria province for Ferghana.

CHAPTER XXXIII.

THE PROVINCE OF FERGHANA.

"Ferghana," an old name of province revived.—Its form, size, aspect, and boundaries.—The Alai plateau and Pamir.—Explorations of Fedchenko, Kostenko, and Severtsoff.—Pamir climate, flora, and fauna.—Rivers of Ferghana.—Lakes Kutban-Kul and Kara-Kul.—Ferghana climate and dust-fog.—Its geology and minerals, turquoise and petroleum.—Ferghana vegetation and tobacco.—Its towns and sacred places.

FERGHANA is an old name, reimposed by the Russians on what was formerly known as part of the Khokand Khanate. The name is found in its present form in Arab manuscripts of the eighth and ninth centuries, but the Chinese knew it under the spelling of Feihan as far back as the fourth century. The province resembles a vast ellipse, of which the periphery is formed of lofty chains of terraced mountains. As Mr. Robert Michell says, "Fancy the interior of the Coliseum of Rome, or even the Albert Hall in London, and you have an approximate idea of the Ferghana valley, which, except on the west, is surrounded by portions of the Thian Shan." *

* On the north a broad mountain mass separates this valley from that of the Talas, whilst on the south another mass divides it from the basin of the Oxus. On the east is Kashgar. The frontier between runs along the watershed for about 70 miles; then strikes south, embracing some territory in the basin of the Oxus. Next it returns to the

The area of the province is estimated at from 28,000 to 30,000 square miles, of which about four-fifths consist of mountains, and the remainder occupies the broad valley of the Upper Jaxartes, the level portion lying south of the river, which runs through the province from north-east to south-west.* The range of mountains on the south bore for a long time the unmeaning name of Kashgar-Davan—*i.e.*, pass into Kashgar; but Fedchenko designated them the "South Khokand" range. It has a lateral direction, forming to the east a watershed between the basins of the Jaxartes and Lob Nor, and westwards between the systems of the Jaxartes and Oxus; the range dividing on about the 70th meridian into three

watersheds between the Oxus and the Jaxartes, and continues along the northern watershed of the Zarafshan. In about longitude 70° the western frontier takes a meridional direction, bordering the Syr-daria oblast.

* The greatest breadth of the plain is 65 miles, its greatest length about 160 miles, and its area 5,775 square miles. M. Ujfalvy divides the surface concentrically into three fertile, alternated with three sterile, zones. Among the former, he refers to a belt of good earth, presenting a succession of orchards, gardens, and fields surrounded with trees, and to another spot with the aspect of an English park, between the Naryn and the Kara-daria rivers. A second band of soil, not less fertile, and enjoying a more temperate climate, lies round the province with certain interruptions on the slopes of the lowest hills, whilst a third belt, quite mountainous and covered with thick pasturage, encircles Ferghana on the north, east, and south. These belts are separated by sterile zones, of which the first, on the banks of the Jaxartes, is a steppe, sometimes grassy, sometimes stony. The second, between the upper two fertile zones, is generally stony; and the third, which separates the mountain pastures from the valley of the Alai, is of great height and extreme sterility. This varied aspect of the surface will prepare the reader for the remark of Mr. R. Michell, that within the small compass of the valley there are heaped, as it were, both profusion and poverty, so that between Khokand and Varukh the traveller may hunger and thirst; between Ush and Uzgend he may starve his horse; between Andijan and Namangan both may suffer; and between Khokand and Khojend they may perish in the desert, whilst in each of these districts, at certain spots, may be tasted the most delicious fruits of the earth.

chains, all continuing in a westerly direction, and named the Turkistan, Zarafshan, and Hissar ranges. Approached from the Ferghana valley, this southern boundary is seen to consist of receding parallel ranges, which rise from 11,000 to upwards of 20,000 feet, the latter height being attained by the mountains of the Alai plateau. These, with a small portion of the Pamir, make up the south-eastern angle of the province, and lie outside the forementioned ellipse. It is, however, a remarkable portion of the province, and may be said to form part of the northern crest of *Bam-i-duniah*, "the roof of the world"; or, as some would translate it, "the crown of the world's head."

This name is given to the crest north of Hindustan, where meet the two mountain masses of Tibet and the Pamir, and which separates completely the two halves of Asia. It is one of the most elevated tablelands in the world; "the lakes are frozen there in July; the atmosphere is so rare that the blood oozes out of the pores; the country is a desert, where grass sprouts up only here and there; and the road thither over the Alai range runs along mountain ledges, from which horses frequently tumble down below." We owe such accurate information as we possess of this spot to the Russian explorers and scientists, Fedchenko, Kostenko, Severtsoff, and others.*

* Fedchenko proceeded to Khokand in 1871, and approached the Alai from Uch-Kurgan by the Isfairam Pass, 12,000 feet high. The Alai is a tableland about 8,000 feet high, at the head of the Surkhab, and measures some 40 miles in length by 12 in breadth. On the north and south are mountain ranges, the former called Kichik-Alai, down the slopes of which Fedchenko descended to the very banks of the Surkhab, or, as it is there called, the Kyzyl-Su. He saw in the distance the southern and higher range, whose snowy peaks he judged must exceed 20,000 feet in height, and the most elevated of which, in this Trans-Alai range, he named after von Kaufmann, the Governor-General.

Fedchenko was followed, five years later, by General Skobeleff, who

The number of streams flowing down from this region is rather large, particularly of those issuing from the southern mountains, such as the rivers Isfara, Sokh, Shah-i-mardan, and Ak-Bura. They are formed of many streams, only a few of them taking their source from glaciers. From the northern mountains flow some small streams and one large one, the Naryn, which, with the Kara-daria coming from the east, forms the Syr-daria. Into this river the numerous surrounding streams ought to flow, but the natives have learned to divert them from their course by creating a vast system of irrigation, and by that means have redeemed a considerable tract

commanded a detachment that advanced to the Alai, into the very heart of the summer pastures of the Kara-Kirghese, to show them that after the Russian occupation they could no longer with impunity descend into the Ferghana valley, pillage the settlers, and retire unhurt to their mountain lands. The geographer attached to this expedition was Captain Kostenko, who not only crossed the Kyzyl-Su, but penetrated to Lakes Kara-Kul and Riang-Kul. The appearance of the Trans-Alai mountains he describes as that of an immense white-crested wall, limiting the Pamir on the north. South of this range extends a high tableland, rising towards the centre, and intersected in all directions by mountain ranges, some of which are snow-capped and some not, but, generally speaking, having only a small elevation above the adjoining valleys and plains. The valleys as well as the mountain slopes are bare. Only small strips of pasture occur along the mountain streams, affording food for the cattle of the nomads. The mountains are formed of soft rocks, and the passes are comparatively low. Generally speaking, the roads on the Pamir are easy in all parts, the ground being sandy-stony, argillaceous, sandy-salinous, or simply salinous. In those parts where the saline pools have become dry, the ground is covered with a thick layer of magnesia, glittering like snow. The severity of the climate is the greatest discomfort to man on the Pamir. The thermometer has been known to register in the shade, says Réclus, 18° below freezing point, whilst in the sun it rose to 158°, the traveller who manipulated the instrument needing to protect his hand from scorching in the sun's glare. The rareness of the atmosphere is also a source of discomfort, but its alleged injurious effects are said by Kostenko to be somewhat exaggerated. The country is roamed over by the Kara-Kirghese, who appear to have given Skobeleff little opportunity for slaughter. The scientific

of country from its natural sterility. The only other river in the province calling for mention is the Kyzyl-Su, which takes its rise at the very top of the water-shed, 10,000 feet high, whence flow streams down one of its slopes into the Oxus, and down the other into Western Mongolia at Lob-Nor.

The lakes of the province are few in number. One in the valley, centrally situated, is the Dam-Kul, about 14 miles long and rather less than half as broad. In the southern hills, near Shakhimardan, M. Ujfalvy visited the Lake Kutban-Kul in a valley covered with immense blocks of stone, piled on one another as if by art. He describes the water as dark-green in

results of the expedition were seen in the first charts ever made of the Alai and Trans-Alai mountains, and the northern part of the Pamir, the march route maps being based on well-determined points.

A third expedition, this time a scientific one, under the command of M. M. N. Severtsoff, was sent in 1877 and 1878 to the Pamir, for its exploration and geographical description, and for the investigation of its geological relations to the Thian Shan range. The Kaufmann Peak was determined to be 22,800 feet high, and the three-peaked mountain, Gurumdy, to the east of it, 20,300 feet. The party explored not only Kara-Kul, but the smaller lake, Riang-Kul, whence a good view is obtained of the eastern ranges of the Pamir, in one of which the principal summit rises to a height of about 26,800 feet, and is the highest peak of the "roof of the world." On the Ak-Su river Severtsoff determined barometrically the lowest elevation recorded in the Pamir—namely, 12,000 feet, and not far distant he came upon his first willow grove in the region, at a height of 12,300 feet, whilst tamarisk bushes were met with on the river up to 13,200 feet. In some of the swamps were found very thick deposits of peat, and amongst the marsh plants composing it were detected several northern species, the same as occur in the neighbourhood of Petersburg. In fact, the vegetation of the region we are considering presents an exceedingly unusual combination of Alpine plants with those of the northern Tundras and the South Russian steppes. In this flora are seen East Siberian, Tibetan, and Mongolian species, intermingled with those of Western Siberia and the Persian mountains. In addition to the variety of plants and insects, M. Severtsoff found the Pamir rich in vertebrates; he met with more than 20 species of mammalia, about 120 species of birds, 6 of fishes, and 2 species of amphibia, in swamps 12,700 feet high.

appearance, calm and tranquil, surrounded on the north and east by the aforesaid blocks, and on the other sides by mountains, rising abruptly and covered with perpetual snow. Six years previously to the visit of M. Ujfalvy this lake had been discovered to science by M. Fedchenko, after whom the French traveller desired to call it Lake Fedchenko. The water is good to the taste, and in it fresh-water trout are found. The Kara-Kul is, however, the most remarkable in the province, if not also the largest on the Pamir. The approach thereto from the north is very picturesque, surrounded as it is on all sides by snowy mountains, some of which have glaciers.*

I have already alluded to the great variations of temperature in the climate of this elevated portion of Ferghana. I may add that in this same region the winds are sometimes so terribly violent as to take away the breath, driving before them snow, dust, and sand, and causing the flocks to press together for safety. The air in this locality is in general very dry, and of a

* The lake, at a height of 12,800 feet, is divided into two basins, joined by a narrow strait, and the beauty of the scenery is heightened by the peculiar shape of the mountains, the dark blue appearance of the lake waters, and the general tint of colour pervading the whole locality, notwithstanding the comparative scantiness of vegetation. There are not wanting tokens to show that the Kara-Kul, now extending over 115 square miles, was at one time much larger. The water now brought to the lake by streams is insufficient to compensate for evaporation. Rain is very rare, and the precipitation is nearly always in the form of hail or snow. Before Kostenko's visit maps represented the Kara-Kul as sending off its waters either to the Oxus or to the river of Kashgar, or both, from which last, according to Réclus, it received from the Chinese the appellation of the Dragon Lake, as if they would compare it to a monster with two heads. It is doubtful, however, if it ever gave off water in the direction of Kashgar, though in times of flood it has not quite ceased to overflow towards the Oxus. As a stream rarely runs out of the Kara-Kul, evaporation has rendered the waters saline; magnesian salts making them so bitter that animals drink them unwillingly, though

singular transparency, except when the dust storms are brought up by the wind from the desert. These dry clouds are a common phenomenon on the Pamir and in Khokand, where Fedchenko describes them thus: "The atmospheric suction into the Ferghana hollow is so strong (through the Khojend opening) that it frequently draws in the heated air generated in the neighbouring sandy deserts. A wind called *Gharm-sol* then blows at Khojend and Khokand, that kills the silkworm." This wind blows frequently at the town of Khokand. The sun at such times appears like a large dull disc, without brightness. The dimness is produced from the air being laden with fine dust, which penetrates everywhere and carpets the ground.*

The Ferghana winds, however, are not without their advantages. They are, it is true, often strong and gusty, sometimes breaking in doors and lifting the roofs of houses, but they also scatter the miasma that rises from the heaps of filth in the inhabited parts of the valley, especially in populous Khokand. The temperature of the Ferghana hollow is of course very

they are always clear; and, judging from the manner in which falcons and other birds of prey plunge into them, the lake must contain fish. According to the nomads, the surface of the Kara-Kul rises regularly on Friday, which odd phenomenon, Réclus says, could be accounted for only by the action of some powerful intermittent source. Kostenko and Korostovtzef both speak of the periodicity of the risings of the Kara-Kul, but do not indicate their duration or extent.

* The hot winds on the Oxus at Hissar and at Khiva are called *Tibbad*. The same phenomenon in Yarkand, according to Mr. R. Michell, is described by Danibeg (1795), who says in reference to it: "An inexplicable dust, coming no one knows from where, falls like rain, and renders the autumn unbearable. The dust is so dense that the sun's rays cannot penetrate it, and this sometimes continues seven or eight days." Mr. R. Michell adds, quoting Rennell's "Herodotus": "It was perhaps the prevalence of these mists that gave rise to the expression 'Cimmerian darkness,' Scythia being anciently called Cimmeria."

different from that of the Pamir. In the lowest zone the climate is tropical, in the middle it is temperate, and in the highest bracing.*

As regards the geology of the province the rocks of the Alai under the clay and sand of the surface are spoken of by Réclus, quoting Mouchketoff, as composed of granite and crystalline schists.†

The Ferghana mountains are rich in minerals, such as iron, lead, coal, rock-crystal, amethyst, and other varieties of quartz, silver, mica, turquoise, sulphur, and naphtha, some of which are as yet known in no other part of Russian Turkistan.‡

Ferghana, however, is less remarkable for its mineral than its vegetable products, which vary, of course, according to the different belts or zones

* The heat at Marghilan goes up in summer in the shade to 104°. Osh has a more temperate climate than Marghilan, and a delicious temperature, the heat rising in July, 1877, to 77°. It rains there in summer, and the *Gharm-sol* just spoken of is unknown. In winter both these places are subject to cold, which often goes down to 5°, and in exceptional seasons to even — 7° or — 13°.

† The masses of granite, which without doubt would be seen to form the deposit if the plateau were gashed by torrents, are superimposed in the same manner as the principal chains of the Thian Shan. Down towards the Khokand valley, near the sources of the Isfara, Fedchenko speaks of the mountains as of conglomerate, tertiary clays, and gypsum, and adds that a great quantity of alabaster is there quarried for use in Khokand. In a grotto near Arasâne are found stalactites and stalagmites, and in the district of Andijan there are sulphur springs of 100° temperature.

‡ The only deposit of turquoise is found in Mount Karamazar, about 24 miles north-east of Khojend, in the valley of Biriouza-Sai. The adjacent mountains are composed of felspar porphyry, with veins of diabase. By decomposition the porphyry has become converted into argillaceous matter, traversed by numerous veins of ferruginous quartz. It is in these decomposed rocks that the turquoise is met with, either in the clefts of the quartz, or in those of the argillaceous porphyry, under the form of layers and small veins, of which the thickness attains from ·08 to ·12 inch, and isolated deposits from ·8 to 1·2 inch in diameter. Judging from the former workings and the

already described. The lands near the Syr are covered with tall herbs, often in patches, and with brambles. In the plains are poplars, willows, plane-trees, and karagaches; fruit-trees of all kinds, 16 sorts of grapes, and delicious melons of all sizes. Besides the usual cereals, they cultivate rice, maize, cotton, jugara, and lucerne of splendid growth. The jugara attains a height sufficient to form a hiding-place for men on horseback. The third and stony zone produces some unimportant gramineous plants, and here and there brambles and bushes. In the temperate zone one sees what may be called meadows, in the European sense of the word. The higher zones have vegetation of an Alpine character, and sometimes pine forests.

extent of decomposed porphyry, this deposit is rather important, and deserves attention. It would be easy to make a road nearly up to the locality where mineral is found; but amongst the drawbacks must be mentioned scarcity of water, and entire lack of wood.

Petroleum again is confined apparently to Ferghana. In the mountains, at several spots, it appears on the surface mixed with the water. There are known at least six springs in the province, all of them situated from 800 to 1,200 yards above the sea level. The localities where the petroleum springs have been found are completely bare of forests, and often lack water, though the road thither may be practicable. The quantity of petroleum coming to the surface daily from any one spring, as at Maila, does not exceed 50 gallons; but, if wells were bored, this quantity might be greatly multiplied. The petroleum proceeds exclusively from beds of cretaceous formation composed of very fossiliferous sandy limestone, red grit, green clays, gypsum, and marl. Most frequently the petroleum runs in the limestone, or lower, in contact with limestone and gypsum. As one meets sometimes with salt crystals in the clay, the water which brings the petroleum is nearly always salt. The more the petroleum beds are disturbed, the more abundant are the sources, and *vice versâ*. Near the springs are seen deposits of petroleum solidified, that bears the name of *kire*. Considering the vast extent of Ferghana territory over which petroleum is found, and the sparsity of population in the localities, Mouchketoff thinks that, without doubt, many more springs might be discovered. A third Turkistan mineral, of which the only deposit that merits attention is in Ferghana, is native sulphur. It is found 28 miles to the south-south-east of Khokand, in the Ir-Jaga ravine of the valley of Char-Su.

On the mulberry trees of Ferghana are raised the most valuable silkworms of Central Asia, and good tobacco is grown in the neighbourhood of Namangan.*

The fauna of Ferghana is better known to us than of any other part of Russian Turkistan, thanks to the labours of M. Fedchenko, who travelled round the province as a naturalist, and who made a collection of specimens that have been described in what I may call the great classical work upon Turkistan fauna.† It may suffice for the present to say that the domestic animals of Ferghana profit by the advantages of the climate, and are robust and well grown. The oxen are strong, and the cows give excellent milk, that of the Kirghese cows having, according to M. Ujfalvy, a perfumed taste. Along the Kara-daria aquatic birds are numerous, especially the Cormorant, the Ibis, and a long-legged bird of the order *Grallæ*, resembling the Flamingo. In the mountains Porcupines are common, as also the Maral, and, in the streams running into the Kyzyl-Su, Fedchenko discovered a species of Trout unknown in any river of the Turkistan plains.

As in other provinces of the country, the position of the Ferghana towns has been determined by the

* M. Pervushin, who, in 1869, made sundry experiments with American, Turkish, and Dutch varieties, was of opinion that the best sorts of tobacco might be grown in Turkistan as well as in Southern Europe, whence they are now imported into Russia. As the result of his experiments, he stated that an acre of land yielded 480 lbs. of tobacco, which at Moscow was valued at 13*d*. per lb. From the gross return of £70 for an acre must be deducted for expenses in preparing and watching the plantation £52—namely, £19 for the wages of 3 men employed for 160 days at 10*d*.; £2 10*s*. for rent; and carriage to Moscow at 19*s*. per cwt.; leaving a profit per acre of about £50. In 1870 M. Pervushin repeated the experiment, and planted 12 acres with results equally satisfactory. After transplantation the tobacco grew thickly and rapidly, and in the middle of August was ready for gathering.

† See Appendix on the fauna of Turkistan.

rivers. The banks of the Upper Naryn have on them only a few Cossack stations; but north of the confluence of this river with the Kara-daria is built the town of Namangan, with native manufactories of cotton stuffs, 1,000 shops, and an annual sale of 300,000 sheep. Here they construct rafts, which, laden with fruits, skins, and felts, are floated down the Syr. North-west of Namangan is Kassan, boasting of being the most ancient town in Ferghana, the Tajik inhabitants of which M. Ujfalvy pronounced the most handsome in Turkistan.

Chust is another town north of the Syr-daria, where they make knives, as famous in their way as those of Hissar. The waters of the Kara-daria lave several towns, beginning with Uzgend, situated, at a height of 3,200 feet, at the mouth of one of the defiles of the Thian Shan. This town has become famous by reason of a neighbouring tomb, whither pilgrimages are made in memory of Hoja Yusuf. South of Uzgend, but 2,000 feet higher, is the fortified town of Gulcha, defending from the Chinese the Terek-davan Pass. The principal town of East Ferghana is Andijan, watered by canals from the Kara-daria, and to the north-east of this are the thermal carbonated and sulphurous waters of Djalabad-Ayup, much frequented by the natives.

Osh, to the south-east of Andijan, upon the River Ak-Bura, is at the mouth of the valley by which one mounts to the Alai and the Pamir. The town commands a magnificent view, but the most interesting object is an isolated rock called Takht-i-Suleiman, or the Throne of Solomon, spoken of in conflicting Oriental legends.* To the west of the Ak-Bura are

* Some pilgrims come only to worship, they say, at the tomb of the

found several important towns in the Ferghana valley, such as Naukat and Aravan. Marghilan is situated on the River Shakhimardan, and by reason of its salubrity a spot near has been chosen by the Russian authorities for the site of the new capital of the province. According to local tradition, the "two-horned Alexander of Macedon," whom they speak of as one of the saints of Islam (!), died here, and the place is accordingly regarded as sacred. South of Marghilan, higher up the river, is the town of Shakhimardan, or "king of men," which claims to have in possession (as do other places in Muhammadan countries) the tomb of the prophet Ali, and is, consequently, one of the most famous resorts of Ferghana pilgrims. There are other populated places in the pretty valley of the Isfara, and among them a town of this name, numbering 5,000 inhabitants. I am not aware that any census has been taken, but of the towns I have named Khokand is said to possess 60,000 inhabitants, Namangan 50,000, and Marghilan 40,000, whilst Andijan and Osh are put down at 20,000 each, and the whole province at 729,690. For purposes of administration, Ferghana is divided into seven districts, of which that of Andijan is the largest, and Marghilan the most important.

vizier of Solomon, others kneel before what they consider the tomb of the great king himself. Here, say these latter, he was assassinated, and the hollow places in the flinty soil of the mountain are the hiding-places of his black dogs. There they drank his blood and ate his body. Into these holes the sick to be cured plunge their heads.

CHAPTER XXXIV.

AN EPITOME OF KHOKAND HISTORY.

Ferghana under Baber (1504) and his descendants.—Its subjection to China, 1759.—Independence and extension under Narbuta, 1770.—Madali and his conquests, 1821.—Communications with Russia and England.—Ferghana conquered by Emir of Bokhara, 1841.—Power of the regent, Mussulman Kul.—Accession of Khudaiar Khan, 1844.—Khudaiar driven to Bokhara, 1859.—Mulla Khan, and the regent Alim Kul.—Return of Khudaiar by help of Bokhara, 1862.—Khudaiar's authority strengthened by Russian treaty of 1868.—Revolt of the people and suppression of the Khanate, 1876.

THE Khokand or Ferghana valley in the fourteenth century formed part of the great empire of Tamerlane, whose descendant in the fifth generation, Zahir-ud-din Baber, was born in its ancient capital of Andijan, and subsequently ruled the country as an appanage to the throne of Samarkand. It was wrested from him in 1504, when, quitting his native land, he fled to India, leaving behind, it was supposed, in the flight of his harem, a child wrapped in brocades, who, being found in the Khokand deserts, was named Altyn Beshik, or golden cradle, and subsequently made sovereign, but over how much territory is uncertain. Altyn Beshik was followed, according to Sodi Hukm Singh, by a line of eight rulers* ; yet both popular

* Tungriyar ; Muhammad Amin Bi ; Abd-ul Kasim Bi ; Ubaid-ulla Bi ; Shahmast Bi, *alias* Chamash Bi ; Haji Khari ; Ashur Kul ; and Shahrukh Bek (or Atolyk).

tradition and the Chinese accounts agree, says Dr. Schuyler, that in the middle of the last century Khokand was not under one sovereign, but was divided into separate provinces, cities, and clans, each with its own Bek or Khoja.* According to Mahsum Khoja's account, Shahrukh, the eighth ruler, went from the Volga region to Ferghana, married the daughter of Ediger Khoja, murdered his father-in-law, and then became ruler in Ediger's stead. He was succeeded by Abd-ul Karim Bi, who built the present city of Khokand, and transferred thither his residence. Next followed Abdur Rahman Bi, his brother, and then Yardana, Irdana, or Erdeni, Bi, to whom, the great Chinese geographer says, all the other towns of Ferghana were subject.

It was in the time of Erdeni that Khokand appears to have come under Chinese influence, for when, in 1759, the general, Tchao-hoei, despatched some officers to put down the Buruts, Erdeni entertained the officers at Khokand, and subsequently sent in his submission to the Emperor Khian-lung. This was about the time that the Chinese exterminated the Sungarian Kalmuks. Tashkend had yielded to China in 1758, and after Erdeni's submission, the Beks of Andijan and Marghilan followed suit, and in 1760 sent with their tribute to Peking "horses that sweat blood," great eagles and falcons for hunting, and "plates of the

* In addition to the able sketch of the history of Khokand in Dr. Schuyler's Appendix, I have consulted two small works upon the subject, compiled subsequently to his, by Alexander von Kuhn, and Sodi Hukm Singh. The latter professes to have derived his chief information from "a most reliable and intelligent observer of the Khokand State, where he had every facility of observation"; and since there is such a paucity of Asiatic writers upon the subject, I have frequently quoted Singh, and sometimes given him preference where statements conflict.

fountain of the dragon." Erdeni died in 1770 without male issue, and was succeeded by Narbuta, his nephew.

Narbuta was a man of war from his youth. He added to his dominions Andijan, Namangan, and Ush, and laid the foundation of Khokandian influence in Eastern Turkistan, whilst in his latter days he tried to wrest Khojend from the ruler of Ura-Tiube. He made an alliance with the Emir of Bokhara, and fought against Ura-Tiube, but was beaten. He was also defeated when undertaking an expedition in 1779 against Tashkend, shortly after which he was beheaded, according to some, in 1780, or died, according to others, in 1806. Narbuta left three sons. The eldest two were Alim and Omar, each of whom in succession reigned four years. In the reign of Alim, Khojend, Ura-Tiube, and Tashkend were all added to Khokand, and various forays were made further north against the Kirghese. Alim, moreover, is said to have been the first who gave himself the title of Khan, who ordered his name to be recited in the *Khutbe*, or daily prayers, and who coined money.* In the reign of his brother Omar, the town of Turkistan and several others to the north were conquered, and the last descendant of the Kirghese rulers, Tozai Khan, was forced to seek refuge in Bokhara.

In 1821 Omar Khan died, or was poisoned by his son Muhammad Ali, who then became Khan, and reigned for 20 years, his name being contracted to Madali. Madali exiled some of his relatives, one going to Bokhara, the Emir of which country quarrelled with Madali in 1825, though the quarrel was patched up, and the Khan was free to try his arms in Kash-

* For list of Khokand coins, see Poole's "Catalogue of Oriental Coins in the British Museum," Vol. vii., p. 86.

garia, whither he turned to aid Jihangyr Khoja, whose ancestors had been driven from the throne of Kashgar by the Chinese in 1756. Madali and Jihangyr were temporarily victorious, but a Chinese army of 70,000 men came and drove back Madali and the Khokandians, taking away Jihangyr to be executed at Peking. The next year, 1828, a brother of Jihangyr tried to obtain possession of Kashgar, and again Madali helped. Kashgar, Yangi-Hissar, and Yarkand were all taken, and, on the approach of another Chinese army, the Khokandians again withdrew with their booty—a process that so sickened the Chinese that they determined to buy peace and quiet of the Khokandians, and concluded a treaty at Peking in 1831, whereby Khokand was to receive duties on foreign goods imported into Kashgaria, and was allowed to maintain representatives in various towns to collect them. This, of course, gave Khokand influence over Kashgaria, so that subsequently Madali conquered Karategin, and forced Kulab, Darwaz, and Shignan on his southern border, to recognize his authority. It was about this time (1835) that the first official intercourse took place between Khokand and Russia. The Tsar having requested the Khan to promote trade between the two states, by protecting Russian subjects, Madali sent his spiritual guide (*pir*) to Petersburg, to give assurances of future security and to profess friendship. Six years later the Khan hospitably entertained the English captain, Arthur Conolly, sent to him in 1841 by the British Government from India.

Madali's career, brilliant as in some respects it had been, was, however, coming to an end. From a warrior he sunk to a sensualist, having already incurred much unpopularity by his marriage with two sisters and his

father's widow. Nasr-Ullah, the Emir of Bokhara, his hereditary and powerful foe, who, in pursuit of his claim to the Khanate, had twice vainly attempted to subdue Khokand, now sent a letter to the Khan, accusing him of breaking the Muhammadan law; whereupon the enraged Madali imprisoned and half-shaved the bearers of the letter, and made ready for war, the end of which was that Madali was beaten, and by order of the Emir executed in 1841. The step-mother, fated to be spouse of three sovereigns, was taken to wife next by Nasr-Ullah, and the other wives of Madali Khan, forty cartloads of them, were also taken to Bokhara.

The Emir now reasserted his old pretensions to the Khanate, declared that the territory belonged to him, and appointed as governor Ibrahim, who, before three months had expired, so oppressed the people as to drive them into a general insurrection, from which he had to flee into Bokhara, and the Khokandians placed on their throne, as Madali's successor, the aged Shir Ali, a nephew of Narbuta. The Emir, enraged at Ibrahim's loss, set out to regain the Khanate with 20,000 men and 250 Khokandian hostages, thinking that the Kipchaks, by whose bravery Shir Ali had been set on the throne, would flee at his approach.

Among the hostages, however, was a brave and popular Kipchak, called Mussulman Kul, who had been an officer in Khokand. He flattered the Emir that he could obtain for him possession of the city, and he was accordingly allowed to enter. Instead of this he preached "No surrender," and contrived so to outwit the Emir, that, after a siege of forty days, the Bokhariots returned to their own land. Mussulman Kul now became king-maker in Khokand. Shir Ali was simple, good-natured, and weak, and his reign of

three years was marked by struggles for supremacy between the Kipchaks or nomads and the Sarts or townspeople. The Kipchaks, having placed the weak Shir Ali on the throne, thought that their chief Yusuf should govern the country. But the head of the Sart faction, Shadi, was preferred by the people, and, with the consent of the Khan, poisoned Yusuf, and summoned Mussulman Kul to come to Khokand. Mussulman Kul replied politely that he was on his way, but in reality he gathered an army as he came, slew Shadi, and took his place as *Mingbashi*, to find himself, however, between two fires—namely, the Sarts, whom he could not satisfy with sufficient posts of honour, and the Kipchaks, who were jealous of his prominence.

At length one of the dissatisfied parties in 1845 sent deputies to a son of the late Alim Khan, Sultan Murad Bek, who was living in the Khanate of Bokhara, to come to Khokand and take possession of the throne. Murad easily persuaded the Emir, Nasr-Ullah, to help him, and, proceeding to Khokand with a small force, in the absence of Mussulman Kul, who was gone to the mountains to collect tribute, he seized the capital, slew Shir Ali, and proclaimed himself at once Khan of Khokand and vassal-lieutenant of the Emir of Bokhara. Here he made a mistake, for the Khokandians so hated the Bokhariots, that word was immediately sent to Mussulman Kul, who advanced with his forces, stopping, however, on his way at Marghilan to take with him his son-in-law, Khudaiar, who was one of the younger sons of Shir Ali. As soon as Murad heard of the approach of Mussulman Kul, he fled from the city, after a reign of 17 days, in 1844, and left the king-maker to take possession.

Shir Ali had left five sons, Sarymsak, Khudaiar,

Sultan Murad, Malla, and Sufi. Sarymsak was 22 years of age, and Bek of Tashkend, to whom Mussulman Kul sent, asking him to become Khan, but caused him to be murdered on the way, after which Khudaiar was proclaimed Khan. And thus came on to the Khokandian stage, at the boyish age of 16, the Khan whose name so often occurs in connection with the Russian conquest, and who, during a period of 31 years, from 1844 to 1875, was thrice raised to sovereignty and thrice deposed. Khudaiar's first occupation of the throne lasted 16 years. During that period the Kipchaks were in the ascendant. The boy-Khan was kept by Mussulman Kul, his father-in-law, in strict seclusion, from all the affairs of state, and allowed but little money, lest he should acquire friends by giving them presents. The Regent also removed from the government every Sart who had been hostile to him, and raised up enemies for himself, even among the Kipchaks, especially Nur Muhammad, Bek of Tashkend. Khudaiar chafed under the tutelage of his father-in-law, and when, in 1850, he reached his majority, he was ripe for taking reprisals. An opportunity arrived in the following year, 1851, when Nur Muhammad led his forces towards the capital with the hope of overthrowing Mussulman Kul, but his purpose was defeated. Later, rebellion having broken out, Mussulman Kul marched against the Tashkendians, taking with him the Khan, because he did not dare to leave him in Khokand. Just before the decisive battle, it was found that Khudaiar had stolen away at night and joined Nur Muhammad, upon which Mussulman Kul did not lose his presence of mind, but conquered and slew Nur Muhammad (so at least says von Kuhn, but not Schuyler), and

took the young Khan prisoner. The Regent and Khan, however, came to terms, and matters returned to their old footing for nearly six months, when, on a festive day in Khokand, the Sarts, with their knives, set upon Mussulman Kul and slew his followers, though he himself escaped, gathered another army, and marched against Khokand. This time he was not successful, and had to flee once more to the Kipchaks, who now gave him up to the Khan, much to their subsequent chagrin, for Khudaiar, having escaped from Kipchak tutelage and surrounded himself with Sarts, gave orders that the Kipchaks throughout the country were to be slaughtered. In the course of three months, 20,000 persons it is said were killed, Mussulman Kul was exposed on the scaffold for three days, whilst 600 innocent Kipchaks were slaughtered before his eyes, and finally, in 1853, he himself was hanged.

The ascendency of the Sarts was now inaugurated, and Mirza Akhmet appointed Bek of Tashkend; but he, by his severity, excited great discontent among the Kazaks of Chimkent and Aulie-Ata. This was in 1857, when the Kara-Kirghese and the remnant of the Kipchaks entered into negotiations with Malla, or Mulla, Bek, (an elder brother of the Khan) proclaimed him ruler, and marched against Khudaiar in Khokand, whereupon Khudaiar was beaten, and driven to take refuge in Bokhara, whilst Malla was received as Khan in 1859.

Malla Khan reigned for two years, and had for his chief adviser Alim Kul, who greatly disappointed the Kipchak chiefs by not giving them posts in the government, whereupon they conspired to murder the Khan, and proclaimed in his place Shah Murad, a boy of 15 years, nephew of Khudaiar. They would also

have killed a son of Malla Khan, Seid Sultan, 13 years old, but Alim Kul got him away to Andijan, though he feigned submission to the government of Shah Murad.

Meanwhile Khudaiar had received a welcome at the court of Bokhara, and Nasr-Ullah permitted him first to live at Samarkand; but then, changing his disposition towards him, Khudaiar was compelled to retire to Jizakh, where, having no means of subsistence, he took to trading, and supported himself as a carrier. From Jizakh, Khudaiar was recalled by turbulent spirits at Tashkend, who were dissatisfied with the government of Shah Murad, and with their help he overcame Alim Kul, put Shah Murad to death, and in 1862 Khokand received back its old tyrant with delight. But there were now two parties in the Khanate; for Alim Kul proclaimed Seid Sultan Khan, and began decisive operations against Khudaiar, who applied for assistance to the new Emir of Bokhara. Mozaffar-Eddin, son of Nasr-Ullah, came in person with a large army and drove Alim Kul into the defiles of Kara-Kuldja, whence he would not be dislodged, whereupon the Emir got angry with Khudaiar, and returned to Bokhara in 1863, whither Khudaiar was obliged to follow his patron, whilst Alim Kul, as supreme ruler, and Seid Sultan as Khan, entered Khokand. Matters continued thus for three years, Alim Kul fighting the Russians, and losing in succession Aulie-Ata, Turkistan, and Chimkent. At the same time he roused against himself the inhabitants of Khokand by his rough severity. For a time he maintained comparative quiet, but soon met with discontent, and petitions went out from every city to Khudaiar to return.

Khudaiar was once more rusticating at Jizakh, carrying on mercantile operations, but this time on a larger scale. He again persuaded the Emir of Bokhara to render assistance, and preparations were being made, when news arrived that Alim Kul had been killed in fighting near Tashkend. Upon this the young Seid Muhammad Khan, with some of his chiefs, fled to the city (whence he was conveyed to Bokhara, and ultimately, in 1871, murdered by Khudaiar), whilst others of the chiefs fled to Khokand, and raised to the throne Khudai Kul, on 8th June, 1865. He reigned till the 11th July, when, with the help of the Bokhariots, Khudaiar for the third time was raised to be Khan, the Emir claiming Khojend and Ura-Tiube as the price of his services.

Khudaiar might now have reigned in peace had he conducted his home affairs with the prudence he showed towards the Russian invaders; for he avoided the wrath of the Governor-General, which fell on the head of the Emir, and seeing that he could not dream of regaining the part of Khokand the Russians had taken, he accepted the inevitable, and asked for a treaty, that was concluded in 1868, between him and the Governor-General of Turkistan, the result of which was greatly to strengthen Khudaiar's power over his subjects. Unfortunately, however, Khudaiar and his councillors were bent upon little else than their own aggrandisement, and they shrank from no means of gaining it. Taxes, unjustly imposed, increased year by year, and the hatred of the people against their Khan increased accordingly. In vain the Governor-General warned Khudaiar, bidding him reform his administration.

In 1871 a revolt broke out, but was terminated.

Two years later a more serious movement began, in consequence of the Khan wishing to impose additional taxes on the Kara-Kirghese. This revolt also was quelled, but by the beginning of 1874 the general feelings of the Kipchaks and Kirghese were turned against Khudaiar, and the insurgents proposed to Nasir-ud-din, son of Khudaiar, that he should reign over them, and lead them to fight the "infidels," with whom his father had entered into alliance.

Nasir-ud-din agreed to the silly proposal, whereupon a general insurrection broke out in 1875 against Khudaiar, who, on the 24th July, escaped to the Russians for protection, whereupon the supporters of Nasir-ud-din hastened to the capital, raised their nominee to be Khan, and declared a religious war with the Russians, the result being that in a few weeks the Khanate was wiped out of existence. In the spring of 1876 Khokand was formally annexed to the Empire, under the name of Ferghana, but the turbulent nomads in the mountains had not yet sufficiently learned the necessity of submission, and, therefore, the Alai expedition was sent into the mountains, under Skobeleff, and the country completely subjugated. It was but six years after these events that I entered Ferghana and its ancient capital, and to the description of my journey there I shall now proceed.

CHAPTER XXXV.

FROM KHOJEND TO KHOKAND.

