

HANDBOOKS PREPARED UNDER THE DIRECTION OF THE
HISTORICAL SECTION OF THE FOREIGN OFFICE.—No. 112

D 6
.G7
no. 112
Copy 2

SOUTH-WEST AFRICA

LONDON:
PUBLISHED BY H.M. STATIONERY OFFICE

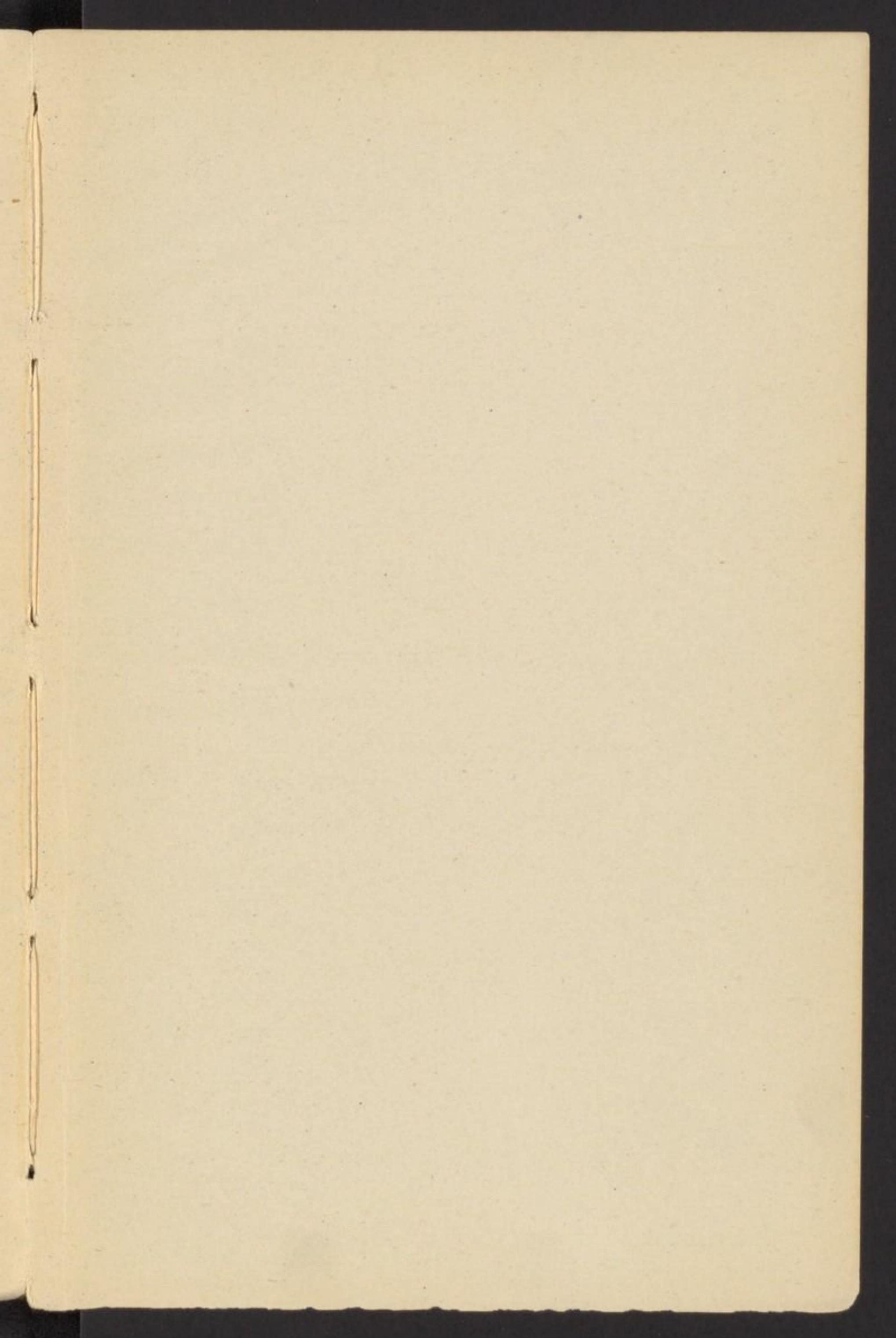
1920

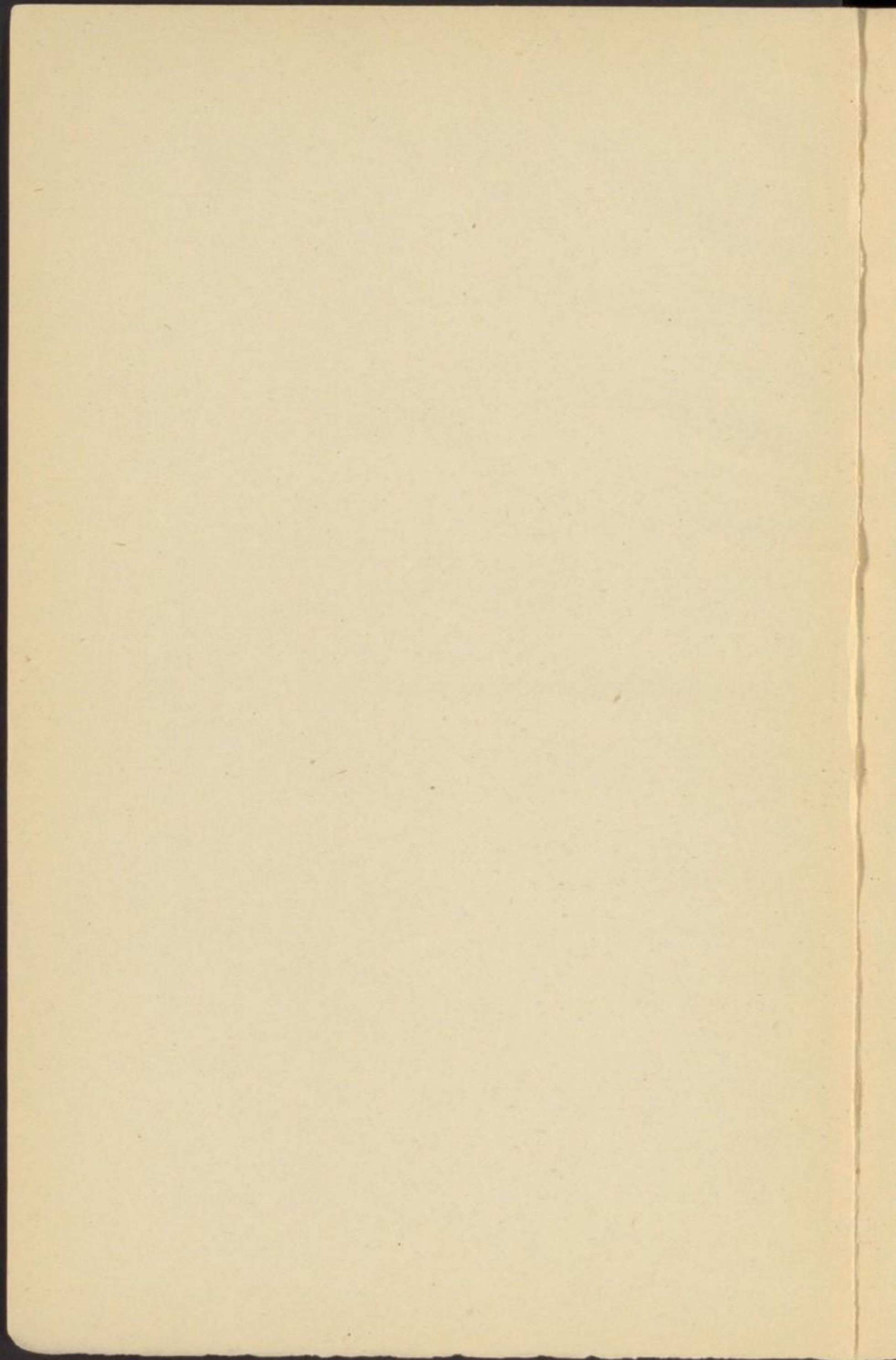


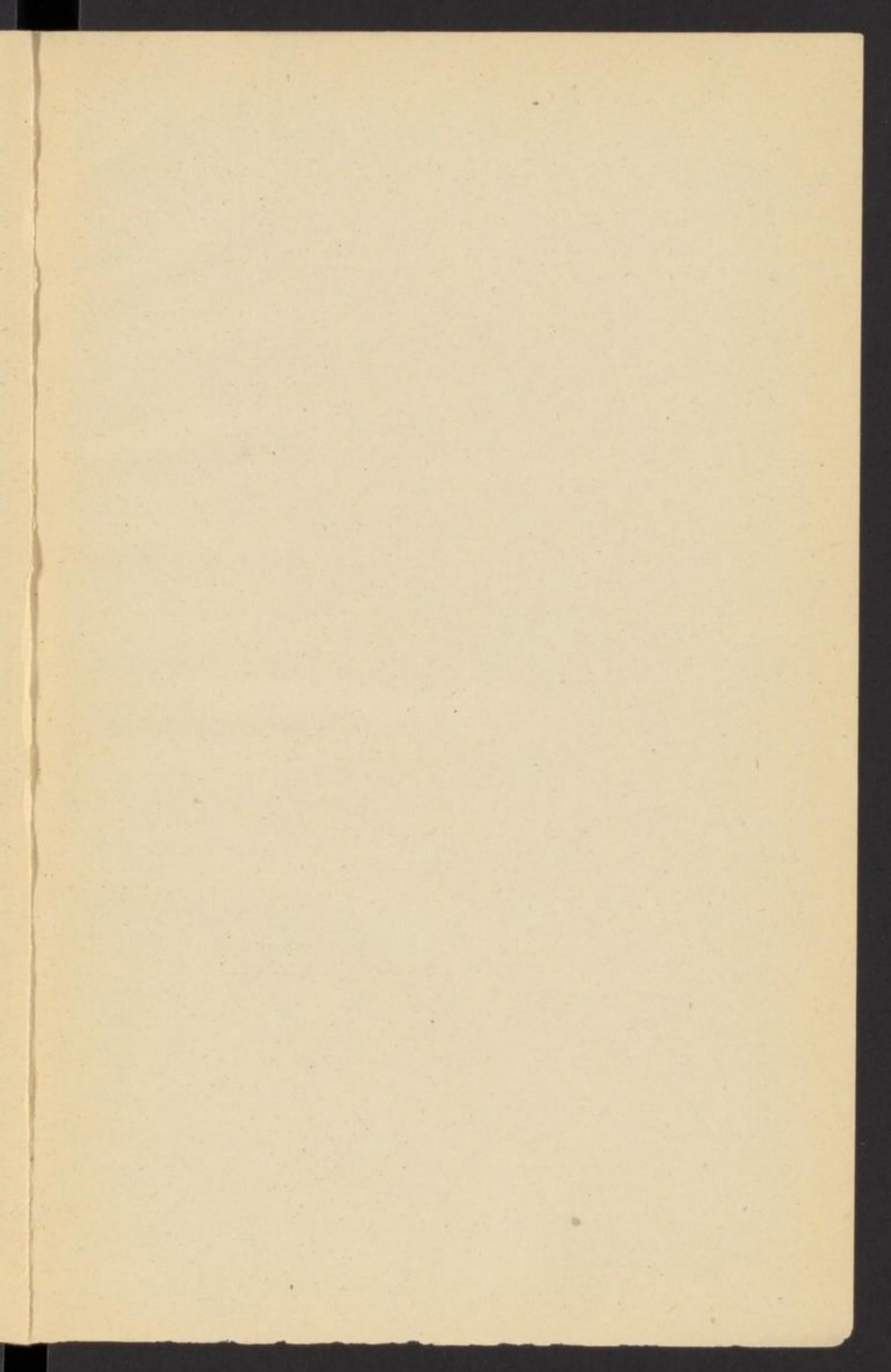


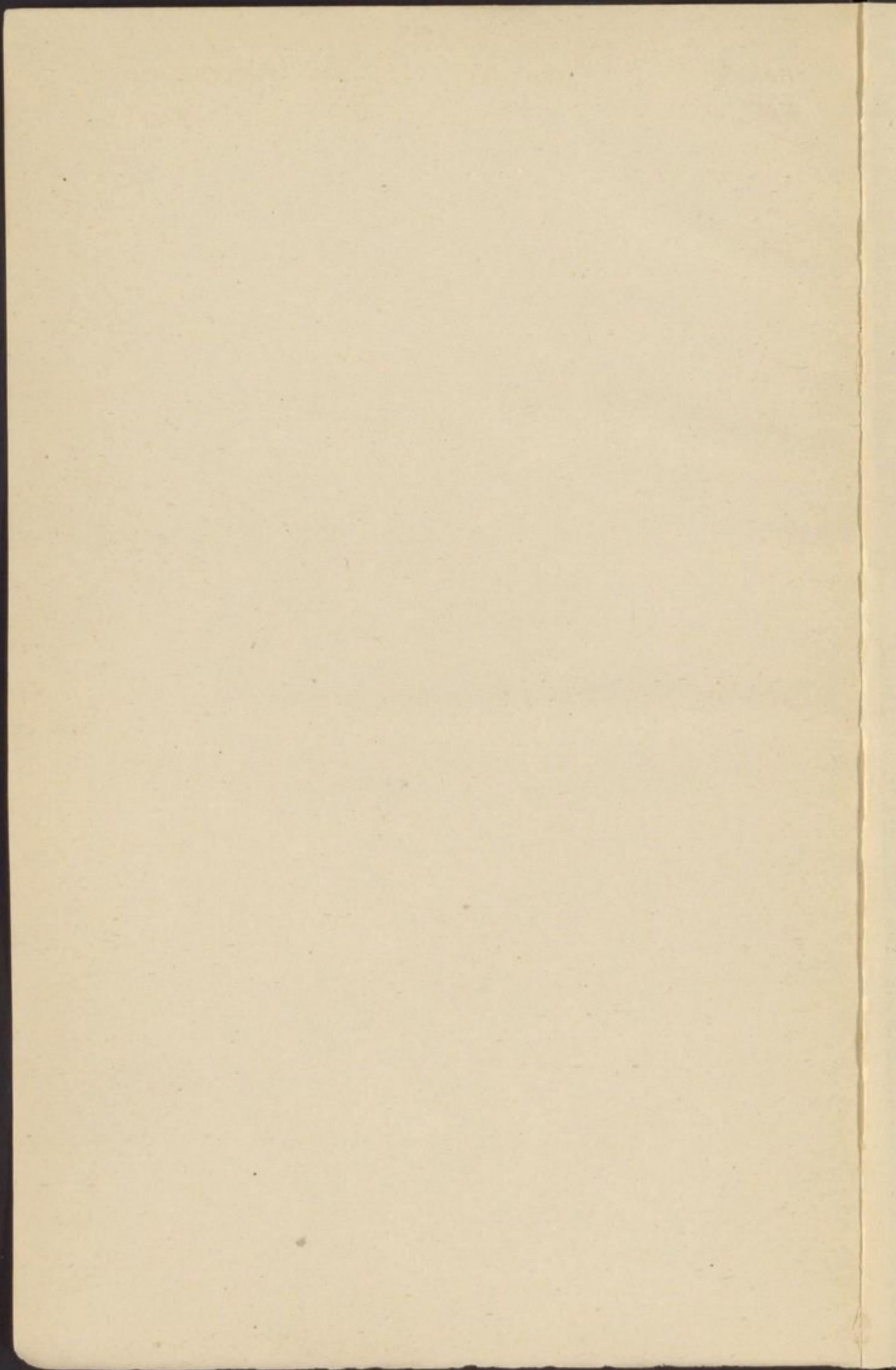
Class II 6

Book G 7









153

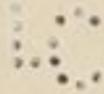
HANDBOOKS PREPARED UNDER THE DIRECTION OF THE
HISTORICAL SECTION OF THE FOREIGN OFFICE.—No. 112

of Brit.

207

1407

SOUTH-WEST AFRICA



LONDON:
PUBLISHED BY H.M. STATIONERY OFFICE

1920

2d set

THE LIBRARY OF CONGRESS
RECEIVED

II6
G7
copy 2

SOUTH-WEST
AFRICA

LIBRARY OF CONGRESS
RECEIVED
JAN 8 - 1921
DOCUMENTS DIVISION

2

101 101

1020

ms B Mar 1, 1921

Editorial Note.

IN the spring of 1917 the Foreign Office, in connection with the preparation which they were making for the work of the Peace Conference, established a special section whose duty it should be to provide the British Delegates to the Peace Conference with information in the most convenient form—geographical, economic, historical, social, religious and political—respecting the different countries, districts, islands, &c., with which they might have to deal. In addition, volumes were prepared on certain general subjects, mostly of an historical nature, concerning which it appeared that a special study would be useful.

The historical information was compiled by trained writers on historical subjects, who (in most cases) gave their services without any remuneration. For the geographical sections valuable assistance was given by the Intelligence Division (Naval Staff) of the Admiralty; and for the economic sections, by the War Trade Intelligence Department, which had been established by the Foreign Office. Of the maps accompanying the series, some were prepared by the above-mentioned department of the Admiralty, but the bulk of them were the work of the Geographical Section of the General Staff (Military Intelligence Division) of the War Office.

Now that the Conference has nearly completed its task, the Foreign Office, in response to numerous enquiries and requests, has decided to issue the books for public use, believing that they will be useful to students of history, politics, economics and foreign affairs, to publicists generally and to business men and travellers. It is hardly necessary to say that some of the subjects dealt with in the series have not in fact come under discussion at the Peace Conference; but, as the books treating of them contain valuable information, it has been thought advisable to include them.

It must be understood that, although the series of volumes was prepared under the authority, and is now issued with the sanction, of the Foreign Office, that Office is not to be regarded as guaranteeing the accuracy of every statement which they contain or as identifying itself with all the opinions expressed in the several volumes; the books were not prepared in the Foreign Office itself, but are in the nature of information provided for the Foreign Office and the British Delegation.

The books are now published, with a few exceptions, substantially as they were issued for the use of the Delegates. No attempt has been made to bring them up to date, for, in the first place, such a process would have entailed a great loss of time and a prohibitive expense; and, in the second, the political and other conditions of a great part of Europe and of the Nearer and Middle East are still unsettled and in such a state of flux that any attempt to describe them would have been incorrect or misleading. The books are therefore to be taken as describing, in general, *ante-bellum* conditions, though in a few cases, where it seemed specially desirable, the account has been brought down to a later date.

G. W. PROTHERO,

General Editor and formerly

Director of the Historical Section.

January 1920.