Hospitality of Khojend Nachalnik.—Stations to Khokand.—Surrounding mountains and their minerals.—Sand barkhans.—Native buildings.—Arrival at Khokand.—Lodging in summer residence of Tim Bek.—M. Ushakoff our host.—Oriental "politeness."—Visit to Synagogue.—Information concerning Jews of Khokand and Bokhara.—The bazaar: its jewellery, ewers, and furs.—Khokand trade.—View from medresse of Murad Bek.—A puppet-show.—Inspection of hospital and Khan's palace.—Distribution of Scriptures.—Visit to native merchant.—Ferghana communications, and routes to Kashgar and India.

IT was pleasant to find, when arriving at Khojend on the afternoon of Friday, September 22nd, that our coming was expected by the Nachalnik, who immediately gave orders for the preparation of dinner. Whilst waiting I felt unusually tired and sleepy, though I know not why, for we had been travelling only 40 hours, which was nothing in comparison with the nights upon nights spent in the tarantass north of Tashkend; but I suppose my training had been somewhat demoralized by sleeping in a bed, and the comparative comforts we had enjoyed at the capital. Dinner over, the Colonel gave us a basket of splendid fruit, and then, preceded by two djiguitts, mounted his horse to see us off. Thus escorted through the bazaar, the natives were all politeness and attention, each rising,

some bowing, and others dismounting; and so it continued till we had reached the outskirts of the town, when the Colonel bade us adieu, and asked us to call in returning. We pursued our way past the village of Ispsar, 840 feet above the sea, and in the evening reached Kostakoz, where we could have no horses, we were told, until 11 o'clock. Whether this was unavoidable I am not sure, but the Colonel had told us beforehand that this post-master had received notice to quit, and so was not in an amiable mood, on which account, I suppose, a djiguitt had accompanied us, but who vainly asked for horses immediately.

Towards midnight we started for the remainder of our little journey to Khokand,* and midway to the next station crossed the boundary into Ferghana. By daylight we had passed Kara-chukum, and once more approached the Syr-daria, on the bank of which is situated the Khokandian frontier fortress of Makhram, a large square building for 500 Khokandians, with high crenelated mud walls, and protected on three sides by a deep moat.

We were now about 1,300 feet above the sea, and in the distance had mountains before us in every direction. On the left was the Kurama-Tau, separating Ferghana from the Kurama district, through which we had just passed. Over this range, by the Kendir Davan pass, is a direct but difficult caravan route, open the whole year, from Tashkend to Khokand, and there are three other second-rate passes in the range, but not very

* Stations from Khojend to Khokand, with distances in versts :—

Khojend—		Chuchai	21
Kostakoz	18	Khokand	11
Kara-chukum	22		
Patar	28	Total	124
Bish-aryk	24		

practicable. In the same mountains are some rich deposits of argentiferous lead.* In one locality the mineral contains 60 per cent. of lead, the latter yielding nearly an ounce of silver to the ton. On our right, but further off, was the Turkistan range separating Ferghana from the Zarafshan valley, and having some coal mines at Kokine-Sai, 25 miles south of Khojend.

Immediately in front of us was a prospect not so pleasing, for we had to cross a stony waste of reddish sand for 20 miles, on which there was little vegetation but camels' food. As we returned, our driver informed us that he had already driven the journey and back with his horses once, so that when he reached home with our steeds, he would have had that day 75 miles of desert travel. At Patar we found a good station, and reached an oasis with vegetation. Beyond this the country was interspersed by desert patches of shifting sand, which encroaches like a flood, destroying houses and cultivated fields, and so driving away the population.† The road from Patar was atrocious. Here

* The deposit in the Karamazar mountains, 25 miles north-east of Khojend, is the richest of its kind in Turkistan. It is composed of several lodes of compact argentiferous galena associated with blende, copper pyrites, cryolite, and azurite. The thickness of the principal lode reaches 7 feet. The lodes all run in a north-easterly direction with a dip of 80° towards S.E. Some of them are located in the metamorphosed limestone, near spots where diorite crops out. The largest are found where the diorite and limestone are in contact. Judging from ancient workings, the metalliferous lodes occupy a vast area The principal gallery is situated at an altitude of 5,000 feet, and a road, available for carriages, runs to within 6 miles of the mine. From this point the road remains practicable for sumpter animals, but in the immediate neighbourhood there is a lack of water.

† Of 85 acres of cultivated land at Patar, no less than 33 have been overwhelmed. Here they reckon the annual progress of the sand at 50 feet. In the case of Anderkhan, also in Ferghana, the whole village had to be transplanted to a spot more than a mile distant. The sand

we saw dozens of sand-heaps, or *barkhans*, which, by reason of the unilateral direction of the wind, take the form of a horse-shoe. These were the first we had met with on so considerable a scale, and they presented a curious appearance, the surface being sometimes rippled as on the seashore. Some rose at an angle of 45° to the ridge, here and there perhaps 100 feet high, but always descending abruptly on the interior. One had only to think of the Gharm-sol wind to easily understand why the district in ancient times was called "*Ha-Dervish*," from the fact, related by Baber, of two dervishes having lost themselves in this desert and perished, calling out "*Ha-Dervish! Ha-Dervish!*" Fortunately for us, when we passed, the air was calm and the sand at rest.

The post-station at Bish-aryk stands a little to the west of the village, where there is a bazaar; and before reaching the next station, Chuchai, the aspect of the country had entirely changed. The roads, too, improved greatly, verst-posts appeared, and sundry objects testifying to the good government of General Abramoff met the eye. On either side of the way are rows of trees, the land is well cultivated, and to right and to left are seen gardens surrounding houses.

is extremely fine, runs about almost like oil, and contains 70 per cent. of quartz. It comes from the deposits of mountain torrents, which bring down pebbles from the erosion of grits, either of the Jurassic or Lower Tertiary, or from the disintegration of the Upper Tertiary formations, and further, from the deposits formed by the Syr and Amu rivers. The little pools of the Steppe partially stop the blowing sand, and thus begin the monticules that grow to *barkhans*, as the natives call them; but it is only vegetation that can stop them effectually, the plants most efficacious to that end being *Arundo arenaria*, *Alhagi camelorum*, *Halimodendron argenteum*, mugwort, poplars, etc. In the time of Khudaiar Khan the vegetation on the sand-dunes was spared, but later the natives cut it down for fuel, and their lands were further encroached upon, so that the Russians have been obliged to issue fresh regulations for the fixation of the sand-dunes.

As we approached the town we saw men engaged in building houses, which are everywhere made of earth that has been worked by the feet.*

As we approached the town walls their cracked condition showed them to be of similar material; and as we passed in at the city gate I noticed a platform on either side, which would serve alike for a guard-room, a toll-house, or perchance a place of judgment or council. M. Nicolai Nicolaivitch Ushakoff, our intended host, had promised to send to the gate a djiguitt, or policeman, to await our coming; and when we arrived about noon, the man was there in flowing robes and white turban, ready to mount his horse and precede us. I was thankful that he did so, for otherwise it would not have been easy to find the way.

Khokand, being only about a century and a half old, is said to have better streets than some of the older towns of Central Asia. In most they are irregular and narrow, only the main streets being sufficiently wide to allow of the passage of a native cart. The shops, tea taverns, and barbers' rooms are usually situated along both sides of the main street, leading from the principal gate to the centre of the

* On the spot where they purpose to have a wall they place one or two rows of low uprights. To these are fastened boards close to each other, and these are again secured between more uprights. In the interstices between the rows of boards braces are placed obliquely, after which they begin to erect the wall of mud balls. The walls are about 10 inches thick, and on them, to support the roof, are placed beams 21 inches apart, the intervals being filled with sticks about 2 feet long, and on these are thrown reeds or matting. It then only remains to smear the covering several times with mud mixed with cut straw, and the *potolok* or roof is ready. The high windows, about 14 inches wide, are generally inserted in the walls of the courtyard, and are mere openings with wooden bars, like the gratings of a prison, but sometimes paper is placed over them. The floors are either mud-plastered or paved with flat, square, kiln-burnt bricks.

town, and on to the market-place, commonly called the Rhigistan. In the present instance, however, we had to make our way through bye-streets, with blank walls on either hand, and with just room enough for our vehicle. There was so little to distinguish one street from another, that we seemed to be threading a perfect maze, until at last we entered a garden and grounds surrounding a house that had been used occasionally by the late Khudaiar Khan, but was properly the summer residence of Seid Nasir Timbek, his eldest son. It was of native build, and the prettiest of its kind I saw in Asia. There was a central hall, perhaps 40 feet by 20, with chambers all round, screened off by blinds. Comparing the building for a moment to an English church, it was lighted from the clerestory through open woodwork, unglazed, there being no glass used in the town before the advent of the Russians, except in the Khan's palace. The room that would represent the chancel was to be my sleeping place; at the opposite end, on either side of the organ gallery, had been the women's apartments; in the south aisle was our host's sleeping place; and in the nave we were to write, eat, and spend our time by day, the place presenting a curious mixture of Asiatic baldness and European comfort. The building had been forfeited, I presume, to the conquerors, and granted to M. Ushakoff for a summer residence, though he preferred to live in the town during winter.

Our host, being a judicial functionary, had command of several djiguitts, of whom a number always accompanied him in the streets, and I soon saw that to have them was no mere question of parade, but that they were of real service in clearing the way. It being Saturday afternoon, I asked to be taken to the meeting

place of the Jews. M. Ushakoff and the *Nachalnik gorod* accompanied us in open carriages, and as one native after another arose from his squatting position and respectfully stood erect, or stroked his beard, or as another dismounted from horse or camel, my cicerone drew my attention to what he called Asiatic politeness. But it had struck me in another way. The subservience of the Khokandians excelled all I met in Central Asia; and when I remembered that Khokand had come but recently under the sway of the Russians, and that only after two or three sound thrashings, it occurred to me that this alleged politeness might be in reality fear.* Dr. Schuyler, at all events, experienced no such politeness from the Kkokandians when they were independent, nor did we from the natives in the town of Bokhara.

On arriving at the small square white-washed room that served for a synagogue, we found it full of worshipping Jews wearing Sart skull caps, and the טלית (*talith*), or scarf thrown across the shoulders during prayer; and if they had not what we should call "fringes" on their garments, they at least wore on "the borders a riband of blue,"† with fringe attached. They wore also phylacteries, or certain verses from the law, in a little box, as "a sign unto thee upon thine hand, and for a memorial between thine eyes" (Exod. xiii. 9); and I observed certain cases where the extra large size of these *tephillim*, as they term them, recalled the words, "They make broad their phylacteries, and enlarge the borders of their gar-

* I could not help thinking of the promise to the Israelites: "This day will I begin to put the dread of thee and the fear of thee among the nations" (Deut. xi. 25), for no Khokandian seemed to dare to "move his tongue against any of the" Russians (Josh. x. 21).

† Numb. xv. 38.

ments" (Matt. xxiii. 5). They were all reading aloud, and led by a precentor, and my attention was called at a portion of the service to the prayer for the Russian Emperor.* My letter of commendation obtained for me a speedy welcome, and I began to inquire for ancient manuscripts, but they had none, their quite modern copy of the law having been written in Bokhara at a cost of £15. I gave them a copy of the Old Testament and of the New, both in Hebrew, and in return a man presented me with a ring, which he appeared to wear as a talisman.† In a second place of assembly close by, we found women present, parted off from the men, but not veiled. My further inquiry for old manuscripts elicited the statement that there was a *genizah*, or place of sepulture, in Samarkand, where many Hebrew books are buried, though subsequently I could hear nothing about them there. Whilst speaking to a Jew from Bokhara, and asking whether they remembered Dr. Wolff coming there, he gave me the interesting reply that his father saved the life of "*Yusuf Voolff*," who appeared at Bokhara "the first time as a Jew, but later as an ambassador."

Subsequently an intelligent Jew came to our house to buy copies of the Old Testament, cunningly adding, "They do not buy the New Testament here," though he had commenced reading, he said, the one I gave him. I took the opportunity to ask him concerning the Jews in Central Asia, who, he said, were descended

* Thus showing that they were not forgetful of the counsel of the prophet Jeremiah (xxix. 7): "Seek the peace of the city whither I have caused you to be carried away captives, and pray unto the Lord for it; for in the peace thereof shall ye have peace."

† On it is written, אלהא ד"ר מאיר ענני ב"ר'שדי, which gives the name of the priest from whom the ring came, thus (literally), "God of rabbi Mayer, answer me in Thy mercy, O Lord."

from Judah and Benjamin, the two tribes dispersed over Europe and Asia, whereas the ten tribes, he thought, were dwelling "beyond China."* In Khokand he informed us there were from 200 to 300 Israelitish residents, and from 300 to 400 sojourners, mostly merchants, dyers, manufacturers, and druggists. I expressed surprise that they had no regular synagogue, but he explained that until the advent of the Russians the Jews had been fewer in number, that they had no right to buy land, and were forbidden by the Khan to build a synagogue; that they were, in fact, under similar restrictions to those from which their brethren in Bokhara still suffered. They could not enter the city mounted, were forbidden to wear a turban, and allowed only a black calico cap for the head, and a piece of string for a girdle; and though they were compelled to pay double taxes, as compared with the Sarts, yet if a Jew were insulted, or even beaten, by a Muhammadan, he could claim no redress, and, moreover, that four or five Jews, during the later years of the Khanate, had been compelled to become Mussulmans. I asked whether I could do anything for the welfare of him and his brethren, whereupon he said that under the Russians the Jews were free, and had no need of help, but that they were oppressed in Bokhara, the 15,000 Jews in that city being allowed to have only one synagogue. I inquired for a certain Israelite, to whom I had an introduction, and learned that he was at Samarkand. A letter also was given me to a Jew in that place, from one in Khokand, and at first a letter of introduction was promised to

* He thus testified from an independent source to certain migrations of Jews to China, on which Mr. Finn has thrown considerable light, and to which I shall allude hereafter.

one in Bokhara, but the promise was afterwards withdrawn, through fear lest the name of the giver should come to the ears of the Emir, and punishment might thereby ensue!

From the synagogue we went to the bazaar, which I did not see to advantage, because it was not one of the bi-weekly market days, Thursday or Sunday, but which Dr. Schuyler and M. Ujfalvy agree in praising as the best in Central Asia. The streets are roofed over like a succession of lofty arcades, affording air, and shelter from the sun. One meets there with all the products of Central Asia: silk and velvet from Bokhara; silks, stuffs, and camlets from Marghilan; hand-worked copper goods made at Karshi and in Khokand itself, where the coppersmiths are very skilful; leather trunks from Bokhara; Dungan hats from Western China; *tibéteikas*, or skull caps, of various patterns; *khalats*, or robes of startling colours, in satin and silk; Samarkand knives, jewellery, and objects cut in jade and onyx. The jewellers of Khokand make numerous earrings, ornamented with imitation stones. The bracelets of massive silver are open, like those of the Middle Ages, and their gold collarettes and silver seals rival those of Samarkand. The ancient jewellery is more remarkable, the forms are more original, and the stones sometimes real, thus pointing to an age when goldsmiths flourished in Central Asia.

I was struck with the brass ewers, for the manufacture of which Khokand is famous. They are made of graceful form, and tastefully chiselled, the ancient specimens often presenting beautiful enamel work. I secured a handsome one for the British Museum, and had another, still handsomer, presented to me in Khiva. I bought, likewise, a teapot of similar work-

manship, and specimens of native finger- and ear-rings, buckles, bracelets, and charms. Among other articles of trade brought to Khokand from the surrounding mountains are various kinds of furs, the prices of which vary from 2*s.* for a black cat, or a black sheepskin, to 40*s.* for a black lambskin, or 50*s.* for that of a tiger.* Before the annexation of the Khanate, opinions differed widely as to its wealth and the extent of its commerce. According to the figures of M. Petrovsky, it appears that, in 1872, 56 varieties of imports to Khokand, from 6 sources, amounted in value to only £51,426, whilst there were exported from Khokand, to 7 destinations, 33 varieties of merchandise to the value of £64,844, an increase over the imports of £13,418.† Whether trade has increased since the annexation of the Khanate in 1876 I know not. I am not aware that statistics have been published. One merchant, however, told me that the carrying firm he was connected with did business, in the time of the Khan, to the value of £2,000 a year, but that it had now fallen to one-fourth of that amount.

* Prices of various furs at Tashkend in 1879:—

Marten	8*s.* to 10*s.*	Sheepskin	6*s.* to 10*s.*
Dark brown fox	16*s.* to 24*s.*	Black Lambskin	20*s.* to 40*s.*
Yellow fox	2*s.* 6*d.* to 4*s.*	Wild Cat	16*s.*
Bear	10*s.* to 20*s.*	Tiger	40*s.* to 50*s.*
Kara-kulka (black)	10*s.* to 13*s.*	Panther	16*s.* to 20*s.*
Kara-kulka (grey)	8*s.* to 10*s.*		

† Imports to Khokand from—

	£
Orenburg	11,900
Troitzk	9,085
Petropavlovsk	9,184
Russian towns	19,163
Semirechia	377
Syr-daria province	1,714
Total	51,426

Exports from Khokand to—

	£
Orenburg	20,540
Troitzk	15,160
Petropavlovsk	14,758
Semipolatinsk	353
Russian towns	3,026
Semirechia province	2,062
Syr-daria province	8,943
Total	64,844

From the bazaar we made our way to the brick medresse of Sultan Murad Bek, looked into some of the students' rooms, and then mounted the minaret to get a view of the town, the general appearance of which, as with other inhabited places in Central Asia, is decidedly unattractive, for patches of green are its sole adornment. Nevertheless the natives call it "Khokand-i-Latif," or "charming Khokand," which title must refer, I suppose, to its surroundings, consisting of the snow mountains we could see in more than one direction. Anciently the place was environed by marshes and frequented by wild boars, whence the town is supposed to derive its name "Khok-kand," or "town of pigs." Doves were flying above the uninviting mud roofs, and in the distance were the city walls, said to be 12 miles in circumference, enclosing a population of 60,000 souls. It was not easy to distinguish particular buildings, but they have in Khokand a manufactory that supplies many of the Central Asian towns with writing-paper, suitable for the gummy ink the natives use for writing, but the Russians import their paper from Europe. Whilst we were looking from the minaret the sun went down, whereupon we saw some of the students go to evening prayer, and we started homewards, to be joined at dinner by Major Vladimir Alexandrovich Tolmatcheff, in command of the Cossacks, a young man for a major, but who had distinguished himself, if I remember rightly, in the province under Skobeleff, and who, now that fighting was over, seemed to find things exceedingly dull. After dinner, M. Ushakoff had prepared us an evening's amusement with native marionettes. A puppet-show was put up in his room, in front of

which two men played tambourines. The late Khan and his courtiers were placed on the stage, and for their amusement miniature dancing boys and girls were made to play their part before them. This was done with considerable fidelity to nature. Next the Emir of Afghanistan was introduced as having 40,000 soldiers, and the Khan of Khokand 30,000, and then something like a battle was enacted, on which the Russians stepped in, and put them both to flight, the affair concluding by firing miniature cannons.

I needed no rocking that night to send me to sleep, and on the following morning was taken to call on General Iphimovitch, who was for the time being acting as Governor of the province in the room of General Abramoff. We found his Excellency with his staff under silk tents in a garden, where we were offered fruit. Then we followed the General in making an official tour of inspection, first to the barracks and next to the military hospital. The latter was an airy building, said to have been erected by the late Khan for an asylum, but never finished, and since adapted to its present use by the Russians. We next went to the prison, where, in taking notes, my stylographic pen—the first seen in the town—puzzled the bystanders to know where the ink came from. There was nothing remarkable in any of the buildings thus far visited, but we next entered a place of greater interest—namely, the palace of the late Khan of Khokand. I had seen many, if not most, of the regal and imperial palaces of Europe, but never before the dwelling of an Asiatic potentate, and this one called for the more attention because in architectural pretensions it outdoes any other modern native building in Central Asia. The *urda*, or, as it is

called in Bokhara, the "*ark*," which, like *kremlin*, means "the citadel," is situated in the centre of the town, in an open space large enough for the Russian troops to exercise in. It is a huge rectangular construction, enclosing several courts and buildings, and surrounded with moat and high walls. A portion of these latter was blown up with dynamite, by order of Skobeleff, at the taking of the town, to the great astonishment and stupefaction of the natives, by whom the like was never seen before. The palace has towers at the corners and two in the centre, the whole front being faced with glazed tiles, white, green, and blue, with a large inscription running along the cornice, "Built by Seid Muhammad Khudaiar Khan in the year 1287" (1870). We approached the entrance up a corduroy slope, and found at the palace gates two copper cannons, of native manufacture, with silver inscriptions, not rifled, and with bores hardly smooth. The gates of the building were of finely-carved wood. On entering, we found the courts very spacious, and surrounded by open galleries, the supporting columns being of wood, with graceful capitals. The painting on the friezes and ceilings was extremely fine and varied, and was perhaps the most artistic feature of the palace, for the enamelled bricks did not bear close inspection, and were not equal to those of mediæval make such as we afterwards saw in Samarkand.

The Khan's throne room, where ambassadors used to be received, now serves for a Russian chapel, wherein the walls are highly painted and the window-shutters carved. The room in which the Russian commandant was living was filled with European curiosities at the time of taking the town, and among

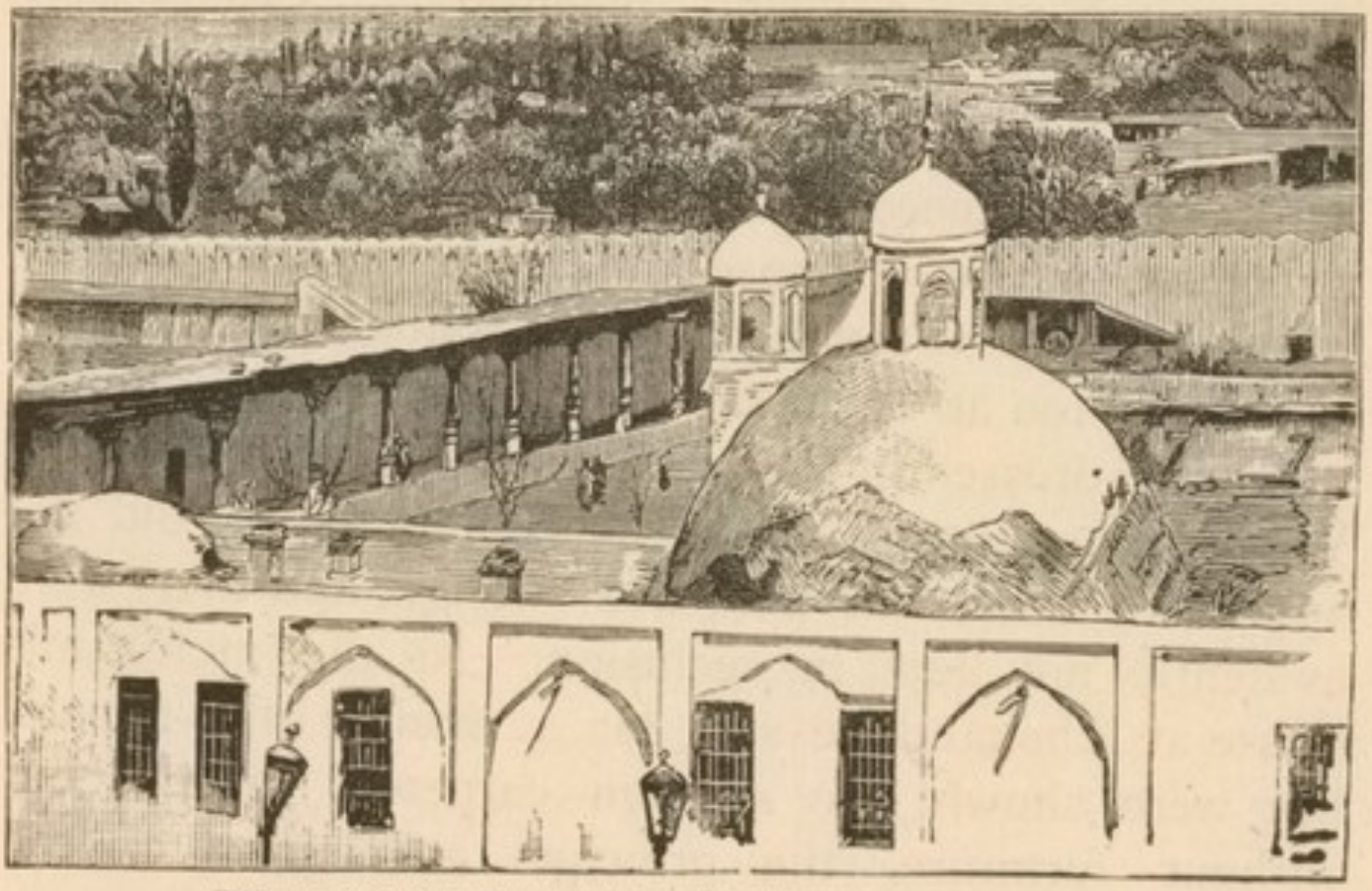
THE PALACE OF THE LATE KHAN AT KHOKAND.

them were models of a railway-engine and a steamboat. Another room, in which Khudaiar used in the morning to receive his ministers, had a floor of beaten earth, with carved alabaster let into the walls. This chamber the Russians had appropriated for a schoolroom for 45 scholars, of whom 13 were Russians, 23 Jews, and 9 Sarts. But the chamber upon which more ornamentation had been bestowed than any other was the Khan's cabinet, painted and gilded in Moorish style. The Russian officers thought the ornamentation could not have cost less than £500; but, though somewhat similar in style, it did not equal in beauty the finished Alhambra court in the Crystal Palace. The splendour was decidedly "barbaric," and from the room was an exit to a gallery overlooking a courtyard, whence the Khan was wont to give his orders, and, I fancy we were told, to see his criminals put to death. The part of the palace that was used for a prison in the Khan's time is, I believe, not used for that purpose now.

In this courtyard trials were formerly conducted, and through it we passed to the women's quarter of the palace. They had, set apart for their use, a summer pavilion in the centre of a court, of which the domes were of variegated colours, no two being alike; and we mounted by sloping boards to an upper story to enter their empty winter apartments, whence we could see the vine groves of the palace gardens.

From the palace I was taken to see some fellow-subjects in the persons of a few Hindus, as well as their tiny place of worship; and after that, at my special desire, though apparently to my host's surprise, we went to the most miserable place in Khokand—the lepers' village, outside the town,

passing rice-fields on my way. These two sights shall be described hereafter; but, having done what little I could for the lepers, we paid a second visit to the medresse. I had been distributing Russian tracts and other reading material in the barracks, hospital, and elsewhere, but unfortunately I had none in the languages of the natives, except a few ponderous Persian Bibles and Arabic New Testaments. I was anxious to give one of each for the use of the



THE PRISON IN THE PALACE OF THE LATE KHAN AT KHOKAND.

students, though M. Ushakoff, as he afterwards told me, was not without some little fear as to how such an offer would be received. I asked, however, for the principal mullah, and placed the Bible in his hand, telling him that it was the best book we had in England, and that I begged his acceptance thereof as a memorial of my visit. He bowed, received it with great satisfaction, and soon showed that he could read it, whereupon I desired him to let it be read by all the students.

We then went home, thinking to spend a quiet evening; but, having a letter of introduction to a native merchant, I did not like to omit the friendly mission and proposed accordingly to call. My host, however, decided that it would be more in keeping with their custom with the natives to send for the merchant to come to me, which he did. When the man discovered that I had brought an introduction all the way from Moscow, he entreated that, though late, we would honour him with a visit. Accordingly, Sevier and I were conducted to this merchant's house, which I was glad to see as a specimen of a native interior. We had been introduced at Tashkend, as I have said, to a rich Jew, in whose house the reception-room closely resembled that of the merchant at Khokand. We saw something too at Tashkend of the women of the house, who were dressed in Sart fashion, but were not veiled. We were not introduced to them, though they did not appear to think our presence strange, and they were evidently not kept in seclusion. In the merchant's house at Khokand we saw not a shadow of a female, but were shown into a room carpeted, indeed, but without furniture, the principal attractions of the chamber to us being a number of niches in the wall, wherein were placed crockery, pans, teapots, and earthenware goods from Russia and China. In due time was brought in a small, low, round table with refreshments, near which our host squatted on the ground, whilst we were provided with chairs so high that we had to stoop to help ourselves from the festive board. I invited questions concerning the country we came from, whereupon the merchant asked about our commerce, and the chief kinds of merchandise in England. My answers interested him, especially when

I went on to tell him that we had railways by which we could travel the distance from Khokand to Tashkend in four or five hours.

On returning to M. Ushakoff, he showed us some sticks of opium that had been seized as contraband, and also some coats of mail that were in use by the natives when the town was taken. After this we walked in the garden. It was a beautiful night at the end of September, but not at all cold, and I wished that I could have stayed longer in the province. It would have been easy to drive round the southern half on the post-road through Novi Marghilan to Andijan, whence there is a carriage-road back through the northern half of the province, by way of Namangan and Chust to Khokand, or, again, there is a post-road from Andijan to Osh.* From Osh there is a route 250 miles long to Kashgar.†

* Stations from Khokand to Osh, with intervening distances in versts :—

Khokand—		Andijan	20
Durmancha	27	Khojevat	24
Alti-Aryk	28	Osh	26
Novi-Marghilan	30		
Kua	31	Total	207
Assake	21		

† For the first fifty miles to Fort Gulcha, or a little beyond, it has been converted into a cart-road, and thence the track traverses mountains and gorges, and comes into the Kashgarian plateau 23 miles from Kashgar, the most serious obstacle being the pass over the Terek-Davan, 12,700 feet high. From the end of April till the beginning of October travel here is stopped by the melting of the snow, and caravans at this time of year are sent from Osh by a more circuitous route over the Alai by the Tau-Murun pass. This, again, is not practicable throughout the year, but only from the middle of June to the middle of October. Anyone, therefore, who aspires to be the first Englishman to traverse this route will do well to remember that during May and the first half of June the journey is not practicable by either of the two routes mentioned, though for ten months and a half he may cross by one road or the other.

The distance on my Russian map from the most southerly point in the Ferghana province to the most northerly point in India, above Cashmere, is 233 miles; but the line would pass over what may be regarded as the unknown parts of the Pamir. There are, however, at least five routes by which Khokand may be reached from Peshawur,* and there are sundry routes passing over the South Khokand range, any one of which offers an unbeaten path to an English traveller. But my heart was set upon seeing Bokhara, and, if possible, floating on the Oxus to Khiva. Remembering, therefore, that the season was advancing, and as I knew not what crossing the desert in early winter might mean, I denied myself the seeing more of Ferghana, and determined to leave on the morrow for Samarkand.

* The most easterly is by Cashmere and Ladak, crossing the Kara-Korum range to Yarkand and Kashgar, and so on to Osh, by the route I have just indicated. This is the most circuitous. The second proceeds from Peshawur through the Bajour and Upper Komur valleys into Badakshan, the most direct but the most difficult route. The three remaining routes proceed in the first instance to Cabul, and beyond that the best, and most westerly, passes through Balkh and Bokhara to Khokand. The other two routes, known as those of Pamir and Kolab, after crossing the Hindu Kush, lead through Kunduz to Badakshan, and there diverge, one crossing the Pamir, and entering by the Terek Pass into Khokand, the other proceeding through the Darwaz district, and entering Ferghana by the pass of Ust-Kurgan, four marches south-west of Khokand.

CHAPTER XXXVI.

THE ZARAFSHAN PROVINCE.

The province, a triangular valley.—Its three mountain ranges, and their passes.—The Zarafshan river: its source, affluents, canals, and floods.—Divisions of the province.—Kohistan district: its geology, cultivation, climate, and population.—Zarafshan epidemics, and leprosy.—Ethnology of the province.—Galtchas, or Tajiks of the mountains: their physical characteristics, political constitution, and domestic customs.—Tajiks of the plains.—Gypsies, Afghans, and Arabs.—Population of the province.—Towns and roads.

THE Zarafshan "circle," or province, is a triangular valley, having its apex at the upper waters of the River Zarafshan, and extending east and west. On the north it is bounded by parts of the Kyzyl-Kum, the Khojend uyezd, and Ferghana; on the east by the Koku-Su mountains; on the west by the fertile parts of Bokhara; and on the south by the Bokhariot bekships of Karategin, Hissar, Shahr-i-sabz, and Karshi. The province measures, from east to west, about 250 miles, and the base of the triangle 100 miles, with an area of about 10,000 square miles, of which one-half is mountainous. It has been already pointed out that the South Khokand mountain ridge divides into three parallel chains running westward—namely, the Turkistan, Zarafshan, and Hissar ranges, and it is by these three chains that the valley is formed,

being bisected by the Zarafshan range, which parts off on the north the basin of the river of that name from that of its Fan, and Yagnab tributaries.*

The name of the Zarafshan in Persian signifies "gold-strewing," either by reason of the precious metal found in the river, or, perhaps, because of the prosperity diffused by its waters. The river belongs to the water system of the Oxus, of which it was once an affluent, but now its waters are so drained by irrigation, that the stream stops short of the main river by 60 miles, and its last waters fall into a lake. The source of the Zarafshan was unknown to science till the Russians discovered it in the huge glacier already mentioned, nearly 9,000 feet above the sea. For the first 130 miles of its course, due west, to the town of Pianjkend, or Penjakend, the Zarafshan is a mountain torrent, hurrying through a narrow gorge, with an average fall of 23 feet in 3,500, or $\frac{1}{152}$, so swift that it can scarce be ridden through even in winter, or in parts be measured in depth, and boats cannot stem its

* All three ranges, in their eastern portions, are exceedingly high; towards the west they decrease in height, the Hissar mountains remaining the finest and loftiest range. The northern, or Turkistan range, has peaks that rise to 20,000 feet, and the immense Zarafshan glacier, whose length is estimated at from 25 to 40 miles, with a breadth at its lower part of 800 yards. Eastward the glacier entirely closes the end of the valley. The huge mass, covered with cones of all sizes, is joined by many lateral glaciers, and slopes downwards very gently. On it are clearly seen moraines, some of them with boulders of rock, foreign to the neighbouring mountains. The Turkistan range is not a compact mass, but consists of mountains placed in terraces, and intersected sometimes by rather deep valleys. The range may be crossed by twenty passes, all, with the exception of two, being difficult and high. The Yani-Sabak and Shahristan passes ascend to 13,600 and 10,700 feet respectively. The Zarafshan range at Varsa-Minar, where it is high and regular, is cut due north and south by a very deep valley, with narrow and perpendicular sides, through which dashes the Fan mountain stream; and further west the range is furrowed by two more affluents of the Zarafshan, the Kshtut and Magian. This range is crossed by

current. It is spanned by thirty crazy bridges, some of them being occasionally swept away at the flood, and always dangerous. The stream receives no important affluents on its right bank, but three large ones from the left, the Fan, Kshtut, and Magian.* The Fan brings to the river nearly as much water as it already possesses, after which the main stream, greatly enlarged, leaves the mountains.

Now begins the Middle Zarafshan, 120 miles long, to the Bokhariot frontier, beyond which is the lower course of 150 miles, making 400 in all. Beyond Penjakend large canals are diverted from the river on either side for irrigation of the fields; but the stream flows on in one large bed to the Chupan-Ata hills, where, 5 miles north of Samarkand, the Zarafshan is divided into two streams. The northern, or main stream, is called the Ak-daria, the southern, the Kara-daria, and after flowing ten or twelve miles apart, they reunite on the boundary line of the province. Hence the Zarafshan forms by its branches an island, called the Miankal, which is the richest and most thickly populated portion of the valley. Here not a scrap of ground lies idle,

seven passes east of the Fan, the southern descents, as a rule, being shorter and steeper than the northern, as is the case in the Turkistan range; and in both it may be observed that the rivers flowing to the north are larger than those flowing south. There are other passes further west, by one of which, the Kara-Tiube, I crossed into Bokhara. The Hissar chain, traversed by eleven roads and passes, separates the waters flowing into the Zarafshan from those proceeding to the Surkhab, and gives off to the south and south-west a mass of high chains covered with perpetual snows and very large glaciers.

* The Fan brings down water from the Iskander-Kul, the only lake in the province, and named after Alexander of Macedon. It lies at an elevation of 7,000 feet above the sea, is about 2 square miles in area, and is decreasing in level. Hills, 3,000 feet high, surround this fresh-water basin, which measures 200 feet deep, but has water-marks, in the form of horizontal bands, 300 feet higher on the slopes of the hills and the communicating valleys.

all being cultivated in the most careful manner. The island gardens receive their water from the southern arm of the river, and the Ak-daria is used to water the fields on its northern banks. In order to increase the waters on the Kara-daria, or southern arm, a dam, annually destroyed by the spring floods, is placed every summer at the Chupan-Ata hills to direct the great portion of the Zarafshan water into the southern arm. This is of great importance to Bokhara, because from the Kara-daria is diverted the large Nurpai canal, on which some of the Bokhariot bekships depend. There are other canals besides the Nurpai diverted from the Kara-daria, flowing along terraces one above another, fringed with rows of trees, and giving to the locality an original and picturesque appearance. Each minor canal is taken at an obtuse angle from the main one, and runs almost parallel thereto. Along each of these canals there are sometimes as many as ten villages, each having its own smaller canal. Water-courses are supplied from these to the fields. Some of the canals are extended far (the Dargam, for instance, 46 miles), and they water fields 20 miles wide of the river. Each main canal has its own system of villages, but not entirely independent of each other, because some of the water, after irrigating the fields of one system, is conducted onwards to the next.

Hence, though the Zarafshan is a swift and copious river in the mountains, it gradually becomes an exhausted stream.* The Zarafshan, like the Nile, in

* Its most important ford is on the Tashkend postal-road, five miles north of Samarkand, where the stream separates into numerous branches, of which the principal is 70 yards wide. The river has in the course of the year three overflows, dependent on the rains and the melting of the snow. The water is lowest in winter, and on the Bokhariot frontier, though not further east, it is usually frozen for three weeks in January.

flood deposits an ooze that is apparently very fertilizing, and from of old has attracted inhabitants to the banks. The ancient Sogdiana was situated on the Zarafshan, and its chief town Miranda, or Maracanda, occupied the site of Samarkand. Other towns on the banks, or those of its tributaries, are Kshtut and Magian, on rivers of those names, and, on the main river, Dashty-Kazy, Penjakend, and Katte Kurgan.

Thus it will be seen that the Zarafshan province occupies the upper and middle valleys of the river. When, in 1868, the Russians took from the Bokhariots Samarkand, Urgut, and Katte Kurgan, the district was formed into the Zarafshan circle. Towards the close of the same year Penjakend was added, as also, in 1870-71, the bekships of Falgar, Machin, Fan, Yagnab, Magian, and others. At the present time the province consists of the Katte Kurgan, the Samarkand, and the Penjakend districts.

This last, or mountainous portion, was formerly known as Kohistan, the principal formation of its rocks being schistous.* The bottom of the valley consists of conglomerates, and near Samarkand is a deposit of rock salt.† Only one eighty-fifth part of Kohistan is

* Carboniferous rocks are often met with, and on the banks of the Yagnab, but in out-of-the-way places, are thick beds of lignite coal and iron. On the left bank of the Fan is found yellow potter's clay. Gold is washed down the course of the Zarafshan in grains and thin leaves, but in such small quantities that four natives working for a day will earn only about 4*d*. each. In certain villages alum is prepared from kali. Kali is found in other parts of Turkistan under various forms, such as *issegik* (*anabasis aphylla*), between the mouths of the Boroldai and Badam, and there are salt beds with glasswort (*salicornia herbacea*), at an altitude of about 1,700 feet, on Lake Ak-Kul and the River Kuyuk. *Min-buum*, or soda ash, is probably obtained from saltwort (*salsola kali*). Four or five men in Kohistan in the three winter months make 16 cwt. of alum, that is sold wholesale at from £20 to £25 per ton.

† All the deposits of salt in Turkistan fall under the two categories of

cultivated and settled, the bulk of the people procuring a wretched subsistence by a small amount of agriculture, and pasturing cattle on the mountain sides.* Of the land under cultivation in 1872, two-fifths were given equally to winter wheat and barley, and the remaining fifth to summer wheat.

The climate of Kohistan is fairly temperate, the cold rarely exceeding 5°, or the heat 88°·25.† Speaking generally, the climate at Ura-Tiube, Jizakh, Samarkand, and Katte Kurgan, though all lying considerably south, yet, in consequence of their higher altitude, enjoy a similar climate to that of Tashkend.

Epidemics are rare in the Zarafshan province, as indeed in Turkistan generally.‡ A well-known endemic disease that interested me was the leprosy. It is marked by the appearance on the body (at first,

rock and lake salts. Of five known localities with rock salt, one deposit near Khojend is found in the midst of gypsum. It is pure and crystalline, analogous in colour and composition to the *grünsalz* of Cracow. The natives work the deposits, but only on a limited scale. Salt of the second category is obtained from lakes in the neighbourhood of Vierny, Kuldja, Aulie-Ata, and many others.

* According to the *Turkistan Kalendar* for 1880, the population of the mountain districts consisted of 25,565 males and 18,617 females. Of these, 672 were Russian troops. Divided according to creeds, there were in the district 540 Orthodox, 2 Dissenters, 15 Romanists, 2 Protestants, 12 Jews, 41 Hindus, and the remainder were Muhammadans.

† Spring begins in the middle of February, and lasts to the 15th April; summer and autumn linger on to the middle of November, or even December. The climate is dry, and there blows in summer an east, and in winter a west, wind. The dusty gharmsol sometimes visits the valley and injures the crops, but storms are very rare. The temperature at Samarkand attains to a greater range, the cold having descended to 2°·66 in February, and risen to 64°·22 in the June before my visit.

‡ In 1872 cholera began in India, and passed through Persia to Bokhara, whence it entered Russian territory by way of Samarkand and Jizakh to Tashkend, and spread along the great postal-road northwards, but not further east than Aulie-Ata. It lasted five summer months, and of 1,556 persons attacked, 36 per cent. died.

for instance, on the hands or feet) of spots of a milky-white colour, and by the general enfeeblement of the organism. The disease, of which the two kinds are distinguished as *makhau* and *pis*, is said to be contagious, and those who are suffering from it are condemned (as under the Levitical law, Numb. x. 2, Lev. xiii. 46) to live in hamlets apart, communication with them, according to Kostenko, being strictly forbidden. No objection, however, was raised to my visiting the *makhau* or lepers' hamlet at Khokand, and I found that some of the lepers resorted continually to the bazaar, to support themselves and their afflicted fellows by asking alms.*

In the Khokand village their state was pitiable indeed. Sixteen men and six women were living in mud huts, in the depths of poverty, with no doctor coming near. My companion, Mr. Sevier, being a physician, was, of course, particularly interested in our visit. The first case we looked at was that of a boy with leprosy in the atrophic stage, with his face a mass of sores, and his eyes positively eaten out. The sockets were running over with pus, and a more revolting sight I think I

* Dr. Haughton, of Dublin, has visited the leper hospitals at Bergen to study leprosy, and he tells me that the popular opinion is that the disease is contagious; the scientific opinion—that it is hereditary. With this latter he concurs, especially after consulting Demerara physicians having great experience of leprosy in the West Indies and South America, where it is more deadly than in Europe or Asia. Dr. Haughton speaks of "two houses for incurables and one for curables" at Bergen, in 1864; but when I was there in 1876, I wrote: "250 patients—all incurable"; for in no case had they then been successful. They did indeed point out one boy of seven, who entered with a tiny spot of leprosy, and who they thought in 20 years *might* be cured. So far as I am able to judge, I should think that the care bestowed upon the Bergen lepers kept them longer alive, so that in the hospital were seen examples of the disease in more advanced stages than I happened to meet with in Asia; but there were certain resemblances in both.

never saw. The poor boy's chief care seemed to be to keep off the flies from his sores. He was born of leprous parents, who had brought him thither and abandoned him. In a second case the eyes of the sufferer protruded, and in a third the knuckles were cramped. A woman, whom we saw, had a discoloured face, and in a young girl the disease was seen in the skin being tightly stretched over the nose. In another woman, with a white patch, was seen what Mr. Sevier called anæsthetic leprosy ; whilst, lastly, a man seized eight months previously in his hands, saw them gradually growing like claws from contraction of the skin. This was one of the saddest visits I paid in Turkistan, and it is much to be hoped that some benevolent Russians ere this may have attempted something for the mitigation of the sufferings, even if it be impossible to effect the cure, of Turkistan lepers. On account of their alienation, the stricken folk are deprived of nearly all civil advantages ; they live for the most part on alms, marry only among themselves, and bring into the world children who are lepers like themselves. As soon as the news reaches the *makhau* of another stricken person, a deputation immediately proceeds to demand that the afflicted one should be sent to the marked hamlet. Hither poor persons are forcibly exiled, but the rich sometimes buy themselves off by a yearly payment of from £5 to £10. Even this, however, would not seem always to be feasible, for one stricken man at Khokand told me, as a proof of his former prosperity, that he had three wives, but when taken sick he was driven away from home to his present position with one wife and child.*

* At Bokhara there is a lepers' hamlet with, it is said, 500 huts. In the Tashkend *makhau* are 31 adult sufferers ; at Ura-Tiube 20. I do

The valley of the Zarafshan is full of ethnological interest, its peoples being at least eight in number—namely, Tajiks, Uzbegs, Persians, Jews, Hindus, Bohemians, Afghans, and Arabs. Of these the Tajiks are the aboriginal inhabitants of the country, and are divided into Tajiks of the plains, who have become more or less mingled with the new-comers, and the ethnologically purer Tajiks of the mountains. M. Ujfalvy has minutely described them both.* The Tajiks of the Kohistan mountains are in disposition as frank and honest as the Tajiks of the plain are untruthful. The inhabitants of Karategin, Darwaz, Shignan, and Badakshan are said to be one and the same people with the Galtchas. They speak dialects of Persian, and seem to have been driven to the mountains of

not know the date of these statistics, but the *Turkistan Kalendar* for 1880 gives the number of lepers at Samarkand suffering from *pis* 137, and *makhau* 22, with 55 non-leprous persons living in the village. The community, owning 25 acres of land and 31 stone huts, were all dependent on alms, except two small shopkeepers, a blacksmith, and apprentice. The total number of lepers in the province was 219, of whom only 4 families lived by agriculture, and 1 by trade.

* The Tajik of the plain, he says, is tall, moderately stout, the skin white (the covered parts of the Tajik women, however, being not so white as with the Kirghese), or tanned by the sun, not very hairy, though seldom smooth. The hair is black, brown, red, sometimes light, glossy, wavy, and curled. The beard, with rare exceptions, is abundant, black, seldom reddish, but often brown, and sometimes verging towards fair. Their eyes, never turned up at the corners, are brown, green, and sometimes blue. The nose is usually very handsome, long, arched, and slender; the lips thin, straight, or but little turned out; teeth small and sound. The forehead is high and wide, superciliary protuberances pronounced; the transversal depression separating the nose from the glabella is deep; the eyebrows arched, ample, and often joined; the mouth medium; chin oval; the face, as a whole, oval or round; the ears medium, or small, and flattened, rarely standing out. The body is vigorous and well formed, and the extremities, without being large, are larger than those of the Uzbegs. The toes are small, calf little developed, the legs fairly straight, the waist slender, the trunk fairly vigorous, and the neck strong. They are sometimes inclined to be stout, only the fat is never flabby, as with the Turko-Mongols.

Central Asia, as were the Britons into Wales. They even explain the name *Galtcha* as signifying "a hungry raven driven to exist in the mountains." *

The government of the Galtchas under the Russians is almost purely democratic. Each village has its elder, who bends to the decisions of the majority. The people† are divided into two classes, the mullahs, or educated, and the poor. Their old silver coin was the khokand (worth 8*d.*), but Russian silver and copper coins circulate also, though only the well-to-do venture to take paper money. The commerce of Kohistan is almost exclusively with Penjakend and Samarkand.

* A similar case with the conquered is seen in the inhabitants of the vale of Siddim (Gen. xiv. 10), and in the Danites, who were forced into the mountain (Judges i. 34). Lot, in time of danger, was warned to escape thither (Gen. xix. 17), and the Christians of Judea, also, to flee to the mountains (Matt. xxiv. 16).

† In their domestic life, when a child comes into the world, the parents give a feast; the mother does not get up for five or six days, and when a week old the child receives a name in the presence of a mullah, reminding one of the law of circumcision on the 8th day (Gen. xvii. 12), and the feast given when Isaac was weaned (xxi. 8). (This feast is still given at circumcision in Central Asia, but when the parents are poor they frequently defer the ceremony.) Galtcha wives are bought, and at the conclusion of the purchase a feast is given. When sick they have recourse both to medicaments and exorcism, over which latter the mullah presides. When a man dies he is wrapped in a mat, placed in a trench, and covered with branches and earth. The graves are very small. On returning from a burial the family gives a feast, and then goes into mourning. The widow may marry again after two months and ten days. Paternal authority is exceedingly severe, and hospitality is sacred, each Galtcha village having a house for the accommodation of strangers. Morality is said to stand high among them; the adulterer being turned out of his house, and his goods confiscated by the Kazi. The women rarely go out. "She has nothing to go out of the house for," said an old Tajik to M. Ujfalvy; "she has enough to do to busy her indoors." Polygamy is allowed, but the Galtchas seldom have more than one wife. They live according to Mussulman law; the widow inherits an eighth, the sons two-thirds of the remainder, and daughters one-third. An oath is admitted and taken upon the Koran in presence of a judge. Slavery appears never to have existed among them. They

Of some of the other people of the Zarafshan province I may say less, because I shall be able hereafter to describe them to greater advantage when staying in their midst. The Persians are descended from prisoners brought hither by the Emir of Bokhara after the taking of Merv in the middle of the last century. The Bohemians, or gypsies, are divided into Luli and Mazangs. The Luli number about 1,000 souls, are wanderers, like their *confrères* in Europe, and as dark or darker in complexion. They are above the medium height, and some of them look veritable athletes. They set up little tents of white linen, and busy themselves, as in Europe, with making baskets, etc. The Mazangs are an enigmatical race, that some assimilate to the Bohemians, whilst others make them the aborigines of the Turks of Constantinople. They are not so tall as the Lulis, but are good-looking, and compare advantageously with the Tajiks in possessing

eat thrice daily, use birch-brooms to cleanse their houses, and employ linseed to make a paste to serve for candles, which they place in pieces of wood. They burn also in wooden lampstands a kind of resin, found in the country precipitated on the rocks. Horned cattle, horses, goats, and fat-tailed sheep are raised among them, and they keep watch-dogs. They now and then smoke tobacco mixed with the narcotic *nacha*, and frequently take snuff. The Galtchas never dance, though the men play the guitar-like *doutar*, and the women a similar instrument called *tchilmanda*, and both sing monotonous and melancholy songs. The physical as well as moral characteristics of the Galtchas differ, M. Ujfalvy says, from those of their brethren in the plains. The skin is very hairy, the eyes oftener blue, and the space between them very narrow. The teeth are often worn with eating dry fruit. The hands and feet are larger than those of the ordinary Tajiks, and this is still more apparent by comparison with those of the Kirghese and Tatars. They are very robust, excellent walkers, good horsemen, and able to undergo great fatigue. They suffer from ophthalmia, some from stone, and there are whole villages affected with rheumatism in the bones that is attributed to a mixture they drink of milk curdled with a certain root. The Galtchas are divided into six tribes—the Magians, Kshtuts, Falghars, Matchas, Fans, and the Yagnabs.

greater fineness and elegance in the general structure of the body. The skin is not so dark as with the gypsies in Europe. Those of the Zarafshan valley have become almost sedentary. They profess Muhammadanism, and speak Persian and Turki. The poor are idle, and given to nefarious occupations; the women practise medicine, and seek to meddle in households with a view to gain. Both classes of gypsy women have the right to go unveiled, and the Mazang females enjoy anything but a good reputation. The Afghans that are met in the towns of Central Asia busy themselves in commerce and industry; but though Mussulmans, they are not regarded with a friendly eye by reason of their rudeness and the violence of their character. In the neighbourhood of Samarkand and Katte Kurgan are from 2,000 to 3,000 Arabs leading a semi-nomad life, descended from the conquerors, who came to Central Asia in the ninth century.

With regard to the number of population in the Zarafshan province, I was able to procure nothing new during my stay, the authorities telling me that on account of the small proportion of Russians, and the untrustworthiness of native figures, it was exceedingly difficult to obtain statistics. From the *Turkistan Annual* for 1876 I gather that in 1872 there were in the three districts of Samarkand, Penjakend, and Katte Kurgan, in round numbers, 215,000 native inhabitants (119,000 men and 96,000 women).* Most of the Zarafshan towns are connected by well-made

* Divided ethnologically as follows:—Kirghese, 582; Tajiks, 67,862; Uzbegs, 140,154; Persians, 2,211; Hindus, 214; Jews, 1,974; or divided by grades, thus:—Mullahs, 7,690; merchants, 9,593; artisans, 28,865; agriculturists, 95,429; and labourers, 73,986. They possess 5,000 domiciles, beside 180 inns, 30 schools, 2,001 mosques, 990 mills, 500 stamping-mills, or presses, and 32 markets. The numbers of beasts in

highways. Besides the postal-road to Tashkend there is another with good stations and even stone bridges to Katte Kurgan. There is likewise a military road from Samarkand to Penjakend, and other roads to Karshi, Shahr-i-sabz, and Urgut. Most of these are carriageable, but even the byways in the Zarafshan province are relatively better than in other parts of Turkistan.

And now, having indicated the roads of the province, I shall next show how I proceeded to the capital.

the province were—camels, 1,600; horses and asses, 46,000; horned cattle, 61,000; and sheep, 136,000. Once more, the principal crops were rice, wheat, barley, and lucerne, sown and reaped as follows:—

In tons.	Rice.	Wheat.	Barley.	Lucerne.
Sown . .	2,010	4,843	1,347	74
Reaped . .	18,849	28,349	10,151	124,631

To the foregoing native population must be added the Russians living, in 1873, at the towns of Samarkand, (5,069); Katte Kurgan, (1,121); Penjakend (28); and Kamenny-Most Fort (227); in all 6,451, of whom 5,600 were troops, leaving of civilians only 231 men, 329 women, and 287 children. There are, besides, in the province, 8 villages, each with more than 1,000 native inhabitants, Penshambe with 4,380, and Urgut with 10,200.

CHAPTER XXXVII.

FROM KHOKAND TO SAMARKAND.

Locality of Khokand productive of goitre.—Its causes and remedy.—Departure from Khokand.—Travellers sleeping in the street.—Return to Khojend.—History and name of town: its divisions, gardens, and public buildings.—Climate and trade of Khojend.—Stations to Samarkand.—Long stage to Ura-Tiube.—View of the town.—Its sacred places, buildings, and trade.—Religious and moral condition of inhabitants.—The "Gates of Tamerlane."—The Sart pastime of Kök-bari.—Kirghese racing games.—Native festivals.—Flora of Zarafshan.—Its exotic and remarkable plants.—Fording the Zarafshan.—Approaching Samarkand.

KHOKAND, though called "the charming," was voted by the few Russian officials we found living there as exceedingly dull. Moreover, though the situation of the city is pleasant, and on three rivers, yet the water is naught, or, worse still, is supposed to be a principal cause of goitre. In the town of Khokand and some of the adjoining villages this disease, called by the natives *bukak*, and by the Arabians *sila*, is remarkable for its exaggerated form, and attacks not only human beings, but horses, horned cattle, and dogs. It is worthy of observation, however, that there are quarters of the city where goitre scarcely exists. There are others where, out of three inhabitants, one will be afflicted with it. Khokand goitre does not produce any acute suffering. In the majority of cases

it gives rise to a slight swelling, and only in rare cases assumes monstrous proportions.

On the occupation of Khokand by the Russians, goitre began to appear among their troops, which led them to study the local causes producing the disease ;* and since the town engendered other diseases also, especially fevers, it was decided to transfer the administration and the major portion of the troops to Marghilan, which has now become the Russian capital.

There was no necessity for me to go there, since I had seen the Governor, General Abramoff, at Tashkend, and had given to him books for the supply of the hospitals and prisons of Ferghana; so I accordingly prepared on Monday morning, September 25th, after a pleasant stay with our gentlemanly host, to

* The investigations were published in the *Turkistan Gazette* for 1877, Nos. 11 and 12. The causes were traced, as was supposed, to local miasma, acting on the organism through tainted water and air. The abundant deposits of organic decayed matter, which might perhaps be combined with lime and magnesia, would serve, it was thought, for the generation of the miasma. Chemical analysis of the Khokand waters showed them to contain enormous quantities of organic matter and lime—the first, presumably, from the neighbouring rice fields, and the second from the numerous town graveyards. The miasma, too, would be spread the more by the high-lying condition of the sub-surface water, often not more than 28 inches deep.

According to M. Shalgin, who was appointed to study the matter, and who suggested remedies, goitre especially attacks persons of a lymphatic and scrofulous tendency, whose blood is in a poor condition, and those who live in damp places. Russian doctors treat goitre by outward application of iodine; but the natives affect to cure it by means of medicine they call *cham-dari*, produced from a marine plant, of which the principal element is iodine, and is used in infusions, pilules, and powders, or the leaf is sometimes sucked for about 40 days, and the saliva swallowed. Another remedy for goitre employed by the local doctors (*tabibs*) is *bikhe-marjan*, a red polypus or coral, ground to powder. Sulphur is likewise used, mixed with powdered coral and amber. The natives procure the marine plant and coral from the Red Sea, of pilgrims returning from Mecca.

drive 260 miles to Samarkand. Our belongings were soon packed, the weightier now by reason of a Khokandian suit of mail that had been presented me, and which, with the native boots from Kashgar, the cham-

THE AUTHOR IN A KHOKANDIAN SUIT OF MAIL.

bar or leather trousers from Tashkend, and a helmet of mail and battle-axe subsequently procured at Bokhara, made me a striking suit for a member of the Church Militant. Leaving M. Ushakoff at 10 o'clock, a djiguitt piloted our carriage through the

labyrinth of streets to the city boundary, beyond which we continued through the walled gardens of the suburbs, on a fine morning, with snow mountains on the distant horizon. At Bish-Aryk they seemed to have received no notice of our coming, but we obtained horses, and by eight in the evening arrived at Kara-Chukum. Here we had to wait three hours for steeds, which gave us opportunity to walk through the village, and to see people arranging themselves to sleep in the street,* some under a platform of the tiny bazaar, and some on couches, whilst others, apparently travellers, simply spread a garment or cloth and lay on the ground. One man, a late worker, was winding cotton by hand for making stockings, but many more were busy with a large saucepan preparing supper.

We left about midnight, and early in the morning reached Khojend. This was by far the oldest Central Asian city we had seen, and dated at least as far back as the fourth century before the Christian era. It was called the Alexandria of the north, and perhaps marks the farthest point northward of Alexander's conquests. Since his days the town has changed masters many a time and oft. Chinese, Arabs, Persians, Mongols, and Turks have each poured out their blood in assaulting or defending it.†

* Illustrating the naturalness of the expression of the two angels who said to Lot, "Nay, but we will abide in the street all night" (Gen. xix. 2); also the primitive state of things with Job, who could say, "The stranger did not lodge in the street, but I opened my doors to the traveller" (Job xxxi. 32); and the want of hospitality in the lawless days of the judges, when the Levite and his concubine were allowed for a time to sit down in the street of Gibeah, for no man took them in to lodge them (Judges xix. 15).

† Khojend, with Ura-Tiube, Jizakh, and the country round, for many years formed a separate state, governed by independent Beks. In the beginning of the eighteenth century Khojend was fortified, and the city divided into 24 wards. Early in the present century it was taken,

Khojend is bounded on two sides by the Syr-daria, and on three sides by gardens and ploughed fields. On the south-west these stretch for nearly 5 miles, and on the east still further. The walls, double on three sides and single near the Syr, form an irregular polygon, with a circumference of about 8 miles, the town being entered by 8 gates and several small exits.*

Our host the Nachalnik complained of the intensity of the summer heat at Khojend. For June, July, and August the average temperature is about 84·20°, and the dust brought by the wind from the Steppe fills the air, and renders it very oppressive. The winter is milder than at Tashkend, the Syr here being hardly ever frozen. The wall of the Mogol-Tau, 4,000 feet high, on the opposite side of the river, helps to intensify the heat, sheltering the town from the north wind, and absorbing and refracting the sun's rays. Summer, too, is longer than at Tashkend, and Khojend fruits are ripe a fortnight before those of Tashkend, Ura-Tiube, or Jizakh.

The trade industry of Khojend is represented by

as I have said, by Alim-Kul, ruler of Khokand, and from that time till the invasion of the Russians the town was a constant apple of discord between Bokhara and Khokand. The name is alleged by some to be derived from *Khojianda*, a daughter of Adam, by whom the inhabitants say the town was founded, and in accordance with which they claim that it is the most ancient in all Central Asia. Others say the name was corrupted to its present form from *Khopchiant*, or built on a beautiful place. A third and more reasonable derivation is that of *Khoja* and *Kend*, or "the abode of Khojas," and there really is of them an extraordinary number in the town.

* The 24 ancient wards were subsequently divided into 80 *mahalas*, which still exist, named after their respective canals. Khojend is now divided into the *Rozak*, or western, and the *Kalinaus*, or eastern quarters, with 2,800 and 3,000 respectively of squalid houses. The population is 28,000, all Tajiks, except about 100 Uzbegs, 50 Kashgarians, 30 Jews, and 7 Hindus. The gardens of Khojend, apart from those on the outskirts, are computed to cover 350 acres, and in the way of buildings the town may be called remarkable, inasmuch as it possesses

1,141 shops for work and sale, between which it is not easy to distinguish in Central Asia, because in the majority of cases the person who makes the goods is he who sells them. Silk-dyeing and cotton-weaving are the two most important trades. There are 5 caravansaries in the town, one being for Jews and Hindus, and 2 bazaars—the larger with 510, and the smaller with 280 shops. The greater proportion of these are open only on market days—that is, Wednesdays, Thursdays, and Fridays.

It was Tuesday when we passed through the bazaar on our return journey, and as it was very early in the morning we thought it better not to call on the Nachalnik, but ask for horses to proceed immediately. We had now made 83 miles from Khojend, and had before us 181 miles more, with 11 stations to Samarkand.* From Nau, where was a mud fortress,

3 medresses, constructed of kiln-burnt bricks. Of these one is 150 years old, the others 40 and 50 years respectively. All are called after the individuals who built them. There are, besides, several mud-built medresses, one of them erected as long ago as 200 years; and one, about 150 years old, was almost rebuilt 20 years ago, at the public expense, this mosque being almost the only fine specimen of Central Asian architecture now existing. It is called Hazret-Sheikh-Muslak-ed-din, in honour of the sainted personage whose name it bears, and who was a protector of the town of Khojend. There are in the town, in all, 24 medresses, with 530 students, and 40 schools with 160 scholars; most of them attended, however, only in winter. The total number of mosques is 202 (47 of them being *great* mosques), in which prayers are said on Fridays; and the spiritual persons attached to the mosques number 232. There are 15 cemeteries within the city bounds.

* Stations from Khojend to Samarkand with intervening distances in versts:—

Khojend—		Yany-Kurgan	25
Nau	25	Sarailyk	17
Ura-Tiube	40	Kamenny-Most	15
Savat	26	Djimbai	20
Zaamin	29	Samarkand	20
Ravat	33	Total	272
Jizakh	22		

we sent back a message of thanks to Colonel Putimsoff for kindly arranging about our horses, and then breakfasted, by way of fortifying ourselves for the longest postal stage I think I ever took in Russia without changing horses. It is marked in the post-book 27 miles, but the driver declared it was 33; I believed him, and hired four horses, and they gave us another into the bargain, so that we drove off with two leaders under a postilion, and a troika. For about twenty miles the landscape presented nothing but an extensive desert, with scarcely a tree to be seen. Then appeared an oasis here and there, and cultivation came into view with fields of standing corn. During all the stage we met but one yemstchik, and few caravans, but saw a man ploughing with oxen. This dreary drive took us the greater part of the day, and we were not sorry, late in the afternoon, to come within sight of the picturesque fortress of Ura-Tiube.

Ura-Tiube, or Ora-Tippa, is a city set on a hill 2,700 feet above the sea. The commandant was Colonel Vaulin. With much ado we got them to drag the carriage up to his house, where he was expecting us, and received us heartily. He kindly gave us some dinner, and seemed thoroughly to participate in our enjoyment, for so dull was the place, there being only five persons in it to constitute "society," that he seemed as pleased with our visit as were we. The view from the terrace before the Colonel's house was one of the most extensive we saw in Central Asia. The town is situated at the foot of two eminences, one being surmounted by the citadel, whilst on the slopes of the other lies the north-western portion of the town. On our right was the citadel, with a monument raised to the memory of the Russians killed in the siege on the

1st November, 1866. The gateway of the fort had been turned into a small Russian church. On our left we had a good view of the barracks and the town, which has a circumference of about four miles, and is encircled by a double wall.*

I inquired at Ura-Tiube concerning the religious and moral condition of the people, and was told of two adjacent places sacred in Muhammadan eyes, with traditions attached worthy of Papal Rome. One was the tomb of a saint about half a mile out of the town, and over which was built an arch that in process of time began to drop in the centre, whereupon, with a view to propping it up, they cut no less than 100 trees in succession, not one of which, by some strange fatality, would exactly fit; whereupon the hewers of wood decided to sleep upon it, and lo! whilst they slept, the hundred trees walked off to Mecca, whence Muhammad sent back a stone pillar, and this the sleepers, on waking, found erected where the tree was to have stood. Another saint having been buried in Ura-Tiube, water began to issue from his grave.

* For some reason now unknown, it is divided into 58 unequal *guzars*, corresponding to the *mahalas* of Khojend, but there are hardly any gardens in the town, the land being monopolized by its 1,400 houses. The gardens are in the suburbs, whither their proprietors repair in summer, and leave the town almost deserted. Two of the medresses are of kiln-burnt bricks, one of them having been built, 320 years ago, by Sultan Abdul-Latif. The inhabitants, according to Kostenko, number 4,800, of whom 900 are Uzbegs, and a few Jews and Hindus, but of no other races. The Kirghese are said not to come except to sell wood, coal, and cattle, or to buy such necessities as their own industry is incapable of producing. There are 850 shops in the town, and a bazaar containing 650 more. To judge from the Colonel's account, Russian goods are dear. Candles cost 10*d.* a lb., a box of sardines 2*s.*, and a box of caviar, 4*s.* I had been specially counselled to purchase a fur coat in Ura-Tiube, but the Colonel, on sending for us to the bazaar, could get nothing better than common sheepskin *shubs* at 10*s.* each.

At once the inhabitants surrounded the place with a wall, and it is now considered holy. The moral condition of the native men was said to be exceedingly low, and unnatural crime common.*

Among the poor, the *kalim* for a wife was only 1 tillah, or 13*s.* 4*d.*, but among the rich a bride sometimes cost 40 camels, 40 horses, 40 goats, 40 sheep, and a tent. The girls married at 14; and though divorce was very common and very easy, each mullah being able to sanction it, there were said to be no unmarried women in the place.

Colonel Vaulin would gladly have had us prolong our stay, but it seemed better to press on, and just as it became dark we started forward. The road was good, and, as we travelled slowly, I managed to sleep during the five hours we took to Savat, where, understanding that the next stage would be a heavy one, we again hired four horses, and were given five. We thus sped on during the night to Zamin, where once there was a mud fort, and to Ravat, and by breakfast-time had descended to Jizakh, a town 970 feet above the sea, with 4,000 inhabitants. Thus far from Ura-Tiube we had been skirting the base of the Turkistan range of mountains, along a route with adjacent hills. The road frequently crossed the little stream that waters Jizakh, sometimes keeping along its lofty loamy banks, but at others climbing the hill-side. On one of these latter occasions I remember noticing a specimen of semi-nomad life, in tents pitched near plots of cultivated land, and specimens of rude weaving laid along the ground.

* We heard such things, in fact, as to remind one of the former condition of Canaan (1 Kings xiv. 24); or the condition for that matter of the ancient Romans, as witnessed to, not only by Paul, in Rom. i. 26, 27, but in the unearthed remains of Pompeii. The women at Ura-Tiube were said to be better, but very dirty.

We passed two villages lying under the hill-side, with flat roofs and walled yards, and then entered a valley of the Kara-Tau chain, through which runs the stream Jizakh just referred to, whilst the road leads through a defile not more than a hundred yards in width, called the Gates of Tamerlane, though there appears to be no local reason for the name. This important pass connects the Syr-daria and Zarafshan valleys, and has witnessed many a sanguinary conflict for the possession of one or the other. On our right rose the scarped cliff some 400 feet high, of a pyramidal slaty rock. On its surface are cut two Persian inscriptions, untranslated in any book that I have met with, except that of Dr. Schuyler. The first commemorates a campaign to, and the return in safety from, the country of the Mongols in 1425, by Ulug-Bek, the celebrated grandson of Tamerlane; and the second informs the traveller of a victory in 1571 of Abdullah Khan, who with 30,000 men put to flight an army of 400,000. This victory is attributed "to a fortunate conjunction of the stars," and it is added that so many were killed that for a month blood continued to run in the river to Jizakh, and then it concludes, "Let this be known." This was an instance of setting up a memorial for those who should come after, and amongst the nomad Kirghese I had met, as I have said, with the raising a heap for a similar purpose; but I do not remember meeting in Central Asia any exemplification of the custom of setting up great stones, plastering them with plaster, and writing thereon.*

On emerging from the defile we were again on the steppe, with signs of irrigation, and of distant snow-

* Deut. xxvii. 2.

covered peaks to the south. As we approached Yany-Kurgan, we saw what looked in the distance like a company of Cossacks exercising, but on nearer approach proved to be a hundred or more of natives playing their favourite game of *Kök-Bari*, or grey wolf. It was market day, and on such occasions, when horsemen congregate, a goat or kid is good-naturedly seized upon, belonging to someone well-to-do, who has had a birth in his family or some other piece of good fortune, and the animal is killed. The president of the game then takes his position, if possible, near some steep or elevated place, and hands the goat to a horseman, who dashes down the slope at the risk of breaking his neck, and is immediately pursued by the field, each of whom tries to snatch away the goat before the man can bring it back to the president. Men of various ages were on the ground, and some had mounted their boys before them to see the fun, which was in some respects not unlike a game of football. The race goes on till the carcase is torn in pieces, whereupon it "goes to pot," and is boiled for a feast. Then the company is ready to seize another goat and commence again.

We passed but few houses on the road to Sarailyk, and then proceeded across extensive plains, frequently through cultivation. By evening we reached Kamenny-Most, or Stone Bridge, guarded by a Russian fort, and beyond this point descended into the lower valley of the Zarafshan, the road lying through numerous fields. We had now entered, in fact, one of the gardens of Turkistan, the flora being almost unknown to naturalists till fifteen years ago, when a scientific expedition was sent thither from Moscow under Professor A. P. Fedchenko. I shall need to speak more fully of

this expedition hereafter, but it will be interesting to notice here certain peculiarities concerning the flora of the valley.*

Among useful trees is Tukhmiak, or *Sophora Japonica.* Although but four species are found in Samarkand, they are numerous in Khojend and Khokand. The flowers in bud are collected and dried; from these, by infusion in cold water, an excellent yellow dye is obtained. Another interesting plant is *kanap*, by which general name several fibrous plants are known.†

A still more noteworthy, and for a long time enigmatical, plant is *sumbul*, kept so jealously from the Russians in Turkistan (as was the Ginseng in Manchuria), that Fedchenko was denied access thereto by the Bek of Maghian.‡

One more plant of a remarkable character is worth notice here, called *shirish*, of the lily family. It has a smooth stem about 3 feet 6 inches high, and an inch in

* See Appendix on the flora of Turkistan.

† Hemp is so called, for instance, in Samarkand, also *Apocynum sibiricum*, termed in Semirechia *kendyr*. One particularly valuable specimen given to M. Fedchenko was *Hibiscus cannabinus*. It grew 16 feet high, with ripe fruit in the beginning of September. A special point to be noticed about two of these plants is that the *Tukhmiak* is a native of Japan, and the *Hibiscus* is cultivated in India. The latter gives excellent fibre for rope and cord that has had hitherto to be brought from Russia. The existence, therefore, of these plants in Turkistan seems to prove that they might be acclimatized in certain parts of the country for industrial uses, at least to supply the local population if not for export to Russia.

‡ M. Borshtchoff was authorized to promise 20 half imperials for a specimen for instruction, but the reward remained for some time unclaimed. By close questioning, however, he ascertained that it grows in mountain valleys watered by over-flowing rivers, such as the upper courses of the Chirchik and Syr-daria. Fedchenko obtained a bulb and planted it in the botanical garden of Moscow University, where it blossomed and its fruit ripened, thus rendering possible a detailed investigation of the plant, and rejoicing the heart of the explorer, who said that if the Bek of Maghian chose to go to Moscow he might see there in perfection the

diameter, with a thick spindle-shaped root, the bulbs resembling those of the dahlia or beet, but much larger. In autumn, when the plant becomes ripe, the stems are cut off and dried for fuel; the root is dug up, dried in the sun, and crushed, and the triturated powder, of a green-greyish hue, is called *Shiriash.** Shirish grows abundantly in Turkistan, and shiriash has an important trade value throughout Central Asia, where it is employed in alabaster works, for stiffening cotton, and for thickening certain colours used in printing cotton fabrics.

These remarks on flora have been suggested by our entrance to the cultivated portion of the Zarafshan valley. We had telegraphed in the morning from Jizakh to Samarkand to General Korolkoff to inform him of our approach, hoping to finish our journey that night; but when we reached Djimbai it was already dark, and since between that station and Samarkand we had to ford the Zarafshan, the post-master advised us to wait till dawn, and not risk the danger of a night crossing. I therefore sat up till midnight writing, so as to have as much leisure as possible in the capital, and before it was light I stirred up the yemstchik to put to

plant he had tried to keep so exclusively in his own mountains. Sumbul (*Siumbiulia*) is a bulbous plant belonging to the family *Umbelliferæ*, and is considered to constitute a new genus approximate to Ferula and Peucedanum. Its root has the smell of Musk and Archangelica, and is therefore used as a cosmetic in the richer harems of Turkistan.

* Shiriash, if not identical with, is very much like burnt starch, lustrine, *leiokum*, and other trade denominations of dextrine prepared from starch. The powder is easily soluble in cold water, does not take a blue colour when mixed with iodine, and is capable of precipitation by strong spirit. On first investigation under the microscope the powder did not reveal the presence of an atom of starch, and it was therefore supposed that the dextrine formed in the process of drying; but subsequently dextrine was detected in the *fresh* roots—a fact said to be unknown previously to physiologists.

the horses. We started about four o'clock, and in the grey dawn came to the banks of the "gold-strewing" stream, the fording of which I saw was to be a more serious matter than aught of the kind I had previously undertaken. Not only is the stream very swift, but the depth so varies from day to day in different parts of the bed that men are kept on the spot to study the river's caprice and help travellers across. Our goods were all taken out of the tarantass, and, with our two selves, were placed in a high native cart, and thus, accompanied by horsemen, we forded the river with no worse mishap than the falling out of our bread-bag, which was rescued by one of the horsemen. The tarantass was dragged through, and did not get so soaked as we feared it might have done, so that we had only to put back our goods and proceed. We passed the hill of Chupan-Ata, and soon found ourselves on a well-made road, with trees on either hand. Along this we passed to the palace of the Governor, and thus arrived at the ancient capital of the Timurids.

CHAPTER XXXVIII.

THE ANCIENT CAPITAL OF THE TIMURIDS.

History of Maracanda.—Tamerlane's capital.—Ancient ruins.—Antiquities of Tamerlane's day.—Ulug-Beg's observatory.—The Russian Governor's palace.—The Gur-Emir: its tombstones, history, and relics.—Mosque of Shah-Zindeh: its legends, ornamentation, and places of devotion.—Ruin of Bibi-Khanum medresse: its architecture, and miracle-working lectern.—Bibi-Khanum's tomb.—The Citadel Palace and the *Kok-tash* stone: its legendary history and uses.—Timur's palace of Ishrat-Khana.

WE saw little or nothing of antiquarian interest north of Tashkend, unless it were a few Kirghese tombs, not apparently very old. Nor did matters improve much until we approached Samarkand, the one town of antiquities that Russia possesses in the whole of her dominions.