TABLE OF CONTENTS

	PAGE
I. GEOGRAPHY PHYSICAL AND POLITICAL	
(1) Position and Frontiers	1
(2) Surface, Coast and River System	
Surface	2
Coast	4
River System	4
(3) Climate	5
(4) Sanitary Conditions	6
(5) Race and Language... ..	7
(6) Population	8
 II. POLITICAL HISTORY	
Chronological Summary	9
(1) EARLY EXPLORATION	9
Portuguese Exploration... ..	9
Expeditions into the Interior	10
Expeditions of Alexander, and of Galton and Andersson	10
(2) ACTION OF BRITISH AND CAPE GOVERNMENTS	10
Proposals to extend Cape Colony northwards	10
Hesitation of British Government	10
Bismarck urges British seizure of Damaraland	11
Palgrave's Mission	11
(3) GERMAN PROTECTORATE ESTABLISHED	11
Annexation of Walvisch Bay by Britain	11
British Government opposed to colonial ex- tension	11
German colonial aspirations	12
German commercial enterprises in South-West Africa... ..	12
Lüderitz obtains a cession at Angra Pequena...	12
German Protectorate declared	13
Extension of Protectorate	13
Treaties with Tribes	13
(4) CONCESSIONS TO COMPANIES	13
(5) A MILITARY FORCE ESTABLISHED	14

	PAGE
(6) VON LEUTWEIN'S GOVERNORSHIP, 1894-1905, AND THE HERERO RISING	14
Friction with Natives	15
Witbooi and Maherero	15
The Herero Rising	15
Extermination of the Hereros and Hottentots	16
Von Leutwein superseded	16
 III. SOCIAL AND POLITICAL CONDITIONS	
(1) Religious	17
(2) Political	17
(3) Educational	18
GENERAL OBSERVATIONS	18
 IV. ECONOMIC CONDITIONS	
(A) MEANS OF COMMUNICATION	
(1) Internal	
(a) Roads	20
(b) Waterways	21
(c) Railways	
The existing Railway System: Mile- age, Construction, Cost	22
Financial Considerations	27
Adequacy to Economic Needs	28
Possibilities of Expansion: Projected Lines	29
(d) Posts, Telegraphs and Telephones	33
(2) External	
(a) Ports	
Accommodation and Equipment	35
Volume of Trade	36
(b) Shipping Lines	38
(c) Telegraphs—overland, submarine and wireless	40
 (B) INDUSTRY	
(1) Labour	
(a) Immigration	41
(b) Native Labour and German Policy	42
(c) Labour for (i) Agriculture, (ii) Mines and Railways	43
(d) The Labour Reservoir—Native Tribes	44
(2) Agriculture	
(a) General Conditions: Government assis- tance... ..	45

	PAGE
(b) Products and Live-Stock	
Plant Production	47
Live-stock	48
(c) Special Methods of Cultivation	
Dry Farming	52
Irrigation : Water Supply	53
(d) Forestry	58
(e) Land Tenure	
Tribal Territories	58
Land Companies	60
Settlement	64
(3) Fisheries	65
(4) Minerals	
Output	66
Less important minerals	66
Marble	67
Tin	68
Copper	69
Diamonds	72
(5) Manufactures	81
 (C) COMMERCE	
(1) Domestic	
(a) Principal Branches of Trade	83
(b) Towns and Markets	83
(c) Organizations to promote Commerce	84
(d) Non-German Interests	86
(e) Economic Penetration	87
(2) Foreign	
(a) General Remarks	88
(b) Export and Import Trade	90
Nature and Destination of Exports	91
Nature and Origin of Imports	93
(c) Customs and Excise	94
(d) Commercial Treaties	95
 (D) FINANCE	
(1) Public Finance	97
(2) Currency	101
(3) Banking	101
(4) Foreign Capital	106
(5) Principal Fields of Investment	106

I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND FRONTIERS

THE former German Colony of South-West Africa lies on the coast between 17° and 29° south latitude, and $11^{\circ} 45'$ and $25^{\circ} 15'$ east longitude, though the main body of the territory does not extend east of longitude 21° east. It has an area of about 322,200 square miles, and marches on the north with Angola and Northern Rhodesia, on the south with Cape Colony, and on the east with Bechuanaland. About the middle of the coast, extending south from the Swakop River, between about $22^{\circ} 40'$ and $23^{\circ} 12'$ south latitude, and west of about $14^{\circ} 41'$ east longitude, lay the British enclave of Walvisch Bay.

On the south and east the boundary follows the north bank of the Orange River to 20° east longitude, this meridian to 22° south latitude, this parallel to 21° east longitude, and this meridian to a point between about $18^{\circ} 10'$ and $18^{\circ} 20'$ south latitude, the determination of which depends on the interpretation of inconsistent clauses in the Agreement of July 1, 1890. The boundary here turns due east, and follows a straight line to the Kwando (Chobe, or Linyanti) River, which it descends to its confluence with the Zambezi.

The northern boundary, defined by a Declaration of December 30, 1886, ascends the Kunene River from its mouth as far as the falls some 60 miles below Humbe in about $17^{\circ} 17'$ south latitude, proceeding thence due east (along a line concerning which there is some difference of interpretation) to the Okowango (Kubango) River. Thence it descends to Fort Mucasso (18° south latitude) near the village of Andara or Libebe, continuing thence along a straight line drawn

slightly north of east, crossing the Kwando River and reaching the Zambezi at the Katima-Molilo rapids shortly above Katongo. It finally descends the Zambezi to the confluence of the Kwando or Linyanti, thus meeting the eastern frontier and completing the eastern extension known as the Caprivizipfel.

(2) SURFACE, COAST, AND RIVER SYSTEM

Surface

The surface of this territory falls into three main natural divisions. On the west is a coastal strip, rising gradually to a highland region or plateau averaging between 3,000 and 5,000 ft. high. The highland sinks in its turn to the Kalahari depression, which occupies all the eastern part of the territory and extends far beyond its borders.

The Coastal Strip, or Namib, is a monotonous desert region, which varies in breadth from about 30 to 80 miles. It consists largely of sand-dunes, from which in various places emerge rocky or gravelly hills, with gravel plains and sandy undulating flats. The belt of dunes is widest and most continuous south of the Swakop, some of them here reaching a height of more than 500 ft. North of the Swakop the dunes are at once much less continuous and much lower; the country east of them is more broken. The northern Namib is further distinguished from the southern by the presence of watercourses which have kept an open channel to the sea.

The Interior Plateau.—In the north the Namib rises through a district of hilly country to a chain of table-topped hills reaching an elevation of about 5,000 ft., and stretching north-west to south-east through the highland region of the Kaokoveld, at a distance of 25-40 miles from the coast. Still farther to the east, the north-eastern Kaokoveld consists of an elevated plain, sloping abruptly towards the Kunene and Ambo-land; from it hills emerge to the south and west. There is a general decrease in height towards the south

of the Kaokoveld. This southern part, a country of steep, rocky hills with narrow valleys, passes over to the east into a region characterised by the formations associated with dolomitic limestone.

This Karst region is for the greater part a wide plain sloping gently towards the Etosha Pan. The usual features of this kind of country—sink holes, subterranean caverns and springs, and the absence of defined waterways, due to the porous character of the surface covering—are met with.

To the south of the Karst district is northern Damaraland, a region of extensive grass plains from which emerge isolated mountains and a few mountain chains. Here the greatest heights in the territory are found, the double peak of Omataka reaching nearly 9,000 ft. Farther south, in southern Damaraland and the north of Great Namaqualand, mountain massifs form the predominant feature. Great valleys and gorges, widely extended plains, and high peaks are characteristic of this central portion of the territory; and the whole southern part is dominated by two longitudinal trenches, that of the Konkip to the west, that of the Great Fish River to the east. West of the former is a series of mountain ranges and elevated plateaux, among them being the Tsaris (Zaris) and Tiras mountains and the Huib plateau; while to the east of it is the Hanam plateau. Still farther to the east, beyond the Great Fish River, is the Urinanib plateau, which overlooks the Kalahari region. In the south-east the isolated Great and Little Karas mountains rise to considerable heights; but the country is for the greater part flat or rolling.

The Kalahari region, which falls away to the east of the regions above described, is for the most part a monotonous region of sand and dunes. The dunes are sparsely covered in the south, but become more wooded towards the north, and the country is intersected by a considerable number of watercourses (*omurambas*). Amboland (or Ovamboland), which shares the characteristics of the Kalahari region, is a slightly

undulating sandy plain, intersected by a number of shallow watercourses filled by the Kunene overflow and draining to the Etosha Pan.

Coast

From the Kunene to the Orange River the coast-line measures about 830 miles. It is generally low, almost unbroken by bays or promontories, and beaten all the year round by a heavy surf. The only harbours worth mentioning are Swakopmund, Walvisch Bay (formerly a British enclave in German territory), and Lüderitz Bay (Angra Pequena). Swakopmund is merely an open roadstead, which is gradually silting up, where steamers must anchor about 2 miles off-shore. Walvisch Bay, about 20 miles south of Swakopmund, is a bay facing north with a large, sheltered anchorage. At present landing facilities are poor. Lüderitz Bay, which is the port serving the south of the colony, is said to be one of the best-sheltered harbours in South Africa. The landing facilities could easily be so improved as to allow large vessels to come alongside a quay.

River System

Except for those rivers that form part of the northern and southern frontiers of the territory, there are practically none which carry surface water all the year round. Almost all are simply watercourses which become torrents for a short period after rain, and for the rest of the time have water only below the bed or in pools.

The watercourses may be grouped into three drainage systems: (*a*) those draining directly to the Atlantic in the west, of which the chief are the Kuiseb, Swakop, and Ugab; (*b*) those draining to the Orange River in the south, of which the chief are the Konkip, the Great Fish River (Oub), and the Hom; and (*c*) those draining eastwards and losing themselves in the Kala-

hari Desert, the longest being the Omatako (Chuob). To these must be added the small portion of the Zambezi system in the north-east of the country, which contains the only navigable stretches of water in the whole territory.

The rivers of the west run largely in deep canyons eroded in the high plateau, those of the east in broad and shallow depressions (*omurambas*) or broad channels deeply cut in the superficial strata (*reviers*).

Water is not the scarce commodity that might be imagined from the absence of regular rivers and the smallness of the rainfall. It is found not only under the dry river beds and in standing pools for some time after rain, but, in many parts of the country, is provided by springs, sometimes thermal. Something had already been done, and further projects were on foot before the late war, for increasing the supply by borings and by impounding the run-off by dams, reservoirs, and similar works.

(3) CLIMATE

Although the northern half of the territory falls within the tropic of Capricorn, the climate is on the whole temperate rather than tropical. The extreme north and north-east are hot and trying to Europeans, but on the central plateau the dryness of the air makes the heat easily supportable. Two seasons may be distinguished, one dry and cool, the other rainy and hot, the latter normally extending from November to April. Both the setting in of the rainy season and the quantity of rain that falls, however, are subject to great variations. In general, both rainfall and temperature increase from south to north and from west to east. There is a great difference between the climate of the coast and that of the interior.

The coastal region is dominated by cool winds from south and south-west for about 50 miles inland, although there are occasional very hot winds from the east during the dry season. It is practically rainless, but there are frequent heavy mists in that part of the

country which borders on the sea. The temperature of the coastal region is fairly constant. The mean yearly temperature at Walvisch Bay is 62° F. ($16\frac{1}{2}^{\circ}$ C.); at Swakopmund 59° F. (15° C.). The hottest month is March (average: Walvisch Bay, 67° F., $19\frac{1}{2}^{\circ}$ C.; Swakopmund, 63° F., 17° C.), the coolest is August (average: Walvisch Bay, 57° F., 14° C.; Swakopmund, 55° F., $12\frac{1}{2}^{\circ}$ C.).

The climate of the interior contrasts strongly with that of the coastal zone. During the dry season the prevailing winds come from the south-east or south-west, but the predominant winds during the rainy season are east or north-east.

Both the yearly and daily ranges of temperature are much greater on the plateau than in the coast region. The nights are cold, and in the dry season frosts at night are not uncommon. The mean yearly temperature of Windhoek, which is in about the same latitude as Swakopmund, is 67° F. ($19\frac{1}{2}^{\circ}$ C.); the hottest month is January, with an average of $74\frac{1}{2}^{\circ}$ F. ($23\frac{1}{2}^{\circ}$ C.), the coolest June, with 56° F. ($13\frac{1}{2}^{\circ}$ C.).

As has been said, the amount of rain increases normally from west to east and from south to north, as does also the number of rainy days. Bethany has an average fall of 4.37 in. (111 mm.); Hasuur, 7.28 in. (185 mm.); Windhoek, 14.80 in. (376 mm.); Gobabis, 16.18 in. (411 mm.); Zesfontein, 3.97 in. (101 mm.); Grootfontein, 23.53 in. (598 mm.). Figures for Amboland and the Caprivizipfel show a corresponding increase.

Severe hailstorms sometimes cause much damage.

(4) SANITARY CONDITIONS

The health conditions of the territory are as a whole not unfavourable. Malaria occurs, indeed, over the whole area, but not to any great extent except in the north and north-west, where it is prevalent after heavy rains. Blackwater fever also occurs in the north.

Rheumatic complaints are fairly common, especially on the seaboard, as also are intestinal diseases, due

largely to the lack of a good supply of pure drinking water and the eating of half-raw meat. Ailments especially prevalent among the natives are inflammation of the lungs, affections of the eyes, and venereal diseases.

In spite of its tropical situation, the territory has regions adapted to European colonization, and healthy children can be reared. The death-rate in 1913 was only 11.3 per thousand among the white population.

(5) RACE AND LANGUAGE

The chief native races are the Bantus, the Hottentots, and the Berg-Damaras. There are also various mixed races formed by the crossing of the above peoples with each other and with whites.

The chief Bantu races are the Ovambos, and most of the inhabitants of the Caprivizipfel in the north, the Ovahereros, or Hereros (Damaras), and Ovambanjerus in the centre, and the Ovatyimbos in the north-west.

The Hottentots (Koikoin) are chiefly found in the south, although there are a few in the northern Namib and southern Kaokoveld. Their racial affinities are quite uncertain, and their language is possibly of Hamitic origin. A considerable portion of the Hottentots now speak a corrupt form of Cape Dutch or English.

The Bushmen are found chiefly in the West Kalahari region, and may possibly represent the remains of a primitive race once inhabiting the whole country. Their language may, it is thought, be connected with the Sudan tongues.

The Berg-Damaras live scattered about the northern half of the territory. They speak the same language as the Hottentots, but anthropologically are quite distinct from them.

Of the mixed races the only one worth mention is the Bastards, formed by a crossing of Cape Dutch and Hottentots, who are found in various places in the southern half of the territory, chiefly round Rehoboth.

(6) POPULATION

The total native population was estimated in 1912 at 239,000, but at the census taken in 1913 the number of natives actually counted was 69,003, and the estimated total not quite 79,000. These figures excluded Amboland (or Ovamboland, pop. upwards of 150,000) and the Caprivizipfel (pop. about 10,000). The area of the territory is estimated at about 322,200 square miles, and the density of the population is therefore very low—less than 1 per square mile. It is, in fact, in most regions far less, since Amboland, which includes not more than about 5 per cent. of the whole superficial area, contributes more than 50 per cent. of the population.

The white population at the beginning of 1913 was just under 15,000.

The chief centres of population are Windhoek, Swakopmund, and Lüderitz Bay, but there are also a number of other smaller towns and villages in the interior with white populations varying between 150 and 700.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1482 First discovery of the coast by the Portuguese.
1685 Dutch expedition to Namaqualand.
1836 Alexander's exploration.
1842 Settlement of Rhenish (Barmen) missionaries at Bethany.
1850-52 Journey of Galton and Andersson.
1863 War between Hereros and Namaquas begins.
1867 Despatch of British vessels to Walvisch Bay.
Annexation of islands on coast.
1875 Palgrave sent as Commissioner from the Cape.
1878 Walvisch Bay annexed by British.
1883 Lüderitz settlement at Angra Pequena.
1884 (Aug. 15) German Protectorate declared over the Lüderitz Bay settlement.
(Sept. 8) German Protectorate declared for coast between Orange River and Cape Frio.
(Oct. 18) German Protectorate declared over Great Namaqualand.
1885-92 Administration of the German South-West Africa Colonial Society.
1885 (Sept. 2) German Protectorate over Red Nation.
(Oct. 21) Hereros agree to Protectorate over Damaraland.
1886 Treaty defining boundary with Portuguese Angola.
1888 First rising of Hereros.
1890 Treaty defining boundary with British territories.
1892 Imperial Commissioner appointed.
1893 Witbooi's rising.
1894 Von Leutwein appointed Governor.
1898 Swakopmund harbour founded.
1904 (Jan.) 1905. Herero rebellion.
1904 (Oct.) Von Leutwein superseded in the military command by Von Trotha.
1905 (Nov.) Von Lindequist becomes Governor.
1911 (May) Walvisch Bay boundary arbitration award.

(1) *Early Exploration*

THE Portuguese first discovered this coast in 1482, when Diogo Cão sailed southwards from the mouth of the Congo as far as Cape Cross (22° S.), where he

erected one of the stone columns (*padrões*) with which he marked notable points in his journeys. This column was still standing at Cape Cross till a few years ago, when the Germans carried it away to the Kiel Museum. Other names which commemorate the Portuguese explorations are Cape Frio and Angra Pequena (or the Little Bay). No colonization was attempted on this part of the coast by the Portuguese or any other European race till modern times.

The first journey into the interior was probably that of Van der Stell, Dutch Governor of the Cape, who made his way into Namaqualand in 1685. Another exploring party passed through Namaqualand and reached Angra Pequena in the middle of the eighteenth century. In the early part of the nineteenth century several missions began to enter the country, and many of the missionaries stayed for some years. The first permanent settlement, however, was that of the Rhenish missionaries in 1842, who established themselves at Bethany, and gradually obtained much influence, combining trade with evangelization. A considerable part of the country had already (in 1836) been explored by Captain Sir J. Alexander, while a later and notable journey was that of Galton and Andersson in 1850-52.

(2) *Action of British and Cape Governments*

As more became known of the territory, efforts were made to induce the British Government to extend the limits of the Cape Colony northwards along the coast, a summary of which will be found in Lord Derby's despatch of December 4, 1884 (C. 4265, December 1884). In the years 1861, 1866, and 1867 possession was taken of twelve small islands off the coast; but the mainland was not touched, the Duke of Buckingham, Secretary of State for the Colonies, writing, in August 1867, that the British Government was not prepared to take the responsibility of sovereignty over an extensive territory without stronger evidence than was then forthcoming of the necessity for such a course. In

1863 a war had broken out between the Namaquas and the Hereros, which led to constant attacks upon the stations of the German missionaries, even Walvisch Bay being plundered. In 1868 the Rhenish Missionary Society, supported by Bismarck, then Chancellor of the North German Confederation, urged British intervention, and asked that the whole of Damaraland might be declared British territory. But no such step was taken, though a British man-of-war was sent to Walvisch Bay, and the good offices of the Governor of the Cape Colony brought about peace among the natives in 1870. In 1875 Mr. J. C. Palgrave, who knew the country well, went as a special commissioner from the Cape Government to report upon it. He was sent in pursuance of a resolution of the Cape Parliament that the limits of the Colony should be extended so as to include Walvisch Bay and so much of the country inland as might be thought advisable. Both natives and whites, traders and missionaries, gave evidence of desiring British protection, the missionaries being German and the majority of the traders Germans or Swedes.