Its foundation, according to Khanikoff, goes back to the heroic age of Persian history, and is attributed to Keïanide Keï Kaous, son of Keï-Koubad. But, however this may be, we know that at the time of the invasion of Alexander the Great, he took in Transoxiana a town Maracanda, in 329 B.C., which he made his head-quarters during his contests with the mountain tribes. It was here, in a fit of drunken passion, that he killed his friend Cleitus, and from hence he went to winter at Zariaspa, which Khanikoff connects with the Khivan Hazarasp. In Alexander's

time Maracanda was said, by Quintus Curtius, to have walls eight miles in circumference, with a citadel surrounded by an inner wall. Afterwards it became the capital of Sogdiana, one of the provinces formed out of the ruins of Alexander's monarchy.

The Greeks and Græco-Bactrians had their day, and were succeeded by the Yuechji, apparently Steppe nomads, mentioned by the Chinese General, Chyan Tsian, about 125 B.C. At what date the valleys of the Oxus and Jaxartes were conquered by the Celestials is not known; but, in the seventh century after Christ, these parts of Asia were considered the western provinces of the Empire of China. They called the town Sie-mu-sze-kan. The Arabs were the next invaders, conquering Samarkand in 675. The Khalifs' direct reign lasted until A.D. 888, when the dependent dynasty of the Samanids succeeded, but collapsed in A.D. 1004, to be followed by Turkish princes of the Seljuk dynasty.

The Greeks brought with them Western ideas and customs, the traces of which have long since passed away, save that now and then Græco-Bactrian coins are found, and some of the Tajiks of the mountains claim descent from the Great Iskander. The Arabs, however, introduced a new religion and civilization that no subsequent vicissitudes have effaced. Under the Samanids, Samarkand became the home of peace and science, and for some centuries after the Mussulman conquest it was also the see of a Christian bishop. It early became one of the large towns of Asia, for when the great Mongol conqueror, Jinghiz Khan, overturned the city in 1221, he was opposed by 110,000 men, about three-fourths of whom he put to the sword. A quarter of a century later, however,

the Christians were said to be in a flourishing state, by virtue of privileges bestowed on them by Jinghiz Khan; and Marco Polo testifies that in his day there was a Christian church in Samarkand.

Jinghiz was succeeded by Mongol heirs for nearly 200 years, till his dynasty was set aside by Timur, or Tamerlane, who made Samarkand the capital of his vast dominions. Out of it he marched on campaigns that lasted for years, and from which he returned with captives and spoils, bent on making his capital the finest city of the world. It was on his return from one of these campaigns, in 1404, that he received Don Ruy Gonzales de Clavijo as ambassador from Henry III. of Castile. Hans Schiltberger, of Munich, was in Samarkand about the same time, though he tells us little or nothing about the city; but Clavijo, on his return, wrote such an account of his adventures, and of the splendour of Tamerlane's court, as made Europe marvel. Nearly a hundred years later, in 1497, when Samarkand had 150,000 inhabitants, Baber, one of Timur's descendants, speaks of its pleasant situation, saying that the wall was 10,600 paces in circumference. Two years later, however, the Uzbegs, under their Khan Sheibani, seized the capital, and once for all drove away Timur's descendants. Around the standards of the Sheibanids rallied various Turkish peoples, who soon acquired ascendency over nearly all the Central Asian countries, formerly ruled by the Timurids; and though they were somewhat checked by peoples of Persian blood, the Uzbegs held in subjection the valleys of the Zarafshan till the coming of the Russians. Under the Uzbegs, Samarkand, once the capital of a great monarchy, declined to the condition of a barbarous town, and at the beginning

of the eighteenth century, after devastation by the nomads, possessed scarcely any inhabitants.

Thus the site of Samarkand, having been occupied for more than two thousand years, might be expected to be rich in objects of high antiquity. It must be remembered, however, that in remote times the inhabitants of the Zarafshan valley lived very much in tents, and, when they built, did so with mud rather than stone ; as, for instance, in Tamerlane's time, when, on one occasion, he ordered a mosque to be built in the space of ten days. The most ancient ruins are thought to be those on the hill Kaleh-i-Afrasiab in the northern outskirts of the present town. These are connected, in the minds of the natives, with the mythical Turkish hero Afrasiab, who is supposed to have fought with Alexander of Macedon, and to have founded Samarkand. Another story is that the giant Afrasiab, being unable to take the ancient city by assault, buried it under the sand. The extent of these ruins, or rather of this dreary desert, is immense, and presents a scene of scattered *kurgan*, or tumuli, and of heaps of earth, the remains, probably, of former clay erections. In 1875, some unsystematic excavations were made, and ruins of houses and an ancient pottery discovered, including jugs, as well as glass ware, suggestive of Chinese workmanship, together with coins and glazed tiles. "Kurgan," similar to those of Afrasiab, occur in various other places around Samarkand. Their general type resembles the present style of Bokhariot strongholds, but none of them appear to have tombs, or remains of stone buildings. I should mention, however, in this neighbourhood, on the left bank of the Zarafshan, the remains of an ancient bridge, called the Bridge of Shadman-Malik,

which I must have passed, though I do not remember noticing it near the hill of Chupan-Ata, which perhaps is the greatest antiquity of the neighbourhood.*

The chief antiquities to be seen in Samarkand in the present day date from the beginning of the fifteenth century, and onwards, the oldest of them being connected with the name of Timur. These include his place of burial, called the Gur-Emir, with that of his wife, Bibi-Khanum, and another beautiful mosque, called the Shah-Zindeh. There are also four remarkable medresses, called the Tillah-Kari, Shir-Dar, Ulug-Beg, and Bibi-Khanum. There is likewise another object of interest in the citadel, where, in the reception hall of the Emir of Bokhara, is preserved the ancient *koktash*, or coronation stone of Tamerlane.

North-east of Samarkand, on the hill Chupan-Ata, called Kohik by Baber, was built an observatory, three stories high, by Ulug-Beg, son of Shah Rukh, and grandson of Timur, who provided it with astronomical apparatus, and whose memory has been secured to posterity by means of the astronomical tables that bear

* Dr. Schuyler and M. Ujfalvy both allude to it, and the latter gives an engraving showing its two enormous arches, built of stone and brick, at right angles to each other, with, apparently, the ruins of a tower at the corner. M. Ujfalvy gives no information respecting its origin; and Dr. Schuyler says that he could get none. I observe, however, that M. Khanikoff, writing thirty years earlier, after speaking of the desirabilty of exploring the ruins of Afrasiab Kaleh, says, "It would be not less curious to ascertain if there exist the remains of a bridge over the Zarafshan, known to Arabian geographers under the name of Kantareï Samarkand, and of which they speak as a marvel." Here, then, seems to be the answer to M. Khanikoff; and if this can be substantiated, this bridge will probably prove the oldest building near Samarkand. What may be brought to light hereafter under the Afrasiab ruins, by organized search, remains to be seen. Meanwhile archæologists will be thankful that von Kaufmann would not have these and similar places disturbed until he could secure the attendance, as he hoped to do, of competent antiquarians to superintend the work of excavation.

his name.* Nothing now remains of the observatory; and the hill derives its present name from the small tomb of a saint placed on the top, Chupan-Ata being the patron of shepherds, as well as of the city of Samarkand.

It was from this direction, as I have said, that we approached the city on the 28th September, and sighted, from the Tashkend road, the enamelled dome of Timur's tomb, as prominent an object in miniature as the dome of St. Paul's from London Bridge. The road passed through an ancient cemetery, and continued past the place of Bibi-Khanum, and the bazaar, to the Rhigistan, or market-place, bounded on three sides by the medresses Ulug-Beg, Shir-Dar, and Tillah-Kari. Instead of following this road, however, our driver turned to the right on passing inside the wall, and drove down an avenue, planted by the Russians, on the eastern side of the citadel, and so brought us to the grove of trees, where is situated the palace of the Governor. General Ivanoff, as I have intimated, was at Tashkend, but the soldiers in charge of his house

* He caused instruments to be constructed of a better pattern and greater dimensions than any that had hitherto been used for making astronomical observations. Among these was a stupendous *quadrant*, the radius of which is said to have been as high as the dome of Santa Sophia at Constantinople; but this is supposed to be an exaggerated description, or to have been only a gnomon. In the course of some investigations undertaken by Ulug-Beg, he found that certain stars in Ptolemy's catalogue, reduced to his own epoch, did not accord with the observations made at Samarkand, and he therefore undertook the laborious task of making a new set of astronomical tables, and of re-observing the whole of the catalogue. Hence the origin and cause of "Ulug-Beg's Tables." They are divided into four parts, referring to respective treatises on the epochs and eras, on the knowledge of time, on the course of the planets, and on the positions of the fixed stars. The tables are reckoned by far the best of any of those handed down to us by the Muhammadans.—See *Proceedings of the Royal Astronomical Society*, Vol. xiii.

were expecting us; and, seeing that Samarkand has no *hôtel*, it was no small treat to find ourselves in the best quarters in the town, with everything clean and comfortable, including the luxury of a bath. The palace is an oblong, lofty building on one floor, with a massive porch midway on the longer side. The interior is divided lengthwise into two suites of rooms, the front door opening into a spacious hall. To the right of this is the dining-room, and to the left sitting and sleeping rooms, whilst the other half of the house is taken up with offices and bed-room at either end, and ball-room and drawing-rooms in the centre. The Russian Government provides houses of this description for governors of provinces, and furnishes them, so that I was fairly familiar with the interior arrangements of the house; but this palace at Samarkand was surrounded by finer gardens, and had a more imposing approach than any other similar residence I remembered to have seen. General Korolkoff, who was temporarily acting as Governor, was not living in the palace, but, though early, we went to him at once, and found in him one of the most polished and intellectual of Russian officers it has been my good fortune to meet. Botany is one of his studies, and apart from the introduction of Generals Abramoff and Ivanoff, I had another to him from M. Regel, the director of the Botanical Gardens at Petersburg. The General spoke French, and was able to give me a good deal of information, so that our time spent indoors was both pleasant and instructive.

We were impatient to see the "lions" of the town, and made our way first to the Gur-Emir, a small but lofty mausoleum surmounted by a melon-shaped dome, the top being perhaps from 200 to 250 feet high. On

the sides of the building rose two minarets, one being already in ruins, and the other not safe enough to ascend. Near at hand is a tall arch, also much dilapidated. That which imparts to the building its striking appearance on the exterior is the colour of its enamelled bricks, built in mosaic, and made to represent round the cornice enormous Arabic letters, that could be read, I should think, more than a mile off.

The building is approached under a mosaic portal across a paved court planted with a score of karagach, apricot, plum, and white mulberry trees. Formerly the court was enclosed within a wall, and Vambery so found it, but now the gateways alone remain. The front of the building, as the law directs, is towards the south, but the entrance is on the west, and over the gateway we entered is written in white letters on blue ground, "This is the work of poor Abdullah, son of Mahmoud of Ispahan." We mount five stone steps, and at the distance of six paces another step, and then arrive at the first wooden door leading to a vestibule, the door being modern and plain without, but carved inside. The next door is of ancient carving, inlaid with ivory, and over it is a low, square, wooden window of open work ; above this is a second window of alabaster, and yet higher a third, also of alabaster, the latter two with oval pediments. On the right is a door admitting to a long chamber, where are buried some of the female members of Timur's family, and similarly on the left is a door opening into a low, arched chamber, surmounted by four cupolas, wherein, according to Fedchenko, are the tombs of Timur's son Mirza-Shah-Rokh and his family. Still further to the left, in a wing of the principal building, is an entrance, M. Ujfalvy says, of unknown purpose, leading to

the tombs. Probably it is that referred to by Fedchenko in the crypt, in the wall of which, he says, "there was once a door through which the dead were brought in, but it is now built up with bricks. At one time there were four entrances into this building, signifying that people flocked from the four quarters of the world to the tomb of the great Emir."

On entering the principal doorway we found ourselves in an octagonal chamber, ten paces in diameter, wainscoted to a height of nearly five feet with *yashma*, or jasper, as I was told, and as is commonly said, but which Dr. Schuyler asserts to be "hexagonal plates of finely-carved transparent gypsum." I brought away a piece found among the *débris* outside, and on showing it at the Museum of Natural History in South Kensington, it has been pronounced to be white, translucent, and massive carbonate of lime. Above this are three rows of niches carved in sandstone, a foot and a half high, then inscriptions, formerly blue, 18 inches in height, also in niches; and above all this a continuance of niches, beautifully carved, and crowned by a fine arch. The colour of the whole is greyish white, and looks somewhat dingy and old. In the eastern wall, facing Mecca, is an arched recess called the Mihrab, wherein rest the remains of Said-Mir-Omar, son of one of Timur's preceptors. Opposite the doorway by which we entered stood a pillar perhaps four feet high, surmounted by a dome, under which was formerly kept burning, says Ujfalvy, "the lamp of perpetual fire."* I cannot answer for

* Reminding one of the Jewish tabernacle, "And the lamp to burn always," Exodus xxvii. 20, an imitation of which I remember meeting with at Worms, where in an old synagogue they showed a lamp said to have been burning since the 7th century, in honour of two Christians who then saved the Jews.

the perpetuity of the fire at Samarkand, but I found there a dirty three-lipped lamp of unusual form, left probably by a pilgrim, and the like to which I was told I could get in the bazaar; whereupon I begged the mullah in charge to let me have that, and I gave him money to purchase another in its place. I was glad to have secured this lamp from so interesting a spot, and the more so because in my subsequent wanderings I did not meet with another of precisely the same form. The pillar is said to indicate, I believe, where the head lies, and near it is erected a rough pole, from which hangs, as usual over a Muhammadan hero, a banner and horse-tail.

On the floor of the mausoleum, surrounded by an open-worked railing of carved alabaster, are seven tombstones. Near the pillar I have mentioned is the highest but least elegant tomb, that of Mir-Saïd-Barak, or Mir-Kulan-Saïd-Baraka, Timur's preceptor and friend. In a line with this is Tamerlane's own tombstone, and near it that of his grandson, Ulug-Beg, who, according to the inscription, died in 1449. The other stones cover the graves of Timur's descendants or friends.

The one stone really remarkable, said indeed to be unique, is that over the tomb of Tamerlane. It occupies the exact centre of the mosque. The other tombs are of white marble, but his is greenish black, 6 feet long, 17 inches wide, and 14 inches thick, and of a single block of nephrite or jade, the largest monolith of that material known. The surface is covered with tracery, and around the edge is a complicated inscription in antique letters, giving, says Dr. Schuyler, "Timur's name and titles, together with those of his ancestors, and the date of his death, 1405."*

* The stone is broken or cut in the centre, the breach being attributed

The floor of the mausoleum near the tombs is covered with hexagonal stones of what is said to be jasper, but more probably is of the same stone as the wainscoting. A spiral flight of steps of wide span and of grey burnt brick leads into the crypt, where are the graves, and over them slabs of white limestone, seven of them being arranged exactly under their respective representatives above. These, too, are nearly covered with quotations, it is said, from the Koran.

The Gur-Emir was built by Timur over the remains of his preceptor Saïd in 764 (1386), some time before his own death. Timur died in Otrar, within 400 miles of Samarkand, but his body, according to his own directions, was laid by the side of that of his preceptor.* The famous monolith was brought to Samarkand, Khanikoff says, quoting Muhammad Fassikh, in 1415. Some say that it was the present of a Mongol princess. Devotees and pilgrims used to flock with great reverence to Timur's grave, but the place seems to have fallen into neglect until the coming of the Russians.†

to its fabulous journey to Nadir Shah, who, having heard of its wonders as a bezoar, ordered it to be brought to Meshed. Dr. Schuyler refers to one of the lower corners as broken off, and M. Ujfalvy mentions an act of vandalism by a Russian geologist, who stole into the place at night, and cut out a piece for the purpose, as he said, of making scientific analysis, but which he was compelled to restore to its place as well as it could be done with plaster, thanks to the outcries of General Abramoff.

* Schiltberger tells a story of his stay at Samarkand, that "after Tämerlin was buried, the priests that belong to the temple heard him howl every night during a whole year. His friends gave large alms, that he should cease his howlings. But this was of no use. They asked advice of their priests, and went to his son and begged that he would set free the prisoners taken by his father in other countries, and especially those that were in Samarkand, who were all craftsmen he had brought to his capital, where they had to work. He let them go, and as soon as they were free, Tämerlin did not howl any more."

† When Khanikoff was there in 1841, he says that to get into the crypt it

About a hundred paces from the Gur-Emir there is a small building called Ak-Serai, where, tradition says, some of Timur's wives are buried. The place is now in ruins, and serves as a stable, but in Vambery's time there was hanging aloft on the side of the dome a skein, said to contain hair from the beard of the Prophet, which was supposed to have protected the dome from further decay. I saw nothing of the Prophet's beard, though I may mention that the dome of the Gur-Emir was cracked from the effects of a recent earthquake, and at the time of my visit was undergoing repairs. This gave me an opportunity to get specimens of the enamelled bricks, for which purpose I mounted the scaffolding, accompanied by a number of boys, who readily searched among the *débris* for suitable pieces, and one of them brought several in his lap to the palace.

The object in Samarkand next in interest to Timur's tomb is, beyond question, the mosque of Shah-Zindeh, which Lehmann, Khanikoff, and Vambery call Tamerlane's Summer Palace. Fedchenko, however, is not of this opinion, and until proof to the contrary is forthcoming, I venture to agree with him; for the building does not consist of habitable chambers, like any palace I saw in the East, but rather of places set apart for religious purposes.

was necessary to crawl on hands and knees. At the date of Vambery's visit in 1863, there were at the head of the graves two *Rahle*, or lecterns, for supporting sacred volumes, where the mullahs in turn read the Koran day and night. There was a lectern also in the crypt, with a Koran upon it written in folio by Othman, Muhammad's secretary, and the third Khalif, a relic said to have been brought by Timur from Broussa, and which was kept secretly in Samarkand lest other Muhammadan countries knowing of the treasure should be jealous. There were also preserved upon it, according to Kostenko, some stains of the Khalif's blood, who was slain whilst sitting on the copy of the sacred volume.

The legend related by the mullahs concerning the building of the place is that a thousand years ago there lived a saint, whose name was Hazret-i-Shah-Zindeh, who one day dug a pit and disappeared in it, saying that he would live there for ever. Time ran on, but there were unmistakable signs of the continued existence of the saint. Timur, wishing to be convinced of the miraculous preservation of the holy man, caused several persons to be let down into the pit. But none of them came again to the top, whereupon one man volunteered to descend, directing, however, that he should be lowered head foremost, because he said it was not respectful to go down feet foremost to the saint. When this man reached the bottom of the pit he found the saint in prayer, and was so struck by his appearance that he fainted, remaining senseless for three days. When he recovered, the saint told him all was well, because he was evidently a God-fearing man, but that if he uttered a word of what he had seen he and his children to the eighth generation should be dumb. On regaining the earth's surface, the man, threatened by Timur with death, told everything, and it came to pass that he was struck dumb. Whereupon Timur, in the interest of the poor man, for whose sin he was himself answerable, prayed to the saint, and, to propitiate him, erected in his honour the splendid edifice called the Shah-Zindeh (or living king). Nevertheless, says the legend, that man and his children to the eighth generation were all dumb.*

The mosque of Shah-Zindeh, or more properly

* Dr. Schuyler, and in part Professor Vambery, gives a similar story of a Kasim Ibn Abbas, who came to Samarkand in early Moslem times, and preached the Koran with great success, till on this very spot he was overcome by the infidels and beheaded. Whereupon, adroitly seizing his head, Kasim leaped into a well hard by, where he

Kasim-bin-Abbas, is situated about a mile beyond the city gates, built, as it were, in stages on the side of a hill, on which is an immense cemetery, still used, and from whence are visible the seven domes of the mosque. The gateway opens upon the road, and is approached by several steps. On the right at entering is a small court, with chambers for the mullahs, and a well of excellent water, whilst on the left is a hall or mosque, where Muhammadan service is held. When we entered, worship was being conducted by a Muhammadan sect called Nadamat, closely resembling the service I had seen at Constantinople of the "howling" dervishes, and which I shall describe later on. Mounting a flight of 37 high and broad steps, which were once covered with marble, we came to a long uncovered gallery, flanked by two lofty chambers, open at the side and capped with cupolas.

Along this gallery were pointed out to us several tombs, and among them those of a sister and an uncle of Tamerlane, the enamel work on all of them being more beautiful than any I saw elsewhere in Central Asia, unless, perhaps, at Kunia Urgenj.* In Dr. Schuyler's time he says that there were quantities of fragments to be picked up, but the Russians have since done much to restore the building and remove

still remains, ready to come forth at some future day as the defender of Islam.

* The ornamentation, moreover, was of several kinds. Here were mosaics built of uni-coloured bricks. In other parts were bricks, each with various shades of colour, whilst there were in several parts small pieces of brick faced with colour, and fitting into one another in mosaic, and a fourth kind of enamelling on an embossed surface of squares, circles, and stars. One of the mosques had a melon-shaped dome, with the tiles nearly all fallen off. The interior walls of the buildings are covered with mosaic, and the domes, supported by slender, carved, wooden columns, are full of bold, yet elegant, pendent work in alabaster. The walls along the staircase were formerly covered with tiling.

the *débris*, as at Tamerlane's tomb. I found the mullahs abundantly willing to get me some specimens, and, though making heavy baggage, I was thankful to secure some of each kind.

At the end of the gallery we came to the ancient mosque with its courts, chambers, and crypt. In one of the rooms was a door of iron grating, secured by a fish-shaped lock, having behind it, dimly distinguishable, a monument, or object covered with cloths. In an adjoining room was an immense Koran, 6 feet by 4 when open, and we were shown an underground cell, where devotees might shut themselves up for 40 days' fasting and praying to the saint. In reply to my inquiry how much those fasting ate, I was informed that of the 10 or 15 who come there annually, some eat on the evening of each day, some only once in three days, and all as little as possible. In former times the rulers of Samarkand paid their reverence at Shah-Zindeh before entering the city in triumph, and the mosque became a famous place of pilgrimage. In Vambery's day there were offered for the faithful to kiss, three flags, an old sword, and a breastplate, as relics of Timur, and also there were said to exist certain relics of the saint; but I saw nothing of these, and when I wished to look down the well of Shah Zindeh, I was asked not to do so, the mullahs saying that even von Kaufmann, the Governor-General, had respected the holy place, and did not enter there. These things naturally reminded me of the so-called holy places on the European Continent, but the votive offerings left at the holy places of Islam are fewer and much poorer than the offerings at the shrines of Roman or Russian saints. Here they consisted merely of prayer-cloths, on which Moslems have knelt, and of

pictures brought by pilgrims from Mecca. I found the mullahs by no means fanatical, for they thankfully accepted a Persian Bible, and appeared delighted to get it.

Returning down the Shah-Zindeh avenue, between rows of gypsies who sit like Bar Timaeus "by the way-side begging," the traveller regains the Tashkend road and comes to the Place of Bibi-Khanum, or Queen Bibi (*khan* and *khanum* meaning king and queen, lord and lady), where are ruins of other two buildings that date from the time of Timur. The Bibi is spoken of as his favourite wife, and the daughter of a Chinese emperor, who, from her private purse, built the medresse that bears her name, according to Muhammad Fassikhi, in the year 1404.*

There remain several indications showing that the Bibi-Khanum medresse must have been one of if not the finest in Central Asia. Its chief mosque is said by Khanikoff to have been built by the side of the medresse in 1398, by Timur. It is crowned with what is for Turkistan a gigantic double dome; but what struck me most was the lofty graceful arch of the *Pishtak*, or front entrance. Its proportions seemed to me perfect; and whether it was the contrast to the

* Schuyler says 1385, and Ujfalvy 1388. Khanikoff records that the princess brought from her native country artists, who ornamented the edifice, though I confess I saw no traces of Chinese work about the place, nor have I read of any. Khanikoff speaks of "three mosques with high domes, united by a four-cornered building, on the east of which were once brass gates with inscriptions and carvings. The building must have occupied a vast space, and is said to have accommodated in its three wings a thousand students. The gates were long since melted into money by the impoverished Amir Haidar, and the walls of the building became so cracked and crumbled that, about 1860, the medresse ceased to be used for its original purpose. At the time of Vambery's visit the building was a standing-place for native carts, and the Russians at their coming found the medresse a ruin.

surrounding ruins, and crumbling minarets, or what, I know not, but as I gazed I began to think the arch one of the loftiest I had ever seen. I tried to compare with it, by the eye of memory, the east window of York Minster, and it was not till I measured the breadth of the Bibi-Khanum arch, which I found to be 50 feet, that I could bring myself to realize that its height could not exceed from 100 to 150 feet. Still, I am quite disposed to agree with M. Ujfalvy, that the contour and lines of this ruin show it to have been the finest of the buildings in Samarkand. The depth of the portal was 30 feet, and the walls of this and other parts of the building were once covered with polished mosaic, striking for its medley of colours. The design has been skilfully executed, and bears marks of cultivated taste. The colouring and gold in many places still look fresh, but none of the porcelain is of open work like that of the Shah-Zindeh.

On either side of the principal entrance is a slender hexagonal tower measuring 54 feet round, from which the mosaic is peeling fast. Not far distant is a large square stone slab, sloping towards the centre, for Mussulman ablutions, and in the middle of the building is an immense Rahle, or lectern, of white marble, 7 feet long by 6 wide, having the appearance of two sloping desks joined at the lower sides and supported on nine low pillars. On this formerly used to lie a huge copy of the Koran, seen by the Russian Ephremof, who visited Samarkand in 1770. The lectern, with its parchment book and large characters, was placed within sight of a high window at which tradition says Bibi-Khanum used to sit and read. The chief merit of the lectern now consists in its miracle-working power of curing for life pains in the back-bones, pro-

vided the sufferer manages to crawl beneath, which the faithful do in all directions.

Bibi-Khanum lies buried in an adjoining octagonal building, called Bibi-Khanum-Gur-Khana, which at the visit of Khanikoff was much defaced. When the Russian authorities were clearing the courts of the medresses of rubbish, they found this small mosque, which had been concealed by the surrounding buildings and almost forgotten, but wherein they were told was the tomb of Bibi-Khanum. A short time after, the roof, falling in, broke through the floor, and exposed a large vault containing grave-stones, with inscriptions of prayers in ancient characters, but without names or dates. I entered the vault, and saw there five tombstones, all lying east and west, and said to be those of Bibi and four children. The mosque and medresse of Bibi-Khanum are too much dilapidated to be repaired or restored, but the Russians have cleared away the *débris*, and surrounded them with palings to keep them from further injury.

From these buildings we went to the citadel to see another curiosity—said to date from Timur's days—namely, a coronation stone, called the *Kok-tash.* In this citadel was a palace built for the Emir Nasr-Ullah, and in the palace a court that was used for state occasions, which Vambery calls "Talari Timur," or "the reception-hall of Timur." The court is oblong, and on the sides other than that where we entered, there runs round the building a raised covered veranda, or cloister, supported by wooden columns, whilst at the end opposite the entrance is placed the famous stone called Kok-tash.*

* This word is interpreted by various writers to mean green, blue,

The Kok-tash is an oblong block of greyish marble, with dark streaks, polished on the top, carved in arabesques on the sides, and with small pilasters at the corners.* There is a railing put round the stone now to keep it from injury, and behind it, on the wall, is affixed an object alluded to by both Vambery and Schuyler, though I have no recollection of seeing it —namely, an oval piece of metal like half a cocoa-nut, bearing an Arabic inscription engraved in Cufic letters.†

and grey, which Schuyler varies by whitish-grey; the fact being, according to Fedchenko, that though Kök does mean green (as also grey in Kök-büra or grey wolf), yet Kök-tash means simply "marble." Dr. Schuyler, however, suggests another origin of the meaning of the word from Baber, who speaks of the palace Timur constructed in the citadel of Samarkand as being four stories high, and famous by the name of *Kok-sarai*, just as his palace in Kesh was called *Ak-sarai*, or white palace. The *Kok-sarai*, Baber says, was remarkable in that every prince of Timur's race, who mounted his throne, did so there, and it was there also that usurpers to that throne were put to death. The Kok-tash is said to have served for the foundation of Timur's throne, and so perhaps received its name from being the famous stone in the *Kok-sarai*.

* My notes record its rough measurement as 10 × 5 × 3 feet, but Dr. Schuyler doubtless is more accurate, who gives its length 10 feet 4 inches, breadth 4 feet 9 inches, and height 2 feet without the brick and plaster pedestal. Vambery gives its height at 4½ feet, and says that when it was to be mounted by the sovereign some prisoner of illustrious birth was always forced to serve as a footstool. When the Russians took the city there was a decorated slab of hard plaster, forming a back to the stone, and making it appear like a throne. This, however, was thought to be of recent date, and when it fell off it was not replaced. When the elevation of the sovereign on the Kok-tash had grown into a custom, a legend arose that the stone had fallen from heaven, and would not allow a false Khan to approach it. So late as 1722 complaint was made that Abul Feiz Khan had never gone through the ceremony of sitting on the *Kok-tash*, and rebels proclaimed in his place Regin Khan, who was consecrated in the usual manner.

† It is a pity that such an Oriental scholar as Professor Vambery does not give the translation, and thus confirm or correct that of Dr. Schuyler's interpreter; for, if the version of this latter be true, this

When we walked down from the gallery some 3 or 4 feet, into the central space below, somewhat resembling an arena, there was pointed out to us in the middle a large octagonal stone some 3 feet high, in the top of which is a cylindrical hollow, like a water basin, but which served, we were told, for the execution of offenders.*

The mention of one more ruin will complete the list of those immediately connected with Timur. I mean the *Ishrat Khana*, in the suburbs of the town, whither, according to tradition, Timur was wont to repair for recreation. One may still perceive in the ruin small apartments in addition to the large central hall in the second floor. The inhabitants of Samarkand relate that Bibi-Khanum built this for her tomb, but that Timur, on paying a visit of inspection on the completion of the building, was so delighted that he kissed his wife, whereupon, confused and pleased, Bibi-Khanum said, "Let this be Ishrat-Khan's house of gaiety and pleasure; a repository for my remains shall be built elsewhere."

I shall now proceed to mention some of the later Muhammadan antiquities, and also such information as I was able to gather respecting the Jews in Samarkand.

must be the oldest known relic in Samarkand. It is said to have been brought from the treasury of the Sultan Bayazid Yildirin, and to have served one of the Khalifs as an amulet. The inscription is interpreted to read, "This is the tomb of the Sheikh Imam, the Hermit Khoja Akhmet Kodoveri Ishak El Khivi. May heaven forgive him and his parents, and all Mussulmans who have died. Dated the 22nd day of the month Moharrem, in the year 550 (1172) of the Hejira of Muhammad."

* I know not if this be true, but coupling with it the statement of Baber that usurpers were put to death at the Kok-sarai, and recalling the fact that the Emir Nasr-Ullah, even on his death-bed, caused to be brought the sister of one of his adversaries, to be slain in his presence, the position of this stone, as an alleged place of execution, seems to illustrate Luke xix. 27, "But those, mine enemies, which would not that I should reign over them, bring hither and slay them *before me*."

CHAPTER XXXIX.

MUHAMMADAN AND JEWISH SAMARKAND.

Bird's-eye view of Samarkand.—Its former and present dimensions.—Khoja-Akhrar medresse, and remarkable enamelling.—Koran of Othman.—Tradition of Tamerlane's library.—The Rhigistan, with medresses of Ulug-Beg, Shir-Dar, and Tillah-Kari.—Varieties of enamelled bricks.—A butcher's shrine.—Visit to Jewish quarter during the Feast of Tabernacles.—Synagogue choristers.—Visit to rabbi.—Local traditions of Jews in China.—Hebrew pronunciation.

ON reaching a foreign city for the first time, it is a favourite endeavour of mine to mount some lofty pinnacle from whence to obtain a view of the whole. I lost no time in doing this at Samarkand; for having arranged our effects at the palace, we called after breakfast at the telegraph office, and on General Korolkoff, and then visited the Gur-Emir before lunch, after which we proceeded, under the guidance of a Russian officer, to the Rhigistan. Here we ascended one of the minarets of the Ulug-Beg Medresse, said to be 45 *ghiaz*, or 150 feet, high.

We gained from hence a capital view of the town. To the north, five miles off, lay the wooded and cultivated country on the banks of the Zarafshan, with the Chupan-Ata hills on the north-east, and nearer were the Shah-Zindeh, and the Bibi-Khanum ruins, as well as the Tashkend road, and the avenue by which we

had arrived. On the east was the Kalendar-Kareh gate and the roads leading to Penjakend and Urgut. On the west was the citadel with the Emir's palace, having the Koktash; and beyond the citadel, radiating like a fan, were the straight and regular streets of the Russian quarter, with its public garden, Governor's palace, and shady promenade; whilst on the south rose the graceful dome of the Gur-Emir, and beyond it the Khoja-Akhrar gate. The wide streets, and the coloured roofs of the Russian houses, presented a marked contrast to the low mud house-tops, and the narrow, tortuous lanes of the native city, in which, however, the direction of the principal thoroughfares did not appear to us so hopelessly irregular and intricate as at Tashkend and Khokand. Moreover, the city is seen to be large, and full of gardens, and these, watered by three streams, give to it an aspect less dismal than most of the towns we had seen. At the same time, it is a long way from an Englishman's idea of what the native poets have called it—"a terrestrial paradise"! This euphuism may have referred, however, to ancient times, when the cultivation of the surrounding country was much greater than it now is. The high walls with embrasures now measure 9 miles round.* The citadel is the largest in Central Asia, and is girt with its own battlemented wall, 8 feet high, and 10 feet thick at the base. In circumference it measures a mile and a half.

* The ground the city covered in former times is judged to have been more considerable, since the ruins of an old wall that once apparently surrounded it are now 3 miles distant on the western side; and on the north, over the space between the present walls and the Zarafshan, the ground is strewn with the ruins called Afrasiab. This extension must have been before the time of Timur, in whose day Samarkand was comprised within its present limits, only that the gardens, judging from present traces of them, extended further.

Here are now the barracks, Russian church, arsenal, Government stores and stables.

The city had six gates. One on the south, called Khoja-Akhrar, leads to a medresse of that name, about four miles distant, in the court of which is a pool of water and some venerable plane-trees.* This medresse is interesting also, because it is said to have once possessed the Koran of Othman, which I previously stated to have been lodged in the Gur-Emir.†

There is another tradition interesting to literary antiquarians that I ought perhaps to mention here, respecting the collection of Greek, Syrian, Chaldean,

* The mosaic tiling here is still in good preservation, presenting some of the most beautiful designs to be seen in the country, and concerning which M. Ujfalvy observes that he found there mosaics of flowers; bright blue, orange, and green hues being mingled with delicate pink to represent, not merely arabesques, but the petals of large flowers. As far as I remember, these representations were usually conspicuous by their absence; for the Sunnite Muhammadans are particularly strict in portraying nothing that has life, whether animal or vegetable. Dr. Schuyler mentions, however, that on this mosque, as on the Shir-Dar, are represented Persian lions, which probably indicates that both buildings were erected by Persian architects, who, being Shiites, are not in this respect equally strict.

† Dr. Schuyler gives the manuscript a somewhat different history. According to his version of the traditional story, Khoja-Akhrar was a rich saint who lived 400 years ago in Tashkend, and became the head of the religious order of Nakshbendi. One of the younger brethren of the community, being at Constantinople on pilgrimage, cured the Khalif of disease by reading a benediction Akhrar had given him, whereupon the Khalif bade his benefactor ask what he would. The pilgrim chose to have the Koran of Othman, and brought it to Tashkend to his master, who subsequently removed to Samarkand. Here it was placed in the Khoja-Akhrar mosque, and so remained till the coming of the Russians, when it was sold to them for £12. Dr. Schuyler adds that it is a beautiful manuscript, written on parchment, in Cufic characters, which not one of the learned natives could read, and that when they saw the value put upon it by the Russians, some of the more fanatical thought to remove it to Bokhara. This, however, was forbidden by General Abramoff, whereupon the Imams said that, as it would no longer bring them in money from pilgrims who came and paid for the privilege of kissing and touching it, they might as well dispose of it.

and Armenian manuscripts said to have been brought to Samarkand by Tamerlane. The Armenian historian, Moses Khorensky, compiled his work to a large extent from a chronicle he states to have been drawn up by Marabas Godin, who was commissioned by a Persian prince to collect materials from Chaldean and Persian sources, for a history of the Armenian nation. This chronicle, it would appear, is now lost, and the story says that Tamerlane, who several times ravaged Armenia, seized all her manuscripts, including that of Marabas, and carried them to Samarkand.*

Accordingly, since Marabas Godin's chronicle filled so important a place in Armenian literature, the Armenians living in Turkey a few years since applied to the Russian Ambassador in Constantinople, General Ignatief, asking him to move the Ministry of Foreign Affairs and the Governor-General of Turkistan to cause inquiry to be made for the precious Armenian manuscript. But the Russians, on occupying Samar-

* This story, it is true, is not much more than a verbal tradition. The chronicler, Thomas Metsobetsi, who was in Armenia at the time of Tamerlane's invasion, which he describes in detail, says nothing of the collection of books and their being sent to Samarkand, nor do other contemporary Armenian historians and chroniclers. There is an allusion, however, thereto by Father Michael Tchamchiyan of the Venetian Brotherhood of Mkhitarists, a historian of Armenia, who added to his history of Tamerlane the following:—"It is written in several places that Lan-Tamer, having collected all the Armenian and Persian books that he could find, sent them to Samarkand, and placed them in a tower there. Under the severest penalties he forbade the books being taken from the tower, but those desirous of reading them were permitted to go to the tower, not being allowed to remain there very long, however." Tchamchiyan, who usually places the names of his authorities in the margin, placed opposite the foregoing "Kishatakaran" (whatever that may mean), and added, immediately after, the quotation, "But however this may be, no one can say whether these books exist at the present time."

kand, could find no trace of the library, nor could the natives throw any light upon the matter.*

As far as I could judge, opinions differed widely as to my chance of finding manuscripts in Central Asia, but some thought it possible that, on the approach of the Russians, the books in Samarkand might have been taken to Bokhara to the palace of the Emir. Accordingly, one of the few things I asked of his Majesty, during my audience at Shahr-i-sabz, was that I might be allowed to see his library. He replied in the affirmative; but when I reached his palace at Bokhara I was shown nothing of the kind, nor did the officials left in charge seem to know anything about a library! On another occasion, in reply to my question as to the whereabouts of the Emir's books, one of the officials told me, with the utmost simplicity, that when the Emir went away for the summer, he took his books in a cart with him—the man meaning, I fancy, his records and account books. My small efforts, therefore, for the discovery of Tamerlane's library were fruitless, and nothing that I saw or heard led me to think that anything of the kind exists.

But I have been descanting upon these antiquities

* The author of an article in the *Turkistan Annual* for 1874, pp. 405-6, to which I am indebted for information on this subject, points out that, since the natives have got to know the Russians somewhat better, and to be more confiding, there have been found with certain Mullahs and Imams rare manuscripts, such as the "Tarikhi-Narshakhi," and also another called "Tavarikh-Mir-Baraki," in which, among other things, is described the campaign of Batu in Russia, and consequently that perhaps on some fortunate day the Armenian manuscript may come to light. Professor Vambery could find no trace of the library at Samarkand in 1863, and pronounced the tradition a fable, originating, he says, from the over-strained patriotism of an Armenian priest, named Hadjator, who insists that he came from Cabool to Samarkand and discovered in the latter city large folios, with heavy chains, in towers into which no Mussulman, for fear of genii, would dare to venture.

from the summit of the Ulug-Bek minaret, looking in the direction of the medresse of Khoja-Akhrar, whilst immediately below are three medresses, the fronts of which bound as many sides of the handsomest Rhigistan, or public place, in Central Asia. We will descend from the minaret and take up our position on the south side of the square, where we have before us three lofty buildings, similar in character, having façades covered with enamelled bricks in beautiful designs, and which, though falling into decay, testify to a certain sort of magnificence in the past.

That on the left, on the west of the square, is the college of Ulug-Beg, the oldest but smallest of the three. Its two minarets are made to lean like the tower of Pisa, M. Ujfalvy writes ; but though I ascended one, as I have just observed, I did not notice any inclination, and Dr. Schuyler says that it is an optical illusion, one side being upright, and the other at an angle, the illusion being increased, perhaps, by the sides of the portal not being parallel. The college was built by Ulug-Bek in 1421, according to Khoja Kalfa. This monarch, during his father's lifetime, is said to have attracted to Samarkand the most celebrated astronomers from different parts of the world, and in the observatory and college to have had more than a hundred persons constantly occupied in scientific pursuits. But the college, though once the home of mathematics and learning, is now in a ruinous state. It is only one floor high, and contains 24 rooms. Its endowment is 430 acres of land, 2 bazaars, 211 shops, and 71 warehouses, bringing in an annual income of £100.

The college on the east is the Shir-Dar, which has in front a lofty arched portal, with two stories of students' rooms. The sides of the medresse have no windows.

At the corners in front are minarets, and at the other end cupolas surmounted by melon-shaped domes. In the upper corners of the façade over the arch are rude representations in blue and yellow tiles of the lion and the sun, the Persian arms, whence the name given to the medresse of *Shir-Dar*, or lion-bearing. The façade is richly decorated with mosaic in earthenware tiles, green, blue, white, and red. The interior arrangement in Central Asian colleges generally consists of a large quadrangular court, surrounded by a range of buildings, with chambers for teachers and pupils; the mesjed, mosque, or, as we should say, chapel, being on the side towards Mecca. On entering the Shir-Dar, the three blocks of buildings are seen to have two tolerably lofty stories, containing 64 chambers, each for two students, many of whom go away in summer to work. This medresse and the Tillah-Kari are said to have been built about 1618 by Yalang Tash Bahadur, an Uzbeg, and vizier of Imam Kuli Khan, from the spoils of the shrine at Imam Riza in Meshed; and an inscription on the walls of the Shir-Dar, in verse, in honour of the builder, affirms that the Moon, on beholding these splendid edifices, placed the finger of astonishment on her lips. The endowment of the Shir-Dar and Tillah-Kari consists of 25 lots of land, containing 12,500 acres, with 8 shops, yielding an annual income of £1,000,* for the support of teachers and students.

The college on the north side of the Rhigistan is called *Tillah-Kari*, that is, covered with *tillahs*, or gold coins. The exterior is a good deal crumbled;

* The mosques and medresses of Samarkand number 58, and their property consists of land, shops, *sarais* or warehouses, a bazaar, mills, etc., producing an annual income of £2,000.

THE SHIR-DAR MEDRESSE AT SAMARKAND.

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it has minarets, and two stories of windows in front, whilst the interior is in a better state of preservation than either of the two just described. Here we were taken to the mosque on the left-hand side of the court, and our attention was drawn to the carved woodwork steps of the gilded marble pulpit, on which the moulding approached very nearly to the dog-tooth carving of the Gothic style. Greater pains and art seem to have been bestowed on this medresse than on the others, and more gold is seen in the ornamentation. The wall of the *kibleh*, or niche, where is supposed to be the Imaum (or image, called *Mikhrab*, that presents itself to the Moslem mind in prayer), is gilded, and bears the inscription, "There is no God but God, and Muhammad is His Prophet." *

Opposite the Shir-Dar in the Rhigistan our attention

* All these medresses, and, in fact, the religious buildings generally of Central Asia, are ornamented with enamel work of the following kinds: first, bricks with a smooth surface covered with a coat of self-coloured enamel. The pieces I obtained from Tamerlane's tomb were all of this character, nor did I see there any other. Secondly, the same, but with two shades of one colour in the same brick. Thirdly, minute pieces of brick about half an inch thick, coated with self-coloured enamel, fitting one into the other, and arranged in mosaic in a bed of plaster. Of this I secured a specimen 10 inches long by 7 broad, the colours of the pieces being of dark blue, light green, two shades of brownish-yellow, and white. Fourthly, bricks with open work, moulded or embossed on the surface, and covered with a coating of enamel of one or more colours. These I saw only at the Shah-Zindeh, where I was fortunate in finding a mullah, who, in his ardour to oblige me, ran and fetched a ladder, climbed to a loose brick we had espied (though not of open-work) and brought it down in triumph. Fifthly, bricks flat or rounded, with smooth surface, covered with various designs, writing, or tracery. The piece secured by the mullah just alluded to is of diamond shape, 9 inches long, and an inch and a quarter thick, with a design in five colours, but of rather coarse workmanship. Another piece of the same class, but of finer workmanship, obtained from the Tillah-Kari, and measuring 5 inches by 4, has remains of the gold visible, and besides two shades of blue, light green, red, and white, has what looks like part of a plum-coloured flower. A third specimen of the

was called to a square, raised platform, and on one of its corners the small conical tomb of a butcher who supplied the workmen with their meat when building the medresse. Schuyler says he frequently saw candles there and other votive offerings, so that I presume the butcher was a saint. There are, it is said, as many as 200 such *aulies* or shrines commemorative of remarkable men in Samarkand and its suburbs. There are also some few other ancient but less noteworthy buildings in and around the city, such as the tomb of the giant Daniar Palvan, and the ruins of the palace Khilvat-Khaneh, said to have belonged to one of the wives of Tamerlane ; but I think I have said sufficient for the present of the Muhammadans and their antiquities, and so turn to the professors of a more ancient

same class has a white Arabic inscription on a dark brown ground. These last two colours are noticeable, because M. Ujfalvy, who, as an antiquarian, went into this matter somewhat closely, affirms that the dark brown enamel is found only at Afrasiab, where I did not go, whilst the plum-colour he does not mention at all, but only enumerates blue of the two shades of turquoise and lapis lazuli, white, green, yellow, red, and pink of many shades. My finest specimen, however, of this class was brought me by a mullah from the Ulug-Beg medresse, a brick about an inch thick and 18 inches square, so tough that it stood unbroken a journey of hundreds of miles across the desert on the back of a camel, in addition to the ups and downs of the tarantass and railway and steamer travelling for 4,000 miles to London. It has at one side a border 5 inches wide, of light and dark blue, with red and gold colouring, and the remainder of the surface is occupied with the lower sections of tall Arabic letters that probably formed part of a large inscription running along a cornice. The bricks I obtained subsequently from Kunia Urgenj are self-coloured, like Class 1, but measuring $7 \times 2\frac{1}{4} \times 1\frac{1}{4}$ inches, and of great purity of colour ; also some of Mosaic, like Class 3, and a small piece of Class 5, only that this last is of altogether finer pencilling. I have thus described somewhat fully these enamels, because by some writers they are made much of, and they represent one of the very few branches of art to be met with in Central Asia. They are also interesting as specimens of what could be done by Asiatics 500 years ago, though poor enough as compared with Western productions.

and, to me, more interesting religion—namely, that of the Central Asian Jews.

We had not been many hours in Samarkand before we made the acquaintance of one of the Jews. He was on the official staff of interpreters, and General Korolkoff would have sent him with us for our guide about the town, but that we had come during the seven days of the Feast of Tabernacles, wherein their law said, "Ye shall do no servile work therein" (Lev. xxiii. 36); and he therefore explained that he could not drive with us to Tamerlane's tomb, though his conscience was so far unfettered that he expressed his willingness to walk there. We therefore set out, and he told us on the way how much more strict in keeping their law are the Asiatic than the European Jews. He left us on our return from the Gur-Emir, and we set off to the Rhigistan with another interpreter; but after seeing the three medresses and the Shah-Zindeh, already described, we went by a cross-cut to the Jews' quarter, and met again the Jewish interpreter at the house of a fellow-Israelite, Raphael Moses Kalendaroff. I fancy he was one of their wealthy men, perhaps he who built the synagogue, for he bore the same name, and it was in his house we were to see how they kept the Feast of Tabernacles.

In his court or garden was erected a cotton tent, outside of which nothing might be eaten for seven days. Here I presented the Lord Mayor's letter and the introduction of the Moscow rabbi, received at once a welcome, and was invited to eat. The ancient Jewish law directed (Lev. xxiii. 39—44; Neh. viii. 14—16) that the people should dwell in huts,* which is still interpreted to mean that the roof, if not the sides,

* סֻכּוֹת, not אֹהֶל, which latter is a tent of skins or cloth.

should be of branches; but these would not be easily obtained in sufficient quantity in Samarkand, and I am under the impression that not even the roof was so formed. My host, however, had remembered the injunction of the law in providing, at least, "the fruit of goodly trees," if not "olive branches, and pine branches, and myrtle branches, and palm branches, and willows of the brook." Perhaps these latter were represented by the leafy decorations over our heads in the form of a large framework, something like a chandelier, from which were hanging apples, quinces, and saffron flowers, whilst on the carpeted floor were placed dishes of parched peas, pistachio nuts, grapes, peaches, and apples, as well as mutton and carrot pies, and roasted apricot and plum kernels. Many came in, and, kneeling down, sat upon their haunches, but not cross-legged, round the four sides of the tent. I began at once to ply them with questions respecting their condition and that of their brethren in Bokhara. In the case of the latter we heard again the story related at Khokand, how that the Bokhariot Jews may not build enough synagogues for their need, that they may not buy a house from a Mussulman without the Emir's permission, that they may not ride on horseback in the town of Bokhara, that their head-covering must be a black calico cap, worth a few pence, and the girdle about their loins, not even of leather, but of rope; also that when a Mussulman beats or insults a Jew, the latter must always look down and humbly submit. Another hardship I had not heard of before was that under the Emir's government, if two Jews disagree, their dispute must be settled by Mussulman law; and my informants said that so intimidated were the Bokhariot Jews that they dared not come to ask

the Russians for help. I inquired whether I could do anything by interceding with the Emir on their behalf, but they said "No," for that such a course would only make matters worse.

On leaving the tent I was invited to look at a new house my host was building, evidently thought to be very grand. The many-coloured decorations of the walls, after the fashion of the Sarts, was the principal feature that struck me, and we then walked on the flat

A JEWESS OF CENTRAL ASIA.

roof, where apricots were drying in the sun. We could see down into a neighbouring yard, where was a young Jewess, unveiled. This would have called for no remark in England, but directly she caught sight of me she ran away, as if it were improper to be seen unveiled by a stranger. Perhaps this would not have been so, however, had my host been alone, as I believe the Jewish women in Central Asia are veiled only in the streets to protect themselves from insult. On leaving, Moses, our Jewish interpreter, pressed us to

come and look at his festal tent, which we did, and noticed, among the things suspended, a plant whose seeds were said to cure squinting.

We then went to the synagogue, allowed to the Jews of Samarkand only since the Russians came, where the best chorister in the region was that evening to sing. The crowd was dense, and in a short time two singers appeared; the "*primo*," a delicate, modest-looking man, who blushed at the eagerness with which his arrival was awaited, whilst the "*secondo*" was a brazen-faced fellow, who carried his head on one side, as if courting attention, and with the assurance that he should have it. They were introduced to us, and began at once, that we might hear. The singing, so called, was the most remarkable that up to that time I had ever heard. The first voice led off in a key so high, that he had to strain for some seconds before he could utter a sound at all. After this he proceeded very slowly as to the number of words he sang, but prolonged his notes into numerous flourishes, screaming as loud as he could in falsetto. The second voice was an accompaniment for the first; but as both bawled as loudly as possible, I soon voted it anything but good music, and intimated that it was time for us to go. The congregation, moreover, were crowding round, without the smallest semblance of their being engaged in divine worship. They were anxious to detain us, however, as long as possible, and the rabbi having read my documents, showed us such objects of interest as they possessed; among others a specimen of very diminutive writing, and he asked my acceptance, as a souvenir, of a picture, brought, I fancy, from Jerusalem, and hanging in their synagogue. After this we were obliged to hurry away, the rabbi urging us to pay him

a visit, and another Jew assuring us that, if we would call upon him, we should meet with a better reception than they had been able on that day to give us.

We returned to the palace, and next day General Korolkoff took us to a school, where we saw that of the 77 boys, no less than 30 were Jews. It was noteworthy, moreover, that, as with boys of the same race in Europe, their abilities were remarkably good, putting in the shade those of their Russian and Sart schoolfellows.* I asked to hear the Jew boys read; but here again sprung up a question of conscience, or rather of law, for it was a feast day, and though they had come to school because ordered by the Russian authorities to do so, (I suppose that I might see the school, for I fancy it was a holiday) yet they might not read, because that would be to work.

Two days later we called on the rabbi, who was still keeping the feast in his tabernacle, where he received us, and of whom I was glad to make some inquiries respecting his people. He said there were 2,500 persons dwelling in 400 houses in Samarkand. He confirmed the traditional interpretation I had read in Dr. Wolff's book, that by the Habor, in 2 Kings xvii. 6, and xviii. 11, they understand Bokhara, Samarkand, and the region round about.† With reference to the lost tribes, he related a well-known Jewish tradition that on the Sambation (סַמְבַּטְיוֹן, which he

* A superiority not confined apparently to the present century, for in Nebuchadnezzar's court in Babylon, "in all matters of wisdom and understanding that the king inquired of (Daniel, Hananiah, Mishael, and Azariah), he found them ten times better than all the magicians and astrologers that were in all his realm" (Dan. i. 20).

† He offered no reason that would at all affect, however, Canon Rawlinson's statement in the Bible Dictionary, that Habor is identified beyond all reasonable doubt with a famous affluent of the Euphrates, still known as the *Khabour*.

located in China, but which others, I believe, affirm to be in Africa) lives a people whom the Chinese call sons of Abram, and that Mussulmans profess to the Jews in Samarkand to have seen their brethren in China; but the Samarkand Jews have not done so, and for this wonderful reason, that the aforesaid river is hot on six days and cold only on the seventh, on which day it would be unlawful for the Jews to cross; but the Muhammadans, not being similarly bound, embrace the opportunity to do so.* Another traditional Israelitish story was that Samarkand had been destroyed seven times, and that therein had perished 24,000 Kohanim Jews, these having had a separate cemetery from the Israelites. Tamerlane, he informed me, was said to have brought from Meshed seven families of Jews, and that their descendants were still living at Bokhara and Samarkand. But all these, I fancy, were very much of the nature of "idle tales," for the rabbi said that the Jews had not been in Samarkand more

* With this story told to me of Jews existing in China, which I heard also at Khokand, it is interesting to compare the account of Mr. Finn, respecting "the orphan colony of Jews" in the city of Kae-Fung-Foo, who (in 1870) were all but absorbed into the surrounding Chinese and Muhammadans. Tablets on their synagogue testified to several migrations thither, the first in the Chow dynasty between B.C. 1122 and B.C. 249, and a third as late as A.D. 1163. In 1843 a letter was addressed to them, and sent through the English consul at Ning-po. Five years later, tidings were heard of the people; and a little later a letter from them was received, telling of the decay of their religion and synagogue. Some supposed, from the information given, that the colony arrived from Khorassan and Samarkand on the way from Persia, because Persian words were found in some of the inscriptions of their sacred books. Messengers were sent to the colony from Bishop Smith, of Victoria, and some of their Hebrew writings purchased. The remnant of the people was again visited in 1866 by Dr. Martin, an American Presbyterian missionary, and considerable interest in their desolate condition has been shown by both Jews and Christians, though I am not aware that any practical suggestions on their behalf have been successfully carried out.

than a century, and he added that they were from the tribes of Reuben, Gad, and the half tribe of Manasseh. The rabbi then said they were Sephardim or Spanish, and asked me whether the English Jews were "Ashkenazim,"—that is, Eastern, like the German Jews,—a question they quickly answered for themselves; for after asking the rabbi to repeat to me a few verses in Hebrew from the beginning of Genesis, that I might hear his pronunciation, I proceeded to do the same to him. They said at once that my pronunciation was that of the Ashkenazim.*

The rabbi gave us fruit, and appeared quite to expect us to dine, but we knew the General would be waiting for us, and so had to ask to be excused.

Having thus described the most ancient as well as the later monuments of the Muhammadans, and alluded to the Jews living in Samarkand, I shall now speak of the modern town, as I saw it under the Russians.

* I observed that in the words, בְּרֵאשִׁית בָּרָא, they pronounced them instead of *B'raishith bara*, *B'raishit bora*, but not *B'raishis*, as I have heard among some of the Jews.

CHAPTER XL.

RUSSIAN SAMARKAND.

Visit to military hospital.—Sart disease: its characteristics and treatment.—Hospitals for native women and men.—A case of spastic paralysis.—Russian and native education.—Turkistan troops, forts, arms, and uniforms.—Education and morals of officers and men.—Samarkand bazaar, population, and industries.—Characteristics of woven products.—Public-houses of Zarafshan, and the Turkistan liquor traffic.—Governor's information respecting the soil, crops, and trees of the province.—Attendants for our journey, and Asiatic interpreter.—Purchase of antiquities and distribution of the Scriptures.—General Ivanoff.

ON Friday, the morning after our arrival at Samarkand, General Korolkoff took us to visit the military hospital. It was situated without the city on the south-west, beyond the Russian town, having two kinds of erections—namely, well-built houses of brick for the winter, and summer tents, from which latter the patients were to be transferred, if I remember rightly, on the morrow, September 30th. The general arrangements were similar to those we had seen at the military hospital in Tashkend, but on a smaller scale, there being only 117 patients. The skin diseases were the most interesting, and among them a case of *reshta* or kind of guinea worm,

peculiar to Bokhara and adjacent towns. The medical officer kindly gave me a specimen of the parasite, which I brought safely to London. To this I shal return when we reach its proper locality, Bokhara, but we saw likewise at Samarkand several cases of an endemic skin disease, common in Turkistan, resembling *lupus erythematodes*, and known among the Russians as Sart sickness, or disease. It is the Afghan *yaria* or plague, and is known also as *pasha-khurda*, or consuming fly.

This disease, which takes the form of eruptions of the skin, prevails over a considerable portion of Turkistan. It more frequently appears on the face, and spreads to the upper extremities, the neck, the lower extremities, and the body itself.* Among natives the disease appears almost always during early childhood, though it is also seen among adults of every age up to fifty. I had an opportunity of testing its prevalence among children in the boys' school at Samarkand, where, out of a class of 16, only three had escaped, and I was told that the finer the skin of a child, the more likely is it to be attacked. The disease is not painful, but sometimes there is experienced an uneasiness or a slight itching. If left alone,

* The disease is diagnosed by the appearance of a spot of a round or irregular shape, two to upwards of five lines in diameter. The colour of this spot is at first slightly red, it then becomes a bright red, and sometimes a reddish yellow, and even blue. To the touch the spot seems most solid at its edges. This thickening, in time, becomes knotty, and spreads over the surface of the skin. After this follows suppuration. The sores issue from each separate node, and, in proportion as these soften, run into each other, until at last they form one large and open sore. This gradually dries up, leaving a yellowish brown, or dark-coloured scurf. If the disease be not cured, the suppuration will spread more and more, but always within ascertainable limits. When it heals, each wound leaves a scar or gash proportionate to that of the surface which the sore covered.

the ailment will pass away of itself, but it takes more than a year in doing so.*

On the following day we visited two hospitals the Russians have established for native women and

* The cause of Sart sickness was formerly imputed by Russians and by natives alike to the water they use, because in the first place the disease usually attacks the face and hands that are brought more often into contact than the other parts of the body with tainted water; and next, the disease oftener appears in June and July, when the water is at the highest temperature. But the opinion is now gaining ground that Sart sickness is disseminated by the transfer of poisonous matter from diseased to healthy organisms, either by indirect or direct communication. When the Russians first came, and lodged in native houses with unfavourable sanitary conditions, many were attacked, but, with improved sanitation among Russians, when it now appears it is in a milder form. Sart sickness is a local ailment, requiring treatment according to circumstances. This treatment consists in eradicating the abnormal growth, which can be done either with the lancet, or by corrosive means. The latter is preferable, and the following acids have been employed:—*Argentum nitricum*, *Kali chromicum*, *Zincum muriaticum*, *Kali causticum*, *Mercurius praecipitatus ruber*, *Sodium*, *Iodo glicerimum*, and *Cuprum sulphuricum*. Of all these, the use of *Kali causticum* seems most to be preferred. The scab, after the application of caustic, falls off generally in from 7 to 20 days. If it be desired to reapply the caustic before the expiration of this time, the scab can be removed without any trouble by smearing its surface over with glycerine or oil, and then applying fomentations. Native physicians, by whom at first even Russian patients preferred to be treated, use also corrosive sublimate, vermilion, arsenic, copper, vitriol, and Spanish fly. These they employ in the simplest form, pricking the sore with a needle, and rubbing into it powdered vitriol or corrosive sublimate. As a rule, however, these caustics are but some of the component parts of a plaster, made up also of mutton fat, castor oil, cochineal, and the resin of some local tree. Of plasters more generally used there are two kinds, in one of which vitriol preponderates, and in the other Spanish fly and resin. The use of vitriol is quite painless. The composition is smeared on pepper moistened with mucilage, and the plaster laid on the sore, to be replaced after an interval by another. The application of the Spanish fly and resin is resorted to oftener than the first, but it causes violent pains in the sore, and reactionary symptoms, which, however, disappear in the course of about two days. Owing to the presence of the resin, when this plaster has to be removed, force must be used. This causes pain, and sometimes

men.* The most interesting medical case was one of atrophy of the muscles, that Mr. Sevier called spasmodic paralysis, arising from degeneration of the lateral column of the spinal cord, a rare disease, and recently studied, of which he knew none to have been cured.† The hospital was particularly well built and clean, the patients eating in a common hall.

From the military hospital the General took us to see two schools and an asylum, established by the

considerable loss of blood, and always results in the removal of a certain portion of the diseased surface adhering to the plaster. "Investigations" upon this disease were published by Dr. Satinsk in the *Turkistan Gazette* for 1877, Nos. 45—48, and in the *Journal of Normal Pharmacopy and of Clinical Medicine* for February, 1871.

* Fifteen patients in the former were all suffering from the effects of prostitution, and had been sent by the police. The women's hospital was large and airy, in the midst of a capital garden, with summer tent covered with matting and rushes, but there were no other patients, for the Sarts generally do not take to the Russian hospitals for women, wherein they are treated by male doctors. There is not the same repugnance among the men, though we found only 15 in their hospital, which was in another part of the town. Native patients are received without charge. They suffer chiefly from fever of various kinds, sometimes from small-pox; five were there with syphilis (this disease sometimes rising to a maximum 48 cases in both hospitals), and one with *morbus scrofulosis*.

† Mr. Sevier thought this a remarkable patient, and described his condition thus: "A case of spastic paralysis in the stage of contracture. Youth of 17 years, very poor, used to work very hard, living chiefly in the streets by begging, exposed to all weathers, and sometimes nearly starved. When brought to hospital he could not walk; his lower extremities, especially the muscles of calf, in a highly atrophic state, so that the doctor diagnosed only muscular atrophy. On examining him I found him lying in bed with his legs fixedly down towards his buttocks; they were with difficulty stretched, and when let loose, returned to their contracted position. The ankles also rigid, still I produced capital ankle clonus. All other reflexes much exaggerated; sensory functions perfect. On trying to move him I saw that his thighs were strongly attracted to each other, so that the knees touched, and the feet were also inverted, and the big toe pointed downwards. Muscles of calf very much atrophied, others pretty good; no myooedema in muscles of calf."

Russians in part for the education of natives. In the boys' school were 77 scholars, of whom 22 were Russians, 30 Jews, and the remainder Sarts. Among the last was the son of the native police-master of the Sart town, a boy of 14, who had been three years in the school. He was dressed in a khalat, with printed cotton trousers, yellow boots, and a white turban. He had, moreover, a watch and chain, and was evidently a grandee, rejoicing in the name of Sevarkul Bek Sultanbekoff. Another Sart boy sported a watch by "John Salter, London." I did not gather that the Sarts showed any extraordinary capacity, or that they were particularly keen for instruction. The Jewish boys in the school mentally excelled all their schoolfellows, and came in goodly numbers; but to the girls' school, whither we next went, neither Sarts nor Jews would send their daughters, though both schools were free. This, I presume, would be too great an innovation on their Oriental ideas. The 24 scholars in the girls' school were all Russian. Besides these two institutions, I heard of a boarding-school in Samarkand, where the boys wear uniform, and we visited an asylum for orphans and poor children, supported by voluntary contributions, the funds being raised, as so often is the case in Russia, by concerts, bazaars, etc. The building contained, however, only four girls and five boys.*

* According to the *Turkistan Annual* for 1876 the number of Russian schools throughout the province numbered 3 (the third being at Katte-Kurgan), with 6 teachers, 64 boys, and 23 girls, maintained at a cost of £233. Native education throughout the Zarafshan province was carried on in 1876 in 968 *mektebkhana* or elementary schools, and in 31 medresses. There were 999 teachers, with 8,642 scholars in winter, 2,266 in summer. These places of education were situated in 17 localities, or districts, and were supported by the *vakufs*, or endowments, usually connected with the colleges; or by the communities, and in one case by

After visiting the schools we went to the Bibi-Khanum medresse and mosque, already described, and then to the citadel, where are the town barracks, whilst the camp was situated, as we afterwards saw, 15 miles on the south of the town.

Hitherto I have not said much respecting military affairs in Russian Turkistan. At the time of my visit all was peace, and I cannot give with accuracy the number of troops in the various places through which I passed; but taking matters on a war-footing, as they were in 1877, and remembering that Turkistan at that date included Semirechia and Kuldja, then we have for the Turkistan force some 40,000 troops, inclusive of non-combatants; but if we deduct the non-combatants and the local troops, there would be left an available field army of 25,800. This number, however, does not include the Cossacks, nor any regular cavalry. The Cossacks would add a further force of 18,500 men and 52 guns, making in all 44,000 men and 116 guns.

In time of peace the troops are widely distributed in forts and redoubts, going under canvas in May and returning to barracks in September. During these concentrations manœuvres are carried out, preparations for which we saw as we left Samarkand. The drills are continued also after the return to barracks, the autumn temperature being much more favourable than the summer heats. The Turkistan forts, it may be observed, are grouped in two lines, the outer or advanced, and the inner or reserve line.*

the scholars themselves. Their total revenue in money amounted to £391, and not less than 32 tons of corn, though how much more one cannot say, since it is common for parents to send presents to the teacher of food, and even clothing. Moreover, these revenues are not exclusively for the teachers, but are in some cases shared by, and in one case taken wholly by the scholars.

* On the advanced line there are usually two or three fortified points

I have from time to time examined the arms of the Cossacks, and found them very dissimilar. Among the Siberian Cossacks the flint firelock may still be found. In Turkistan they have, or had until quite recently, carbines of 1818, dragoon carbines with bayonets, etc. The rifle brigade are armed with the Berdan rifle of 1868, the frontier battalions and local troops with the Carl rifle, and the sapper company with the Krinka rifle. Field artillery, and also the mountain battery, have breech-loading guns. The provisioning of the troops with warlike stores is effected from Tashkend, but with many drawbacks. All the cartridges and ammunition are brought from Russia, for though there is lead in the Kara-Tau mountains, it is found more advantageous to bring it from Russia. So, for the same reason, the deficiency of wood for artillery purposes has to be met by Russian supplies.

The appearance of the Turkistan soldier differs widely from that of his compatriot in Europe. For the greater part of the year he wears a linen blouse,

on the frontier of each khanate. Thus Khiva is dominated by Petro-Alexandrovsk, and Nukus, a redoubt; Bokhara by Samarkand and Katte-Kurgan; Kashgar by forts at Karakol, Naryn, Muzart, and Gulsha; and Kuldja by the redoubts at Bakhty and Borokhudzir. The inner forts are those at Kazala, Perovsky, Julek, Turkistan, Chimkent, Khojend, Aulie-Ata, Tokmak, Vierny, Kopal, and Sergiopol. The garrisons in these outer forts, with certain exceptions, usually consist of a company, or sometimes even half a sotnia (half a hundred) only of Cossacks, whilst the garrisons of the forts of the inner line are still smaller. Tashkend is the central point, wherein is concentrated the bulk of the troops forming a reserve to the whole of the advanced line. The distribution of the advanced forts in Russian Turkistan therefore is along a semicircular arc, convex towards the enemy, the forts of the inner line being disposed along a parallel arc. The forts of the inner line, moreover, are connected by a post-road, from which other roads branch off to the outer arc. The Turkistan forts have been either erected by the Russians, chiefly among the nomads, or have been adapted from native fortifications. Neither could offer resistance to Europeans, but they present a sufficient obstacle to a Central Asian foe.

with cloth shoulder-straps, chamois leather trousers dyed red, and a white cap with a flap, believed to shield the back of the head from the sun's rays. Instead of a knapsack he carries a linen haversack.*

We were thrown into the company of a good many officers in Turkistan, and the impression they left on my mind was favourable.† I thought Russians seemed rather fond of telling us that many of the Turkistan officers were of questionable character, having squandered their fortune in vicious living at Petersburg, and then come to Central Asia to recover themselves. Others, again, were supposed to be there for the extra pay, and the opportunities in war time of rapid advancement. Drunkenness, the report says, is the chief vice among the troops, and the great majority of crimes and offences are committed by the men in this state. During the severe expedition to Khiva, when the

* The leather trousers, called *chambar*, were adopted from the natives; they are durable, cool in summer, and protect the legs from spear grass. Cossacks, instead of the linen blouse, wear shirts of camel's hair, called *armiachina*. The food also of the Turkistan soldier is different, in that he has wheaten flour instead of Russian rye; groats are likewise issued, millet, barley, and rice. Biscuit is prepared by baking in the oven or baking in the sun. The latter method is usually adopted during the very hot weather for the preparation of a ten-days' supply. Wheaten cakes are spread on reed mats, and exposed on the house-roofs for two days to the sun's rays. This sun-dried biscuit does not swell to the same extent as that baked in the oven, and becomes more easily damaged during transport. Provisions are furnished by contract, the price of wheat varying from 4*s.* to 5*s.* per cwt. in Tashkend, to 20*d.* in Aulie-Ata, and barley from 1*s.* 8*d.* to 3*s.* 4*d.* per cwt.

† The officers of the artillery and engineers receive instruction in special schools, as do also about 60 per cent. of the rifle brigade. In the frontier and local battalions the percentage of officers who have passed the course at a university, war-school, cadet-school, or gymnasium, is much less, yet the proportion is more than one-third; the remainder having been educated at three-class schools or privately. The Cossack officers are much behind the others in intellectual cultivation. The moral standard of the officers was officially described in 1877 as "tolerably satisfactory."

troops were forbidden the use of spirits, and a ration of tea issued instead, offences, it was said, were rare.*

We saw near Samarkand a number of flat targets to represent soldiers drawn up in line of battle to be shot at for practice in three ways, at the head, at half the body, and the whole body, at various distances from 100 up to 1,000 yards. Had we stopped a few days longer we could have seen some practice, but now I can only quote my last statistics, to the effect that in ball practice the rifle battalions head the list with the predicates of "very good" and "excellent," the practice of the rest of the army being less satisfactory. Thus in the case of the frontier battalions in 1873 the average number of hits at 100 paces was 58 per cent., at 200 paces 46 per cent., at 280 paces 41 per cent., at 400 paces 36 per cent., and at 600 paces 29 per cent.

The same day on which we visited the citadel, with its barracks and soldiers, we saw also the bazaar. This building suffered a good deal at the time of the Russian conquest, and has been to some extent rebuilt. There remains, however, a large octagonal building belonging to the old bazaar, wherein we bought skull-caps and some native olive-green snuff, and small gourds that serve for snuff-boxes. Samarkand does a considerable trade in cotton, silk, wheat, and rice, also in knives, fruits, horses, sheep, and mules. Wheat, rice, and silk are exported principally to Bokhara. The cotton is

* Dr. Schuyler mentions that he very frequently indeed saw drunken soldiers in Turkistan. I am glad to add that I did not; so that I should hope the report under this head in 1877 was a true one, namely, "The discipline of the men is improving each year." The total number of men punished in Turkistan in 1873 was about 1½ per cent. of the average number of effectives. I have no recent statistics, but the report says that the local authorities were striving to establish canteens where the men might pass their leisure hours in drinking tea, and I have already referred to the efforts of Colonel Serpitzky for his men at Tashkend.

sent through Tashkend to Russia. From the Bokhariot province of Shahr-i-sabz, lying south of Samarkand, they bring wheat, excellent fruits, including pomegranates, and pomegranate rind for making a red dye, likewise silk webs. From the province of Hissar is brought salt, well known for its excellent quality. The bazaar is seen to greatest advantage on market days, that is Thursdays or Sundays, when the principal street from the place Bibi-Khanum to the Rhigistan is so full that there is hardly room to move, chiefly men, amongst whom there is scarcely a woman to be met. There were exposed for sale Bokhara velvets of very original patterns and brilliant colours. I bought handkerchiefs of thick silk from, I suppose, Hissar, and something more curious in the form of a native enamelled, wooden saddle, with a high pointed pommel, similar to the form used in Mexico.

The number of houses in Samarkand is 4,411, of which 200 belong to Russians. The population is computed at about 36,000, of whom 5,400 are Europeans, and 30,600 natives. The industries of the town are found in the factories, looms, workshops, and other industrial and trade institutions that occupy the Asiatic quarter, and closely resemble those, of which I gave a list, in Tashkend. It should be observed, however, that the products are very inferior to those made in Europe, the implements in use in the factories being of the most primitive and unsatisfactory kind. The Tajiks form by far the largest proportion of the population, and represent pre-eminently the industrial class. They weave and knit, do blacksmith's and coppersmith's work, tanning, carpentry, joinery, and turnery, also boot-making, harness and saddle-making, as well as dyeing, pottery, and needlework.

The Tajiks weave both silk and cotton, but rarely hair or wool, except in the mountains.*

On the third day of our sojourn in Samarkand we visited the prison, which I shall describe hereafter. I may here mention, however, concerning the principal feeders of the prisons—I mean the public-houses—and also *à propos* of the drunkenness alleged above to be the prime cause of military offences, that

* Among their products, called by their native names, are the following:—1. *Alatcha*, a cotton material striped with various colours, some of which is glazed. When made of foreign thread it is called *Alatcha-feringi*. A workman can weave about 9 yards of alatcha in a day, and receives 2½*d.* for his wages. A *jura* (*i.e.*, a piece) of alatcha costs from 1*s.* 8*d.* to 4*s.* 10*d.*, or *alatcha-feringi* from 12*s.* to 16*s.*; and an adult male Tajik needs from three to four pieces of alatcha in a year. 2. *Kalama*, a white cotton material with stripes, usually of blue, red, or yellow, of which men use about four pieces a year, and women one, costing 2*s.* 3*d.* a piece. 3. *Fata* is a small thin-checked cotton material, used for turbans and for girdles, made in about 40 weaving shops in Samarkand, a weaver making a piece, 5 yards long, in 2 days, and thus earning 7½*d.* For turbans two pieces are joined; for a girdle one piece suffices. Women do not wear this material at all, and a piece lasts a man from 2 to 3 years. 4. *Khosa* is a white cotton material, used for shrouds, for turbans, and the lining of good robes; 8 yards cost from 10*d.* to 1*s.* There are in Samarkand 200 workshops for making khosa, some of which is exported to Bokhara and Khiva. Turkoman women, and the poorest of the Tajiks in Zarafshan, make their turbans of it. 5. *Pianja* is the same material but wider. 6. *Daka* is a stout cotton cloth of imported thread; little of it is made in Samarkand. A workman earns 6*d.* for making 7 yards. 7. *Tibit-salyi* (*i.e.*, Wool-turban) is a fabric with cotton warp and woollen weft, used for turbans and girdles. The Samarkand weavers learned the art of making it about 40 years since from Ura-Tiube. The length of a piece is from 4 to 16 yards; a workman makes 7 yards in a day for 6*d.* It costs at the rate of from 2*s.* to 10*s.* for 12 yards. 8. *Pari-pasha* is a silk or half-silken material, worn by women for robes, and is usually white and blue. 9. *Pasma* and *biko-sab* are similar, but the former with wide, the latter with narrow stripes. 10. *Adrias* and *Al-Chimbar* (the latter, I presume, for making trousers) differ in width, *adrias* being 10 inches, and the other 18 inches wide. Of semi-silken fabrics generally, it should be observed that they are watered, something after the style of *moiré antique*, by special workmen in the bazaars. The instrument by which this pattern is produced is called a *kudung*. It is

in the Zarafshan province for six years, 1868—1873, the number of public-houses, wine-cellars, distilleries, and breweries, progressed in the following order:—3, 5, 10, 45, 53, 40.* These figures relate, I believe, to the Russian population, since the Mussulmans are supposed to be, and for the most part are, abstainers from intoxicating drinks.