(3) *German Protectorate Established*

In 1877 Sir Bartle Frere, then Governor of Cape Colony and High Commissioner for South Africa, recommended the annexation of the coast as far as the Portuguese boundary; but the only result was the annexation of Walvisch Bay and a small patch of country near it on March 12, 1878. It is possible that the restricted action then taken, coupled as it was with the appointment of a Resident at Okahandya and a Special Commissioner in the southern province, might have developed into a more definite and extensive occupation had it not been for questions of expense at issue between the Home and Colonial Governments. The tribal war broke out again in 1880; neither Government was willing to assume the responsibility of an advance; and Lord Kimberley, as Secretary of State for the Colonies, definitely pronounced against

extending British responsibilities in the north-west beyond the Orange River.

These circumstances were turned to account by the Colonial party which had been growing up in Germany, as affording a good opportunity for establishing a German colony in South Africa; and the result of the Transvaal War of 1880-81 probably encouraged the hope of combining with the Dutch element in South Africa against the British. In 1880 Sir Bartle Frere called attention to a remarkable article by Ernst von Weber, published in the previous November in the Berlin *Geographische Nachrichten*, which advocated a German colony or colonies in South or South-Central Africa; but the British Government were informed by their Ambassador at Berlin that such a scheme would not be supported either by the German Government or by the German Parliament.¹ In February 1883 the German Embassy in London informed the British Foreign Office that a Bremen merchant was about to establish a factory on the coast north of the Orange River, and had asked for the protection of the German Government in case of need. They enquired whether the British Government exercised any authority in that locality; if so, they would be glad if British protection could be extended to the German factory; if not, they would do their best to give such German protection as was given to German subjects in remote parts of the world, "but without having the least design to establish any footing in South Africa."

In July 1883 it was learnt in London that a German named Vogelsang had landed at Angra Pequena as agent for a Bremen merchant named Lüderitz. Through the help of the German missionaries at Bethany, Vogelsang obtained from a local chief a cession of 215 square miles at Angra Pequena, and there hoisted the German flag. Since that date the place has been called by the Germans Lüderitzbucht (i.e., Lüderitz Bay). Attempts to assert British rights without asserting British sovereignty were of no avail. Both the

¹ C. 4190, August 1884, pp. 1-9.

Imperial Government and the Cape Government procrastinated, and the German Government, after repeatedly asking whether there was any title to British sovereignty, and receiving no affirmative reply, notified the British in April 1884 that the settlement "was under the protection of the Empire."¹ A German Protectorate was formally declared on August 16 (? 15), 1884.

During the remainder of 1884 and through 1885 a series of treaties was concluded with native tribes, by means of which the German Protectorate was extended to the whole of the territory included within its limits. The coast, from the Orange River northwards to Cape Frio (of course omitting Walvisch Bay), was declared to be a Protectorate on September 8, 1884, and Great Namaqualand on October 18, 1884. On September 2, 1885, a treaty with the Geikous, or "Red Nation," a branch of the Namaquas of the south, was signed, which extended the Protectorate to their country; and on September 15 of the same year a similar treaty was made with the Bastards. Finally on October 21 the Hereros of Damaraland accepted the German Protectorate. These territories had no settled limits, but they corresponded roughly with the present boundaries, which were definitely fixed by the treaties of December 30, 1886, and July 1, 1890, with Portugal and Great Britain respectively.² On September 14, 1892, a Protectorate was proclaimed over what was styled by the German Government "the unclaimed district lying between Herero and Ovamboland, within the German sphere of interest in South-West Africa."

(4) *Concessions to Companies*

In 1885 the German South-West African Colonial Society, which had acquired the rights of Lüderitz, was placed in possession of the country, and was charged with the administration. In 1892 the Society

¹ *Ibid.* and C. 4265, December 1884.

² See Appendix.

was relieved of this responsibility, and an Imperial Commissioner was appointed to carry on the government. Concessions were made to various other companies also, mainly of mineral rights which had been acquired from native chiefs. All these companies were brought under a uniform rule by the Mining Ordinances of 1905.

(5) *A Military Force Established*

A small native military force was first formed in 1887 to protect the gold workings of the German South-West African Colonial Society at the Pot and Ana-wood Mines. This force was disbanded soon afterwards during the first Herero rising of 1888, and was replaced by a small European force, which gradually grew in strength. At the time of the Herero rebellion (1904) this force was greatly increased, many British and Dutch from the Cape Colony serving in it. After the rising had been subdued, a considerable body of men, provided with artillery and machine guns, was maintained. Estimates as to its strength vary greatly, some putting it as high as 10,000. It was thoroughly equipped, and rested on strong bases, with good stocks of artillery, supported by a system of strategical railways, so planned as to give easy access to the British territories, which were obviously aimed at. This object is clearly set forth by Dr. P. Samassa in the passage (dated 1905) quoted on p. 122 of Evans Lewin's *The Germans and Africa*.

The greatest military arsenal was at Keetmanshoop, which has now been connected with the Cape system of railways.

(6) *Von Leutwein's Governorship, 1894-1905, and the Herero Rising*

Von Leutwein, who governed the colony from 1894 to 1905, seems to have endeavoured to manage the native tribes with some regard to their own customs. On the other hand, suspicion was raised by the perpetual endeavours of German colonists to acquire possession

of tribal lands, and to make it impossible for the pastoral population to graze their cattle over them. The most important of the tribes affected was the Herero, a numerous pastoral race, who depended entirely on their large herds of cattle. There was great friction between them and the colonists. They saw themselves deprived of the liberty which they had formerly enjoyed of wandering unrestrained over the whole country; and came to believe that all their rights would be forfeited, and that even if they kept their herds they would be confined to small reservations.

Other tribes also had been previously involved in risings. Among them were the Hottentots of the south, near the Orange River and Gibeon. The Witbooi tribe of Hottentots, under their old chief, Hendrik Witbooi, a man of great ability, had with difficulty been induced to submit in 1893, but had continued since that time to observe all their agreements. At the end of 1903 there was an outbreak of another Hottentot tribe, the Bondelzwarts, who occupied the country in the extreme south. This rising was suppressed with difficulty, the garrisons being withdrawn from the Herero country for the purpose. The Herero chief, Samuel Maherero, thereupon seized the opportunity to rise. He tried to obtain the co-operation of the Witbooi chief; but, owing to the interception of a message, Hendrik Witbooi did not strike till six months later.

The main outbreak took place in January 1904. It began with an attack on the scattered farms of the colonists, all who could not escape being massacred. The chief made a proclamation declaring formal war against the Germans, adding an order that no Englishmen, Boers, Bastards, Berg-Damaras, or Hottentots were to be touched; and von Leutwein considers that the chief intended also to protect women and children. Many were, however, killed, as well as some Boers.¹

The military posts were with difficulty held; and

¹ Von Leutwein, *Elf Jahre Gouverneur in Deutsch-Südwestafrika*, p. 467.

the whole colony was in danger until reinforcements began to arrive from Germany. Ultimately two German columns were formed, one operating in the east towards the British frontier and the Kalahari Desert, whose object was to prevent the Hereros from crossing the border, and to head them northwards; the other column co-operating from the west. By these means the southern gathering of Hereros in the Oujati mountains was gradually driven north towards the Waterberg mountains, and the tribe was finally hemmed in. Brought to action at the foot of the steep rocky range, the whole body, men, women, and children, with their wagons and cattle, fled, after desperate fighting, westwards, pursued by the Germans. The greater part of them perished miserably in the desert, though the leaders escaped into British territory, where they were disarmed and interned. The number of Hereros who were killed or died of thirst and starvation is uncertain, but has been estimated at about 60,000.¹

As a result of the war, Professor Bonn told the Royal Colonial Institute in January 1914 that the Herero tribe and what remained of the Hottentots were practically exterminated. Their lands were confiscated, and partly settled by German farmers; but the immigration of white settlers was inadequate to take their place.

The native population of the territory was so much reduced that the colonists afterwards had cause to lament the lack of labour. Von Leutwein, who was accused in Germany of having provoked the rebellion by his endeavour to govern the natives in too lenient a manner, was deprived of his military command in October 1904 (von Trotha taking his place), and in the following year was superseded in the Civil Government by von Lindequist.

¹ A vivid picture of the flight and destruction will be found in Gustav Frenssen's *Peter Moors Fahrt nach Südwestafrika*, in which the story is given as a soldier's narrative. See below, p. 44, for statistics of the Hereros and Hottentots before and after the rebellion.

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

IN South-West Africa the principal point requiring consideration is the relations between Christianity and the pagan or half-converted races. The Mohammedan question, so important in the northern protectorates, does not arise here.

The establishment of German Missions in the first half of the nineteenth century, and other influences from the side of the Cape Colony, have led to the growth of a considerable population which is nominally Christian. The most important of these societies (the Rhenish (Barmen) Mission), established in 1842, has made the greater number of converts. A Finnish society has been at work among the Ovambos in the north, and a Roman Catholic (Oblate) society in the south. The majority of the natives profess some form of Christianity, although their conversion is often quite superficial. Primitive African beliefs prevail among the remainder, and have great influence even among the nominal Christians.

(2) POLITICAL

The Government rested in the hands of an Imperial Governor, who had extensive powers, exercised through the officials in charge of the districts into which the German Protectorate was divided. These districts were: Windhoek, the capital; the coast districts of Swakopmund and Lüderitz Bay; the northern districts of Karibib, Okahandya, Gobabis, Omaruru, Waterberg, Otyo, and Grootfontein; the southern districts of Rehoboth, Gibeon, and Keetmanshoop.

The Governor was assisted by an advisory council, consisting partly of nominated and partly of elected members, who were chosen by the German settlers in the respective districts. The Regulation of 1909 gave more extended powers to the council, and was regarded as a distinct step towards self-government. How far the advance had gone it is not easy to say. It is evident that the system of government was not popular, that officials were far too numerous, and rules and regulations too stringent for a thinly inhabited and gradually developing colony.

(3) EDUCATIONAL

Among the aboriginal populations the arrangements for education have rested mainly in the hands of the Missions, which have maintained a large number of successful schools. A knowledge of reading and writing (mainly in the Cape Dutch brought in by Boers and Bastards) is widely diffused. Technical schools giving instruction in handicrafts and the minor arts of civilization have also been maintained. The Rhenish or Barmen Mission had also two training schools for teachers. Primary and secondary schools for Europeans were also maintained wherever required for the settlers.

GENERAL OBSERVATIONS

German South-West Africa could have been included in the British Empire, not only without objection from, but with the active goodwill of, Germany. That it ever passed into German hands was due to the continued inaction of the Home Government and the Government of the Cape Colony. It is geographically inseparable from the rest of South Africa.

The extent to which the Protectorate, organized with a complete system of railways and cleared of its pastoral tribes, succeeded in attracting the surplus population of Germany may be judged from the fact

that in 1913 the total European population amounted to 14,830, of which 12,292 were German, the remainder being mainly drawn from the Cape Colony. In spite of many experiments in the growth of cotton, vines, and tobacco, agriculture did not flourish. Very large areas were employed, by the Hereros and others, almost entirely for stock-raising. The somewhat shifty policy followed by the German Government does not seem to have met with the approval either of the colonists or of the merchants; but, while the general system of administration, with numerous officials and irritating regulations, was not calculated to encourage private enterprise, on the other hand the systematic development of communications was here, as elsewhere in the German colonies, a feature in their policy which others might copy with advantage. The railways were, as has been stated above, constructed on strategical lines; but, at the same time, being supplemented by roads and bridges, they served the purpose of developing the country.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads*

THERE are few roads of any kind in South-West Africa, and there is none that can be called good. In particular, the routes across the frontiers to the interior are all subject to severely adverse conditions of surface and climate, and interstate road transport has consequently been small in amount.

From the three ports of Swakopmund, Walvisch Bay and Lüderitz Bay ran the old transport roads which served the Germans as routes of penetration. The four alternative tracks from Swakopmund and Walvisch Bay to Windhoek crossed a broad belt of soft, dry sand, which made traction so difficult that since the construction of the railway to Windhoek wagon transport has been discontinued. Similarly, the rough road leading east from Lüderitz Bay over patches of rock and through stretches of sand to Aus and thence to Keetmanshoop has as a channel of traffic been replaced by the Southern Railway.

Three so-called main tracks lead up to the Angola border through much sand and scrub, while the approaches to the Caprivizipfel are along the dry bed (*omuramba*) of the Omatako, and afterwards through the waterless Hukwe Veld. The routes across the Kalahari on the eastern frontier are merely the lines of the main watercourses, dry except im-

mediately after rains. A dozen routes lead into the south-east of the territory from points on the road between Upington and Rietfontein in Gordonia. These were extensively used for the transport of supplies during the native wars (1904-7). On the south there are feasible routes leading to some sixteen fords or 'drifts' across the Orange River. The chief of these are Olijvenhout's Drift, at Upington, in the Cape Province; Schuit Drift, close to the eastern limit of the southern frontier; and Raman's Drift, with a wagon track leading to Steinkopf on the Port Nolloth railway.

In recent years a good deal of attention and labour had been given to improving the wagon tracks connecting the more important towns and stations throughout the territory; but even now the best roads of the interior can only be described as 'well-defined main tracks,' on which numerous stretches occur of stony ground, heavy sand, and steep gradients. The necessity for good roads, however, has to some extent been obviated by an active policy of railway construction.

In the chief towns main streets are provided with pavements and with narrow-gauge rails, on which trollies are drawn by horse or mule.

To sum up, it may be said that, great as are the difficulties of surface and gradient almost everywhere, the chief hindrance to movement by road is the insufficiency of water for any considerable number of animals. A careful survey of such water facilities as exist appears to be a necessary preliminary to any development of communications in the territory.

(b) *Waterways*

Within the territory there are no navigable waterways, nor any that from an economic point of view can be made navigable for steam vessels. The Okowango river, which forms the boundary on the north-east, is in its upper course a deep, clear river with an average width of about 300 feet, and contains

reaches navigable by light craft. Stretches of navigable water occur also along the loop formed by the Kwando (Chobe or Linyanti) and Zambezi Rivers across the Caprivizipfel and along its southern and eastern extremities.

(c) *Railways*

The existing railway system: mileage, construction cost.—Railway construction in South-West Africa necessarily proceeded from the seaports inland. From Swakopmund two lines were laid—the Otavi Railway north-east to Otavi, Tsumeb and Grootfontein, and the State (or Northern) Railway eastward to Windhoek, with a northerly curve *via* Karibib and Okahandya. From Lüderitz Bay the Southern Railway was constructed eastward to Keetmanshoop, with a branch line from Seeheim to Kalkfontein. Windhoek and Keetmanshoop, the inland termini of the two Government lines, were next linked up by the North-South Railway.

In 1915 the Government of the Union of South Africa extended the Prieska line in the Cape Province *via* Upington to the Southern Railway at Kalkfontein, introduced the Cape gauge on the Otavi Railway from Karibib to Swakopmund, and built a line connecting Swakopmund with Walvisch Bay. The direction and control of the South-West African Railways—which under the German regime had been vested in a Railway Board comprising two representatives of agriculture, two of commerce, two of industrial and other professions, one of the Protectorate troops and one of the Governor's staff—have now passed to the Administration of the South African Railways.

1. *State (or Northern) Railway.*—This line, the first in the territory, was commenced in 1897 and finished in 1902. Its primary object, partly political, partly economic, was to connect the seaport, Swakopmund, with the capital, Windhoek. Its length was

121 miles from Swakopmund to Karibib, and 117 miles from Karibib to Windhoek—about 238 miles in all. A small branch line, 10 miles long, was run out from Jakalswater to carry water from the Swakop river at Riet. The total cost of construction is apparently not on record.

The gauge of this line was originally 2 feet, but the advantages offered by the Cape gauge (3 feet 6 inches), which was used on the railways south of Windhoek, led in 1911 to the broadening, at a cost of £550,000, of the section between Windhoek and Karibib.

About the same time the coastward section, Karibib to Swakopmund, was practically abandoned in favour of the alternative route provided by the Otavi Railway. By 1917 it had ceased to exist; for the whole line between Karibib and Rossing ($95\frac{1}{2}$ miles), the 10-mile branch from Jakalswater, and the Kubas military line, $4\frac{1}{2}$ miles long, were lifted and removed, to provide material for Tanganyika and the Union of South Africa.

On this, the coastward section of the State Railway, the maximum gradient was 1 in 21, and the minimum radius of curves 225 feet. There were iron girder bridges at Khan River, Dorst River and Kubas. Water supply was good and plentiful only at Swakopmund and Karibib. The rails were bulb tee-section, weighing 19 lb. to the yard, and were laid on iron sleepers.

On the Windhoek-Karibib section, which is now of Cape gauge, the maximum gradient is 1 in 66. The sand embankment on which the track is laid makes indifferent ballast, and is liable to washaways during the rainy season. The Swakop River at Okahandya is spanned by a bridge 350 feet long, and there is a smaller bridge at Otyihavera. The water supply is good, especially at Karibib, Johann Albrechtshöhe, Waldau and Okahandya.

2. *Otavi Railway*.—The Otavi Railway was built by the Anglo-German syndicate which owns the copper mines at Otavi and Tsumeb, for the purpose of transporting ores from its mines to the seaport, and

generally developing its mining and land concessions. Begun in 1903, the construction of the line was delayed by the Herero War, and was not completed till August 1906. Branch lines were subsequently laid from Otavi to Grootfontein ($59\frac{1}{2}$ miles) and from Ongoati to Karibib station on the State Railway ($12\frac{1}{2}$ miles). The main line, Swakopmund-Tsumeb, is $356\frac{1}{4}$ miles long. The railway with its two branch lines cost approximately £1,000,000 to build. It was purchased by the Government in 1910 for £1,250,000, but the management was left in the hands of the Otavi Company under a 30 years' lease terminable after 10 years.

The Otavi Railway, like the State Railway, was built to a 2-foot gauge, though the difference of 1 centimetre in the wheel gauges prevented the interchange of rolling-stock. The broadening of the gauge between Swakopmund and Omaruru had been voted by the German Railway Board; but it was the Union forces who in 1915, in the course of the invasion of German South-West Africa, laid a Cape-gauge line for 100 miles inland from Swakopmund along the track of the original line, which the Germans had wrecked in their retreat. The construction of a new section, of similar gauge, from Kranzberg to Karibib, again connected the Otavi Railway with the State (Northern) Railway, and for the first time gave continuous communication of uniform gauge from Swakopmund to Windhoek and the south. The present mileage on the Otavi Railway system is therefore about 113 of Cape-gauge line on the coastward section, and 316 miles of 2-foot gauge further inland. There are also two lengths of branch lines which are meanwhile disused—the 7-mile Kalkfeld Iron Line and the 22 miles of track from Otyivarongo towards Otyo, on the projected Ovamboland Line (see p. 29).