On returning each day to the palace after our sight-seeing and researches, we were favoured at dinner

a tolerably weighty hammer with a rounded projection of hard wood called *ziran*, that grows in the Zarafshan district, whilst the table on which the material is spread has likewise rounded eminences of *ziran*. *Basma*, or cloth of camels' hair for winter clothing, is largely prepared in Ura-Tiube, and is usually of cinnamon colour, or of black. *Basma-i-tibit* is similar, but being half of wool is much finer and better looking. *Kokma*, or camlet, which may be of camels' hair, or wool of goat or sheep, is principally produced by the nomads, especially by the Kirghese of Semirechia. *Koshma*, or felt, is one of the necessities of Central Asian nomad life, whilst there are three kinds of carpet held in esteem, *Mashata* (from Meshed?), *juinabe*, or Turkoman, and *Ah-chatchak*, from Khokand. There is a carpet, without pile, called *Palas*, prepared in Kurama, Khojend, and to some extent in the Zarafshan district, and the Uzbegs, wintering in the direction of the Urmitan pass, make excellent carpets called *gelym*, with long downy nap. Another material prepared by the Tajiks, but not yet mentioned, is *Kanaus*, of three kinds, smooth, striped, and printed, and they also knit stockings. A pair of the latter I bought in Tashkend, of cinnamon colour, were said to be of fibre from bark; they were supposed to be warm, and cost 5*s*., but I am uncertain whether they were of Russian or native make.

* These are statistics compiled by M. Virsky in the *Turkistan Annual* for 1876, whilst the *Turkistan Calendar* for 1879 gives information concerning distillation and the drink traffic in Turkistan; that there were used for distilling, in 1875-6, of rye flour 377 tons, wheat flour 489 tons, rice 89 tons, and malt 132 tons. Also that in 1876 there were issued from the cellars of the distilleries 73,262 gallons of spirit. Of beer and mead breweries, in 1876, there were 10; of works for making *vodka* from grapes and fruit 7; and from wine 8. The number of licenses issued in the latter half of the year to houses in which drink was sold was 71; wine-cellars 160; beershops 35; that is, 266 places for the sale of alcoholic drink, whilst the licenses for tea-houses and buffets numbered 76. The number of distilleries in 1876-7 was 6, and fermenting cellars 35, with a capacity of 58,000 gallons.

with the presence of General Korolkoff, and sometimes of his brother, Colonel Korolkoff, Colonel Alexandroff, and others; and as the acting Governor was well posted in the affairs of his province, I gained from him a great deal of information, especially in matters that touched at all upon botany and agricultural produce. There are in the province 4,475 square miles of irrigated land, and of non-irrigated 35,804. They have not much black earth, but very fertile, argillaceous loess,* which in certain places, when there is plenty of rain, has been known for one bushel of wheat sown to yield 90 bushels; even where the ground is not much worked, but irrigated, the yield is from 40 to 45-fold, and on an average the cultivated land throughout the country gives a 20-fold crop.†

I have already mentioned the wild trees of Turkistan generally, and need only add that in the Zarafshan province they have at least three species of juniper (*J. pseudo-sabina*, *J. fœtidissima*, *J. kokanica*), the birch, pistachio (*Pistachia vera*), and whole forests of

* Loess, or inundation-mud, a fluviatile loam, belongs to the pleistocene period of Lyell, and analysis shows its composition to agree with that of the mud of the Nile—about one-sixth part is carbonate of lime. Enormous deposits, several hundred feet thick, and, with rare exceptions, unstratified, are found in the valley of the Rhine, between Bingen and Basle. The characteristic shells (terrestrial, fresh-water, and amphibious mollusks) are *Succinea elongata*, *Pupa muscorum*, and *Helix hispida*. Mr. Delmar Morgan refers to Baron Richtofen's "China" for interesting remarks on the physical history of the Aralo-Caspian basin, especially in its relation to human settlement.

† In the autumn they sow barley and wheat, harvest it in May, and in June sow with rice, or the same crop again, to be cut in October. They also sow, after barley and wheat, sorghum, *soya hispida*, *sesamum orientale* (for oil), melons, water-melons, cucumbers, carrots, and other vegetables. They cultivate cotton (*gossypium herbaceum*) in summer, but no hops. The yield of rice is 30-fold, and in special cases 83-fold has been reaped. Of sorghum, which they plant to cut green for fodder, one ton yields 400. This sorghum sells for 1*s.* 11*d.* to 2*s.* 4*d.*, barley 1*s.* 6*d.*, wheat 2*s.* 10*d.* to 4*s.* 3*d.*, and rice 6*s.* to 9*s.* per cwt.

sycamore (*Platanus orientalis*) and almond trees; many species of cherry and plum, apples, pears, apricots, and willows; certain kinds of elm (*Ulmus campestris*, etc.), and walnut (*Juglans regia*), but no oaks. To these may be added one kind of *Celtis*, *Zizyphus sativa*, the vine clematis, and roses. They have the euonymus, some species of spiræa, two kinds of ivy, and several species of ferns. The General told me that he had found in the mountains a very pretty maiden-hair fern, and an evergreen fern-tree from 12 to 18 inches in height. The *Osmunda regalis* he said was not found there.

Besides these subjects of general interest, we discussed my future journey. Thus far I had accomplished a posting journey of about 2,800 miles by the hire of upwards of 800 horses, and the question now arose as to how I was to proceed to Bokhara. The direct road, that might be traversed in the tarantass, was through Daul and Chimbai to Katte-Kurgan on the frontier, a distance of 43 miles, for which one could get post-horses; but for the remaining 100 miles to Bokhara there were no post-horses; and if any animals could be hired, it would be to Bokhara only, and not beyond I was specially desirous, however, to have an interview with the Emir, who was staying for the summer at Shahr-i-sabz, to which the nearest route lay over a mountain road, impassable for wheeled vehicles. I determined, therefore, to go on horseback to Shahr-i-sabz, and to send my tarantass to await me at Karshi, which I should have to go through on my roundabout road to Bokhara.

Having thus determined, it was necessary to buy two horses for myself and Mr. Sevier, and to purchase or hire a sumpter horse for baggage. Several were brought for inspection to the palace after lunch on

Saturday, and I fixed upon two stallions, a chestnut for myself, and a black for Mr. Sevier, at what I thought the wonderfully cheap price of £9 12*s.* for the two. Just as the bargain was being struck, a native rode up on a tall, graceful creature worthy of Rotten Row, for which he asked £10. Had I wanted one for pleasure only, or to bring to England, I should have chosen this, but we were advised that our former choice was better for the work before us. My horse in particular was pronounced to be excellent, and in the course of the afternoon we rode out to try our steeds, and took the opportunity to call on the *Uyezdi nachalnik*, M. George Alexevitch Arendarenko, who very obligingly offered to place at my disposal two djiguitts, who might accompany us as far as the Oxus. This was a great kindness, the full value of which I did not realize at first. Besides this, M. Arendarenko gave us advice as to our proceedings, and certain points of Oriental etiquette to be observed in Bokhara.

It was further necessary to secure an interpreter who could speak Russian and Turki, and I should have been well pleased to take the Jewish official interpreter, to whom I have alluded, but he could not leave during the feast, so General Korolkoff kindly found for us a Tatar, who spoke Russian and Turki and Tajik besides. This was so far well; but as we should be entirely at the mercy of this man, it was a comfort when M. Arendarenko called upon us, and said that one of our native djiguitts spoke also Russian, so that, if the interpreter did not comport himself satisfactorily, we might send him about his business. As we were leaving Russian territory, I supposed it would be necessary to change my Russian roubles into the gold and silver coin of Bokhara, though

Colonel Alexandroff, who dined with us from the camp, said he had passed from Khiva to Bokhara and found Russian money received in payment everywhere. I thought perhaps his uniform might have something to do with it, but when the money-changer came to the palace with his gold tillahs, my native interpreter seemed also to think it quite needless for me to take them, and I changed only the trifling amount of £20, for which I was given in silver 764 tengas, and offered in gold 30 tillahs, equal to 13*s.* 4*d.* each, and 50 kopecks. My tengas, therefore cost me 6¼*d.* each. The money-changer was not the only mercantile visitor we received at the palace, for when it became known that I was interested in antiquities, an old Khoja and another native brought some ancient coins, which I purchased, and the Khoja said that 19 miles from Bokhara, on the Oxus, is a well, called Magallel Kuju-baun, at which formerly was a town called Seevineh ; that when the sand is blown away, it leaves ruins bare, and those who go there for fodder sometimes find money and rings. He sold me a small cameo that he said had been found there which has on it a stag or hare running, whence I conclude it to be of Greek workmanship, since the Muhammadan natives of Bokhara do not depict living creatures. The Khoja said that, were he not so old, he should be well pleased to go with us as interpreter, since he knew the country well. Other antiquities were brought us willingly by the mullahs of enamelled bricks, and when to a sum of money I added, as a present, an Arabic New Testament or Turkish Gospel, they expressed their gratitude. In fact, I went on Sunday afternoon to the Tillah-Kari medresse, and gave a Persian Bible for the use of

the mullahs. They thanked me much, and when we walked on to the Shir-Dar, and gave an Arabic New Testament, they were equally obliged. Another thing to be thought of was that, on leaving Samarkand, we were going not only out of the postal union, but of the postal region, and that we must accordingly make up our minds to be for a while dead to the civilized world, and the world to us. As it was, I had received no communications from Europe since leaving Tiumen, though I had despatched many to England; and when I had finally made up my mind to enter Bokhara, I telegraphed to London from Samarkand, at a cost of 24*s.*, "All well. Leave in three days for Bokhara and Khiva. Found no letters at Tashkend. Expect me in December," thinking that this date would give an ample margin for my return, but really expecting to be home before.

During our stay at the palace, we of course learned more of General Ivanoff, our absent host, whom we had left at Tashkend. He was spoken of to us as being of remarkably even temper, as never angry nor particularly pleased, showing neither satisfaction nor displeasure. He was said to have great powers of endurance. An instance was quoted of his riding from Petro-Alexandrovsk, where he was governor, to Nukus, a distance of 116 miles, staying for 2 hours only, and then returning, doing the 233 miles in about 36 hours, and then setting to work reading and writing immediately. His bravery, too, was spoken of in terms equally high. At the taking of Khiva, he and nine others were surrounded in fight by Turkomans, and he was wounded in the arm; also by a ball passing through under his knee-cap, and another through his regimental cap, cutting open the scalp;

but even then he was said to have declined having his own wounds dressed till he had looked after the welfare of those wounded with him. I did not realize at Tashkend that I had read of him as Colonel Ivanoff, the Governor at the fortress to which Colonel Burnaby was brought after his "ride to Khiva," or that he was the same who generously gave up to MacGahan a portion of his tent in the Khivan campaign; but I shall not soon forget his kindness in giving us quarters at his house, and doing so much to render pleasant our stay at Samarkand.

Having now brought the reader through the whole of the provinces that make up Russian Central Asia, and having described how the invaders advanced up the Irtish to occupy Semirechia, I shall next briefly sketch their advance up the Syr-daria, and the Russian occupation of Turkistan.

CHAPTER XLI.

THE RUSSIAN OCCUPATION OF TURKISTAN.

Khokandian advance to Syr-daria and subjugation of Kirghese.—Khivan approach from the West.—Russian approach from the North.—Ak-Mesjed taken in 1853.—Consolidation of Russian advance, 1854 to 1864.—Proposed junction of Siberian and Syr-darian lines of forts.—Capture of Turkistan and Aulie-Ata, 1864.—The columns united and Chimkent captured.—Tashkend unsuccessfully attacked.—Prince Gortschakoff's letter on Russian advances.—Tashkend taken.—War with Bokhara.—Russian march to Jizakh, 1866.—Chernaieff superseded by Romanovsky.—Bokhariots routed at Irjar.—Nau and Khojend captured.—Russian attacks on Ura-Tiube and Jizakh.—Formation of Turkistan general government under von Kaufmann, 1867.—Capture of Samarkand.—Final defeat of Bokhariots at Zerbulak, 1868.—Emir's submission and request for aid in quelling rebellion.—Russian interposition in the Ili valley.—Incompetency of Chinese to repress rebellion.—Russian occupation to be temporary, 1871.—Russian quarrels with Khiva.—Khiva conquered and partly annexed, 1873.—Khokand incorporated, 1876.—Turkistan general government re-organized in 1882.

I HAVE described in a previous chapter the Russian advance to the Syr-daria, on whose banks in 1847 they built, without opposition Fort Raim, subsequently called Aralsk. Thus far the Cossacks had made their way through the country of the wandering Kirghese, but now they were to meet with people, the Khokandians and Khivans, who had "a local habitation and a name." At the beginning of the present century the Khokandians, as I have shown, captured

the Hazret-i-Turkistan, and afterwards they began to interfere with the neighbouring Kirghese Kazaks, and to demand from them tribute. In furtherance of this the Khokandians erected fortresses on the Syr below Turkistan, at Djany-Kurgan, Julek, Ak-Mesjed, Kumysh-Kurgan, Chim-Kurgan, and Kosh-Kurgan; and inasmuch as the Kirghese were wont to spend their winters in the neighbourhood of these forts, they were compelled to submit to Khokandian rule and pay the tribute demanded.

The ascendency thus gained over the Kazaks by the Khokandians in the east excited the Khivans to attempt the same from the west. They began by demanding that the Khokandian forts should be destroyed; and when this was refused, the Khivans commenced about 1830 to erect forts on the left bank of the Kuvan, one of the southern arms of the delta of the Syr-daria. In 1846 they established there Fort Khoja-Niaz, which commanded the two routes leading from the Kyzyl-Kum to Khiva and Bokhara respectively, thus enabling the Khivans to control and exact from the Kirghese in their migration to the south of the river, and to levy dues from caravans passing to and from Orenburg.

Hence those Kazaks living south of the Russian forts fell under the exactions of Khokand or of Khiva, and the same thing not infrequently happened in the case of Kirghese who wandered to the Syr from the north, where they had submitted to and been taxed by the Russians. Accordingly, when the invaders, as protectors of the Kirghese, reached the Syr-daria, both Khivans and Khokandians commenced a series of hostilities, sometimes against the detachments crossing the Steppe, and sometimes against the Kazaks who helped

their advance. Besides this, caravans were pillaged, and violence of all kinds committed, so that the home Government deemed it necessary, for the protection of the Kirghese, who had placed themselves under Russian rule, as well as for the purpose of extending her commercial intercourse with Central Asia, to occupy the upper course of the Syr-daria. This would also help the Russians to get in the rear of their turbulent subjects, and surround them by connecting the contemplated Syr-daria line of forts with those pushed forward from the Irtish.

Simultaneously with the building of Fort Raim, or Aralsk, the Russians, as I have observed, prepared to launch a small fleet of steamers to dominate the Sea of Aral and to advance up the Syr, thereby to strengthen the advance of the troops to a point where the Kara-Tau sinks into the desert, and whence a line of outposts might be carried along the Chu, or the more southerly Talas, to the valley of the Ili. In these plans Russia professed to recognize no territorial encroachment, because her Kirghese subjects encamped on the right bank of the Syr-daria; and the Chu had been adopted as the southern frontier of the Steppe.

The Khokandians, however, thought otherwise; and when, in the spring of 1852, a survey corps approached Ak-Mesjed, they were stopped. Ak-Mesjed, or White Mosque, was the principal fort on the Syr-daria, about 250 miles from the mouth of the river, and, in native estimation, a place of considerable strength. Against it was sent a small detachment of 400 men, who with considerable bravery destroyed and burnt the outer works and buildings, reconnoitred the district thoroughly, and as they returned demolished three small Khokand forts lower down the river. The

temper of the enemy having thus been tested, a force of 1,500 men in the following summer marched against the place, commanded by General Perovsky, a steamer accompanying up the river. The fortress during the interim had been repaired, and whilst preparations were being made for its capture by the Russians, another 70 miles of river bank were reconnoitred, as far as Fort Julek, which the garrison evacuated, and the Russians entered and destroyed, before returning to Ak-Mesjed, where the siege operations were nearly complete. In August the fort was taken by storm, and called Perovsky after the name of its captor. This was in 1853, before the expiration of which year the Khokandians made repeated efforts to regain the fort, but the Russians overcame them in a battle under the walls in December and were left in possession.

The invaders now proceeded to consolidate their position, and made no important advances for eight years. From 1854 to 1858, which covered the time of the Crimean war, the Russians were doing little more in the Steppe than putting down various Kirghese insurrections, especially that under Iset-Kutebaroff, who threw the whole country into disorder from the Orenburg line to the Aral, and during this time set at defiance the efforts of the authorities to expel or capture him. He continually managed to escape to the territory of the Khivans, who had been not uninterested spectators to the taking of Ak-Mesjed, and who from their fort of Khoja-Niaz, which flanked the Russian line, continually threatened the detached forts between Aralsk and Perovsk. The General deemed it necessary, therefore, in 1857 to have the fort destroyed, which was done soon after. Perovsky was succeeded by Katenin, who, in 1859, determined

to take possession of Julek and fortify it, and thereby to strengthen Fort Perovsky. Accordingly a detachment was sent in 1861 for this purpose and to demolish the Khokandian fortification of Yany-Kurgan, some 60 miles nearer Turkistan. The buildings of the new fort were ready by October, and by the end of the year the Russians had set in order their four forts on the Syr, Nos. 1 and 2, besides Perovsky and Julek just mentioned. They had also destroyed Yany-Kurgan, and sent reconnoitring parties to examine the town of Hazret-i-Turkistan, commonly called "Hazret."

Russia had now reached a spot whence it would have been easy to form the long-talked-of "natural boundary," from Julek along the Chu to the Almati district, which, it will be remembered, had been taken possession of by the Siberian line in 1854. South, however, of the inhospitable Chu, beyond the Talas, there was a chain of forts that had been constructed by the Khokandians, north of the Kara-Tau and Alexandroff mountains, to protect their own frontiers from invasion from the Steppe, and to curb these very Kirghese, whom the Russians called their own. Merke, Tokmak, and Pishpek had already fallen into the hands of the invaders from the Siberian side, and in 1863 two reconnoitring parties were sent out, one from the Orenburg line to Hazret, the other from the Siberian line to Aulie-Ata; and on the foundation of the knowledge thus gained, it was determined to advance the Russian frontier along the Khokandian line, above the towns of Tashkend and Hazret. Colonel Chernaieff was to advance from Vierny to occupy Aulie-Ata, whilst Colonel Verefkin was to take possession of the fortified places, Suzak and Chulak-Kurgan—plans that in execution were modified to bring the boundary further south.

The Orenburg force of 9,000 troops, marching from Perovsky upon Hazret, was opposed by a Khokandian force of about 16,000, under Daulat, the Governor. Seeing his men were giving way before the fire of the Russians, he retreated, but could not regain admittance to the fort, the citizens having closed the gates against him. Upon this the troops dispersed in confusion, and the townspeople, having been gained over to the Russians, allowed these "Kafirs" or "infidels," on the 12th July, 1864, to enter the holy town. The arms of Colonel Chernaieff had also been successful, Aulie-Ata having been taken nine days earlier. The Khokand troops fell back from Hazret on their next defensible position, Chimkent, 100 miles distant. This they fortified as best they could, and from hence they directed attacks on the Russian outposts. The two detachments of Russian troops now met, and united under the single command of Chernaieff, who, it is said, in repelling the Khokandian attacks, was led on in October to the town of Chimkent itself, which he took by assault in an hour with only five men killed.

In this manner the Russians issued at last from the Steppe (whither a large proportion of their supplies had to be brought all the way from the Orenburg lines) into an agricultural district, where they could provide for the troops from local resources, and consequently concentrate them at will. The situation, however, was not yet all that could be desired. The captured district was overrun with robbers, and the Khokandians were collecting in force, besides which winter was approaching, and a scarcity of provisions might set in. Chernaieff, therefore, determined to act with decision, and, while the influence of his

conquests was still felt, to march to Tashkend. On the 14th October the troops stormed the town without ladders, but were repulsed, and compelled to retire to Chimkent. This so emboldened the Khokandians that they marched out, 10,000 strong, under the regent Alim-Kul, to attempt the re-capture of Hazret-i-Turkistan. The Russian commandant of the city, hearing of their approach, sent out a sotnia of Ural Cossacks, who were surrounded by the 10,000 natives, but in vain—the 118 holding their ground, and finally cutting their way back, with the result that Hazret was saved, and Alim-Kul retreated.

The conquest of Hazret and Chimkent was so plainly in excess of the principles on which Russia had all along professed to be rectifying her frontier in Central Asia, and was so likely to excite apprehensions in Europe, that Prince Gortschakoff addressed a circular letter "to the legations and embassies of the Russian Emperor in foreign countries," which professed to set forth in its true light the Asiatic policy of Russia, and ended by saying that the expansion of the Empire in Central Asia had now reached its limit. The appearance of the circular was followed, a few months later, by the constitution in February, 1865, of the old Syr-daria line and the newly-conquered region—that is, the territory from the Sea of Aral to Issik-Kul, into the Turkistan oblast, of which Colonel Chernaieff, promoted to the rank of General, was appointed the first governor, subject, however, to the Governor-General of Orenburg.

Hostilities broke out again immediately—in fact, could hardly be said to have been suspended, with a new foe added to Khokand. I have described, in an earlier chapter on the history of Khokand, how its

borders were enlarged at the beginning of the present century, and have hinted that Bokhara was its hereditary enemy on the west, watching for a suitable opportunity to enforce a claim to the Khanate. At the date of the capture of Chimkent, Khudaiar, it will be remembered, had been deposed, and was rusticating a second time at Jizakh, whilst Alim-Kul was acting as regent in Tashkend, with Seid Sultan as Khan.

There was, however, a dissatisfied party in the town who had sent to Khudaiar to return, by the help, of course, of the Bokhariots, with whom he was staying, and from whom some of the Khokandians hoped for assistance against the Russians. Thus Chernaieff had on his frontier two armies, both of which might be supposed to be equally hostile to him, and one of them it was feared might seize Tashkend, if the Russians did not do so first. This the Russian general wished to do, and, hearing that the Bokhariot troops were assembling on the frontier, sent out a "corps of observation" from Chimkent in the direction of Tashkend, which encamped in May near Fort Niazbeg, and, on being attacked, took it. On hearing this, Alim-Kul made a sortie against the Russians, and was killed, after which a certain number of Bokhariots entered Tashkend, and the Emir obtained possession of the Khan.

Meanwhile Chernaieff did not immediately follow up his victory by attacking Tashkend. There was a party within the walls representing the mercantile community, who had promised to open the gates to the Russians upon their storming the town, but who, growing impatient of delay, sent a similar invitation to the Bokhariot army at Khojend. When the general heard this, he resolved to anticipate the Bokhariots,

and, after three days' fighting, Tashkend, on the 27th May, was forced to surrender. Among the trophies taken was a standard from Bokhara, so that Russia had now crossed swords, they said, with a new enemy, whilst the independence of the Khokandians had virtually vanished.

Mozaffar-ed-din, the Emir, now became the champion of Islam. Almost simultaneously with the Russian capture of Tashkend, he had occupied Khojend and the town of Khokand, and claiming sovereignty over the Khanate, summoned Chernaieff to evacuate Tashkend, threatening, in case of non-compliance, to raise against him a holy war. Chernaieff's stern reply astonished the Emir, and forced him to commence less haughty negotiations. As the Russian embassy, however, was imprisoned, because at Chernaieff's recommendation (according to Mr. R. Michell) a Bokhariot embassy was detained at Kazala, and Bokhariot merchants arrested on the Russian line and their merchandise sequestered, Chernaieff, in January, 1866, crossed the Syr, and marched to Jizakh to obtain the release of his officers. This was promised him, after which, being in strategical difficulties, he returned to Chinaz to learn that he was superseded for exceeding his instructions by the capture of Tashkend.

The new General, Romanovski, however, seemed to think himself obliged to continue operations against the Emir of Bokhara, who had now assumed the offensive. The imprisoned officers had not been released, and consequently, when the Emir sent an evasive reply to the repeated Russian request, Romanovski, without wasting time, marched along the left bank of the Syr to Irjar, where the main force of the Bokhariots was collected, and on the 8th of May sent

them flying, a disordered rabble, to Samarkand. It was now a question whether it were better for the Russians to pursue the fugitives through Jizakh and occupy the capitals of Samarkand and Bokhara, or move up the Syr-daria to the forts of Nau and Khojend. The latter alternative was preferred, because the possession of Khojend would enable the Russians to separate Khokand from Bokhara, which, for military purposes, was desirable. An advance was made, therefore, upon Nau, which surrendered without striking a blow, leaving the invaders to pursue their march upon Khojend, which, after eight days' siege, was stormed at the end of May. This brought the Emir to his senses, and the envoys were released.

For the next few months there was a temporary cessation of hostilities. It might have been thought, perhaps, that the Russians, having now annexed a large strip of territory in the Syr-daria valley, over which the Emir had claims, and having avenged Chernaieff's retreat, as well as obtained the release of the envoys, might well have rested satisfied with their success. In the following September, however, the Governor-General of Orenburg visiting Turkistan deemed it desirable to resume military operations in order to occupy the Bokhariot forts of Ura-Tiube and Jizakh, situated at passes in the southern Khokand range, and so deprive the Emir of his standing in the Syr-daria valley. The Governor-General took personal part in the expedition, and on October 2nd Ura-Tiube was occupied, and also Jizakh a fortnight afterwards. There still remained one point it was important to possess, because, from its situation in front of Jizakh, it commanded its waters, and completely enabled the Bokhariots, in the event of a siege, to

place the garrison in a critical situation. This was Fort Yani-Kurgan, which, in the spring of 1867, the Russians proceeded to occupy. The Emir was now glad to sue for peace. Negotiations, with that object in view, had been commenced at the end of 1866, but a treaty was not finally ratified, as will presently be seen, without another appeal to arms.

So extensive had the Russian conquests now become that a new form of administration seemed desirable. To accomplish this plan the Ala-Tau district was enlarged into the Semirechia oblast, which, added to the recently-formed military district of Turkistan and the newly-taken possessions south of Chimkent, was to be cut off from Orenburg and to constitute the general government of Turkistan, Adjutant-General von Kaufmann being entrusted not only with the ordinary powers of a Governor-General, but with plenipotentiary authority in political matters, to negotiate and conclude treaties with all the independent rulers of Central Asia. The new Governor-General arrived at Tashkend on the 19th November, 1867. At that date negotiations for peace were still proceeding with the Emir, who seemed so little to like the terms proposed by the Russians, that he delayed signing the treaty, and thereby gained time for further preparations for war.

Meanwhile irresponsible bands of Bokhariots attacked or pillaged the Russian frontier. In March, 1868, 500 Cossacks were despatched for the purpose of securing quiet, and also to choose a site near Samarkand for the erection of a Russian fortress, as proposed by the terms of the treaty, but which the Emir had not ratified. Inasmuch, however, as this fort would be a direct menace to both Samarkand and Bokhara, it

is little matter for surprise that the progress of the Cossacks was opposed at Uchum. The Bokhariots were put to flight, of course, and as the Emir still delayed to sign the treaty, and proclaimed a holy war, the Russian troops marched to Samarkand, and on the 1st of May captured it without a shot. To secure themselves in this position, which, by reason of its controlling the waters of Bokhara, brought that city entirely under their power, the next move of the Russians was to occupy the strong fortress of Katte-Kurgan, on the road to Bokhara, and this was done on May 30th, though there continued for some days incessant fighting and skirmishing. The Emir then determined to make a last stand at Zerbulak, near Katte-Kurgan, whither von Kaufmann hastened to meet him, completely routed him on the 14th July, 1868, and then turned back in time to relieve Samarkand, which, in his absence, had been attacked by a force of 50,000 men.

After these defeats the Emir was obliged to submit to the Russian conditions of peace; but his troubles were not at an end, nor did the Russians sheath their swords, for the eldest son of the Emir and the Beks of Shahr-i-sabz raised revolt and seized Karshi, whereupon the Emir asked the Russians to interfere. Accordingly General Abramoff marched against Karshi and captured it, the rebels fleeing for a time to Shahr-i-sabz, whence they were dislodged in August, 1870. After this the Russians, not wishing to encroach further on Bokhariot territory, and, greatly to the surprise of the Emir, invited him to take over the management of that part of his country they had rescued from the rebels, and he was allowed to retain his crippled independence. Thus Bokhara was subdued as Kho-

kand had been, the sovereign being left in either case to the principal part of his possessions.

The scene of Russian annexation was now transferred to the Ili. In the year 1862 rebellion had broken out in Sungaria and spread to the Ili valley, where in 1864 the Dungans and Taranchis united to throw off the Chinese yoke. The results of the insurrection, so far as Russia was concerned, were the destruction of their consulates and factories in Kuldja and Chuguchak, the entire cessation of commerce, an influx of ruined and plundered emigrants into Semirechia, and perpetual disturbances on the frontier. In keeping, however, with existing treaties, Russia declined to interfere or to lend help to the Chinese generals, who in 1866 were completely beaten. The rebels next quarrelled with each other for supreme power, and in the following year occurred a wholesale slaughter of the Dungans, the Taranchis being left to rule. The same policy of non-intervention was continued for a time towards the new government, the number of refugees increasing, and petty quarrels caused by the raids and robberies of the nomads rendered the defence of the frontier more and more difficult. Nor did it become easier to keep the peace after the arrival of von Kaufmann, for when in May, 1870, the Taranchis, who guarded the Muzart Pass, had attacked five Russian Kirghese, the Governor-General directed the Pass to be occupied, much to the dislike of the Taranchis, because it was the only passage in the Thian Shan range that united the Ili and Altishahr provinces. The movement, however, was thought to be desirable just then, because it was feared that Yakoob Beg, pursuing his conquests in Kashgar, might attempt to come by that way to occupy Kuldja

where the Kashgarians, says Terentieff, could not be tolerated, otherwise increased difficulties might be expected, since the proximity of even the Taranchis had obliged the Russians to maintain three detachments of troops on the frontier.

The Taranchi sultan, however, insisted upon the recall of the Thian Shan detachment, and threatened, in case of refusal, to have recourse to arms. Matters being thus brought to a head, a report was sent to Petersburg suggesting that Kuldja should be annexed, and asking permission for a movement. Forces at Borokhudzir were strengthened, to be commanded by General Kolpakovsky in the spring of 1871, and reconnoitring detachments sent out. One of these detachments was attacked by the Taranchis, and thus open hostilities commenced. But the campaign was over in a fortnight. The troops left Borokhudzir on June 24th, and four days later defeated 4,000 of the enemy at Alim-Tu. On the 30th the Russians conquered Chinchakhodzi after a fight, and on the next day, without opposition, occupied Suidun. On July 3rd the sultan surrendered himself a captive of war, and on the morrow General Kolpakovsky entered Kuldja.

This occupation of the Ili province was treated as a purely temporary affair, and the Russian Government at once assured the Court of Peking that it was their intention to take over the administration of the country until such time merely as the Chinese were strong enough to resume possession. That time, as some of the Russian officers told me, they thought would never come; but, as we shall presently see, it did, for Chinese troops were despatched westwards under a military governor, Tsin-Tsiang Tsiun, who estab-

lished himself at Chuguchak, with a view to regaining the revolted territory in the west of the Empire.

This occupation of Kuldja preceded almost immediately another expedition that had long been meditated, against Khiva; the reasons for it being continuous robberies by the Khivans, their collection of taxes from Russian Kirghese, their incitement of the Kazaks to revolt, and the capture and enslaving of Russian subjects during the course of many years. More than one attempt had been made to chastise the Khanate, but each expedition had failed through treachery or the difficulty of approach. When von Kaufmann arrived at Tashkend in 1867, he wrote to the Khivan Khan, informing him of the plenipotentiary authority entrusted to him, and that a Russian detachment had been sent beyond the Syr-daria to punish marauders who pillaged caravans. This communication elicited only a delayed and haughty reply from the Khivans, who were puffed up at the weakening of Bokhariot power, and, surrounded by the desert, fancied themselves secure. They continued their former practices, and further letters of remonstrance from the Governor-General were either unanswered, or answered insolently, until in 1870 von Kaufmann reported to Petersburg the necessity of an appeal to arms, for which permission was given. Accordingly, during the summers of 1871 and 1872, the part of the Kyzyl-Kum lying to the north of Bokhara was surveyed, and small detachments were sent from Kazalinsk to investigate the country on the way to Khiva. Besides this, detachments were sent to explore the country south of the Emba, and others to investigate the old bed of the Oxus.

When all was in readiness, the forces placed at

the disposal of General von Kaufmann for the Khiva expedition started from three bases of operation—from the Turkistan district, from the Orenburg district, and from the Caspian. The result showed that the column from Orenburg would have been ample for the taking of Khiva, for the Khan made the poorest resistance, and ran away. He was recalled, and nominally placed in his former position, but with a fine imposed that he would require twenty years to pay. Moreover, the delta and right bank of the Oxus was taken by Russia; the Oxus closed to all vessels except Russian and Khivan, and a Russian fortress built at Petro-Alexandrovsk.

Thus was humbled the last of the three Khanates, a considerable slice having been cut off from each wherewith to increase the general government of Turkistan. The next accretion was made three years later, in 1876, by adding the remainder of the Khanate of Khokand. The general government had now attained in size to one-twentieth part of the Russian Empire, and so remained until the death of von Kaufmann. Subsequently this enormous territory was divided, in 1882, into two general governments, with the first heads of which I was brought in contact at the time of my visit, whilst in the following year, the Ili province was ceded back to the Chinese, thereby bringing what I have called Russian Central Asia (apart from Turkmenia) to its present proportions.

CHAPTER XLII.

DO WE KNOW THE TRUTH ABOUT SIBERIAN PRISONS?

Different estimates of "Through Siberia."—Doubts of sceptical friends.—Prisons supposed to have been prepared for my visits.—The supposition examined.—Opinions of residents in Russia and Siberia.—Testimony of a Swede.—Examination of statements concerning Siberian Prisons in "Called Back."—Prince Krapotkine's censure, and its value.—The class of facts borne witness to in "Through Siberia."

WHEN I returned from my long journey across Northern Asia I gave to the world "an unprejudiced statement of what I saw and heard in the prisons and mines of Siberia." One Russian prison inspector, of high standing, volunteered the remark that what I had said was so perfectly correct that my book might be taken as a standard even by Russian authorities; but another Russian writer has allowed himself to go so far as to say that my book—"in so far at least as it is concerned with gaols and convicts—can only convey false ideas." The worth of this latter criticism may to some extent be gauged by the fact that, although "Through Siberia" has been translated into three languages, and has been honoured with more than 200 literary notices and reviews, yet no such misstatement has been pointed out

as to make it necessary in any one of four subsequent editions to alter what had been printed at first. I say this, not boastfully, still less defiantly, but as affording some sort of proof that I did not write at random.

But I am not so sanguine as to suppose that all are, or are likely to be, convinced. Even among my friends there are those who think I did not see things in their normal condition. This suspicion was pleasantly hinted, before my book appeared, by the late Dean Close, who, writing to me on another subject, playfully added, "I suppose those letters in the *Times* were yours. . . . I should very much doubt whether those cunning Russians have not deceived you. They knew what they were about when they gave you apparent liberty of access to all their prisons. Do you suppose, *if* there were any horrors, they would show them to you? No. They saw in a moment that, if they could apparently open all Siberia to you, they would get what they have got,—a whitewashing in the *Times!* I am not a violent Anti-Russ; but I don't believe that they would show to any Englishman all their heavy irons in Siberia."

Others have said, "Do you not think that the prisons were prepared for your inspection?" And this question was answered in the affirmative by the *St. James's Gazette*, on the authority of "a Russian informant," stating that "official orders were sent before me to the prisons to make things wear a favourable aspect for my visit." Upon seeing this I wrote to the editor "that if his Russian informant, or any other, thinks that I have been duped or misinformed, I am perfectly ready to be questioned, and shall be happy to discuss the question in the public press, provided only that my opponent give facts, dates, names, and

places, and do not hide behind general statements and impersonalities." This rejoinder the editor did not publish, and I therefore inserted the challenge in the second, third, fourth, and fifth editions of "Through Siberia," but no one has taken up the challenge.

Let us suppose, however, for a moment, that official orders were sent on before me to make things wear a favourable aspect: then how far could this in all cases have been carried out, and to what extent? I told the authorities in Petersburg, in May, that I was going to Tiumen, Tomsk, Irkutsk, and Kiakhta, whence I purposed to retrace my steps. In keeping with this, they certainly could have telegraphed that I was coming, but as to *when* I presume they would be at a loss to say, for I did not know myself. I reached Tiumen in 17 days, and can only say that, if the prison authorities there had received orders to make things wear a favourable aspect, they had not efficiently carried them out. But the next place, Tobolsk, is more to my purpose. I had not decided to go there at all, and even if the Governor had known generally of my coming, he could not have been expecting me on the morning of June 2nd, when the floods were out, and necessitated our driving through water up to the axles. In fact, the post-road was at this moment supposed to be impassable; the Governor himself was waiting, with packed trunks, to accomplish by steamer the reverse journey we had done by road, and one of his first questions was, "How in the world did you get here?" We asked to see the prisons at once. The police-master was sent for, and in a few minutes we hurried off in vehicles to the prisons. In this case, then, where was time to make things wear a favourable

aspect? Next, at Tomsk, finding I had to wait a week, we took a run of 230 miles to Barnaul, entirely off our road, and not down in my programme. We arrived in the night, and next day stirred up the police-master before he knew, I suspect, of our existence. A third variation from my pre-announced plans was the visit to the Alexandrevsky Prison, near Irkutsk, to which town I thought to go and thence drive out; but we cut across country instead, and reached the prison at dusk. Here they could hardly have expected me, for the Vice-Governor wanted to telegraph to the capital for permission to show us the prison, but could not do so because in the fire at Irkutsk the telegraph lines were broken. Yet here I entered early in the morning, and went wherever and saw whatever I asked. But, further, supposing for the sake of argument that all had been prepared from Petersburg up to this point, I now altered my plans for the fourth time, in this case radically, and, instead of retracing my steps, went on to the Amur, through the very heart of the convict country. At Chita the supposed expectation of my coming did not by any appearances betray itself. At Kara, indeed, my coming was heralded by telegraph; but on reaching Khabarofka, had I been a hunted hare I could not have more completely doubled upon my pursuers, for, whereas my papers set out that I was going 600 miles south to Vladivostock, the steamer having left, I elected straightway to go 600 miles north to Nikolaefsk, and on my arrival I next morning presented myself to the prison officials.

If, then, after detailing these five changes of plan, the reader still thinks that the Russian authorities managed to keep ahead of me with their messages and

telegrams during my five months' journey over 8,000 miles, then I must acknowledge that he has a belief in the foresight and consummate watchfulness of Siberian officials such as I do not possess; and I would ask next, What were the things the Russians did not permit me to see? or, What were the steps they took to "make things wear a favourable aspect"? because, until the aforesaid "Russian informant," or some other, can back up his assertions or suspicions by something like proof, the answer I must give to my friends is this: In certain instances, as at Kansk, Irkutsk, Kara, and Vladivostock—where my visit was definitely expected some hours previously—things may have been made to wear a holiday aspect, so far as rooms being brushed out and dust removed, with an extra wash and so forth; but in many cases, notably at Tiumen, Tobolsk, Tomsk, Barnaul, Krasnoiarsk, Chita, and Nikolaefsk, there was not time between my arrival at the town, or the presentation of my credentials and the moment of my admittance to the prisons, to allow even for this; and in no case could I honestly say that I have reason to suspect things were made to simulate for me a deceitful appearance.