Connected with the Otavi Railway are three small private lines. From Arendis Station a line $6\frac{3}{4}$ miles long runs down to the Khan Mine; the marble quarry

near Karibib is connected with the main railroad by a track $7\frac{1}{2}$ miles long; and the private lines of the Otavi Mining Company are $9\frac{2}{3}$ miles in length.

The ruling gradient on the Otavi Railway is 1 in 67. Between Ongoati and Usakos the line falls 690 feet in 13 miles. The last 40 miles, down to Swakopmund, can be run by gravitation. Although the line winds considerably, there are no very sharp curves, the standard radius of curves being 150 metres (nearly 500 feet). The narrow-gauge rails are 30 feet long, weigh 30 lb. to the yard, and are borne on iron sleepers. The permanent way is well ballasted, and occasional damage done by heavy rains does not seriously interfere with the traffic. The difficulty formerly experienced in procuring suitable water for locomotive boilers has now been overcome. Usakos in particular has a good and abundant water supply. The rolling-stock in 1913 included 31 engines and 379 cars and trucks.

3. *Walvisch Bay—Swakopmund Line.*—The Cape-gauge line from Walvisch Bay to Swakopmund was laid during the war by the Union Government, and was opened in March 1915. The line, $21\frac{1}{4}$ miles long, lies almost wholly outside the limits of the former German Protectorate; but it forms part of the South-West African railway system, and, with the latter, is under the control of the Union Administration. It provides the northern and central railway systems with their natural terminus at the best seaport on the coast.

Before this line was built the jetty at Walvisch Bay was connected with the village by a shaky line of $2\frac{1}{2}$ -feet gauge, which at one time extended to Rooibank, 12 miles distant. The greater part of it had been derelict and buried in sand for some years.

4. *North-South Railway.*—The construction of this railway was undertaken chiefly for military reasons, to expedite the movement of troops and supplies; but the linking-up of Windhoek and Keetmanshoop, the inland termini of existing railways, was an inevitable development, justifiable on economic grounds.

Work was commenced in March 1910 from both ends of the projected line simultaneously. The contractors for the northern section, Windhoek to Kub, were the Bechstein-Koppel Co., who also effected the conversion to Cape gauge of the Windhoek-Karibib line. The southern portion, Keetmanshoop to Kub, was built by Lenz and Co., the contractors for the Southern Railway. The cost of construction was £2,000,000. Short branch lines were planned to the towns of Gibeon and Rehoboth. A line $7\frac{1}{2}$ miles was actually built to Rehoboth, opened in 1913, and let to a contractor to work; latterly it has not been used.

The main line is 317 miles in length, and is laid to the Cape gauge of 3 feet 6 inches. The track is single except at stations, and is carried on iron sleepers. The sand of the embankment on which most of the permanent way is laid is liable to be washed off in the rainy season and to be blown away by the violent winds prevalent in the dry months. There is one tunnel, 50 yards long, through the Aus mountains, about 10 miles south of Windhoek. The rolling-stock in 1912 comprised 12 engines, 150 goods vehicles, and 4 passenger coaches.

5. *Southern Railway.*—In December 1905, during the native rebellion, the pressure on the line of communication from the coast to the southern theatre of operations and the difficulty of crossing the Namib Desert necessitated the construction of a railway from Lüderitz Bay to Aus, a distance of $87\frac{1}{2}$ miles. The following year, when this, the first section of the Southern Railway, was completed, the Government authorized the extension of the line from Aus to Keetmanshoop on economic as well as military grounds. The extension was finished in 1908, and a branch line from Seeheim to Kalkfontein (South) was constructed by the middle of 1909.

In 1915, in the course of the invasion of German South-West Africa, the Union Government extended the Prieska line to Upington and the Gordonia frontier,

and thence for some 84 miles through the Protectorate to Kalkfontein, where it joined the Southern Railway. The main system of South-West African railways, being of uniform gauge with the Union lines, was thus made available for the passage of Union rolling-stock; and the length of Cape-gauge line was further increased, as has been shown, by the conversion of the Karibib-Swakopmund section of the Otavi Railway and the building of the line from Swakopmund to Walvisch Bay.

The main line of the Southern Railway is 227 miles in length between Lüderitz Bay and Keetmanshoop, and the branch line, Seeheim to Kalkfontein, 112 miles. The total cost of construction was £2,100,000; the contractors were Lenz and Co., who worked the railway for the Government until 1913.

Near the coast the shifting sand-dunes through which the railway passes seriously hinder the maintenance of the permanent way, and expedients such as the erection of palings and jute mats, and the planting of grasses and other vegetation, have met with little success. The ballast is chiefly stone, 6 in. to 8 in. deep, and the rails, running 40 lb. to the yard, are supported on iron sleepers weighing 67 lb. each. Water supply is difficult near the coast, and for 50 miles inland has to be maintained by special water trains. Farther east there are ten water stations, and the Seeheim-Kalkfontein branch has an ample supply.

6. *Kolmanskop-Bogenfels Line*.—Kolmanskop, 10 miles from Lüderitz Bay along the Southern Railway, is the starting-point of a private railway of 2-foot gauge, owned and operated by the Koloniale Bergbau-Gesellschaft. This line, 74 miles in length, serves the coast diamond fields, running south to Elizabeth Bay and thence to Bogenfels. Several of the mines have short branch lines. The locomotives are driven by electricity generated on the engines, benzol being used as fuel. The line was not being worked in 1916.

Financial Considerations.—The financial position of

the Government Railways of South-West Africa may be judged from the figures given below for the year 1912-13 :—

	State Railway.	Southern Railway.	Otavi Railway.	Totals.
	Marks.	Marks.	Marks.	Marks.
Traffic Receipts ..	1,625,291	2,029,171	4,921,287	8,575,749
Construction ..	219,022	..	..	219,022
Transport Working Expenses	1,371,691	1,629,850	2,429,156	5,430,697
Net profit ..	253,600	399,321	2,492,131	3,145,052
Percentage Ratio of Expenses to Receipts	84·4	80·3	49·4	63·3

On the State Railways expenses appear to have been relatively high in this year, for in 1911-12 and 1913-14, the ratios of expenses to receipts were only 64·8 and 67 respectively. The high percentage of working expenses on the Southern Railway was due largely to special difficulties of supplying water and removing sand. On the Otavi Railway the ratio had fallen from 56·5 per cent. in 1911-12 to 44·6 per cent. in 1913-14. and the profits realized on the working of this line in recent years must have averaged 10 per cent. of capital expenditure.

Adequacy to Economic Needs.—Now that the South-West African railways have been linked up with the South African system it may be expected that the volume of traffic will steadily increase. The rates on the German lines have in the past been higher than those obtaining in South Africa, and the Union Administration had not in 1916 seen fit to reduce them, though it had instituted special rates for through overland traffic, and also for fruit, vegetables, and potatoes consigned from the Union.

In addition to traffic expansion and reduction in tariffs, other advantages are likely to follow from the connexion of the two systems. The German locomotives are for the most part obsolete, and the rest of the

rolling-stock is inferior in design and condition. It may be assumed that the whole of the rolling-stock will in course of time be brought up to Union standards, and that services will improve both in speed and in frequency. Between January and December of 1916 the time occupied on the journey from De Aar to Walvisch Bay had been reduced from 101 hours to 72 hours 10 minutes. Passenger trains ran twice weekly from De Aar to Windhoek and Walvisch Bay, and made connection with Lüderitz Bay.

The requirements of internal traffic in German South-West Africa were efficiently met by the railways in operation before the war. The mileage of State-owned lines, which then totalled 770 of Cape gauge and 560 of 2-foot gauge, gave an average of 4.1 miles per thousand square miles of territory—a high proportion, considering that construction began so recently as 1897. Until 1915, however, the territory was practically isolated, and had no railway communication with its neighbours. Now that its railways are connected with those of South Africa it will play its natural part in the commercial activities of the sub-continent, and other lines will probably be constructed to open direct routes to the Transvaal, Rhodesia, and Angola.

Possibilities of expansion.—Proposals for a number of new lines had been considered by the Railway Board before 1914, and several had been approved.

1. *Ovamboland Line.*—The first aim of the railway to Ovamboland was to provide Ovambo labour for the south. The Landesrat in November 1913 approved a line of 2-foot gauge, on earthworks and bridges wide enough for a Cape-gauge track, to run from Otyivarongo on the Otavi Railway to Otyo and Okahakana. A sum of £450,000 was allowed for this in the Loan Estimates for 1914-15. The first section, including the 55 miles from Otyivarongo to Amiab Poort, was to cost £250,000. Construction was begun, and the line was laid for 22 miles before the outbreak of hostilities.

2. *Waterberg Line.*—The Landesrat is said to have intended to construct a line from Otyivarongo on the

Otavi Railway through Waterberg to Okahandya on the Northern Railway.

The completion of the Ovamboland and Waterberg lines and their connexion with the North-South Railway at Okahandya would give a continuous railway route from north to south right down the centre of the territory. A southward prolongation of this route was anticipated by the suggested extension of the North-South Railway from Kalkfontein to Warmbad.

3. *Swakop Valley Line*.—In November 1913 the settlers in the district obtained the promise of a short line from Swakopmund to the Swakop Valley. The material of the disused State line between Swakopmund and Kubas (92 miles) was to have been used for this purpose, but has since then been removed, part to Tanganyika, part to the Union (see p. 23).

4. *Gobabis Line*.—A line from Windhoek to Gobabis was under consideration, and a flying survey was ordered by the Landesrat in November 1913.

5. *South-West Africa-Union Lines*.—The Railway Board had also considered the following schemes for railway connexion between South-West Africa and the Union:—

(a) The proposed Windhoek-Gobabis line, if continued across the Kalahari Desert, would strike the South African system at Palapye in the Bechuanaland Protectorate, and thus give a trans-continental line either northwards through Buluwayo to the port of Beira, or southwards through Pretoria to Lourenço Marques. It is not clear whether a railroad which would traverse some 500 miles of reputed desert country is likely to earn profits.

(b) A second line across the Kalahari, alternative or additional to the former, was to run from Keetmanshoop to Hasuur by a route which had been surveyed before March 1909. It was then to cross the Kalahari along or below the valley of the Molopo, and, joining the Cape railways near Vryburg, effect a connexion *via* Mafeking with Johannesburg and Lourenço Marques. The proposed line would measure

about 450 miles, and would give the most direct communication with the Rand and the East Coast.

(c) The third suggested route was from Kalkfontein to Ukamas and thence across the Gordonia frontier to link up with the Cape railways. This was approximately the route actually followed, though construction proceeded from the other end, when the Union Government in 1915 built a line from Prieska to Upington and Kalkfontein (see p. 26).

6. *South-West Africa-Angola Lines.*—For the connexion of South-West Africa with Angola a number of schemes have been advanced from time to time.

(a) The earliest project was that of Cecil Rhodes who in 1899 proposed the construction of a line from Port Alexander in Angola, *via* the first cataract of the Kunene River, to Waterberg, and thence through Gobabis to Bechuanaland.

(b) An alternative route suggested for a continental railway is from Great Fish Bay (Tiger Bay) across Ovamboland and through the Caprivizipfel, to join the Rhodesian system on the Zambezi above the Victoria Falls.

(c) An extension of the Otavi Railway from Tsumeb to Port Alexander was contemplated at one time, and the route is said to have been surveyed in 1909. Nothing more has been heard of this scheme, and it was probably abandoned in favour of the alternative extension from Otyivarongo.

(d) The Ovamboland Railway was planned, as has been shown, to run from Otyivarongo to Otyo and Okahakana. It is probable that the Germans intended to push this line northward to the Kunene River, and would have found occasion to carry it across Portuguese Ovamboland to Great Fish Bay (Tiger Bay) or Port Alexander.

(e) A fifth possible connexion, along a route much nearer to and roughly parallel with the coast, was indicated by an announcement made in the *Leipziger Neueste Nachrichten* of May 31, 1914. According to this, it was reported that, after lengthy discussions with

the Government, a syndicate for the purpose of building railways in German South-West Africa had been formed, with an initial capital of 50,000,000 marks. The syndicate was said to include the Hamburg-Amerika-Linie, the Norddeutscher Lloyd, the Woermann-Linie, the Deutsche Bank, the Disconto-Gesellschaft, Bankhaus Bleichröder in Berlin, and Bankhaus Sal. Oppenheim und Gesellschaft in Köln. The first railway to be built was to be a line "along the coast of German South-West Africa to the Angola Province, traversing the Mossamedes Company's territory."

Early in 1914 the Bernardino Machado Cabinet in Lisbon had sanctioned the despatch to Southern Angola of a party of German engineers by the Hamburg-Bremer-Afrika Gesellschaft, which is an offshoot of the Norddeutscher Lloyd, supported financially by the Deutsche Bank. The expedition was then called a mixed German and Portuguese mission. But in June 1914 the *Kölnische Zeitung* declared the Southern Angola mission and its projects to be exclusively German undertakings, and added that the Imperial Government was prepared to give the proposed railway a kilometric guarantee. The Governor of German South-West Africa in the early part of 1914 toured the northern part of the Protectorate, and is said to have gone as far as Great Fish Bay, in connexion with possible railway construction in the near future. These facts, the statements made in the German press, the financial support given by the Berlin banks to the Mossamedes Company, and the known German aspirations to the company's concessions, all go to prove that in this instance, as in so many others, German plans of railway expansion contemplated the economic penetration and ultimately the political absorption of foreign territory. The economic factors are not in themselves strong enough to account for the extension of the railway into Angola. The labour supply which the Germans were entitled to use lay to the south of the Kunene. The mineral resources which a Kaokoland line would have tapped lie, with few exceptions, nearer to the Otavi

Railway and nearer even to Swakopmund than to Port Alexander. Part of Ovamboland, however, lies in Angola, and the natural outlet for all Ovamboland seems to be either Great Fish Bay (Tiger Bay) or the more serviceable harbour of Port Alexander. The two harbours provided a plausible solution for the alleged difficulty of railway connexion with the Kaokoland mines, and the scheme of railway extension veiled the plan of economic penetration.

(d) *Posts, Telegraphs, and Telephones*

Posts.—During the German occupation the Imperial posts and telegraphs were administered from the Post-Office at Windhoek under a Director of Posts, who was responsible to the Imperial Post-Office at Berlin. The service was thus independent of both the German Colonial and Protectorate Governments. In April 1913 there were in all 70 postal establishments, of which 3 were full Imperial Post-Offices, 25 ordinary post-offices, and 42 sub-offices. Fifty out of the 70 postal establishments were connected with the telegraph circuit; there were also 32 telegraph agencies which gave no postal facilities. The Imperial Post-Offices and 14 of the larger post-offices were in charge of postal officials sent out from Germany, the remainder being under railway officials, police, and troops, or in some cases private persons. In 1902 there were only 13 Post-Office officials in the country; in April 1913 there were 73. Natives were largely used as postal messengers, and their numbers rose from 8 in 1902 to 81 in 1909 and 91 (including one native telegraphist) in 1913.

Mails were either despatched by the Deutsche Ost Afrika-Linie or by the joint Woermann Hamburg-Amerika service, or sent to Cape Town by sea or overland across the Orange River *via* Raman's Drift. The various routes together provided a weekly service inwards and outwards.

Telegraphs.—Besides a short line in the hands of the police (Otyivarongo-Waterberg), there were three tele-

graph systems in the territory, viz., the Imperial postal telegraph circuit, the military (field) lines, and the railway telegraphs.

The principal telegraph lines followed generally the railway and main road systems; the central "backbone" being between Windhoek and Keetmanshoop, with two main transverse lines crossing it at right angles from Swakopmund to Windhoek and Gobabis and from Lüderitz Bay to Keetmanshoop and Hasuur, and with northern and southern extensions from Kari-bib to Tsumeb and from Keetmanshoop to Raman's Drift respectively.

These main lines had numerous branches and subsidiary transverse lines. The ends of the main transverse lines were connected, on the west by the wireless stations at Swakopmund and Lüderitz Bay, on the east by the field telegraph line Gobabis-Hasuur-Stolzenfels. Visual signalling lines were used to connect up various telegraph stations not in communication by telegraph. It will be seen that the whole telegraph system was very complete and well arranged—primarily, however, for military purposes. There were two lines on each of the main telegraph routes, Swakopmund-Windhoek, Lüderitz Bay-Keetmanshoop; and all railways were provided with telegraphic communication (railway telegraph system) throughout. The railway telegraph poles were used to carry the Imperial telegraph wires when the routes coincided.

The length of telegraph circuit in South-West Africa in April 1913 was 3,964 kilometres, and the total length of line was 6,487 kilometres. These figures cover the Imperial postal telegraph circuit, but do not include the extensive military (field) lines.

Telephones.—The telephone system was also extensive. It embraced 28 towns and villages, and there were telephones in nearly all hotels and officers' quarters. Detached posts were connected by telephone to their headquarters; even outlying farms situated near a telegraph station had telephonic communication.

The telephone wires were usually carried on the telegraph poles; in some cases the telegraph wires themselves were used.

In April 1913 there were 28 local telephone exchanges, with 954 subscribers in all. The total length of line was 1,078 kilometres.

(2) EXTERNAL

(a) Ports

Accommodation and Equipment.—The Protectorate had only two ports, Lüderitz Bay Harbour and Swakopmund Roads; Walvisch Bay now makes the third.

Swakopmund, the port for the middle and northern part of the colony, and the terminus of the Otavi Railway, is a desolate looking place, built on a sandy flat at the mouth of the Swakop River. Except in a few private gardens there is not a speck of green to be seen.

Swakopmund being an open roadstead, steamers used to anchor about 2 miles from the shore. A boat harbour was completed in 1913, but two years afterwards it was entirely silted up owing to the Benguella current and the surf. A wooden jetty 1,200 feet long was then built, and is still in existence. In 1911 the construction of an iron jetty was begun, and 850 feet out of a total of 2,035 were completed by 1914.

Swakopmund is a bad port, nor does it appear that it can ever be made a good one.

Lüderitz Bay, or Angra Pequena, the terminus of the Southern Railway, is the port serving the south. The harbour is well sheltered from all but east winds, and the anchorage is good. A serious disadvantage is the absence of fresh water in the neighbourhood; drinking water has to be condensed or brought by train. The sand blown from the dunes which surround the town causes much inconvenience and annoyance, and has made it necessary for business purposes to run a light tramway with mule transport along each street, with a branch line into each yard.

Although landing and embarking are not, as at Swakopmund, frequently interrupted by bad weather,

there were at Lüderitz Bay in 1913 no facilities for discharging cargo direct on to the quay, except from small coasting steamers. From larger vessels cargo had to be landed from lighters towed by tugs. There is a proposal to build on the side of Haifisch (Shark) Island a quay where steamers could lie alongside. If this were constructed and provided with railway connexions and the necessary storage accommodation, the port would become one of the best on the West Coast of Africa.

Walvisch Bay is an excellent deep-water harbour, with sheltered anchorage close to the shore. Had it lain within the German Protectorate it would doubtless have been selected as the northern port and equipped with the landing facilities which it has hitherto lacked.

Volume of Trade.—The tonnage of shipping entering South-West Africa ports is shown in the table below. The figures given are the German official figures for the years 1907 to 1912, and do not include Government steamers. It is remarkable that during these years there was practically no increase in the total tonnage, and very little in the number of ships. The tonnage was 1,331,000 at the beginning and 1,417,000 at the close of the period; the number of ships, 383 and 430.

The table specifies the tonnage of Lüderitz Bay and that of Swakopmund. A little more than half of the total fell to Swakopmund, and this proportion was very evenly maintained over the whole of the years 1907-1912.

The table also distinguishes between steamships under the German flag, steamships not under the German flag, and sailing ships. The figures illustrate significantly the effect of German colonial trade methods, for whereas in 1907 83·7 per cent. of the total tonnage was German and 15·1 per cent. sailed under other flags, by 1912 the latter class had dwindled to 2·4 per cent. and the German tonnage had risen to 97·3 per cent. of the total. Thus practically the whole of the Protectorate trade was carried in German ships and passed

through German hands only. A measure which was largely instrumental in achieving a result so desirable from the German point of view was the monopoly granted to the Woermann Company of the landing and shipping business of both ports.

In 1912 a new contract was concluded, to remain in force until the new pier at Swakopmund was completed or until March 31, 1915. By the terms of this agreement, which was published in the *Deutsches Kolonialblatt*, the monopoly was maintained, ordinary charges were slightly reduced, uniformity secured in the landing regulations at both ports, and power reserved to the Government to expropriate the tugs, lighters, and landing appliances of the Woermann-Linie. Although it was entered into ostensibly in the interests of national defence and for the better regulation of the traffic at the ports for the benefit alike of the private trader and of the Government, the contract nevertheless proved in practice a most powerful instrument of economic boycott. It is a fair and just inference that in the Protectorate, as in German East Africa, the landing rights monopoly was designed and dictated primarily in the interest of the Hamburg merchants and shipowners.

VESSELS ENTERING PORTS OF GERMAN SOUTH-WEST AFRICA.

Year.	Steamers.				Sailing ships.	
	Under German flag.		Not under German flag.			
	No.	Net registered tons.	No.	Net registered tons.	No.	Net registered tons.
ALL PORTS.						
1912 ..	368	1,378,929	41	34,747	21	3,554
1911 ..	323	1,194,335	52	86,765	26	14,698
1910 ..	347	1,174,877	74	138,657	62	14,822
1909 ..	261	987,973	81	223,710	70	20,144
1908 ..	260	935,620	51	179,109	28	11,840
1907 ..	296	1,115,061	65	200,981	22	15 491

Year.	Steamers.				Sailing ships.	
	Under German flag.		Not under German flag.			
	No.	Net registered tons.	No.	Net registered tons.	No.	Net registered tons.
SWAKOPMUND ONLY.						
1912 ..	156	702,778	31	21,656	13	269
1911 ..	129	597,726	21	43,569	10	2,587
1910 ..	170	621,390	21	52,758	—	—
1909 ..	144	522,888	30	78,102	6	1,584
1908 ..	159	536,608	18	55,694	14	252
1907 ..	177	679,816	17	49,200	8	3,166
LÜDERITZ BAY ONLY.						
1912 ..	149	601,543	10	13,091	3	3,190
1911 ..	131	515,849	31	43,196	8	11,077
1910 ..	134	495,206	51	85,550	10	13,974
1909 ..	108	434,385	50	145,308	19	17,857
1908 ..	98	389,960	33	123,415	14	11,588
1907 ..	117	429,473	48	151,781	14	12,325

(b) Shipping Lines

The German service between Hamburg and South-West Africa by the western route was maintained by the Deutsche Ost-Afrika-Linie in combination with the Woermann-Linie and the African Service of the Hamburg-Amerika-Linie.

The Imperial mail steamers called at Bremerhaven, Antwerp, and Southampton on the outward voyage to Swakopmund and Lüderitz Bay, where they stayed a few hours only before passing on to Capetown and returning round Africa by the east coast route. There was a fortnightly service in 1914. The time occupied on the voyage between Hamburg and Swakopmund was twenty-five days. Fares were 250 marks (£12 10s.) for steerage, and double and treble this sum for second-class and first-class passages respectively.

The Deutsche Ost-Afrika-Linie had also a three-weekly passenger service by the east coast route. The ships called at Rotterdam, Southampton, Lisbon, Tangier, Marseilles, Naples, Port Said, Suez, Aden, Kilindini, Tanga, Dar es-Salaam, Beira, Lourenço Marques, East London, and Capetown, and continued round the west of Africa after visiting the Protectorate ports. The fares charged for passages to the Protectorate by this route were one and a-half times to twice the rates on the western or Atlantic route.

In 1914 the Hamburg-Amerika Afrikadienst ran steamers once a month to the Protectorate *via* Antwerp, Las Palmas, Monrovia, and the Portuguese West Africa ports.

Freight from Germany to the Protectorate was taken by a fortnightly joint service of the three combined German lines, Woermann, Hamburg-Amerika (Afrikadienst), and Hamburg-Bremer Afrika, calling at Las Palmas and Monrovia on the outward voyage. In this service the so-called Swakopmund-Linie took twenty-five days from Hamburg to Swakopmund, and the so-called Lüderitzbucht-Linie took thirty-three days to Lüderitz Bay. They called at coast ports on the return journey. Each line ran a monthly service in 1914.

The English steamships of the Union-Castle Mail Line had a weekly service from Southampton to the Cape, where passengers to the Protectorate transhipped to vessels of the three local lines mentioned below. The time taken on this route was sixteen days from Southampton, *via* Madeira, to Capetown, and three to five days from Capetown to Swakopmund.

The three chief lines connecting Capetown by local service with the South-West Africa ports were: (a) the passenger steamers of the combined German lines already mentioned, which took no freight; (b) the coasting steamers of the Woermann-Linie, which ran every other week, carrying both passengers and freight, and calling at Walvisch Bay and at Port Nolloth in Cape Province; and (c) the service of the

Houston Steamship Line, which was maintained almost wholly by freight steamers touching at all four ports, but was discontinued before 1914.

To reach the so-called diamond stations—Conception Bay, Spencer Bay, Princes Bay, &c.—it was necessary to trans-ship at Lüderitz Bay to the small steam-vessel "Linda Woermann," of the Woermann-Linie.

Connexion with New York in 1914 was maintained by a regular bi-monthly service in either direction. The three German lines—Woermann, Hamburg-Amerika (Afrikadienst), and Hamburg-Bremer Afrika—ran this service jointly with Elder, Dempster and Co.

(c) *Telegraphs—Overland, Submarine, and Wireless*

Land Lines.—The Protectorate was in telegraphic communication with foreign countries through Capetown by the overland route.

Cable.—The Eastern and South African Telegraph Company's submarine cable between Capetown and Europe has a "T-piece" to Swakopmund, which is brought ashore to a cable junction near Walvisch Bay and carried as a land cable to Swakopmund. The staff was not under German control. An annual subsidy of £4,500 to the Cable Company formed a charge on the revenues of the Protectorate.

Wireless.—Before the war there were wireless telegraph stations at Swakopmund, Lüderitz Bay, and Windhoek. The last is said to have been able—occasionally, at least—to communicate direct with Nauen in Germany. It was blown up by the Germans in 1915.

With the completion of the so-called African triangle, consisting of the stations at Windhoek, Tabora (German East Africa), and Atakpame (Togoland), with the latter of which Duala (Cameroon) was in communication, the whole German African Empire was connected internally and with the Fatherland by wireless communication.

The stations at the ports, in addition to communicating with ships, are at all times in communication with each other. The Swakopmund station, under favourable conditions, has been able to get into touch with the stations in Cameroon; and Lüderitz Bay can communicate with Slangkop, in the Cape Peninsula.

(B) INDUSTRY

(1) LABOUR

(a) *Immigration.*—For the last twenty years there has been very little emigration from Germany, and in South-West Africa there were no special inducements to attract large numbers of settlers. Few even of the garrison elected to remain. The density of population in the Protectorate in recent years was only 0·046 of whites per square mile and 0·85 of all races, as against 0·289 and 1·93 in adjacent Bechuanaland, and 0·553 and 1·22 in the eleven north-west districts of the Cape Province.

The annual total of adult male residents of European descent showed a decrease in 1912, when the railway construction was completed, though the renewed activity in diamond mining in that year partly counteracted the loss. The increase in later years in the total number of Europeans was due to the influx of women and children. The number of British and non-German immigrants had fallen steadily year after year. There was an obvious desire to reduce to a minimum the number of British subjects in the Protectorate.

During the South African War (1899-1902) the Germans encouraged the immigration of Boers, in the belief that, owing to their Teutonic origin, they would easily be assimilated. They had latterly revised the opinion and modified the policy. The Boer immigrants, numbers of whom had settled in the country, were not encouraged to remain, and many were expelled on various grounds.

Although South-West Africa holds out no higher attractions than the territories of the Union, it seems

capable, with its large tracts of unoccupied land, of supporting a greatly increased white population; and this might possibly be secured if immigration were encouraged by the offer of land on favourable terms.

The native tribes were, in several cases, practically annihilated during the native wars, and the policy of the Government and the inhabitants generally towards the natives had neither the aim nor the result of attracting others to fill up the vacant territories.

(b) *Native Labour and German Policy.*—The policy followed by the Germans between 1900 and 1908 in their treatment of most of the native races of the Protectorate may fairly be described as a policy of extermination. It was never formally withdrawn or reversed; but with the discovery of diamonds in the sandfields of the Namib it became clear to the German Administration that if the policy were not discontinued they would have no native labour left for the work of recovering the diamonds, nor would they obtain any from other States.

Between 1908 and 1914 the policy adopted towards the survivors seems to have been to make every native dependent for a living upon employment by Europeans. If any native tried to live otherwise he was treated practically as a vagabond. That is shown in the clearest way by the notorious Ordinance No. 82, *Massregeln zur Kontrolle der Eingeborenen*, issued by the Governor on August 18, 1907 (*Kolonialblatt*, p. 1181), and strictly enforced.

Under the first clause natives were prohibited from acquiring rights over or titles to land. They could acquire such rights or titles only with the sanction of the Governor. By the second clause they were similarly debarred from owning animals for riding purposes or cattle, the small tribe of Bastards of Rehoboth alone being excepted. Thus dispossessed of the land they had owned, of their horses and herds, and even their sacred cattle, they were denied the freedom of a nomadic life, and made liable, as vagrants, to penalties specified in the later clauses of the Ordi-

nance. In such circumstances it is not surprising that the question of native labour was one of much difficulty.

(c) *Labour for (i) Agriculture, (ii) Mines and Railways.*—Work on the farms was done usually by Hereros, Hottentots, Berg-Damaras, and Bastards. A few Bushmen were also employed, but neither Bushmen nor Hereros take kindly to the work as a rule. Further, it appears that in many cases the arrangements for housing and feeding native labourers left much to be desired. It is significant that the Official Report for 1908-09 states that farmers who treat their men well were usually able to obtain labour, a statement corroborated by H.B.M. Consul E. Müller in his report for 1913. The difficulty for the farmers was, however, increased by the high wages offered in the mines.

Some 6,500 Cape-Kaffirs and Bastards were employed in 1911, chiefly for railway construction and work in the mines. Their recruiting received a severe check in that year as a result of the "Wilhelmstal incident," when a number of strikers (Cape boys) were shot down by the troops. After the completion of the North-South Railway the number of these imported labourers largely diminished.

Application was made in 1911 for native labour from Cameroon and German East Africa, but was refused by the Governments of those Protectorates. A proposal then made to obtain 1,000 natives of India for work in South-West Africa was not proceeded with.

The main source of labour supply for both railway work and mines has hitherto been Ovamboland. For this reason it was laid down in the 1913 session of the Landesrat that Ovambos were to be employed on these two classes of work only.

The supply of Ovambo labour is at times precarious. It depends largely on the harvest and on the season for sowing in the natives' own country. Large numbers come down after their harvest, but most of them have to be at their homes in the sowing season, in order to provide food for the families they leave behind when

they go to work. Contracts for Ovambo labour were, therefore, drawn for the half-year only. Special regulations, enacted in recent years, controlled the recruiting, the movement of labourers from their territory to the railway, and their housing and sanitation.

Another factor affecting the supply of Ovambo labour is the existence or cessation of tribal warfare in Ovamboland. Thus, in 1912, the defeat of Mandume, the paramount chief of the Ovakwanyamas, in a conflict with another tribe, caused a temporary but serious diminution in the supply.

(d) *The Labour Reservoir—Native Tribes.*—The Ovambo tribes of South-West Africa were estimated by Major Pritchard in 1915 to number 156,000. A few labourers are also supplied by the smaller tribes of the northern districts—the Ovatyimbas of the Kaokoveld, the Ovakwangeris of the Okovango Valley, and scattered contingents of Bushmen.

The three other principal races are the Hereros, Hottentots, and Berg-Damaras. Their numbers in 1904 were estimated to be, at the lowest figure, 80,000, 20,000, and 30,000 respectively. In 1911, after the repression of the last rebellion, the census showed that they had fallen to 15,130, 9,781, and 12,831 respectively, a total of 37,742 instead of 130,000.

The Bushmen of the Grootfontein district were recently estimated at 7,000 or 8,000, and those of the northern areas at over 10,000. The German farmers declared that Bushmen were too weak for agricultural work, and would not remain on the farms; but this was denied in a report submitted to the German Governor by the District Chief of Grootfontein in 1912. His opinion was:—"It is remarkable to observe how the Bushmen serve the purpose of farm labourers. They learn to plough, to cultivate tobacco, to control oxen transport, and whatever else a farm labourer must do. Many remain for long years on the farms, and become indispensable assistants to the farmers." The testimony of this broad-minded official is valuable, since, with the unhappy diminution in the numbers of the

Herero, Hottentot, and Damara tribes, the Bushmen constitute an important source of labour for the immigrant white settlers of the future. Should there be any considerable influx of these, the problem of finding native labour for agricultural work will present much less difficulty.

(2) AGRICULTURE

(a) *General Conditions: Government Assistance*

Agriculture in South-West Africa labours under many difficulties, of which the chief are want of water, scarcity of labour, and the ravages of locusts. Lack of a large market and insufficient road communications have also tended to restrict development. The figures for 1913 show that out of a total holding of 1,331 farms, covering 33,484,015 acres, only 13,000 acres were cultivated, the chief items of culture being maize, potatoes, and pumpkins. The proportion of cultivated land is certain to increase in the future, especially when irrigation and dry-farming are practised on a larger scale. Parts of the country have soil admirably suited for crops. In Eastern Ovamboland, in the more rainy region to the north, the plains are covered with a rich deep loam, and are capable of yielding large returns when malaria, faults of soil and other evils have been overcome by cultivation and drainage. In Ovamboland generally and in the neighbouring districts native agriculture alone has been practised in the past, as the country was for political reasons closed to Europeans and accessible only by road. Should the political settlement result in the formation of a protected Ovambo State and the opening up of the country by railways, native agriculture might be successfully stimulated by methods such as those followed in Uganda, on the Gold Coast, and in the Belgian Congo. The climate is tropical, and the Ovambos are an agricultural people. The rainfall in Ovamboland, though higher on the average than farther south, is not constant, and in 1915 there had been a

severe drought of three years' duration, which caused great distress and high mortality among the natives.

Speaking generally, the territory is predominantly a grazing country. Even in Ovamboland cattle breeding is one of the leading native pursuits alongside of agriculture. The same mixture of occupations is found in the Caprivizipfel. In Damaraland the Berg-Damaras, the subject race, are agricultural; while the Hereros, the ruling race, are keen and successful cattle breeders. Farther south again, in Namaqualand, the Hottentots own sheep and cattle, and cultivate very little land.

Native agriculture is thus practically confined to the northern and central regions. As regards stock, sheep predominate in the south, cattle in the north.

The German Government showed its interest in the progress of agriculture by many practical measures. A Veterinary Research Division was established at two stations, Gamams and Friedrichsfelde, the annual cost of which was approximately £4,500 in addition to the salaries of the veterinary surgeons. Experts were appointed—an orchardist at Grootfontein, a tobacco expert at Okahandya, a wool expert at Windhoek, a stock farming expert, a forester, and an agronomist. The number of officials employed in these services was 44 in 1914, and the annual expenditure on experimental farms and plantations was about £10,000. There was a stud farm at Naukhas, a camel farm at Kalkfontein (North), an ostrich farm at Otyitwezu, a sheep farm near Windhoek, a tobacco station at Okahandya, and an experimental tillage farm at Neudamm, near Windhoek.

Government grants were made for the destruction of vermin, the eradication of pests, and the investigation of diseases. The commonest animal diseases were horse-sickness, biliary fever, mange, and glanders among horses; lung-sickness and lamziekte among cattle; scab and sheep-pox among sheep.

Large sums were spent annually on the purchase and maintenance of live-stock, on fencing, and on the erec-

tion of shelters. Grants were made to agricultural and horse-breeding societies, and the Government paid the expenses of the Agricultural Advisory Board established by an Ordinance in 1913.

(b) *Products and Live-stock*

Plant Production.—The products to which most attention was devoted are *maize* and *potatoes*, but even of these the supply was insufficient to make them cheap. Irrigation has been employed in the cultivation of *lucerne*, which is used for feeding stock. *Sorghum*, *food-melons*, and *beans* are also cultivated.

With the help of experiments made at the Government station at Okahandya, *tobacco* is being grown, mainly on the small farms of Osona. The variety chiefly cultivated is pipe-tobacco; but experimental crops have been grown with the aim of producing a cigarette tobacco of Turkish flavour.

Cotton, although trial crops are reported to have proved successful, has not yet been cultivated on a commercial scale. Parts of Ovamboland are said to be suitable for its cultivation, and it is grown by natives on the Kunene River.

Several varieties of *fruit*, including peaches, apricots, and apples, have produced abundant crops, not perhaps of the highest quality. Cherries and pears have hitherto proved unsuccessful. Citrus fruits appear to offer good prospects. Over 1,000 orange trees were planted in 1909 by farmers near Grootfontein, and oranges have been exported since the British occupation. *Vegetables*, as well as fruit, are grown with pronounced success on the small holdings along the Nossob and Swakop rivers.

The *grape-vine* has been cultivated, usually with the aid of irrigation, and there are possibilities of wine-making. The wine farmer, however, will have to face the competition of the Cape, with its more favourable conditions, physical and economic.