But what do my friends say who live in Russia and Siberia? I must not withhold the fact that two of them share the suspicions or prejudices of friends in England. The first says: "I read the book ('Through Siberia') with great interest, and must acknowledge that I found one fault; that is, I think you give the Russians too much credit." The second is my old host, Captain de Vries, who has now passed away, but a correspondent wrote to me: "During one of my last visits the Captain informed me that though he considered your work 'Through Siberia' well

written, and a correct statement of what you really saw and heard, yet he could not rid himself of the impression that you did not see matters in their every-day aspect; but that, notwithstanding your avowal in the preface to the contrary, the officials were informed beforehand of your visit, and consequently prepared for your reception."

Another correspondent, however, in Siberia speaks differently; and a Swede living in Russia says: "I have read your 'Through Siberia' with deep interest, and can only say that I never read anything so fair and impartial printed in the English language relating to matters in Russia. Ever since the Crimean War, I have seen matters relating to Russia grossly misrepresented in the English press and in English books, and always felt sorry; for surely it is not creditable to a great nation (to say the least) to deviate from the plain truth in speaking about others. As far as my own experience goes, there may be many things said respecting a wide field for improvement here, but from general experience I can testify that I always have seen prisoners in Russia treated with much kindness by officials as well as the public at large. At the time of the last rising in Poland in 1862-3-4, I served as locomotive superintendent on Moscow-Nijny railway. As may be supposed, feeling ran high, but I never saw a single act of unkindness against any of the Polish prisoners, who were carried on the Nijny railway in large numbers at the time in question. Nor have I ever since seen any prisoner treated anything but well—sometimes even, according to my notion, too well; that is to say, the prisoner has got less work, more food, more clothing, and better lodgings, than many a free man can get by his labour,

and often enough the prisoner has experienced more kindness at the hands of prison officials, than the free man from his employers." These testimonies, then, wholly unsought by me, I leave to speak for themselves.

Besides the suspicions of friends, however, I have been confronted with the Siberian chapter in the story of "Called Back," by "Hugh Conway," and have been asked how that tallies with *my* account. Hereupon I would first inquire, Is the story fiction or fact? As fiction, I have little to say to the novel, except that the author has not learned his lesson perfectly. When, however, he says, "I expect to be believed. . . . . All else save this one thing I could prove to be true," does the author wish his readers to understand that he really went to Siberia and saw the facts he records? If so, then I detect in "Called Back" another of the series of apocryphal books on that much-abused country, and can only regret that the popular tale will "carry the lie round the world, while Truth is putting on her boots." Still, I have no intention of charging the author with deliberate misrepresentation. He dipped his brush in colours which I can well conceive he thought might be true, and I fail to see in him the *animus* which certain Russian writers betray.*

* Will the reader be good enough to judge the grounds of my adverse judgment? The hero of "Called Back" goes to Siberia in search of a prisoner, and on arriving at Petersburg he says: "We received a passport authorizing me to travel to the end of the Czar's Asiatic dominions if I thought fit, which was worded in such a way that it obviated the necessity of obtaining a fresh passport wherever a fresh government district was to be traversed." Again, "All convicts were first sent to Tobolsk. . . . whence they were drafted off at the pleasure of the Governor-General to various places. . . . If I wished, the Governor of Tobolsk should be telegraphed to; but as I was bound

I now proceed to the articles of Prince Krapotkine,* who permitted himself to say that, concerning gaols and convicts, "Through Siberia" could only convey false ideas; and whose testimony has been set against mine. How, then, stands the matter? Prince Krapotkine gets his information from three sources,

any way to go to that town, it would be just as well if I made my inquiries in person"; and it was at Tobolsk the author expected to "await the pleasure of the Governor-General." Now here is a small pickle of mistakes to begin with! For, a *passport* does not entitle the holder to travel by post, but a *podorojna*, which gives a claim to horses between two points; but it is immaterial whether, in reaching one's destination, the traveller passes through one government or half-a-dozen. Next, all convicts are *not* distributed from Tobolsk, but from Tiumen. It is here the author should have gone to make his imaginary inquiries, and then he would not have been "bound any way to go to Tobolsk," but could have driven direct to Tomsk. Besides this, the Governor-General did not live at Tobolsk, but 700 miles distant at Omsk! Next, our author's geography is somewhat faulty, as is his knowledge of posting customs. He says: "A trifle of some 400 miles from Ekaterineburg to Tiumen" (this should be 204), and "at the east bank of the Irtish, Siberia proper begins" (this is wrong by 150 miles). Then he speeds on so fast that he "left the *yemstchik* no time for refreshment." But why should he? Does he think that the yemstchik, like an interpreter, accompanies one all the way, or has he to learn that he merely drives the traveller to the next station, perhaps an hour's run, and then goes back with his horses? But a sentence most damaging to "Called Back" as an authority on Siberian affairs is this: "We passed many gangs of convicts plodding along to their fate. Ivan told me that most of them were in chains. This I should not have noticed, as the irons are only on the legs and worn under the trousers." Now, I have seen scores, not to say hundreds, of Russian leg-chains, and I have a pair, with a prison suit, in my own possession. I put them on and was photographed, and the illustration in "Through Siberia," p. 155, of "Convict Summer Clothing and Chains," represents "your humble servant" in all but the features. From this picture it will be seen that the chain, 30 inches long, fastened to each ankle, *could not* be worn under the trousers. Yet our humane author adds, "Poor wretched beings, my heart ached for them!" And so, doubtless, has that of many of his readers—especially ladies—but quite needlessly, for these chains worn under the trousers are but a hoax.

* I am indebted for information concerning Prince Krapotkine to

and so do I: from what he sees, what he hears, and what he reads. As regards the last, I at once yield to him, as better able to inform the public than I, since he writes of his own country, and from books in his own language. When, however, we come to testimony from seeing and hearing, things are not quite the same. My critic, as far as I understand, has seen the inside of two prisons in Petersburg. I have seen more than twenty times two, all over the Empire; and although, if I had as a visitor seen ten times this

"Stepniak," a former editor of a Russian revolutionary paper, who, in "Underground Russia," gives a slight sketch of "Peter Krapotkine," to the effect that, having been educated at the College of the Pages, he went, in 1861, to Siberia to study its geology. (I have seen two pamphlets, which I presume to be the outcome of that journey.) Ten years later he travelled in Belgium and Switzerland, and (says "Stepniak") "became an internationalist, and adopted the ideas of the most extreme party, the so-called anarchical party, of which he has always remained a fervent champion." In 1872 he was admitted to the Russian revolutionary circle, and "entrusted with the duty of drawing up the programme of the party and its organization, which was afterwards found among his papers." In the winter of 1872 he commenced his secret lectures, was caught, and confined for three years in the fortress prison. Then he was removed, according to his own account, for three months to the "House of Detention at Petersburg" before his transfer to the military hospital. 'In a few months (says "Stepniak") his health was re-established, but he did everything in his power to hide the fact. He induced those in charge of him always to believe him to be *in extremis*, etc. (p. 162). He walked with the step of a dying man: he spoke in a low voice, as if merely to open the mouth were a painful effort. The doctor ordered him frequent exercise; when one fine day in July, the gates of the yard being open for laying in wood, he suddenly takes to his heels, leaps into a carriage prepared by his friends, and leaves behind the sentinel, and the officer tearing his hair and exclaiming that he is ruined. Thus much from "Stepniak"; except that he says, "Peter Krapotkine is one of the most sincere and frank of men: he always says the truth pure and simple, without any regard for the *amour propre* of his hearers, or for any consideration whatever. This is the most striking and sympathetic feature of his character. Every word he says may be absolutely believed. . . . This absolute sincerity renders him the best of friends, and gives especial weight to his praise or blame."

number, it would not make my testimony *upon certain things* so valuable as his, yet upon some things it ought to be a great deal better. It stands to reason that, upon such matters as the conduct of the turnkeys towards prisoners, and the various details of prison life and discipline that do not meet a visitor's eye, my testimony is as nothing compared with that of a prisoner, and I willingly yield precedence to my critic. But "one need not eat a whole leg of mutton to know how it tastes," and one need not be in a prison a month to know whether the rooms are large or small, crowded or empty, light or dark, airy or close, lately whitewashed or bedaubed with dirt, apparently dry or fungus covered; and it is precisely to this class of facts I have professed to bear witness. Not one of my alleged facts, however, so far as I know, has been disproved; but horrible pictures have been drawn by "P. Krapotkine," in the *Nineteenth Century*,* and by others, of certain prisons, which for the most part I have not visited, and so cannot contradict from personal testimony, except perhaps in the case of the fortress prison in Petersburg, to the description of which I shall now invite the reader's attention, and notice certain other objections in passing.

* January, June, and December, 1883, and March, 1884.

CHAPTER XLIII.

THE FORTRESS PRISON IN PETERSBURG.

Difficulty of obtaining admittance, and facility of misrepresentation.—Letter alleged to have been written therefrom in blood.—Description of Troubetzkoy Bastion: its cells, occupants, and diet.—The Courtine of Catherine II.—Place for visits of friends, and for trials.—The library.—Cells for military officers, and garden.—Inquiry for *oubliettes* and underground dungeons.—Testimony of official eye-witnesses.—Testimony of ex-prisoners.—Examination of statements in the *Nineteenth Century*.—Insufficient evidence as to alleged torture of prisoners.

THE prison for political offenders in the fortress of SS. Peter and Paul at Petersburg has long been an exhaustless mine for the horror-monger, whose delineations found, at any rate until quite recently, negative support in the extreme jealousy of the authorities of any investigation by outsiders.

I asked to see this particular prison or the one at Schlüsselburg (I forget which), in 1878, but was denied. When, however, in 1882, I found the authorities willing to grant me all I desired with regard to Central Asia, I made bold to ask Count Tolstoy, the Minister of the Interior, whether I might not also be allowed to visit the State prison in the fortress. His Excellency had kindly assured me that he would do everything for me that he could; but, on receiving

this request, I fancied he winced a little, and at first said "No." I urged, however, that the enemies of Russia, and those who would rather not hear any good of her, had said that in my inspection of Siberian prisons the worst had not been shown me; also that in the fortress prison abominations were commonly alleged to exist, which I could not gainsay so long as I had not personally inspected the building. This seemed to fetch the Count, who told me I might come on the following Saturday for a "Yes" or "No"; the reason for the delay being, I afterwards heard, that on the Friday the Minister intended to submit my application to the Emperor. I went on the Saturday morning, and was told that *I might see everything*, and choose my own time to do so. I elected to go within a very few hours—on the afternoon of the same day—being not unmindful of what had been said about prisons being prepared for me. As a Russian gentleman, who had accompanied me in the city to interpret, fought shy of going with me to the prison, lest it should in any way bring him under suspicion, the police-master spared me his secretary. Thus prepared, I went to the fortress, was introduced to the Commandant, General Ganetzky, one of the heroes of Plevna, and then, accompanied by the secretary of the fortress and the governor of the prison, proceeded to my inspection. I described my visit in the *Contemporary Review* for February, 1883, and the contribution was adversely criticised in the following June number of the *Nineteenth Century*, by Prince Krapotkine, whilst in the *Times* of the next December 7th there appeared a communication respecting the Troubetzkoy Bastion in the fortress prison, and its horrors, of the most

startling character. As I read the letter, less than a column long, with pencil in hand, I marked no less than 38 places that seemed to me errors, misrepresentations, exaggerations, or doubtful passages; whilst, from certain discrepancies between the writer's statements, and what I saw myself, and was told by two ex-prisoners from the fortress, I strongly suspected that the correspondent had not been confined in the fortress at all. I wrote to the *Times* to say so, but the late editor did not insert my letter, though I happen to know that from the first he had some doubt whether the affair were not a hoax. Perhaps it was well that my strictures did not appear, for the unanswered allegations led an "Englishman" (whom I shall so designate hereafter) to visit the Troubetzkoy Bastion, and to write afterwards to the *Pall Mall Gazette* of 13th February, 1884. He said that the letter was well known to the police in Petersburg, and had been written—not from the fortress in blood, but —in red ink at Geneva. Thus I have the testimony of the "Englishman" to confirm my own observations, and to assist me in my passing remarks on what Prince Krapotkine and the letter writer have said.

Two buildings within the fortress walls now serve as prisons—the "Troubetzkoy Bastion," and the "Courtine of Catherine II." The Troubetzkoy prison consists of 72 cells, in two stories, built or arranged in their present form about 1870. The windows of the cells look out on to the outer fortress wall, from which the building is separated by a court about 20 feet wide. The doors of the cells open in one wall of a wide passage, down the centre of which lies a piece of matting, deadening the footsteps of passers-by. As we entered the passage, a hush was called (I

suppose in order that the nearest prisoner might not be aware of our presence), and the cover of an inspection hole was gently raised that I might look within. The name, too, of the occupant was given me, it being none other than that of the man who took a shop and made a mine under one of the streets of Petersburg with the diabolical design of blowing up the late Emperor. Of course I peeped breathlessly in, and duly prepared my nerves to see how this arch offender was being treated, and what likelihood there seemed of his losing his health, or reason, or of sinking into the ghastly condition of political prisoners as described in the *Nineteenth Century*. But the man appeared to be bearing his fate better than was to be expected. He seemed to be in good health, and showed not the least tendency to insanity. In fact, he was lying at full length on his bed, with his toes in the air, reading a book, and smoking a cigar!

I was not invited, and I did not ask, to enter the compartment, but passed on to an adjoining and similar cell, to examine it minutely. It measured (roughly) 23 feet long by 11 broad and 10 high. The window was not of ground or corrugated glass, but was too high to allow of the prisoner looking out. It was large enough to admit a sufficiency of light by day, and all through the winter nights there was kept burning, not a miserable rushlight, but a good oil lamp, such as I have never seen in a prison before or since. There was a supply of water, with a drinking cup, and a salt-cellar; and the sanitary arrangements, though not quite up to the present standard, would have passed muster at the time the cells were constructed. The floor was of asphalte; and the room was warmed by a *petchka* or stove, and ventilated; was fitted

with an air bell, and had in it an iron table and bedstead. On the latter was placed first a mattress of straw, then one of flock, with two *feather* pillows, such as I have never seen provided in any other prison.

The diet was represented to be as follows: dinner at 1 o'clock, consisting of two courses—the first, *stchee*, or soup, in which by law 1 lb. of meat for each prisoner must have been boiled; the second, a plate of roast meat with potatoes, and fresh vegetables when plentiful. For supper, soup only is provided, and there is given to each prisoner daily 1½ lb. of rye bread. This allowance of bread struck me as small compared with that of other Russian prisons, and I said so; but the secretary replied that most of the fortress prisoners either had money with which they bought white bread, or friends who brought it, with other kinds of food; and further, that if the allowance were not enough, the prisoners had only to ask for more, to get it. Also they might purchase extras, and I noticed, in almost every cell I looked into, a box of cigarettes. Smoking, they said, was forbidden by law, but the Commandant might allow it.

Prisoners awaiting their trial could receive visits from friends for half an hour once a fortnight, or oftener if the friends coming from a distance remained only a short time at the capital; but, when sentenced, a man could receive no more visits from friends until he had left the fortress and arrived at his place of destination. For those who needed it, there was provided a suit of coarse linen and a loose coat, but most of those detained in the fortress wore their own clothes. There was a bath-house visited by the prisoners once a month, or oftener if they wish, and

there were shown me certain ordinary cells that could be darkened for punishment.

Behind the building was a garden used for exercise, of which, however, each prisoner, at the time of my visit, had only a scanty allowance—sometimes not more than 20 minutes a day. I thought this bad, and said so, but was told that only one prisoner at a time was allowed to be in the garden, and that there were then from 30 to 40 to exercise daily. This is noteworthy because the letter writer says that in taking exercise the prisoners walk "in Indian file."

In the lower story women were detained. I looked through an inspection hole at one of forbidding countenance, who was reading. She had been captured only a few days previously among a gang of Nihilists, whose *rendez-vous* had been discovered not far distant on the Vassili Ostroff.* As I went along the passages I looked into what cells I pleased, and if I asked the names of the occupants they were given.

After walking through the Troubetzkoy Bastion, and seeing as much as I wished, we proceeded to the Courtine of Catherine II. close by. I suppose this to be the *proper* name of this part of the building, but it has occurred to me that its cells or rooms are what several writers have called the "Underground casemates" of the fortress. At least I saw no other parts of the building that agreed with this expression. Webster describes a casemate as a "bomb-proof

*The letter writer states that "under the pretext of searching the women, they often cause them to be stripped naked in the presence of a bevy of gendarmes." But why should they? There are plenty of female warders across the river, if not in the fortress, where there are the wives of the soldiers, who, "Englishman" says, wait on the women when necessary.

chamber, usually of masonry, in which cannon may be placed, to be fired through embrasures ; or capable of being used as a magazine, or for quartering troops," and the French dictionary describes a "courtine" as "a wall between two bastions." Both these descriptions agree with the Courtine of Catherine II., and the casemates are in a sense "underground," in that earth is put on the roofs to make them bomb-proof, or again as the London high-level railway arches with ballast on the top might by an abuse of language be called "underground." In fact, the interior of one of the cells with rounded roof reminded me exactly of a London railway arch turned into a store-room, with the floor a few feet below the springers. The embrasures had no cannon, but were glazed, and the windows, with several feet of scarp wall below, looked out on a garden and over the Neva. I did not measure the rooms, but they struck me as larger than those in the Troubetzkoy Bastion, and I observed no damp on the walls. The rooms below, I was given to understand, are no longer used as cells; though I observe that "Englishman" speaks of the bottom of these walls as damp, and says that the lower part of the prison is used only when the 72 cells of the Troubetzkoy Bastion are full. They have usually from 20 to 40 prisoners. At the time of my visit there were 38.

We entered first the place in which prisoners see their friends, behind wire grating as in other prisons, but with square apertures larger than usual, through which prisoner and friend could see each other clearly, and pass commodities in the presence of an officer. A couch and cane-bottomed chairs were provided for friends and prisoner alike, and the place looked

somewhat less gloomy than in many prisons. Further on, however, was a chamber that called up ideas anything but pleasant. It was a large room, with low vaulted roof, in which commissioners formerly sat to conduct trials, commencing to do so in 1861. Some celebrated trials in 1866, I was informed, were conducted here; but the chamber, after serving this purpose for 12 years, ceased to be used, though it is still to some extent furnished. As at Newgate, the accused could be brought from their cells to the place of judgment without going outside the prison gates. Beyond this hall of judgment was the library, which I could not enter, as the librarian was away. It was said to contain from 600 to 700 volumes in Russian, French, German, and English. The prisoners, I was told, read a great deal—indeed, I saw many so doing. A copy of the Gospels or of the New Testament is placed in every room, and the library books may be had for the asking. Periodicals and newspapers are also provided, but not less than a year old, the authorities not thinking it desirable that persons awaiting their trial should see themselves figuring in print. Should new books, however, be required, of a scientific or technical character for instance, they are allowed.*

The prisoners' rooms in the Courtine were not numerous, though there were other unused chambers *en suite*. The men confined in this part were chiefly, if not entirely, military officers, the Russian code prescribing that certain military offences (not necessarily political) should be expiated by imprisonment

* Yet the letter writer "in blood" says, "Worst of all, there are no books, no paper,—there is absolutely nothing to do: nothing to relieve the complete solitude and silence; even the Bible is denied them."

in a *fortress* for a period not exceeding three years and three months. There were six chambers for ordinary prisoners, and also three very large rooms for those condemned to death, with whom are placed two warders (as in England) from the day on which sentence is passed to the hour of execution. There was no one in the fortress condemned to death at the time of my visit, but I entered one of the rooms, and then proceeded to the cell (if such it could be called) of an officer sentenced to four months' confinement. The room was furnished with Vienna chairs, had a bouquet of flowers on the table-cloth, and contained, among other things that attracted my attention, a neat carpenter's bench, and an amateur's box of tools. None of the fortress prisoners are obliged to work, but this officer chose to employ his time in making fancy and fretwork articles, specimens of which were seen about the room.

The prisoners in the Courtine had a less unpleasant time than their comrades in the Troubetzkoy Bastion with regard to exercise, for they could, if they chose, spend the greater part of the summer day (from noon to eight) in the garden, and that in company of one another. I walked round the enclosure, which commands a splendid view of the Neva, and was fairly taken aback by what I saw. There was no lack of flowers (tended, I believe, by the prisoners), and an abundance of shady trees, between two of which a hammock was swung, whilst not far off were a pair of gymnastic bars, a summer-house, and a tent. The animal world was represented by a goat cropping the grass, and two playful puppies belonging to some officers, who, in a knot of four, were lounging about under no *visible* surveillance. In the garden, in one

place which was damp, there was an offensive smell, but I detected nothing of the kind elsewhere.

Need I add that I saw no torture-chamber, or any similar abomination? What, then, can have become of the "*cachots*," "*oubliettes*," and dismal chambers which have been connected with the "Peter and Paul" by so many, and by some, too, whose testimony is worthy of respectful consideration? I do not allude to the exaggerated and vindictive expressions of released prisoners, who overreach their aim when they vilify the land of their punishment; nor to the stories of the Great Peter's days that have descended from father to son, and been questioned by neither though garnished by both. I am thinking rather of the testimony of such men as the Decembrists, one of whom told me that not he, but one of his comrades, was confined for many years in the fortress in a *cachot;* and another, writing an account, which still exists in manuscript, of his exile, for his wife and children, describes his cell at the fortress at Petersburg as "very small, dirty, and dark." I can only reconcile these statements with what I saw by one of two suggestions. It will be remembered that the insurrection of the Decembrists took place in 1825, in December (whence their name), and that not a mere handful of assassins, but whole regiments led by their officers, attempted to deprive the Emperor Nicholas of his throne. The number of persons arrested must therefore have been very great, and the fortress may well have been overfilled, so that every possible corner would have to be occupied; and if one remembers what our own prisons in England were half a century ago, it need not seem surprising if some at least of the places of detention in the fortress could be described as "dark, dirty, and

small." The occasion and the number of the prisoners was abnormal and temporary, and the then exceptional condition of things ought not, without additional proof, to be brought forward as representing the condition of things now.

The other suggestion is that a part of the fortress now altered or taken down may have contained these gloomy places. More than one of those whom I told of my visit asked if I had seen the "Alexeievsky Ravelin," and upon my replying in the negative, they said that a third prison of the fortress had not been shown me. But an official, high in the prison administration, and whom I have known for some time, told me, a day or two before I went, that the part of the fortress in the thick wall of which cells were long ago formed, is no longer used as a prison, and that the cells are abolished. I expressly asked, when going over the buildings, if there were any subterranean chambers or cells, and was told "No." Inasmuch, then, as I have not yet detected the Russian prison authorities on any one occasion trying to deceive me, I am bound to believe what they say, until someone can show proof to the contrary. If anyone denied to me that there were dark cells in Newgate I could in six lines give so minute a direction that a Russian entering the prison for the first time should be able to find them; but for anyone to say, like the "blood-red" letter writer, that there are in the fortress "underground cells where a ray of sunlight never enters, where offensive water oozes through the walls, and fungus grows on all sides," is not sufficiently definite as to locality. Prince Krapotkine, after speaking of the Troubetzkoy Bastion, says: "The floor of the cells is covered with a painted felt, and the walls are made double with felt to prevent the prisoners from

speaking to one another by tapping,"—a very proper device of the authorities if it were so, but it was not the case in the cells I entered or looked into. Again, he says that the prisoners I saw were awaiting trial, and that it is after trial that they are put into the horrible places he describes; but his testimony fails to convince me because he does not sufficiently particularize the locality of the cells so that an independent person might test the accuracy of his statements.

So much, then, for what I saw; and, had I left Russia immediately after my visit, this is all I could have said; but, as I continued my journey, I met here and there persons who knew the fortress, and with whom I could compare notes. So contradictory to current opinion on the subject was my experience, that with a view to publication I wrote a short paper, and read it to several Russians, including a legal gentleman who had held a prominent position in the "third section," and who on one occasion, summoned by telegram, went to the fortress to receive from a noted offender some statement he wished to make. My informant told me that he went to the Alexeievsky Ravelin, out of which, he said, prisoners did not come without permission of the Emperor. He descended to cells underground, which were large and airy, but lighted from the corridor above, hardly enough, he said, to read, though the prisoner might call for a lamp. This was about 3 o'clock in the afternoon, but whether winter or summer I know not; if the former, then the deficiency of light at that time of day in Petersburg would easily be accounted for, and it also leaves room for doubt whether the lawyer may not have been mistaken as to the cells being underground. This was the only time he visited the prison, and I suggest the possibility of

his being mistaken, because the position of the cells does not agree with what was told me further on, by a chief of gendarmerie, whom I met at dinner, who knew the fortress, and said there used to be a part of the building, of three stories, called the Alexeievsky Ravelin, but he knew nothing of cells underground. The "*oubliettes*," he thought, had not been used since the days of the Emperor Paul, and he did not believe in the torture of prisoners in the fortress now.

But besides the testimony of these two witnesses I met other two, who had been confined in the fortress. Both of them are now filling important positions, are highly respected, and no one, or almost no one, about them has any idea of their having been in prison. Of course, therefore, I cannot give their names; but I shall call them Messrs. Jones and Robinson. Mr. Jones, who is a British subject, had the misfortune to fall under the suspicion of the authorities, through being found in the same lodgings with a political miscreant. Accordingly, about 1866, he was taken one night from a restaurant by the police, placed on a droshky, hurried off, and lodged in the fortress. The next morning a clerk came and asked him sundry questions, and among others whether he knew where he was. The clerk, however, declined to answer, in turn, any questions put by the prisoner, who asked in vain for books, though he was allowed to have pens, ink, and paper. His food, he told me, was good, but he had no white bread or tea. He was not allowed to smoke, or send out for cigars. When necessity required him to leave his cell, he was taken out and brought back by gendarmes, but during the few days he was in prison he was not let out for exercise. I asked him about "torture," but he said that no violence was used towards

him, though a friend of his, confined in 1866, had told him that during his examination he was switched with a rod as punishment, but not with a view to extort confession. On the fifth day my informant was taken to the arched chamber for examination, and, while waiting in the ante-room, heard another prisoner inside swearing and stamping with rage. His own examination lasted about a quarter of an hour, and on the seventh day he was whisked out of prison, much in the fashion he had been brought in, at 1 o'clock in the morning.

I pass now to the testimony of Mr. Robinson, a Russian, in whose presence I had been speaking of my visit to the fortress, when he called me aside and said, "You will be surprised, perhaps, to hear that I know the fortress. No one in this town is aware of it, but 20 years ago I was imprisoned there, on political charges, for three years." A revolutionary correspondent, he told me, had written to him, proposing that he should be chief commissioner for a certain city, for the distribution of revolutionary publications, that the letter had been opened and he had been arrested on the strength of it. Accordingly I made an appointment to see him in private, and on my not arriving quite so early as he expected, he busied himself in making a pen-and-ink sketch, which is now in my possession, of his cell in the Alexeievsky Ravelin. It was furnished with table, chair, commode (taken away immediately after use and cleaned by a soldier), and a bed, with two feather pillows, a pair of sheets, blanket, and woollen coverlet. The cell measured 18 feet 8 inches long, by 16 feet 4 inches broad, and 9 feet 4 inches high. The window was nearly 7 feet high, and doubled in winter; the two lower sashes being whitewashed, but not so the top, out of which the prisoner could look by standing

up. The room was yellowwashed and painted once a year, during which operation its occupant was removed at various times to four or five other cells like his own. The painted floor was washed once a week, but not by the prisoner. He said he had no trouble about his room, for at half-past seven a.m. four soldiers entered his cell. One poured water in Russian fashion on Mr. Robinson's hands, and another held his comb, whilst the remaining two cleaned the room. This sort of attendance was continued at the bath, visited once a fortnight, where the soldiers waited on him, even to putting on his socks. He wore the prison clothes, including a grey flannel dressing-gown (or *khalat*), and had clean linen for bed and back once a week. At eight o'clock there was brought a glass of tea, sugar, and white bread. Dinner followed at one, consisting ordinarily of three dishes, but in Easter week of four, preceded, if he chose, by a glass of vodka, or spirits. The first dish was of soup, with the beef, veal, or chicken of which it had been made ; the second was of roast beef, fowl, or game, but so varied that the same second dish did not appear twice in any week during the whole three years he was there. The third dish was of rice pudding, buckwheat, jam pancakes, etc., etc., the portions, always well cooked, being so large that he could not eat the whole. At six o'clock came again tea, sugar, and white bread, black bread being served only for dinner. After making notes of this, and that he might if he chose purchase extras, I was fully prepared to hear Mr. Robinson say that at the end of three years he left the fortress heavier by 30 lbs. Russian than he entered, his former weight being 144lbs. English. He said that he was in solitary confinement, but that a captain came almost daily to ask if he had

complaints to make, which complaints when set forth were duly attended to. The Commandant of the fortress came once a month; and once a year also a special messenger (chief of the gendarmerie) from the Emperor. Mr. Robinson spoke of the prison officers as even "polite," and said that the chief (when not drunk!) used often to come and talk for an hour. Again, that on one occasion Mezentseff (chief of the secret police, who was murdered by the Nihilists in 1879) asked him if he would like to smoke, in which case he should be supplied with a ¼ lb. of tobacco for cigarettes every other day. He also asked if he would like to paint or write; and books from the library and drawing materials were brought to him. It was in this fortress prison, he said, that he read "Gibbon's Decline and Fall of the Roman Empire."

This testimony of Mr. Robinson is in striking contrast to the article to which I have called attention, saying that in the Ravelin was disallowed "everything that might help to occupy the attention," for here was written the Russian novel, *Tchto Dyealit?* ("What's to be Done?"), published in 1863 in the *Sovremennik* (or *Contemporary*). Mr. Robinson told me that Tchernichevsky, the author, was with him in the Ravelin, and wrote it there. So that Tchernichevsky's mind did not decay for want of occupation. Mr. Robinson said that he never heard or saw anything corroborative of prisoners being tortured in the fortress. I have heard of prisoners being fed with salt herrings, and given no water to drink. Prince Krapotkine, too, asserts that at least two revolutionists were submitted to torture by electricity. But he declines to give any particulars to support his statement. When persons have told me of such things I used to ask the ques-

tion, "Out of the hundreds of prisoners who have passed through the fortress, do you know of one who has asserted that he was put to torture?" and an affirmative answer has not yet been forthcoming. If torture in the fortress is inflicted, can no one be found to tell us with some closeness of detail *when*, *where*, and *how* he was made to suffer? Such things, if done, could not well have been hid. Further, Robinson had a friend who had been four times in the fortress, and many other acquaintances likely to know the truth, but none of these had ever spoken to him of cruelties enacted there.

I have no information respecting sickness, deaths, or insanity in the fortress. During Robinson's three years' confinement two prisoners went mad through their own fault and secret sin. But the writer of the apocryphal letter perpetrates a strange anachronism when he says, "Even those who become mad are not treated any better. They are strapped down and beaten with the knout." Now, I am informed by a Russian nobleman that the knout was not at any time used as an instrument of correction in prisons, but instead of capital punishment. But, however this may be, the "knout" proper (which is the Russian word for a whip) was abolished so long ago that I have been unable to get one for my collection of prison curiosities, and it was with great difficulty, when writing "Through Siberia," that I found an old man who could describe what it used to be like.

I have no recollection of seeing any chapel in the prison, though of course there is the well-known church close at hand within the fortress wall. Mr. Robinson did not go to church during his imprisonment, but a priest came thrice a year, and administered the

sacrament once. On these occasions the prisoners learned from him something of what was going on in the outer world. Otherwise my informant said that for the first nine months he was not allowed to see any of his relations, and, even then, only his father, mother, and sister, in the cabinet of the Commandant.

The reader will have perceived, of course, that the above statements respecting the visits of friends, and the rich table of diet in the case of Mr. Robinson, do not agree with what came under my own notice in the prison itself. I do not think it necessary to attempt to reconcile the two accounts, but content myself with having given a faithful record of what I saw and heard, having extenuated nothing, nor set down aught in malice. Whether or not what I have said in "Through Siberia," on Siberian convicts and gaols, "can only convey false ideas" I must leave to those best qualified to judge, begging them to remember that what I am committed to is simply an "unprejudiced statement of what I saw and heard in the prisons and mines of Siberia."

Around that word "unprejudiced" I suspect the remaining contention gathers, for Prince Krapotkine and I do not see things from the same standpoint. My critic calls some of his prisoner friends "heroes," which is a synonym for Nihilists I could by no means accept, nor could I receive his doctrines enunciated in the *Nineteenth Century* (January, 1883). "The principle of the *lex talionis*, of the right of the community to avenge itself on the criminal, is no longer admissible. We have come to an understanding that society at large is responsible for the vices that grow in it, even as it has its share in the glories of its heroes; and we generally admit, at least in theory, that when

we deprive a criminal of his liberty, it is to purify and improve him." This, however true and excellent in the abstract, must, when interpreted by Nihilistic events, be taken to mean that when a dynamitard, for instance, has made a mine and blown a score or two of Cossacks into eternity, or wrecked a train, in which some individual *may* be, whose murder is decreed, the perpetrator is not on that account to be made to endure suffering as such, but to be compassionately patted on the back, and segregated to apartments where under more favourable conditions he may be purified and improved. A comfortable doctrine truly, but one not likely to find favour among the Cossacks' widows and orphans, or the maimed and mangled passengers! The fallacy of so pernicious a principle is self-evident, and there are few who would not say that such a criminal, irrespective of his future improvement, deserved to suffer severely, and that whether acting for himself, or urged on by others to his dastardly work.*

There is room, no doubt, for difference of opinion as to what should be done to this class of offenders when

* I know not who the Englishman may be who went to the fortress prison, and wrote to the *Pall Mall Gazette*, but he says: "I inquired into the history of many (of the prisoners) I there saw, especially of the women. It was the same sad story. Few had finished their education anywhere; some had been to several gymnasia, and had been forced to leave, either through insubordination, idleness, or intellectual incapacity. At war with the school authorities, often smarting under a sense of injustice real or supposed, they leave school at war with whatever they have known of law and of authority. Thus predisposed, they fall a ready victim to men of far more experience than themselves, who, by appealing to the daring, the enthusiasm, the courage of youth, urge them on to deeds they dare not do themselves. Most of the young women entangled in the fatal net of Nihilism were but inexperienced children when they first began. Many young girls sent to Switzerland for their education were sedulously sought after by the Nihilist refugees there. Appeals to their love of country, their enthusiasm, their youthful longing to be something—to do—were but too successful; and young

caught, how the majesty of the law should be vindicated, the body politic protected, and the criminal reformed. For my own part, though it is not a pretty sight to see a man's back bared and a couple of soldiers birching him, yet I never asked a prison official in England—whether governor, turnkey, or chaplain—who did not agree with me that, if we had far more of this mode of punishment than we now have, we should have far fewer of a certain class of criminals. I still believe in the wisdom of the code that directed judges to justify the righteous and condemn the wicked; and if the wicked man were worthy to be beaten, that the judge should cause him to lie down, and to be beaten before his face, though not without mercy, lest the offender should be made vile.*

In concluding this chapter, then, let me restate what I said in my preface to "Through Siberia," concerning the prisons and penal institutions of that country, namely, that "much has been written concerning them that is very unsatisfactory, and some things that are absolutely false."† This I still maintain, but by no means thereby imply that more cannot be correctly said in their disfavour than I have noticed.

girls, at the very outset of their careers, find themselves bound by oaths, to be broken at the risk of sudden and secret death should their courage fail, or should they hesitate to obey. Here lies the real and ruthless tyranny; and the cowardly plotters, safe, skulking in some foreign land, are alone responsible. One reads with a feeling of loathing and disgust an appeal to humanity from such cowardly assassins. The heart throbs with pity for their inexperienced and too credulous dupes; but one boils with contempt and loathing at the very thought of these vanity mad, cowardly misleaders."

* Deut. xxxi. 3.

† I added, "One author published 'My Exile in Siberia' who never went there"; and to this Prince Krapotkine has taken strong exception, saying that the words "in Siberia" were added by the publishers, and not by Hertzen, the author. I wrote to the publishers, but the partner through whose hands the transaction passed is no longer living, and

I have never maintained that Russian prisons are what they ought to be. I do not believe they are what they might be, and I am sure they are not what those highest in authority would like them to be; but all this does not justify the representation of them to be what they are not.

Had a pamphlet been put forth saying that Russian prisons are the best in the world, that there is not a speck of dirt to be found in one of them, that every prisoner is as well employed as those in the prisons of London, Paris, or Breslau, that the efforts for their moral and spiritual welfare are better even than they were in Newgate—a string of superlatives, in fact—I should have declared that they were utterly untrue; and then I can imagine myself being regarded as a detractor, as some would now make me a defender, of Russian prisons, whereas I disclaim to be regarded as one or the other. If readers have drawn the conclusion from anything that I have written or said, that I thought Russian prisons in general needed no improvement and no reform, then I have been altogether misunderstood, and I hasten to say that there is abundance of room for both. But having now, as I hope, justified my position with reference to what I said of the prisons of Siberia, and related what I know of the fortress prison in Petersburg, I shall change the venue and relate what I saw of the prisons of Russian Central Asia.

the firm cannot find any record upon the subject. It does not materially affect the truth, however, of what I said, though, if the statement about the publishers be true, it is, of course, a pity that an author should thus be laid open to suspicion he does not deserve, and I therefore recall the sentence, giving him the benefit of the doubt.

CHAPTER XLIV.

THE PRISONS OF RUSSIAN CENTRAL ASIA.

Visit to prison at Omsk.—Difficulties in providing prisoners with literature.—Exaggerated statements as to uncleanness of Russian prisons.—Visit to prison at Semipolatinsk.—A Raskolnik fanatic.—Criminal statistics of Semipolatinsk.—Visit to prison at Vierny.—Official report of the prisons of Semirechia.—Local voluntary committees.—My distribution of books.—Visit to prison at Tashkend.—Alleged overcrowding of Russian prisons.—Visit to prison at Khokand.—Prison visitation in Samarkand.—Lavatory arrangements, and misrepresentations concerning them.—My testimony and its limits.

THE visitation of prisons and hospitals was a principal object that took me to Central Asia, just as three years previously it had led me to visit Siberia. Accordingly I thought it better to devote a chapter to this subject than to interrupt the narrative of the journey by detailed descriptions *en route*.

The first prison we visited was in the suburbs of Omsk, a building of dazzling whiteness, both without and within, with accommodation for 240 prisoners; but the average number of 135 on its books. There were 22 rooms for ordinary use, a hospital with 5 rooms more, and 15 cells. The two punishment cells were dark, or could be darkened (I forget which), but not with the Egyptian darkness that reigns in the

punishment cells of Newgate. I never saw anything to equal that in any prison of Russia or Siberia. As we entered room after room I inquired how many of the occupants could read. Out of 9 men in one ward, 2 could read; in another, 3 out of 4; in a third, 2 out of 4; but in the next chamber not 1 out of 7. These last were all Kirghese, of whom one had had his nose bitten off in a quarrel. Another room contained 15 women, none of whom, if I remember rightly, could read. There were in the building, at the time of our visit, 17 women and 2 children; but the average number of women is 8. The daily allowance to the prisoners was 2½ lbs. (Russian) of bread, and ½ lb. of meat. This latter, I presume, is withheld on fast days, but on feast days it is increased to ¾ lb. They have soup, and on Thursdays and Sundays porridge, besides buckwheat or barley gruel.

The church in the building was attended by the prisoners on Sundays and the great feasts, as was the Roman chapel by the two prisoners of this creed then in prison. In 1879 I sent to General Kaznakoff, then Governor-General of Western Siberia, upwards of 300 New Testaments, Gospels, and Psalms, also a large number of tracts and pamphlets for the hospitals, prisons and schools of the provinces of Akmolinsk and Semipolatinsk, and we found in this prison at Omsk what looked like a portion of the gift, but they were in a cupboard in the library, precisely where I had asked they might not be, the reason alleged being that when they had placed the books in the rooms, the prisoners had torn them.*

* This was a similar difficulty to that with which early prison philanthropists in England had at first to contend, as witnessed to by the engraving of "Mrs. Fry reading to the prisoners in Newgate in the year 1816,"

The worst feature we noticed about the Omsk prison was one common to most of the Russian houses of detention, for, apart from the necessary work of the establishment, they had not six men employed. I observed that one room was somewhat close and stuffy, but, upon my calling attention thereto, was reminded that persons of the class that prisoners are most commonly drawn from, prefer an atmosphere they call snug and warm to fresh air. In winter especially, they told us, "the prisoners stuff up all the holes with coats, or rags," as if wholesome air were their greatest enemy. This fact should be allowed for when we are asked by certain writers to believe in the horrid condition of the atmosphere of Russian prisons.*

The next prison we entered was a civil one at

wherein is represented on the wall a placard, worded thus: "Notice is hereby given, that should any of the Bibles, prayer-books, or other printed books which are deposited in the ward for the use of the prisoners, be injured, mutilated, or defaced, every prisoner in the ward where such offence may occur will be held responsible, and be subject to such punishment as the keeper may direct."

* The author of "Called Back," on his way to Irkutsk, talks of prison "rooms reeking with filth, the floors throwing out poisonous emanations"; and when at last he finds the prisoner he is in search of, it is in a room thus characterized:—"From the stench which rushed through it, that open door might have been the entrance to some pestilential cavern at the bottom of which all the impurities of the world were rotting and putrefying. As it passed you, you felt that the thick air was poisonous with disease and death." Then, as if this aggregate of superlatives were insufficient, the author continues: "Filth! the place was one mass of it. Filth under foot; filth on the walls, the rafters, and the beams; filth floating about in the hot, heavy, pestiferous air." I beg the author's pardon, but this is great nonsense. I have been asked by friends more than once, "Are not Russian prisons dirty?" to which the answer has been both "Yes" and "No." There are prisons in England where the inmate of a cell must have every bit of brass polished, and his habitation spotlessly clean; or, as a Russian prisoner has put it, "where the activity of broom and pail is almost demoniac." In France, some of the cell floors are polished with the heel of a wine bottle and "elbow grease"; and I have seen prison schools and

Semipolatinsk, whither we were accompanied by the police-master. Here a felon might have to remain as long as four years. There were 78 prisoners, of whom 25 were Kirghese. The latter are sometimes birched with rods up to 60 stripes—an appeal to their feelings that is much more effectual than the leisure of mere confinement, and the supply of better food than they habitually get outside. No less than 20 of the prisoners were accused of murder, and 35 of robbery. The morals of the inmates at Semipolatinsk seemed to me better cared for than in most Russian prisons; for not only did the prisoners attend church every Sunday, and often on feast days, but a sermon was said to be read to them after every service, and, what I have never before heard of in a Russian prison, a priest came every Tuesday to the dining-room, and explained the Scriptures.

There was a religious curiosity in this prison in the person of a *Raskolnik* or dissenter, whose equal for sectarian ignorance and self-righteousness I have not

asylums so hyper-clean, even in Russia, that, to use a familiar expression, "one might have eaten off the floor." Compared with buildings such as these, the average Russian prison must be allowed to be "dirty," or, compared with a countess's drawing-room, even "filthy." But if such an expression should convey to a reader's mind what it did convey to the mind of the friend who pointed out the passage to me, and who thought fæcal filth was intended thereby, then such language is a libel. The nearest resemblance I can think of, for the moment, to the floor of a Russian prison is the floor of a dirty national school, over which a pack of boys have run for a week with the dirty boots of winter. I do not remember ever seeing anything in Russian prisons worse than this, and in the majority of cases things were better; whilst as for the atmosphere, and the exaggerations talked about it, I have been in Russian prisons at all hours of the day, before some of the prisoners were up in the morning, and just before they were going to bed at night, but in none was the air so vitiated as that which some of the peasants to my knowledge *chose* to have in their own houses, or, to come nearer home, such as I used to meet with in parochial visiting when curate of Greenwich.

often met. What had brought him to prison I do not exactly know; but we were told he came from the Urals, and would neither serve in the army as a conscript, nor obey the Government. I imagine that he belonged to the narrowest sect of the *Starovers*, or old believers, who regard Peter the Great as Antichrist, and set immense store by old *ikons* or sacred pictures, and ancient service books. The only things this man possessed were an old ikon, and a Liturgy and daily prayers in manuscript. Such idols did he make of these that I believe he would have parted with twenty years of his life rather than one of his treasures. I need hardly say he rejected my offer when I asked whether he would sell them. Of course I could not but in a fashion admire his steadfastness, and, thinking to meet his prejudice against reading the Bible in modern Russ, I offered him a New Testament in Sclavonic; but he declined it, saying that he did not want it. Thus he preferred to be confined to the book his own hands had written, to exercising his mind and heart in reading that which he had been taught to regard as the Word of God. In this prison I left matter for the prisoners to read, and sent to the Governor, General Protzenko, a sufficiency for the remaining 5 prisons, and the 17 hospitals, of the province.*

* The prisons were as follows:—

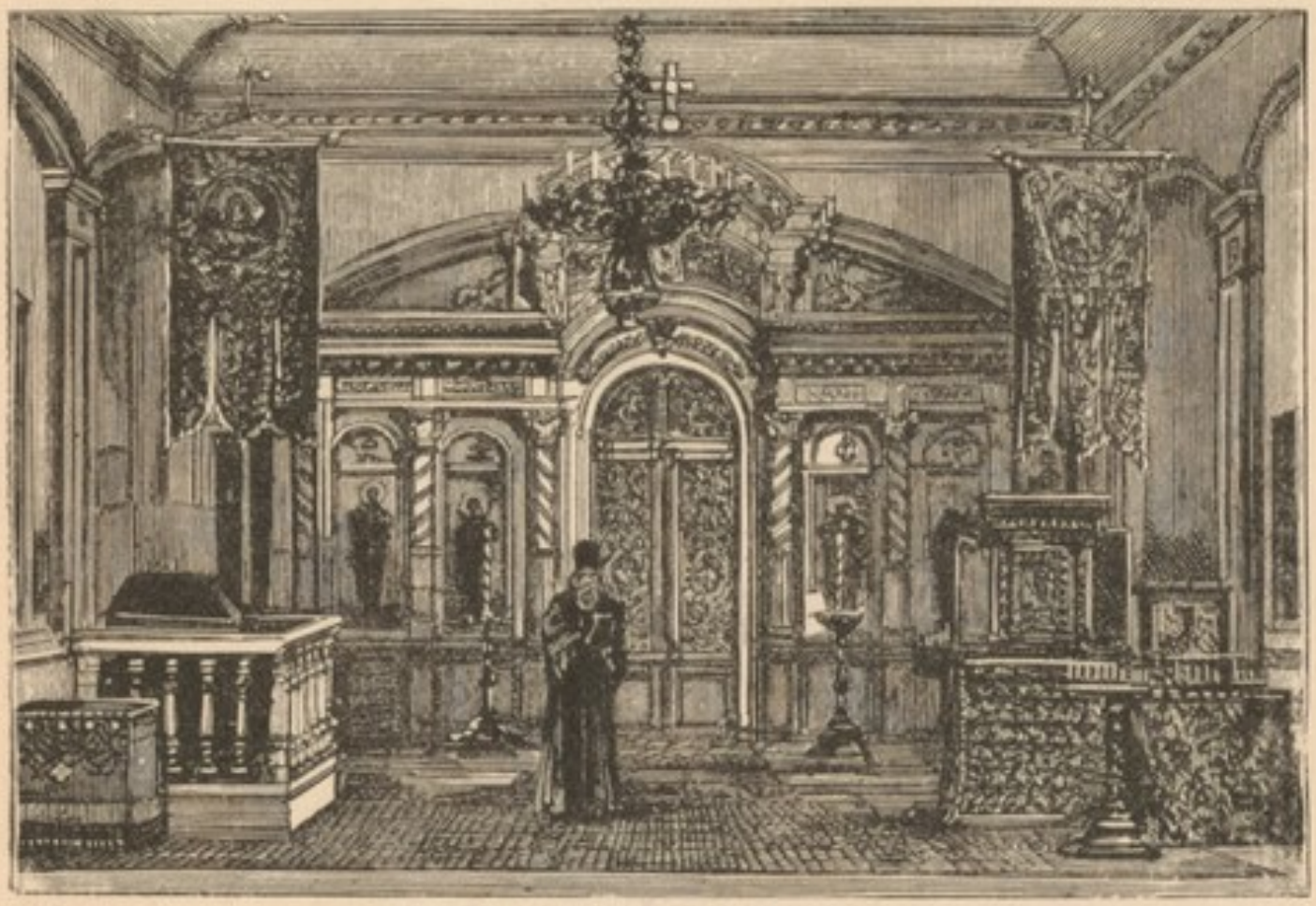
Semipolatinsk	military	prison	for 120	prisoners
,,	civil	,,	100	,,
Pavlodar	,,	,,	50	,,
Ust-Kamenogorsk		,,	50	,,
Karkaralinsk	,,	,,	20	,,
Zaisan	,,	,,	100	,,

From the official report of Semipolatinsk given me, I learn that the number of crimes throughout the province in 1881 was 517, or 41 more than in 1880; of these crimes, 362 were of the nature of larceny, and

Thus far the prisons I have mentioned resembled those I saw in Siberia in 1879; but on reaching Vierny we had before us something comparatively new. The Vierny prison, built in 1875, was surrounded with trees and gardens, and enclosed by a high wall. It rarely holds any female prisoners, and there is only one room intended for them; but out of 157 prisoners at the time of our visit, 6 were women, and of these 4 had murdered their husbands. One woman had promised £40 to two Cossack under-officers to kill her husband, but the captured perpetrators of the dark deed told us they had not received the money. There was a dark cell in the building, in which a prisoner might be confined from 4 hours to 6 days. The prisoners were of varied nationalities—Russians, Tatars, Kirghese, Dungans, Sarts, and Taranchis. Most of the Kirghese were in prison for theft; a gipsy for horse stealing; one Dungan for attacking a caravan, and another had been a commander of a Chinese regiment at the time of the rebellion in Kuldja, whence he had escaped and become a robber chief, but on coming back to Kuldja was arrested. In a room by himself was a Russian major confined for attempted wife murder, and in another room 11

50 murder. The number of persons—chiefly Kirghese—tried was 1,200 males and 12 females. The age of the majority of the criminals was between 21 and 30, and next from 31 to 40. Of 49 persons condemned, 2 were females, and 49 persons were retained on suspicion. From the year 1880 there remained 186 prisoners—235 were added in the course of the year, and 258 released, leaving a balance of 163 in prison throughout the province on 1st January, 1882. The report further states that the temporary prison at Karkaralinsk is unsatisfactory by reason of age and want of accommodation. The administration of the prison is vested with the Semipolatinsk committee, and its branches and the ladies' committee at the capital. The receipts of the committee amounted to £1,170, of which £241 were carried forward to the next year's account.

prisoners for rape, murder, and robbery. The chapel was in exceedingly good order, and in the library I found, to my satisfaction and surprise, some New Testaments, Gospels, and other books. The New Testaments had been supplied by a Russian society for the distribution of religious literature, at the instance, we heard, of a M. Pantusoff, who had given several books, and had others bound at his own expense. We heard of further good deeds of this



THE PRISON CHAPEL IN VIERNY.

Russian gentleman, but were not so fortunate as to meet him. I am indebted to him, however, for some of my information on Kuldja, respecting which province he has compiled statistics.

Vierny being the capital of the Semirechia province, I asked the Vice-Governor for statistics of the prisons, and a copy was made for me of the official report for the preceding year. I nowhere else during my journey got anything so detailed, but as the prisons

we subsequently entered at Tashkend and Samarkand were better, if anything, than the one at Vierny, I assume that the report does not give an exaggerated idea of the condition of prisons in Russian Turkistan generally. A prominent feature of the report is the interest taken in the prisoners by voluntary committees who manage many of the prison affairs.*

Instead, for instance, of the prisoners each receiving 3*d.* a day for food, the committee undertook to cater for them, deputing the inspector to carry out their instructions. Each member of the committee came on duty by turns for a week, visiting the prison daily, inspecting the rooms and the kitchen, and afterwards writing remarks in the visitors' book. This book was, on a certain day, submitted to the Vice-President, who saw that the irregularities noted by the directors were rectified. In 1881 an abundance of vegetables was grown in the prison garden, such as cabbages and potatoes, carrots, fennel, parsley, garlick, cucumbers, water-melons, and melons, and in addition each prisoner was allowed, daily, ¼ lb. of meat. So cheap, however, are provisions at Vierny, that, after supplying bread and other eatables, the committee

* Speaking first of the Vierny prison, it says that, at the time for making annual repairs, the building was clean and in good condition, but £66 had been expended for repairs during the year, and out of money saved the outer walls of the prison church had been plastered and whitened. A belfry also was added to the church, £250 only of the cost of £620 being borne by the Government, the committee undertaking the remainder, and paying some from a fund at their disposal for extraordinary expenses. Of the total number of prisoners, one-eighth only were Russians, and of Tatars rather less. The weather at Vierny is hot in summer, and the committee, instead of straw mattresses had bought 140 felts, upon which the natives are accustomed to sleep, and had also made 30 new hammocks, costing £18. The committee had expended from its own special resources, on wages for overseers, cook, baker, etc., £231.

effected a saving in the maintenance of prisoners of £344, which was applied to other needs. For the moral good of the prisoners, the report says, the committee did all in its power, but nothing is mentioned beyond the church services on Sundays and festivals. A Cossack prisoner confessed to the prison inspector the murder of his cousin. "All prisoners of the orthodox faith prepared for and were favoured by the reception of the Holy Sacrament." Prisoners who could read and write (of whom, however, there were usually very few) were supplied with books. No converts, the report says, were made to the orthodox faith.

There is no infirmary in the prison, prisoners seriously ill being sent to the military hospital, and £120 in 1881 was paid for their maintenance. Those with minor ailments were treated gratis by M. Sobolevsky, a member of the committee, to the number of 300. (This, I presume, includes not only local offenders, but prisoners *en route* to exile.) Only very few of the Vierny prisoners knew any handicraft, and the whole amount earned in the prison was only about £10, of which half was given to the prisoners at the time, and a trifle remained for them on their release. The value of the vegetables grown in the garden was £25, the reserves for winter consisting of 360 bushels of potatoes and 541 gallons of salted cabbage. Prisoners on their entrance were inspected by the physician, sent to the bath, and supplied with new clothes. There were no juvenile offenders, nor prisoners for debt in 1881. Among the gifts sent to the prison during the year, the report mentions two bells, and building material for the church belfry; a tailor's sewing machine, for the employment of the detained, and tea and sugar at Christmas to the value of £5.

After thus describing what has been done at the prison in the capital, the report deals with the smaller houses of detention in Kopal, Karakol, Lepsinsk, and Tokmak. I need not repeat in this connection features that have already occurred in the prison at Vierny,* but I have allowed myself to enter somewhat in detail into the prison affairs of Semirechia, because the report gives some idea of the prisons even in the remotest part of the mountains, and also, instead of vague commonplaces on Russian prisons in general, makes definite statements that are in a measure capable of disproof if they are not true. I left at Vierny with M. Aristoff, the Vice-Governor, a quantity of literature, in addition to distributing some myself, and since my return to England I have received an account of the distribution, which is all that I could wish.†

* At Kopal the prisoners were from 4 to 8 in a room, and those who could read were supplied with religious books. The report adds, that with each party going away (that is, I presume, prisoners on the march) the regulations issued by the Most Holy Synod (probably concerning religious service) were rigorously complied with. No donations were received at Kopal except from members of the committee. At Karakol, a small place far away in the Thian Shan mountains, civil prisoners were kept in the military guard-room, the priest tolerably often praying with the prisoners in their rooms and reading to them. At this place the prisoners' allowance was given them in cash, and they bought wood for boiling tea to the value of £2. One prisoner only was ill during the year. At Lepsa, prisoners were confined in a private house containing 5 rooms, one being a guard-room. The rooms were fairly large, and ventilated by louvres in the windows. Prisoners awaiting trial were kept separate from the condemned. Lastly, in the Tokmak district, prisoners were kept in a former telegraph office at Pishpek, and in guard-rooms at Tokmak and Naryn. At Pishpek the articles of dress purchased during the year were 6 sheepskins and 6 pairs of felt snow-shoes. These articles were given to prisoners *en route*, who could go no further in summer clothing. The sum of 12 kopecks per day for food allowed of something being put by towards the purchase of butter for the preparation of prisoners' gruel. At Tokmak, besides the subscriptions of the committee, gifts were received from the surrounding villages to the amount of £1 8*s*.

† M. Aristoff writes: "The books and pamphlets that you were so

But to proceed. If the surroundings of the Vierny prison were attractive, those of Tashkend were still more so, for the building stood in quite a park of poplar trees, planted in avenues, and affording shade in the intensely hot summer. There were in confinement 379 prisoners, of whom 6 were women, 5 natives and one Russian (this latter having poisoned her husband). The number of Russian male prisoners was 37, the majority of the remainder being Sarts. On going into the kitchen we found the soup excellent, and learned that on Sundays the prisoners received an extra plate of rice porridge. In fact, when we saw the Sarts and Kirghese sit down to their clean wooden pannikins of soup, after having seen something of native life outside, it made no great claim on one's belief when the chief of the town, who accompanied us, observed that the Sarts fared far better in prison than in their own homes. There was in the building a mosque, with rostrum for Muhammadan preaching on Friday, when, as also on their festivals, as many Mussulman prisoners as pleased attended. There was,

kind as to give me for the hospitals, schools, and prisons of the province of Semirechia, have been sent and distributed in the following manner and quantities: (1) To the Vierny military hospital, 5 Gospels, New Testaments, and Psalms; (2) Vierny prison, 10 copies of the same, with 3 copies of the Kirghese New Testament; (3) to the smaller prisons at Kopal, Lepsa, and Pishpek, have been sent 2 copies of the Russian and 1 of the Kirghese books; (4) to the small military hospitals at Kuldja and Kopal, 2 copies each of the Russian books; (5) a copy each of the Kirghese New Testament to the Kirghese schools in Karakol and Vierny; (6) a few religious tracts were given to the infant asylum of Vierny, and all the remaining books and tracts were left at the disposal of the Inspector of the Schools of Semirechia. In sending the books to the hospitals and prisons, I required of the administrators, according to your desire, that they should be left in the rooms under the responsibility of the chief, and not placed in the libraries. As to the Inspector, I asked him to distribute the books and pamphlets amongst the pupils of the schools of the province."

too, a Russian church, and a small library. In the lavatory, with *cabinets*, there was no offensive smell, and there was a large, flat, basin-shaped depression made in the floor for the Muhammadans to perform their ceremonial washings. I inquired for the rods used in corporal punishment; but they said they had none. The rooms were clean and airy, and each was furnished with a lamp. I may add that the prison is built to accommodate only 200 inmates, whence the obvious inference would be that the building was much crowded. But this was not the case; for outside the prison under the trees were erected 11 felt tents, one for the soldiers on guard, and the remainder for the prisoners crowded out of the building, and who, doubtless from their manner of Eastern life, would be only too thankful for the freedom of a tent, as compared with what to their nomad ideas would be the stuffiness of a room, however airy.*

As we left the Tashkend prison, there was a crowd of prisoners' friends waiting outside with melons and other fruit to give to those within. I thought the place one of the least repulsive of its kind I had seen in Russia; but things were not so good at Khokand. Here the prison was near the Khan's palace, and had formerly

* I would call attention to this provision made for surplus prisoners, because I have more than once seen very strong statements made as to the overcrowding of Russian and Siberian jails, without any notice being taken of supplementary erections to meet an occasional emergency. Nothing is commoner in Russia and Siberia than to see hospital patients living under canvas in summer, and at Tiumen I remember being told that, during the march of the exiles, which takes place in the summer months, they frequently put up temporary tent accommodation for a sudden influx of prisoners. I do not mean to imply for a moment that Russian prisons are not in many cases overcrowded, for I know they are, but I wish to point out that, in some instances at all events, an effort is made to meet the emergency.

served as a barrack for the djiguitts of his Majesty, and the place was temporarily crowded, whilst another chamber, I suppose a prison proper, was being made ready. None of the prisoners were Russians, and many of them were petty offenders. One native, for stealing a horse, had been sentenced to six months by a native tribunal, and another for a like term for the adulteration of tea with sand, etc. Of two women prisoners, one, at the age of 25, had strangled her husband; another, at 19, was a *danseuse* and a thief. In Bokhara, they told me the Emir did not allow girls to dance in public, and put them to death for doing so. I imagine, therefore, that the practice of this art was accompanied in the case of women by more than it implied, as is sometimes the case with the *batchas* or dancing boys. Two months before our visit the Khokandian prisoners had tried to escape in a body, and had been fired upon by the sentries, with the result that 16 were killed, a nephew of the late Khan among them, and 2 mortally wounded. Some who escaped were retaken and chained, and would be sent, it was thought, to Siberia, and a murderer then in confinement with them. This was the worst place of detention under the Russians that I saw in Turkistan, but it was a very palace as compared with the native prisons I saw and heard of in Bokhara and Khiva.

There was yet one prison for us to visit in Russian territory, namely, the town prison at Samarkand. This is a brick building with a large garden enclosed by a high wall. There were in it only 8 Russian prisoners, but of the total 145 there were 89 charged with serious crimes, namely: murder 42, robbery 29, theft 2, running away 16. Cases such as these are generally examined

and finally decided by two local courts, one being a court of first instance, and the other of appeal. Exceptional cases, however, require the confirmation of one of the Departments of the Senate, which sits at Petersburg, such as: the condemnation of individuals belonging to the privileged classes with loss of all civil rights; crimes committed by a band of criminals, etc., also complaints brought against the incorrect jurisdiction of any of the local courts. The Senate is the highest court of justice in Russia, which, like the local courts, is entirely independent of the influence of the administrative governmental authorities.

There were several rooms full of prisoners whose papers were 3,000 miles distant, at Petersburg. One man's case had begun 10 years before, in February 1872, and in April 1873, charged with the murder of a native, he came to prison. Matters had been complicated by his having escaped. His sentence was 15 years' hard labour in Siberia. One room was full of men bound for the same destination. In another room were two women who had escaped through the ceiling of their prison at Katte-Kurgan. Some few of the prisoners had work to do, but not those charged with serious crimes. We visited this prison in the company of General Korolkoff, the acting governor of the province, and doubtless saw things at their best; but there was this advantage in going on an inspection day, that I repeatedly saw prisoners using their right on such days of appealing or complaining to the monthly visitor. His Excellency told me afterwards that their conversation usually takes the form of a question as to when their papers are coming or how their case is going on. Sometimes complaints of administration were made, but usually without reason, and not often of serious

matters. The prisoners were supplied with felts to lie on, and the cleanliness of the place was no doubt partly maintained by meals being taken in a common hall, and no food eaten in the rooms. To the foregoing I may add that the lavatory in this prison was particularly clean, nor, from the adjoining *cabinets*, was there the least unpleasantness, thanks to a stove that was said to be always kept burning, as a means of ventilation.*

Here, then, I conclude my brief account, such as it is, of the prisons of Russian Central Asia. Some of

* I would call attention to this again in contrast to what is said in the *Nineteenth Century* for January, 1883. "(The prisoners) lie there . . . in rooms of inconceivable foulness, in an atmosphere . . . which is charged with the emanations of the horrible *parasha*—a basket kept in the room to serve the necessities of a hundred human beings." And again (from Madame C——'s account): "The water-closet was a large pond: it had to be crossed on a broken ladder, which gave way under one of us and plunged him in the filth below." And then the writer says, "It must be owned that the picture is horrible." And I agree with him. Only, then he adds, "But it is not a whit overcharged," and here I disagree with him; for I think it overcharged by a good many "whits." I thought I was tolerably familiar with the furniture of Russian prisons, but I have never once seen the *basket* here referred to. In a recently-published life of Howard, Dr. Stoughton, speaking of Scotch prisons at the beginning of the present century, says, "Mr. Gurney depicts the prison of Dunbar in terms similar to those employed by Howard in his early researches. 'Small rooms,' 'extreme filth,' 'a little straw,' 'a tub for every dirty purpose;'" and if this last be what the *Nineteenth Century* writer intends, then I do remember meeting with such a covered tub in a room in a prison in the north of Finland: also at the Alexandrevsky prison, near Irkutsk, the Director called my attention to the fact of his having contrived so as to remove a similar convenience outside the doors of the wards, but I cannot charge my memory with having seen anything of the kind elsewhere, whilst I certainly deny that Madame C——'s description of another place is at all fairly representative of what I have seen of Russian gaols. It has been my practice, when inspecting prisons, not to shrink from going into every hole and corner, and very disagreeable some of them have been when I have got there, and the sooner they can be mended the better. But this remark may go further. Let it spread to hotel keepers of the Russian interior, including what was recommended to me as the best hotel in Baku, where my senses suffered more than in any prison I have

the objections that were urged against my former testimony will hold good as to this, namely, that I travelled quickly, and was therefore liable to receive false impressions, and form erroneous conclusions. I trust, therefore, as I said before, that no one may be misled by taking my testimony for more than it is worth. I have tried to be accurate, and that is all I can say.* The prisons of Khiva and Bokhara I shall notice hereafter in the course of my journey, the next stage of which will take me over the Bokhariot frontier to Kitab.

entered; and let it spread to the Russian peasants, *where they have such places at all* (for I have met with instances of this in Russia, as I am told was the case within a score or two of years in the west of Ireland, in Connemara, and even in the extreme north of England), but let not the strictures of the *Nineteenth Century* be confined to Russian prisons. The fact is that such places therein are much the same as at the houses of the great mass of Russian prisoners, sometimes perchance a little worse, but sometimes also certainly better.

* I may perhaps as well add that the foregoing chapters on prisons have been kindly looked over, as on a previous occasion, by a Russian official high in the prison administration, who says that, after reading them with the greatest attention, he finds no mistakes. With reference to the alleged preparation of the Siberian prisons for my visit, he assures me that the Ministry of the Interior made no such preparation,—in fact, could not well have so done,—adding also, that he personally would be obliged for any proof that can be brought confirmatory of such precautionary measures having been taken.

CHRONOLOGY

OF

RUSSIAN CENTRAL ASIA.

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CENTRAL ASIAN
MONEY, WEIGHTS, AND MEASURES.

With approximate Russian and English equivalents, compiled by the Author from the *Turkistan Kalendar*, Starchevsky's Dictionary, and other sources, the rouble being reckoned at 2*s.*, and silver at 5*s.* the ounce. Authors, however, are not always agreed concerning all the items.

(*For Russian Money, Weights, and Measures*, see p. xxxi.)

Asiatic.		Russian.	English.
Money.			
Kuldja—			
Yarmak (exchanged in bundles)	copper	$\frac{1}{8}$ kopeck	$\frac{1}{20}$*d.*
Miskal	silver	20 kopecks	$4\frac{4}{5}$*d.*
Sar-kumysh (10 miskal) . .	,,	2 roubles	4*s.*
Tenga	,,	1 rouble	2*s.*
Koi-tiuyak . . .	,,	12 roubles 50 kopecks	£1 5*s.*
Lian (10 chien = 100 fun = 1000 li = 1,500 cash) . . .	,,	8 zols. 82·4 dols	6*s.*
Yamb	,,	440 zolotniks	£15 2*s.* $0\frac{3}{5}$*d.*
Khokand—			
Kara-tenga (16 cheka or pul) . .		5 kopecks	$1\frac{1}{5}$*d.*
Tillah	gold	3 r. 80 k. to 4r.	7*s.* $7\frac{1}{5}$*d.* to 8*s.*
Tillah (Ura-Tiube) . .	,,	6 roubles 65 kopecks	13*s.* $3\frac{3}{5}$*d.*
Bokhara—			
Tenga (4 mura or 64 pul) .	silver	20 kopecks.	$4\frac{4}{5}$*d.*
Ashrafi		4 roubles	8*s.*
Tillah (20 tengas) . .	gold	4 roubles	8*s.*
Shahr-i-sabz—			
Kara-tenga (16 pul) . .	copper	5 kopecks	$1\frac{1}{5}$*d.*
Khiva—			
Pul	copper	$\frac{1}{5}$ kopeck	$\frac{2}{25}$*d.*
Tenga or kokan (60 pul) .	silver	20 kopecks	$4\frac{4}{5}$*d.*
Tillah, small (9 kokan) . . .		1 rouble 80 kopecks	3*s.* $7\frac{1}{5}$*d.*
Tillah, large (18 kokan) .	gold	3 roubles 60 kopecks	7*s.* $2\frac{2}{5}$*d.*
Various—			
Pul-cheka or Utak-pul . .	copper	$\frac{1}{5}$ kopeck	$\frac{2}{25}$*d.*
Kara-pul (Tajik) . . ,, .		$\frac{1}{5}$ kopeck	$\frac{2}{25}$*d.*
Muri . . . . ,, .		5 kopecks	$1\frac{1}{5}$*d.*
Tenga (contains 60 dols pure silver)	silver	20 kopecks	$4\frac{4}{5}$*d.*
Ber-tenkalik kagaz (Tatar) . .		1 rouble	2*s.*
Ushak-tillah (10 tengas) . .		2 roubles	4*s.*
Tillah (Sart) $77\frac{3}{5}$ dols of pure gold .		4 roubles 46 kopecks	8*s.* 11*d.*
Kiatta-tillah (large = 20 tengas) .	gold	4 roubles	8*s.*

Asiatic.	Russian.	English.
Weights.		
Kuldja—		Avoirdupois.
Miskal	$\frac{9}{16}$ zolotnik	·135 oz.
Sar or Lot	9 zolotniks	1·35 oz.
Gin (16 lan)	1·47 lb. Russian	21·212 oz.
100 gin	147 lbs. Russian	1 picul, 132½ lbs.
Khiva—		
Agree, 96 miskal . . .	$\frac{9}{16}$ lb.	12·96 oz.
Ari-chirik $\frac{5}{32}$ sari . .	$\frac{5}{32}$ lb.	·14 lb.
Ikke-yarimari $\frac{5}{16}$,, . .	$\frac{5}{16}$ lb.	·28 lb.
Bish-arri $\frac{5}{8}$,, . .	$\frac{5}{8}$ lb.	·56 lb.
On-arri 1¼ ,, . .	1¼ lb.	1·13 lb.
Yiggermari 2½ saris . .	2½ lbs.	2·25 lbs.
Kurk-ari 5 ,, . .	5 lbs.	4·51 lbs.
Un-sari 10 ,, . .	10 lbs.	9·02 lbs.
Yarim batman 20 ,, . .	20 lbs.	18·04 lbs.
Batman 40 ,, . .	1 pood	36·08 lbs.
Kiatta (or double) batman . .	2 poods	72·16 lbs.
Various—		
Nim-nim-cha (Sart), 5 miskal . .	$\frac{5}{8}$ lb.	9·02 oz.
Nim cherik	1¼ lb.	1 lb. 2·04 oz.
Cherik (at Samarkand) . . .	5 lbs.	4 lbs. 8·16 oz.
Cherik (at Tashkend) . . .	6½ lbs.	5 lbs. 13¾ oz.
Kadak (Sart)	1 lb.	14·43 oz.
Yokcha (Sart), 4 khitcha, 8 nim-itcha, 20 paisya, or ¼ cherik . .	1·6 lb. Russian	1 lb. 7·09 oz.
Chakhsa, katacherik, Ikcherik (100 paisya)	10 lbs.	9 lbs. 0·3 oz.
Pansir, small, or Dunim Sir (4 cheriks) .	1 pood.	36·08 lbs.
Pansir, large (8 cheriks) . . .	2 poods	72·16 lbs.
Dasir (2 pansir = 16 cheriks = ½ batman).	4 poods	144·32 lbs.
Dasir, small (¼ batman) . . .	2 poods	72·16 lbs.
Siisary (Sart), 3 Dakhsir . .	12 poods	432·96 lbs.
Batman (Tatar)	4 poods	144·32 lbs.
Batman (64 cheriks) at Bokhara .	8 poods	288·64 lbs.
,, Tashkend .	10½ poods	378·84 lbs.
,, Aulie-Ata .	12½ poods	451 lbs.
,, Shahr-i-sabz .	16 poods	577·28 lbs.
Mani (Turkoman), a quantity of silk, the weight of 60 eggs . . .	...	...
Nimcha (Tajik), 107 small or 20 large Miskal	...	...
Sari (Tajik) . . .	8 lbs.	7·216 lbs.
Nim-sari ,, 2 cherik . .	10 lbs.	9·02 lbs.
Dunim-sari ,, 4 ,, . .	20 lbs.	18·04 lbs.
Shish-cherik ,, 6 ,, . .	30 lbs.	27·06 lbs.
Ash-cherik ,, 8 ,, . .	1 pood	36·08 lbs.
Dasir ,, 16 ,, . .	2 poods	72·16 lbs.
Ber boot jarym (Kirghese) . .	1½ pood	54·12 lbs.
Pesyar (Kirghese), and Kharvar (Sart) .	10 poods	360·8 lbs.
Seram (Tatar), 8 bootchook . .	2 poods	72·16 lbs.
Paisya (Sart), $\frac{1}{80}$ cherik . . .	0·08 lb.	1·15 oz.
Nim-itcha (Sart), $\frac{1}{32}$ cherik . .	0·2 lb.	2·89 oz.
Khitcha (Sart), 2 nim-itcha, 5 paisya, or $\frac{1}{16}$ cherik	0·4 lb.	5·77 oz.
Yilcha (Sart), 2 khitcha, 10 paisya, ⅛ cherik	0·8 lb.	11·54 oz.

Asiatic.	Russian.	English.
Linear Measures.		
Kuldja—		
Soon	$\frac{4}{5}$ vershok	$1\frac{3}{5}$ inches.
Tchee	0·447 arshin or 7·16 vershoks	$12\frac{1}{2}$ inches.
Li	50 versts	33 miles 264 yards.
Khiva—		
Ghiaz (from finger-end to tip of nose: in Bokhara to middle of breast)	$1\frac{1}{4}$ arshin	2 feet 11 inches.
Tash	6, 7, 9 versts	4, 5, 6 miles.
Parasang	8 versts	5 miles 535 yards.
Various—		
Karysh (Tatar)	$\frac{1}{4}$ arshin	7 inches.
Olchine (Bokhara, from elbow to end of forefinger)	·6 arshin	1 ft. 6 in.
Maja (for cloth), 4 kara or 8 karat	about 1 arshin	2 ft. 4 in.
Kulatch (Bokhara)	$2\frac{1}{2}$ arshins	5 ft. 10 in.
Karwi-Yalan-Karwi (Sart)	$2\frac{1}{2}$ arshins	5 ft. 10 in.
Tchakrym (Persian), distance at which the human voice may be heard ("within call")	about 1 verst	1,166 yards.
Farsakh (Persian)	7 versts	4 miles 1,128 yds.
Tash, Seng, Farsakh (Sart and Tajik, 18,000 olchines = 12,000 paces)	8 versts	5 miles 535 yards.
Beiless (Kirghese)	7—10 versts	$4\frac{3}{4}$ to $6\frac{1}{2}$ miles.
Kiunduk-jer (Kirghese), a day's journey	about 50 versts	$33\frac{1}{3}$ miles.
Superficial Measures.		
Kismet (Turkmenia), 20 sq. *nei* or reeds	...	...
Tanap (Tashkend), a square measure, of which each side equals 60 ghiaz	$\frac{1}{4}$ desiatin	·675 acre.
Tanap (Tajik)	$\frac{1}{4}$ desiatin	·675 acre.
Tanap (Khiva)	$\frac{1}{3}$ desiatin	·9 acre.
Tanap (Bokhara)	$\frac{3}{8}$ desiatin	1·05 acres.
Kiunliuk (Sart), "of one day," about 2 tanaps	...	...
Kosh (Sart), 48 to 50 tanaps	...	...
Liquid Measures.		Imperial Measure.
Tash (Sart)	about 1 cubic foot of water	6·23 gallons.
Kiuzya (Sart)	$\frac{1}{8}$ vedro	·36 gallon.
Chuyeh (Bokhara) for oil and honey	variable	...
Dry Measures.		
Kuldja—		
Tibeteika (Karategin), a capful	...	...
Shin	$2\frac{1}{2}$ garnets	1·36 gallons.
Doo, Koora	$12\frac{1}{2}$ garnets	$8\frac{1}{2}$ gallons.
Kho	25 garnets	17 gallons.

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