Live-stock.—In spite of the dryness of the climate and the scanty water supply, the territory is capable of providing grazing for large numbers of stock. Stock farms, however, have to be very extensive, as 25 to 45 acres are required per head of large stock, and from 2 to 5 acres per head of small stock. The reason for this is that the grasses and so-called forage bush grow in isolated clumps with bare ground between them. A further reason is the occurrence of rainless years, such as 1911, during which the grasses are unable to renew their growth; the farmer is therefore obliged to keep a portion of his grazing land untouched, as a reserve.

Parts of the territory in which good grazing is to be found after rain are in the district of Gibeon, round Aus and Kubub, east of Kanus and between Kanus and the Little Karas mountains. Towards the west, in Lüderitz Bay district, there are grasslands on either side of the Southern Railway from the Tiras Mountains as far south as Obib. Central Namaqualand, however, consists largely of bare rocky plain. Towards the east, the Kalahari is good grass country, where formerly large herds of game grazed, and where shortage of forage is scarcely ever experienced.

Between the Kalahari and Central Namaqualand there are chalky plateaux which produce many bushes suitable for forage, and also a variety of Bushman-grass used by the farmers as reserve fodder. Large sections of Ovamboland are eminently suitable for cattle raising.

The total numbers of the different classes of live-stock in the territory (excluding Ovamboland) during the years 1910-1913, are shown in the following table. It will be observed that there had been a steady increase in all varieties except camels:—

	1910.	1911.	1912.	1913.
Cattle	121,139	144,445	171,784	205,643
Merino sheep	29,201	32,209	46,901	53,691
Persian sheep	—	—	12,588	17,171
Karakul sheep	—	427	341	776
Karakul sheep (half bred)	—	—	3,753	10,418
Native sheep	343,989	381,240	435,069	472,585
Angora goats (full bred) ..	—	—	10,044	13,340
Angora goats (half bred) ..	8,095	10,257	10,387	18,163
Native goats	319,000	384,986	448,279	485,401
Horses	10,661	12,683	13,340	15,916
Mules and donkeys	12,693	9,994	11,894	13,618
Pigs	5,208	7,761	7,195	7,772
Camels	954	847	789	709
Ostriches	334	642	1,277	1,507

Horses.—The best districts for horses are Windhoek, Rehoboth, and Keetmanshoop, and second to these are the Warmbad, Hasuur, Maltahöhe, and Karibib districts. Horse-breeding is still in a backward state, owing to the prevalence of horse-sickness, to losses during the native wars, and to careless methods of breeding. So few were the horses of good substance and quality that the Government had to spend £20,000 annually on the importation of remounts for troops and police.

Special measures were adopted in order to improve the breed. A Government Stud Farm was established at Naukhas; well-bred stallions were made available; and under a "Selection Ordinance" promulgated in 1912 action was taken to limit breeding to horses that had been approved by a Government Commission.

Mules.—Mule-breeding has hitherto been less profitable than horse-breeding, and has further been retarded by lack of mares. A mule-breeding farm has been in existence for some years at Gobas, near Keetmanshoop, and in 1911 the Government assisted mule breeders by providing imported jack-asses at less than cost price. Mules were latterly imported direct from South America, and no longer from South Africa.

Donkeys.—Donkeys have increased in numbers in recent years. They are popular for slow transport work because of their hardiness and immunity from horse-sickness.

Camels.—Camels had been imported privately in 1898 as an experiment, but were first introduced in large numbers in the course of the native war. Five hundred were imported from the Canary Islands, 2,000 from Somaliland. The latter were smaller, slower, and more expensive than those from the Canary Islands. They were employed chiefly for transport, and proved very useful, though many died, probably through mismanagement. The camel-farm, managed by a veterinary lieutenant, was at Kalkfontein (North), where water is plentiful and the veld sweet. Camels are fed chiefly on alfalfa grass, chaff, and barley, but can get good grazing on the grass and bush of the country. Breeding was successful, but the total number of camels declined latterly, because private owners found them difficult to handle and the military authorities considered them awkward on muddy or rocky ground.

Cattle.—At the time when the Germans first occupied the territory, the natives owned cattle belonging to three distinct breeds, the Herero, the Ovambo, and the Afrikander. The Herero or Damara cattle are medium-sized, long-legged, well-built, and suitable for draught. The Ovambo breed is short-legged and plump, not quite so good for draught purposes. The Afrikander or Bastard represents a cross between Dutch and native cattle, and is useful for heavy draught work, but slower and less enduring than the Herero variety.

The natives of tribes other than the Ovambo were not allowed to own cattle without special permission. Great numbers of their animals passed into German hands by confiscation or in return for merely nominal payments. Only in Ovamboland are cattle, valued here at £4 to £5 per head, still owned by most of the natives, while the chiefs are said to have enormous herds. The

total number of cattle in this region has never been ascertained.

In the earlier years of the German occupation settlers and natives alike endeavoured to increase the numbers of their cattle without regard to breed; but the establishment of Government cattle-breeding farms and the attention paid to the improvement of breed by the Government advisers have led not only to the discovery of the best districts for cattle, but to the practice of more discriminating methods of breeding. Since 1900 stud cattle have been imported from Europe and from Argentina in order to improve the local breeds. A number of animals were also imported from South Africa; but the prevalence of East Coast fever in the Cape Province made it necessary to prohibit importation.

In the light of the results of many experiments the Government cattle-breeders at the outbreak of war were endeavouring to produce an improved strain by crossing with selected varieties of the Afrikander breed. Expert opinion generally favoured the so-called Red Afrikander variety, which, when crossed with Friesland or Holland cattle, was expected to produce a type of fuller form, better breeding quality, and higher working power. In the northern districts a cross between Afrikander and German lowland cattle has given a useful dairying type. Mornheim cattle proved useful for cross-breeding in the mountain districts. The East Forestland breed was expected to give a cross useful for milk and also for meat, and several English breeds promised the best results for meat alone.

Dairying was an industry still in its infancy before the war. A co-operative creamery was started in 1913 at Tugab, 35 miles west of Windhoek. Stock-raising for slaughter purposes is likely to prove highly successful. There is a very considerable market in the Union, now linked with the territory by railway; and, when South African requirements have been satisfied, the establishment of a cold storage depot will make it pos-

sible to export the surplus of meat to Europe, where the demand increases yearly.

Large interests in the territory have been acquired by the Liebig Company and by Brauss, Mahn and Co.

Small Stock.—All varieties of small stock, except pigs, have increased in recent years. Pure-bred Karakul sheep have been imported from Russia. In 1913 the pure-bred Karakul sheep in the country numbered 776, and the total number of half-breeds had risen to 10,418. The Karakul variety is said to be the best for the country; it is very hardy, and superior to the Afrikander as a mutton sheep. In 1913 1,400 high-class flock sheep were imported from Australia, the Government paying the cost of transport and distributing them to farmers at the Australian cost price. Merinos were also imported from Germany and in large numbers from the Union.

The territory does not appear to provide the conditions essential for a yield of the finer kinds of wool, and it is unlikely that the Cape range of qualities will be surpassed.

In mohair, also, the most that the territory is likely to accomplish is to equal the standards and possibly the output of the Cape Province, from which large numbers of Angora goats have been obtained.

Ostriches.—The future of the ostrich-feather industry is too uncertain to assure the success of ostrich farming or its prosecution on a large scale.

(c) *Special Methods of Cultivation*

Dry Farming.—The scantiness of the rainfall in this country of high temperatures accounts for the concentration of the efforts of agriculturists upon the discovery of the best methods of utilizing the natural water supply of each locality, and the best methods of supplementing local surface supplies either by boring for water or by diverting river-water into irrigation channels. The question of the water supply in general

is the most important of all for the economic prosperity of the territory, and is therefore discussed at some length below under the heading of Irrigation. Another method of cultivation, however, alternative or complementary to the usual methods followed with the help of irrigation, has in recent years received much attention, especially in suitable areas in the south of the territory. This is the so-called "dry farming" practised here on Campbell's principles.

For the success of cultivation according to this method it seems essential to have not only suitable underground conditions of soil and drainage, but also a reliable average rainfall of 12 in. Where the rainfall ranges between 7 and 12 in., the whole surface should be cultivated, but sown only by halves in alternate years. The ground is ploughed deep, and the surface kept open in order to retain the maximum of moisture below; and, as long periods of heat and drought have to be faced, plants are selected for their depth of root and other drought-resisting qualities. One of the circumstances that militate against the success of the method is the great difficulty of providing wind screens for the selected areas. With such obstacles to contend against and with a very limited market for the produce cultivated under such disadvantages, the dry farmer will probably be satisfied if he finds himself able to grow lucerne, maize, and forage plants in quantities sufficient for purely local needs.

Irrigation.—The sources of water supply in the territory have been described in Part I of this volume, and need only be summarized here. The rainfall is least along the coast-line, and increases from west to east and from south to north. The only perennial streams are the rivers along the northern and southern boundaries, and no other river-bed shows any surface water except during the rainy season or at places where the existence of perennial pools indicates that the underground water is dammed by dykes of impervious rock or other natural obstructions. Such pools are fairly numerous, especially in

narrow side-valleys where there is some shelter from sun and wind. Springs are not common; they are most plentiful in the region of highest rainfall, towards the north-east. Thermal springs are found in several localities, yielding water slightly charged with sulphuretted hydrogen and carbon dioxide. Sheets of standing water, known as pans or *vleys*, form during the rainy season in depressions in level country. They are very shallow and salt, and are most numerous in Damaraland and in the eastern districts towards the Kalahari; the largest is the Etosha Pan, on the border of Ovamboland. The natural rock reservoirs of the highlands of Central Damaraland contain useful accumulations of rain-water, the sole supply on some of the farms.

Where natural reservoirs are absent or inadequate, the first resource of the farmer is to prevent the total waste of flood-water by constructing dams to retain as much as possible. In Damaraland, in particular, there are several large storage dams, and suitable sites for many more. The enterprise of individual farmers in this direction had been somewhat discouraged by frequent washaways, but in 1913 the German Government resolved to make a start with similar operations on a very large scale by building a series of reservoirs and underground barriers along the course of the Fish River and its tributaries. The first great dam, to contain 110,000,000 cubic metres, was to be constructed at Komatsas, near Mariental; the second, holding 130,000,000 cubic metres, below the junction of the Leber River; the third, to contain 200,000,000 cubic metres, at Hons, just above Seeheim. The three together would, it was anticipated, impound practically the whole annual run-off of the Fish River. The water retained in the dams was to be employed in irrigating large areas of riparian land, and also in supplying the motive power for pumping-stations where these were required for the irrigation of further areas. The river thus controlled would no longer be liable to torrential floods, and the riparian farmers,

relieved of their dread of washaways, would, in their own interest, construct numerous subsidiary weirs and underground barriers. The whole scheme was to be only the first of a large number of similar enterprises in other parts of the country and especially in the neighbourhood of Windhoek.

In localities where a surface supply did not exist, or could not, for technical reasons, be impounded, successful results were obtained in many instances from boring operations. It appears, indeed, that, except in the Namib and certain parts of the Kalahari regions, fair supplies of underground water may everywhere be tapped at moderate depths. Even in the Namib, boreholes sunk in some of the sand and detritus-choked river valleys have produced copious supplies; at Garub, for example, the boreholes yield 140,000 gallons per diem. The farmers have naturally been active in sinking wells, especially in or near the dry river-beds throughout the territory. In some cases water was easily obtained at shallow depths; but, where boring was necessary, it involved heavy expenditure for the individual, even when assisted by Government, since the normal depth at which water is reached is from 130 to 160 ft. in the more favourable localities, and the cost of boring averages nearly 10s. per foot of depth. The German Government, therefore, took measures to assist progressive farmers by advancing money for boring at 4 per cent., repayable in ten yearly instalments. It also maintained two boring columns, which in 1911 were working nine sets of boring machinery. The total annual cost of the columns was then about £20,000, but by 1913 the annual grant had risen to £45,000. At this date there were 24 private drills at work in the country.

Artesian supplies have been obtained from one borehole near Keetmanshoop, from two in the neighbourhood of Stampriet, and from nine wells sunk in the Auob Valley in the German Kalahari. The geological conditions which determine these supplies and warrant the probability of further discoveries are fully des-

cribed in Dr. Wagner's *Report on the Geology and Mineral Industry of South-West Africa*.

The construction of waterworks at Osona, at Aub, in the Aris Valley, and near Omaruru was contemplated, and the Landesrat in November 1913 resolved that the preliminary surveys and investigations should be carried out, and that in 1914-15 a sum of £50,000 should be made available, partly for this purpose, partly as grants-in-aid to farmers for dam-making and water-boring. By votes of this kind and by other measures already described the Government showed how fully it realized the urgency of the problem of water supply for the whole territory.

Most of the chief towns have now secured reliable supplies. At Windhoek, the supply obtained from the hot springs and from new boreholes is estimated now to be sufficient to warrant an underground drainage scheme. Karibib is supplied by three wells, about 100 ft. deep, from which a volume of 21,560 gallons per diem is obtained by three pumps operated severally by a windmill, an electric motor, and an oil engine. The bed of the Swakop River near its mouth provides Swakopmund with a plentiful supply of slightly brackish water, obtained at three pumping stations and distributed by 9-in. mains laid under the streets. Lüderitz Bay has hitherto depended for its supplies upon condensers, which were unreliable and inadequate for a town of this size. In 1913 the water used for household purposes was brought 60 miles by rail from Garub, and sold at 15s. per 250 gallons. A plentiful supply was struck by boring in the valley of the Kuichab River near Aus, and provision was made in the 1914-15 Estimates for the construction of reservoirs and the laying of a pipe-line to Lüderitz Bay. Keetmanshoop is supplied from the copious artesian well near the village, Omaruru from the periodical river of the same name, Otavi and Grootfontein from neighbouring springs found in the Otavi dolomite beds.

The most ambitious scheme hitherto proposed for

improving the water supplies of South-West Africa and the Kalahari was suggested recently by Professor Schwartz, and has been debated in the Union Parliament. The proposal aims at nothing less than restoring to the Kalahari and all the country adjoining it the climatic conditions of moisture and fertility which these regions appear to have lost in the last 300 years, and which have appreciably diminished even since the days of Livingstone. To effect this, it is proposed to weir up the Chobe River at a point above its junction with the Zambezi and thus divert the waters of the Chobe and Okowango into the Ngami depression. Further, a weir thrown across the Kunene would turn that river back into its old channel as a feeder of the Etosha Pan, and prevent the waste of the water which now hurries uselessly to the sea. The surplus water from the Etosha Pan would in turn find its way along the Omatako into the Okowango. Fed by the combined streams of the Kunene, Okowango, and Chobe, Lake Ngami would regain its former dimensions, and its overflow would fill up the Makarikari depression round the Ntewe and Soa Pans, and would recreate the fertility of the whole Molopo basin. "No more hot winds would blow from the desert, no more locusts would hatch out there undisturbed, for the ground, so long fallow, would be rich as the best in the world, and would be occupied and tilled." Incidentally, a waterway of 1,000 miles would be created, with only one break, where the Okowango below Andara has a waterfall of 20 ft., surmountable by a lock. Professor Schwartz estimates the total cost of the scheme at £250,000, and claims that the rainfall of the entire region would be augmented by the evaporation and subsequent condensation of moisture from the area of some 40,000 square miles covered by the reconstituted lakes. On a scheme of these proportions the verdict of expert engineers must be awaited.

(d) Forestry

As there was very little timber actually under German control in the territory, the Government in earlier years pursued no active policy with regard to forestry, but in 1914 a trained forestry official was sent out in order to examine the forest and timber supplies of the northern districts, to consider the question of reforestation, and to draw up a programme for the establishment of a forestry service. Reforestation in the greater part of the territory must await the satisfactory solution of the problem of water supply. The timber resources of Ovamboland should be one of the first questions taken in hand by the new Government.

Under the conditions obtaining in the settled districts of South-West Africa all that had been done was to establish forest nurseries, in order to provide young trees for distribution at Windhoek, Okahandya, Grootfontein, Gobabis, and Gibeon. The number of young trees sent out from these nurseries in 1912-13 was over 46,000, of which nearly one-third came from Windhoek. There is, in addition, a forest station at Ukuib, which specializes in date-palm cultivation.

(e) Land Tenure

Tribal territories.—Before the German occupation the Namib on the west and the German Kalahari to the east were occupied by Bushmen and Berg-Damaras, with the Ovatyimba Hereros in the north-west. The Ovambos at that time held the territory which they still occupy. The Topnaar and Zwartbooi Hottentots had pushed northwards past the central districts held by the Hereros, but all the other Hottentot tribes were south of the line of the Swakop and Epikiro Rivers. Three smaller bodies of Hottentots, the Khogeis (or Amiraal), Ogeis (or Grote Doden), and the Gunugus (or Lowlanders), had previously been absorbed by the stronger tribes, as had also the once

powerful Afrikaner tribe of Eik-hams, after suffering defeat by the Hereros and Witboois in turn. The Hottentot tribes were at that time twelve in number, viz., the Koweses or Witboois; the Khauas (Gei-Khauas) or Gobabis; the Hei-Khauas or Berseba tribe; the Amas or Amans of Bethany; the Eicha-ais or Afrikaners; the Gaminus or Bondelzwarts; the Khora-gei-Khois or Fransman tribe; the Geikous or Red Nation; the Khau-Goas or Zwartboois; the Kharo-oas or Tseib tribe; the Habobes or Veldschoendragers; and the Topnaar Hottentots of the Zesfontein district and Walvisch Bay.

By 1906, within sixteen years from the date when the tribes were taken under the protection of the German Government, very few of the surviving remnants retained either land or chiefs or tribal organization. The exceptions to this rule were the fortunate tribes who were too remote or too numerous for full administration, or too poor to invite aggression. The Ovambo tribes have preserved their lands because their conquest would have been a matter of too great difficulty. The territories of the less warlike Ovakwangari tribes of the Okowango valley, and the Bantu tribes of the Caprivizipfel have hitherto been practically inaccessible for European settlers. The Ovatyimbas of the Kaokoveld inhabit a plateau which is included in the land concessions claimed, if not yet occupied, by the Kaoko Company. Their neighbours, the Topnaar and the Zwartbooi Hottentots, lived beyond the area of the Hottentot War (1904-07) on lands afterwards included in the concessions of the Kaoko Company and German Colonial Company. Of the Hottentots further south the Hei-Khauas of Berseba were the only tribe, besides the Rehoboth Bastards, that had not been driven into rebellion. They alone had escaped the universal confiscation of land and of live-stock that was the lot of the other Hottentots and of all the Hereros. The essential character of the German land-policy was candidly and justly summarized by Dr. Paul Rohrbach, who had in 1890

occupied a high position in the German Colonial Office:—"The decision to colonize in South-West Africa could, after all, mean nothing else but that the native tribes would have to give up their lands on which they had previously grazed their stock in order that the white man might have the land for the grazing of his stock."¹

Land companies.—The briefest summary of the steps by which so much of the land passed into the hands of European owners is all that can be attempted here. The validity of such titles as have been acquired is a problem which presents many difficulties and on which no opinion can be hazarded in general terms.

The Hottentots and Hereros alike regarded their land as the communal property of the tribe and therefore inalienable. But the customs and rights of the tribal communities were never regarded seriously by adventurers who were eager to acquire land, and justified their purchases by flimsy pretexts of legal processes. The earliest acquisitions of land were made by the German missionaries, who by the year 1870 had established numerous stations, and, in addition to their professional duties, carried on an active barter trade, receiving cattle and sheep and native products in exchange for goods, clothing, arms, and ammunition. The possession of flocks and herds may account for the missionaries' extensive purchases of land. Among the first of the more purely commercial ventures was that of the firm De Pas, Spence & Co., who acquired from the Hottentots territory in the neighbourhood of the Pomona Mine, and afterwards sold the right to mine diamonds to Herr Scholtz and the Pomona Company. The nominal purchase by Adolf Lüderitz of the coastal belt from the Orange River to Cape Frio (excluding British territory at Walvisch Bay) is described on p. 12 of this volume. With reference to the deeds of sale by which this territory was acquired, it is sufficient to note, first,

¹ *Deutsche Kolonialwirtschaft*, vol. 1, p. 286.

that the tribes of Aman and Topnaar Hottentots, of which Piet Heibib and Joseph Frederiks were chiefs, had never owned more than one-fourth of the land which was transferred; second, that their action in selling any lands which belonged to their tribes contravened the principle that such tribal territory was not alienable.

Concession-hunting was frequent during the early years of the Protectorate, and the mining or land rights then acquired were usually transferred at an enhanced price to one or other of the greater companies. For instance, the Kharaskhoma Syndicate had before 1893 secured very extensive mining and grazing rights in South Namaqualand; its interests were subsequently transferred to The South African Territories, Ltd., which has in recent years sold considerable blocks of land. The latter company, registered in London in 1895 with a capital of £500,000 and an Anglo-German directorate, acquired from the Syndicate the Government concession of mineral rights over 30,000 square miles and ownership of 128 freehold farms, 2,700,000 acres (4,220 square miles) in extent. Its claim, in terms of the original concession, to a second grant of 128 farms of the same acreage, appears to depend on the German Government's title to the lands in question, and on its own discharge of its legal obligations to the Bondelzwart, Zwartsmoeder, and Veldschoendrager tribes of this region.

The South-West Africa Company is an Anglo-German association, which in 1892 received large concessions in Damaraland. Its holding comprised freehold occupation of 4,500 square miles, included within an area of 22,000 square miles, over which it enjoyed mining rights, and further both freehold and mining rights over a strip of land 6 miles broad on either side of any railway built by it north of the Tropic of Capricorn. An offshoot of this company, the Otavi Minen- und Eisenbahn-Gesellschaft, held rights granted by Government over about 23,000 square

miles in Ovamboland, in consideration of the surrender of some of its railway privileges.

The Kaoko Land- und Minen-Gesellschaft is another offshoot of the South-West Africa Company. Its capital of half a million pounds is held in Germany, and the extent of its mining areas, almost all of which it claimed as freehold, was more than 37,000 square miles, and covered the greater part of the Kaokoveld.

The Anglo-German Territories, Ltd., was registered in London in 1891, with a capital of £300,000. It took over the former property of the Orange River Estates Company, Ltd., said to amount to 2,000 square miles in German territory and a somewhat similar area south of the Orange River.

There were apparently two Hanseatic companies, one solely, and the second primarily, interested in mining. The Hanseatische Minen-Gesellschaft, formed in 1910 with a capital of £50,000, had mining rights over some 15,000 square miles in two blocks in the middle of the territory near Rehoboth. The Hanseatische Land-, Minen- und Handels-Gesellschaft für Deutsch-Südwest-Afrika has a capital of £132,000. Its interests, too, were at Rehoboth, and as it has the same address in Berlin, it is probably closely connected with the other company.

The Windhuker Farmgesellschaft in 1907 acquired the Siedelungsgesellschaft für Deutsch-Südwestafrika, and in 1912 owned five farms totalling 137,000 acres (214 square miles), and, in addition, some 400 square miles held for it by the German Government.

The Gibeon Schürf- und Handels-Gesellschaft had concessions in the districts of Gibeon and Keetmanshoop.

The Deutsche Kolonial-Gesellschaft für Südwest-Afrika was the first in the field of all the land and mining companies. It was constituted in 1885, with a capital of £15,000, to take over the concessions acquired by Adolf Lüderitz. At the time of the German occupation it was granted mining rights over the whole Protectorate, and was charged with its

administration under the suzerainty of the German Empire. Its ownership of land was presumably limited by the rights of the natives to the territories they occupied, and also by the concessions previously acquired by individuals or by other associations. In 1889 the company was deprived of its monopoly of mining rights, and in 1892 it was relieved of the burden of administration. Finally, in terms of agreements made in 1908 and 1910, the company transferred to the Government all its landed property except nine small districts near Swakopmund and Lüderitz Bay. It retained control of a coast strip, 100 kilometres deep, between 26° south and the Orange River, so long as diamond extraction and mining should be prosecuted on a large scale. The area transferred to the Government was nearly 12,000 square miles, less such portions as had been sold or leased.

It may be added here that the company's capital was gradually increased until it amounted to £100,000, and this was doubled in 1909 by the issue of 6 per cent. cumulative preference shares. Dividends between 1885 and 1905 were nil, but in the years 1906 to 1911 were successively 20, 20, 20, 25, 64, and 50 per cent. The rise in profits was no doubt mainly due to the company's holdings of diamond claims and to its interest in several mining companies. It held four-fifths of the capital of the Deutsche Diamantengesellschaft, and considerable interests in the Südwestafrikanisches Minen-Syndikat, Lüderitzbucht-Gesellschaft L. Scholtz & Co., Deutsch-Südwestafrikanische Wollzüchtereier, Deutsche Walfang-Gesellschaft "Sturmvogel," and Diamanten-Régie des Südwestafrikanischen Schutzgebiets.

If the claims made by these various land companies can be proved to rest on valid titles, it would follow from the figures quoted that the freehold land owned by them amounts in all to nearly 64,000 square miles of the best land, out of the total Protectorate area of 322,200 square miles. The land available for European settlement includes, in addition, all the territories con-

fiscated by the Government from the Herero and Hottentot tribes who had been goaded into rebellion. The 1,331 farms which had been taken up by 1913, and of which 193 were then lying idle, occupied a total area of 33,484,015 acres, or about 52,320 square miles. Thus, approximately one-sixth of the surface of the Protectorate was then occupied by European settlers, who numbered 1,587 all told. The average size of a farm was over 21,000 acres.

Settlement.—The land companies, except the South-West Africa Company, had done little to attract settlers; but it was the policy of the German Government in later years to acquire all possible land rights with a view to offering land on easy terms to farmers of the right type and nationality. Non-Germans complained that the Government officials took every chance of contesting their titles, so as to dispossess them in favour of more amenable German settlers. In the sale of new farms preference was given to Germans who had performed their military service and had capital enough (£300) to start cattle farming with State assistance, which was given both in money and by free prospecting for water on their properties. To such settlers the large land-owning companies were induced by the Government to offer farms at fixed prices. The lowest prices for land bought from the Government in 1912 were 1·20 marks per hectare (2·47 acres) in the North; 1 mark in the Rehoboth and Gibeon districts; and 50 pfennigs in the South—in the Keetmanshoop, Warmbad, and Hasuur districts. In that year the Government sold 60 farms, of 943,279 acres, and leased 26, of 577,220 acres; while the land companies sold 19 farms, of 529,700 acres, and leased 10, of 629,580 acres. Generally speaking, the country does not offer advantages sufficient to attract a large influx of settlers, nor have there hitherto been openings for white men as farm officials, since even the biggest cattle farms were worked mainly by natives.

The Government Land Bank had not been long

enough established before the outbreak of war to influence the transfer of property appreciably.

(3) FISHERIES

Sea-fishing in the ordinary sense is an unimportant industry. Fish of various kinds exist in abundance, but have formidable enemies in the countless sea-birds that congregate on the guano islands off the coast. Crayfish are common along the coast, but are not caught for canning, as at the Cape. The fish which is most frequently offered for sale seems to be the snoek.

The taking of fish, however, was only a secondary aim of the solitary fishing enterprise, the Lüderitz-buchter Robbenfang- und Fischerei-Gesellschaft, which was founded in 1912, with a capital of £1,000. It engaged in sealing throughout the sealing season, and in 1912-13 took 1,769 seals, the skins of which were sold for £2,078. The question at issue between the Protectorate and Union Governments as to the sealing (and diamond) rights on the islands along the coast had not been settled in 1913.

There were two whaling companies at work before the war. The Whaling Company, of Walvisch Bay, is said to have secured 700 whales in less than a year. The Deutsche Walfang-Gesellschaft "Sturmvogel," founded at Bremen in 1912, with a capital of £46,000, built a station at Sturmvogel Bay in 1912-13, and began its operations in 1913 with a staff of 20 white and 100 native employees. The results of the first year's working were considered disappointing.

(4) MINERALS

Output.—In 1913 the mineral output of South-West Africa was as follows:—

	£
Diamonds	3,084,581
Copper (including lead ore and copper matte)	396,436
Tin ore	31,568
Other ore and minerals ...	3,316
Marble	1,450
	<hr/>
	3,517,351
	<hr/>

These figures show clearly that only copper and diamonds were exploited on a large scale. Although the country as a whole is highly mineralized, the other minerals that occur are relatively unimportant and call for the briefest notice.

Less important minerals.—The chief mineral products are indicated on the map attached to Mr. Tønnesen's useful article in the *Geographical Journal* for April 1917. Commercial value cannot be claimed for the known deposits of asbestos, fluor-spar, mica, molybdenite, sulphur, tantalite, and vanadium; and no attempt had been made before the war to work the more promising finds of graphite or to quarry on a large scale the useful building-stone found in many localities. Attempts made to work deposits of galena and veins carrying aquamarine, beryl, and heliodore had not proved remunerative.

Auriferous quartz veins occur in the Kaokoveld, but neither there nor elsewhere has gold been found in workable quantity. Lead, as well as copper, was mined by the Otavi Company, which exported, between 1910 and 1912, 2,616 tons of lead valued at £71,700. The ore shipped from the Otavi mines contained about 24

per cent. of lead, and a small percentage of silver. Silver was at one time mined near Pomona Island. Iron ore is found at a number of points on the Kaokoveld and also near Kalkfeld. The ore extracted at Okovakwatyivi is employed at Tsumeb as a flux for the locally smelted copper ores. Coal has been reported in recent years in various parts; a seam is said to have been located near Keetmanshoop, and a deposit of gilsonite near Gibeon; but no seam had been worked with success before the war. The discovery of kimberlite in Gibeon district excited high hopes; but investigation has hitherto failed to reveal the presence of diamonds in any of the 40 known pipes, dykes, and chonoliths. Veins carrying wolframite in rich patches were opened at Nakeis, in Great Namaqualand, but owing to interposed stretches of barren quartz proved too poor to reward exploitation.

Some miles from the coast, near Elizabeth Bay, there is an extensive bed of rock salt, containing a high percentage of sodium chloride. Since the British occupation rock salt has also been discovered in immense quantities close to the railway line at Nonidas Siding, 8 miles from Swakopmund. The only saltpan of note is at Aminuis; of the numerous others the best seem to occur west of the Etosha Pan. The pans along the coast are spoiled by the presence of wind-blown sand. Accumulations of guano are found not only on the Guano Islands, belonging to the Union of South Africa, but also at intervals along the coast of the mainland. Limestone is common, and lime-kilns have been worked in many localities.

Marble.—In the neighbourhood of Karibib, and of Swakopmund and Walvisch Bay, there exist vast quantities of marble of every hue, texture, and pattern, which, if not pure enough or homogeneous enough to compete with Carrara rock, is yet suitable for architectural purposes. The handsome appearance and vast extent of the Karibib deposits led to the formation in 1910 of the Afrika Marmor Kolonialgesellschaft, Hamburg, with a capital of 3,000,000 marks. This

company absorbed the smaller Afrika Marmor-Syndikat, which had taken over the interests of the Deutsch-Südwestafrikanische Marmorgesellschaft. The latter company had been formed by H. C. F. Smidt, of Swakopmund, with a nominal capital of 442,000 marks, but after a run of two years it went into liquidation at the end of 1911. The Afrika Marmor Kolonialgesellschaft opened up several large quarries, connected them with Karibib by narrow-gauge railway, and installed large cranes and transporters on the jetty at Swakopmund. Unfortunately, freightage to Europe was so high that export at a profit proved impossible, and all quarrying had to be suspended. The future of the industry seems to depend on the market which may yet offer itself in the Union, and on improved harbour facilities at Walvisch Bay, which may so reduce the cost of transport to Europe as to leave a margin of profit.

Tin.—Deposits of cassiterite are found at Orab, Gokhas, and Persip, but the majority of occurrences are located between the Khan and Ugab rivers, especially on the Erongo mountains. The tin recovered hitherto has been obtained from the alluvial deposits, which are of considerable extent, and not from the reefs of pegmatite and quartz, in which the tin content is apparently too irregular and patchy to be profitable.

The export of tin began in 1911 with consignments of 9 tons, valued at £470. By 1913 it had risen to 200 tons, of a value of £31,600. The first tin-mining company was the Erongo Zinn-Gesellschaft, of Ameib, formed locally in December 1910, with a capital of £10,250. Its preliminary operations were considered promising enough to warrant the introduction of more capital. Failing to obtain German backing, the syndicate eventually obtained in the Union sufficient support to create in 1911 a new company, The Ameib Exploration Company, of Capetown, which had a capital of £175,000, and took over the Erongo properties, $3\frac{1}{2}$ square miles in extent. The Ameib venture was not specially successful, but its example led to

further prospecting and development work on the better class tin claims which are held by the Anglo-German Tins Syndicate, the De Beers Company, the Otavi Exploring Syndicate, and the South-West Africa Company. A smaller company, the German African Tins, Ltd., had ceased work on its claims by 1913. In 1912 a number of claims of uncertain value were purchased from prospectors by three wholly German companies, the Hamburger Schürfsyndikat, Woermann, Brock & Co., and the Koloniale Bank. The latter is probably the banking section of the Deutsche Kolonial-Gesellschaft für Südwest-Afrika.

Copper.—Copper ranks second to diamonds in importance among the minerals of the territory. It is found at a great many points throughout the country, but the chief deposits are those in the dolomite rocks of the Otavi district, in which copper is usually associated with lead. Next to these come the output of the Khan and Ida mines in the Swakopmund district, and the Sinclair mine in the north-east of the Lüderitz Bay district. The two main areas are served by the Otavi Railway and its branches.

The only mines which were worked at a clear profit appear to have been the Tsumeb, Groot Otavi, Asis East, Guchab, and Bubus mines of the Grootfontein district, the Khan and Sinclair mines mentioned above, and the Otyisongati mine, 30 miles east of Okahandya. The most productive of all is the Tsumeb mine.

The total quantities of ores extracted in the Tsumeb-Otavi-Grootfontein district, and shipped from Swakopmund since the completion of the railway and the beginning of systematic mining, were as follows:—

Year.	Copper and Lead Ores.	Copper Matte.	Metallic Lead.
	Tons.	Tons.	Tons.
1907-08	16,800	1,000	700
1908-09	27,700	3,150	3,000
1909-10	33,500	2,940	2,732
1910-11	31,600	2,220	2,040
1911-12	29,600	991	913
1912-13	44,550	655	400
1913-14	50,070	1,179	..

During the same years the output from all the other districts together was less than 5 per cent. of the whole total. The value of the combined exports of copper and copper ore for each of the years 1910-13 was £284,860, £187,685, £326,170, and £396,435.

Sir Francis Galton, in his journal, reported that in the course of his trip to Ovamboland, in 1851, he had met caravans of Bushmen conveying copper ore from Tsumeb to the skilled metal-workers of the Ondonga tribe of Ovambos; but the value of the deposits was first realized in 1901, as the result of an expedition sent out by the South-West Africa Company. This company transferred its mineral rights to the Otavi Minen- und Eisenbahn-Gesellschaft, which had been registered in Germany in 1888, with a capital of £200,000. It at once proceeded to link up Tsumeb with Swakopmund by the Otavi narrow-gauge railway, completing it in 1906. Until recently it retained an area of 15 kilometres in diameter round the Tsumeb mine, and areas of 4 kilometres in diameter round the Guchab and Great Asis mines, but its prospecting rights over the rest of its concession of 1,000 square miles had been passed on for a term of 10 years to the Otavi Exploring Syndicate, Limited, founded in London in 1909 with a capital of £63,000. This syndicate conducted development work as well as prospecting, and in recent years shipped considerable quantities of copper ore from Groot Otavi and Bubus

mines, as well as trial consignments of mottramite from Nosib.

The Khan copper mine was owned and worked by the Khan Kupfergrube Gesellschaft, which was formed at Duisburg in 1909, with a capital of £50,000. The company's production of ore was 2,000 tons in 1911, 1,000 tons in 1912. New machinery electrically driven was installed in 1914, and was expected to treat 50 tons of ore per diem.

Otyisongati appears in the titles of two companies. One of these, the Otjozonjati-Minen-Syndikat, is a small concern, constituted at Windhoek in 1907 with a capital of £5,000, and directed by four local men. The other, the Otjozonjati-Kupferminen-Gesellschaft, was formed in Berlin in 1906 by a number of German officials and merchants, who controlled its operations. Its capital was £10,000, and its annual output from the Otyisongati mines between 1907 and 1912 was just over 500 tons. The guiding spirit in this enterprise was Dr. Max Schoeller, of Burg Birgel, who directed groups of similar ventures in both East and South-West Africa. Included in his South-West Africa group were the Onjati-Kupferminen-Gesellschaft, the Stanley-Minen-Gesellschaft, and the Deutsche-Südwestafrikanische Kupfer-Gesellschaft Gorobminen, all registered in Berlin. The Onjati-Kupferminen-Gesellschaft, formed in 1907 with a capital of £9,250, took over 30 claims for a consortium headed by Otto Peycke, a Hamburg merchant. The Stanley-Minen-Gesellschaft also dates from 1907. With a capital of £15,650, it took over concessions granted by the German Colonial Company to Messrs. J. W. Stanley and W. Tripmacker. The Onjati and Stanley companies, which own properties adjoining the Otyisongati mine, were being liquidated in 1912 by Dr. Schoeller and Paul Henning, of Berlin. The Gorob Company was founded in 1907, with a capital of £20,000, to work copper and graphite discoveries on 39 claims located near Gorob in the Swakopmund Namib.

The Sinclair Mine was acquired in 1913 by the Koloniale Bergbau-Gesellschaft, a prominent diamond combination.

The Bergbaugesellschaft Namaqua was constituted in Keetmanshoop in 1909 by two local merchants, Robert Blank and Jean Neuneier, with a capital of £8,000. It worked copper and other minerals on its property, and also exploited the coal discoveries near Aurus.

Diamonds.—The diamondiferous deposits of South-West Africa were first made known in April 1908. In 1913 they yielded over 20 per cent. by value of the total diamond output of the world. The production between 1908 and 1913 is indicated in the following table:—

Year.	Carats.	Value.	Value per carat	Average number of stones to the carat.
		£	s. d.	
1908	38,275	55,898	29 2	..
1909	483,266	705,629	28 2·8	5·0
1910	846,695	1,109,643	26 2·5	5·75
1911	773,308	969,065	25 0·7	6·5
1912	1,051,177	1,511,600	28 8·8	6·09
1913	1,470,000	3,084,581	41 11·5	4·97
Total	4,662,721	£7,436,416	..	..

Of the 1913 yield 1,284,727 carats, valued at £2,698,500, had been sold before the outbreak of war. The total output up to August 1914 was 5,400,000 carats, of the value of £9,250,000. These figures are sufficient to show the immense importance of the diamond industry to the economic development of the territory.

The diamonds found on the south-western coast are quite unlike any of the diamonds found in the Union of South Africa. In point of hardness and of brilliancy they more closely resemble Brazilian stones.

They are of all hues, and, although small in size, show uniform good quality. The largest stone hitherto discovered weighed $34\frac{1}{2}$ carats; it was found on the Lüderitzfelder, just south of the Pomona boundary. The average size of the diamonds recovered in 1913 was almost exactly one-fifth carat.

All the deposits occur along the coast at intervals between Conception Bay and Marmora, opposite Sinclair Island. Those which lie north of Dogger Fels are relatively unimportant, and in few cases repay working. The whole of the higher value holdings are found on the southern section, between Dogger Fels and Marmora.

No diamonds have yet been discovered at a greater distance from the coast than 15 miles. This fact, taken in conjunction with the occurrence on Possession Island of diamondiferous gravel of identical character, proves that the deposits are in some way related to the sea.

It is not yet known whether diamonds occur under the sea off this coast, and the problem of the origin of the diamonds still awaits solution. A statement of the conflicting theories may be found in Dr. Wagner's *Report on the Geology and Mineral Industry of South-West Africa* (Pretoria, 1916).

One feature in the distribution of the diamonds is that the average size of the stones increases steadily from north to south until it reaches its maximum at Ida valley in the Pomona area.

The deposits are of two distinct types—(1) marine, and (2) eluvial or residual. The former have in a number of instances proved to be worth exploiting, but the total output from them is negligible in comparison with the yield of the eluvial deposits. The latter are composed of fine sand and coarser particles in ratios varying between 3·2 and 9·1, and probably averaging 4·1. The layer of diamond-bearing material is usually 4 to 6 inches thick, but in places between Lüderitz Bay and Elizabeth Bay it attains a depth of 25 and even 30 feet.

There is a wide variation in the diamond content of the "gravel" at different parts of the fields. On the Bogenfels claims considerable patches occurred which averaged over 10 carats of diamonds per cubic metre, and in the Ida valley yields running up to 200 carats per cubic metre have been recorded.

The cost of production per carat varies widely on different holdings, and is relative to the diamond content of the "gravel," the depth of the deposit worked, the distance from railway and from power plant, the scale of operations, rates of pay, and other factors. In 1913 the cost per carat on the Pomona property was only 2s. 2d., as compared with 35s. on some of the poorer and more distant holdings. Transport expenses were greatly reduced by the construction of the narrow-gauge railway to Bogenfels.

Water supply is a problem of considerable difficulty; the necessary minimum has been obtained either from wells or by condensing sea-water. Power is supplied to the holdings near Lüderitz Bay from a large electric generating station equipped with suction gas-engines. The current, transmitted at a pressure of 30,000 volts, costs 4d. per kilowatt-hour, or less to large consumers. The more remote claims derive their power from their own oil-engines. The labour employed before the war was about 500 white men, and 5,000 coloured labourers. Of the latter some 2,000 were Cape boys, paid at the rate of £3 per month, and the rest were Ovambos, drawing 25s.

Prospecting was carried on vigorously between 1910 and 1914; but no further discoveries of any importance were made, and it seems unlikely that the area of the diamond field will be increased. On the main holdings, such as the Ida valley at Pomona, the richest and most accessible stretches have already been worked out. Large resources doubtless remain in the form of lower-grade material, and the working of these will be profitable for a considerable term of years. The diminution of output, due to the exhaustion of the richer deposits, will be only partially balanced by the introduction of

improved methods for recovering the smallest stones; and the average size, as well as the quality, of the diamonds recovered seems bound to fall off, unless further investigations should disclose more diamondiferous areas, or unexpectedly reveal the common source of all the littoral deposits. In 1913 it was considered sanguine to estimate the life of the fields at twelve to fifteen years; the output would probably remain undiminished for five years, but after that period might be expected to decrease rapidly.

Government supervision of diamond mining was exercised by the Department of Mines, the staff of which included two inspectors of mines, two geologists, and one scientist for the mining laboratory. The diamond tax was originally 10 marks per carat, but in 1909 was changed to an *ad valorem* duty of $33\frac{1}{3}$ per cent.; this change rendered the poorer workings unremunerative. A new system was, therefore, introduced in December 1912. The assessment was fixed at 66 per cent. of the selling price of the diamonds, less 70 per cent. of the total cost of production. The sliding scale thus created exempted from taxation the output of the poorest claims, and nearly doubled the previous rate on cheaply recovered yields from the deposits of highest value. The result was that latterly the poorer deposits were once more being exploited, development was encouraged, and experimental work was being carried on in the doubtful grounds of the northern area. The estimated revenue from the diamond tax in 1913-14 was £330,000; the actual receipts were £800,000 in excess of this figure. For 1914-15 the receipts were expected to realize £689,500, an estimate which under normal conditions would again have been largely exceeded.

The German Government at an early stage took control of the sale of the diamonds. A company called the Diamond Régie (Diamanten-Régie des südwestafrikanischen Schutzgebiets) was formed in 1909, with a capital of £100,000, for the purpose of placing the output on the market, and distributing the proceeds

among the companies, after deducting taxes, royalties, and commission. This company was granted the disposal of all diamonds mined in the Protectorate, and the sales were made at the discretion of the German bankers, who were the chief shareholders. Producers were dissatisfied with prices obtained; and eventually they secured from Government in 1913 a share in the control of the company. Tenders were then invited for the purchase of the next year's output, with the result that the prices offered by the successful tenderers, the Antwerp Syndicate, were 15 per cent. higher than in 1912.

The contract was presently found to be subject to a proviso that the Syndicate would not have to take delivery of more diamonds than it required; and, although output was averaging 130,000 carats per month, the rate of delivery was at once reduced to about 100,000 carats. Emphatic protests were recorded by the producers, who had not been aware of the condition, but the German Government quashed their opposition. It took over all the bankers' shares in the Régie, and, having thus secured a majority of votes, it then proclaimed its intention of assuming the functions of the Régie, which no longer existed in its original form. In December 1913 a Government Ordinance appeared, announcing that from the beginning of 1914 Government would determine the total amount of diamonds to be sold in each year, as well as the quota of each individual company. The total fixed for 1914 was 1,038,000 carats, or 86,500 carats per month, and each company was informed what its share was to be. The producers resented this somewhat high-handed measure and instituted legal proceedings, but after negotiations they agreed to the principle of restriction, and Government reorganized the Régie and gave the producers four members out of the eight that compose the board. Government and producers are alike interested in the revenue derived from the sale of diamonds, and the arrangement arrived at in 1914 seemed likely to maintain profits, encourage development, and

secure community of action for the purpose of keeping the market steady.

The economic importance of the industry justifies a brief account of the more important diamond-mining companies. The number of these increased from 51 in 1912 to 79 in 1913, when the total capital invested amounted to 29,987,100 marks, or nearly £1,500,000.

(1) The German Government had holdings which were leased in 1909 to the *Diamanten-Pacht Gesellschaft*, of Berlin, whose capital is £125,000. The lease was to run for 15 years, with extension if necessary for 10 years more, and Government was to receive three-fourths of the net profits. The *Diamanten-Pacht-Gesellschaft* in turn made an agreement with the *Koloniale Bergbau-Gesellschaft*, by which the latter undertook the management of the mining operations to the end of 1919, with possible extension to 1924, in return for half of the other company's profits during this period. The output from the Government claims was 158,356 carats in 1912, 119,920 carats in 1913. For 1914 the quota allotted under the Government arrangement with the Diamond Régie was 109,000 carats.

Of the Government claims, what is known as the Government Block was owned by the Government, while the other claims were held under a fifty years' lease from the *Deutsche Kolonial-Gesellschaft für Südwestafrika*, which held the mineral rights over the so-called Sperrgebiet (Reserve), a tract of land 65 miles deep from the coast, between the Orange River and 26° south latitude. The only claims in the southern region which were not similarly held under a fifty years' lease from the *Deutsche Kolonial-Gesellschaft* were those bordering on the railway and the holdings of the *Deutsche Diamanten-Gesellschaft*.

(2) The *Kolmanskop Diamond Mines, Ltd.*, floated in Capetown in 1909, with a capital of £125,000, leases a property of about 10,000 acres 6 miles east of Lüderitz Bay. Its output was 122,525 carats in 1912, 106,879 carats in 1913, and its quota for 1914 was to be

89,500. The company's dividends in five years had amounted to nearly twice its capital. Its richest claims are now exhausted, and the material remaining for treatment consists mainly of deep deposits of low-grade gravel.

(3) The holdings of the *Koloniale Bergbau-Gesellschaft* are among the most valuable in the whole area. The company produced 368,867 carats in 1912, 316,774 carats in 1913 and was allotted a quota of 245,000 carats for 1914. In the four years 1910 to 1913 it paid dividends of 24, 25, 38, and 25 times the amount of its capital, which is £5,025. These dividends, distributed after payment of the heavy Government taxes, probably constitute a world's record.

(4) The *Deutsche Diamanten-Gesellschaft*, with a capital of £125,000, owned a number of claims in the vicinity of Lüderitz Bay, and very large areas further south, between Pomona and Marmora. Its claims near Bogenfels have proved to be particularly valuable, and between Bogenfels and Pomona extensive tracts of profitable gravel occur. The company's production rose from 158,158 carats in 1912 to 172,710 carats in 1913; and its allotted quota for 1914 was 118,500 carats.

(5) The *Pomona Diamanten-Gesellschaft* was floated in May 1912 with a capital of £150,000, and commenced work in August 1912. The yield of diamonds for 1912 was 124,412 carats, and for the complete year 1913 it amounted to 512,384 carats, and resulted in a dividend of 175 per cent. A quota of 350,000 carats was allotted for 1914.

Among the best claims on the company's holdings are those of the Ida valley, the Scheibe, Anna, and Märchen valleys, and the Kaukansib valley.

(6) The *Vereinigte Diamantminen-Gesellschaft* has a capital of £100,000. Its best holdings appear to have been the Rohrbach, Komet and Reichenstein claims, all on the large southern block. The company also hoped to obtain an area of 1,294 acres on the Marmora farm, which was the subject of litigation in 1914.

The output from the company's holdings was 33,715 carats in 1912, and 51,478 carats in 1913; the output assigned for 1914 was 50,000 carats.

(7) The *Diamanten Aktien-Gesellschaft* was constituted in 1912, with a capital of £25,000, to acquire the holdings of Weiss, De Meillon & Co. It produced 21,765 carats in 1913, and was assigned a quota of 18,500 carats for 1914.

(8) The *Diamanten Abbau-Gesellschaft* has a capital of £3,000, held largely by the German South-West African Diamond Investment Company, of Capetown. Its output from April to November 1913 was 13,347 carats, and its quota for 1914 was 12,500 carats. It also leased the claims of (9) the *Diamant-Gesellschaft Grillental*, which was assigned a quota of 6,500 carats for 1914.

(10) The *Lüderitzbuchter Bergbau-Gesellschaft* was formed in March 1913 with a capital of £1,050. It took over 5 claims from the Swakopmunder Diamant-Gesellschaft, produced 8,550 carats of diamonds in 1913, and was assigned a quota of 7,500 carats for 1914.

(11) The *Neue Nautilus Gesellschaft* and (12) the *Keetmanshooper Diamantgesellschaft* appear to have suspended operations on their holdings long before the outbreak of war.

Narrow strips of diamond-bearing ground on either side of the railway were left free from the restrictions attaching to the Government Block, and were secured by three small companies: (13) the *Bahnfelder Diamantgesellschaft*, (14) the *Bahnfelder Abbau-Gesellschaft*, and (15) the *Kolmanskoppe Bahnfelder Gesellschaft*. The combined output of the three companies in 1913 was about 16,000 carats, and the respective quotas allotted them for 1914 were 9,000, 3,000, and 3,000 carats.

(16) The *Halbescheide Gesellschaft* was formed in 1914, the Government providing half of the capital of £30,000. The company originated in the agreement made in 1910 between the Imperial German Govern-

ment and the Deutsche Diamanten-Gesellschaft, in accordance with which prospecting for minerals in the Sperrgebiet (Reserve area) would be reserved to the company after April 1, 1911. The prime object of the company was to ascertain the source of the diamonds distributed over the fields.

(17) The *Allgemeine Schürfgesellschaft* appears on the list of producing companies, and was assigned a quota of 6,000 carats for 1914. It was formed at Windhoek in 1910 with a capital of £8,750.

The companies which worked the shallow and patchy deposits of the Conception Bay fields were five in number. (18) The *Holsatia Diamantgesellschaft* and (19) the *Charlottenfelder Aktien-Gesellschaft* appear to have been unsuccessful. (20) The *Hansa-Diamantgesellschaft* and (21) the *Gewerkschaft "Kyffhäuser"* must have succeeded moderately well. The quotas allotted them for 1914 were 4,000 and 6,000 carats respectively. The claims of (22) the *Diamantfelder-Verwertungsgesellschaft* were worked by the Koloniale Bergbau-Gesellschaft, which engaged to run a light railway and a pipe-line to the claims at an estimated expenditure of £15,000, and in return was to receive 55 per cent. of the net profits. Between May 1913 and August 1914 the output was at the rate of about 2,000 carats per month, and the diamonds produced, though very small, were of excellent quality.

(5) MANUFACTURES

Manufacturing industries were just beginning to make their appearance before the war. The first sea-going steam-vessel, the "Angola," was built at Lüderitz Bay in 1913. It was 16 metres long, and was designed for coast-fishing and sealing. The railway workshops at Usakos and Keetmanshoop were able in 1916 to cope with considerable heavy and light repairs to German and Union engines, and all castings for the territory were made in the foundry which has been installed in Usakos since the British occupation. Highly successful breweries had been established at Windhoek and Swakopmund, with the result that imported beer had been driven out of the local market.

The development of the minor industries and trades can be roughly estimated from the following list, reproduced from the German Official Report, 1914, which gives the state as on April 1, 1913. This list indicates, as might be expected, that the businesses connected with the supply of food easily outnumbered all the others, those connected with construction and transport coming next in importance.

List showing the number of industries and minor trades in South-West Africa as on the 1st April, 1913 (from the Annual Official Report, 1914).

Kind of Trade.	Total No. of Employers.	No. of persons employed.	
		White.	Coloured
Apothecaries	2	1	2
Bakers	35	39	88
Barbers	10	4	6
Bootblacks	3	1	1
Breweries	4	5	25
Brush Factory	1	..	1
Builders	26	98	289
Butchers	23	23	78
Carpenters	2	..	2

List showing the number of industries and minor trades in South-West Africa as on the 1st April, 1913 (from the Annual Official Report, 1914)—Continued.

Kind of Trade.	Total No. of Employers.	No. of persons employed.	
		White.	Coloured.
Carpet Factory	1	1	2
Confectioner	1	2	3
Distilleries	2	5	11
Dye Works	1	1	3
Gardeners	4	5	29
Gunsmiths	2	..	1
Hotel-keepers	121	247	537
Ice Plant	1	1	11
Iron and Metal Factory ..	1	1	2
Jam Factory	1	4	6
Joiners	22	26	39
Key Makers	9	11	24
Laundries	7	5	18
Lime-kiln	1	2	3
Lime Works	1	2	25
Machine Shop	1	12	14
Masons	4	2	5
Milliners	13	9	8
Painters' and Artists' Sundries ..	15	17	24
Photographers	7	4	5
Refinery	1	2	6
Saddlers	7	5	8
Sausage Factories	2	5	7
Shoemakers	20	6	13
Shopfitters	1	1	1
Smiths	8	8	18
Soap Boiler	1	..	2
Soda-Water Makers	9	7	41
Tile Makers	2	1	15
Tinkers	6	6	8
Transport Agents	17	12	180
Wagon Builders	18	54	96
Watchmakers and Goldsmiths ..	8	6	4
Water Engineers	4	..	5
White Beer Breweries	3	2	17
Total	428	643	1,683

(C) COMMERCE

(1) DOMESTIC

(a) Principal Branches of Trade

Domestic commerce in South-West Africa was on a very modest scale, as is indicated by the list of industries on p. 81. The chief commodities in which trade was carried on are foodstuffs and clothing for Europeans and for native labourers; spirits, wines, and beer; building materials, furniture, and household requisites; agricultural implements and other equipment required by the large stock-raising farms or ranches. The import lists show as their principal categories foodstuffs, machinery and hardware, textiles and timber; and the chief exports from the country, as has already been indicated, were diamonds, copper and other minerals, guano, and animal products. In the years preceding the war the numbers of cattle and sheep in the Protectorate were increasing at a faster rate than the population, and the farmers found difficulty in marketing stock beyond what was required for local needs. The result was a pronounced fall in the prices of beef and mutton. At Windhoek the former was $7\frac{1}{2}d.$ per lb. in 1908 and $3\frac{3}{4}d.$ per lb. in 1913, while mutton dropped from $6d.$ to $3\frac{1}{2}d.$ per lb. in the same period. The opening of the Union markets may be expected to benefit the farmers in the future.

(b) Towns and Markets

The insignificance of the internal trade is an index of the smallness of the population. Windhoek, Lüderitz Bay, Swakopmund, and Keetmanshoop are the only towns in which the European residents number over 1,000, and only in Windhoek do they exceed 2,000. There are about a dozen villages with white inhabitants numbering between 300 and 1,000. In these the European buildings, solidly constructed and including as a rule an hotel, a few stores, officials'

quarters, and public offices, give an impression of well-being; but it is obvious that they cannot represent a large purchasing power or indicate any considerable market. The native population in the vicinity of the villages outnumbered the whites in ratios varying from 150 to 2,000 per cent., but has attained neither such wealth nor such standards of living as to influence appreciably the volume of internal trade.

(c) *Organizations to promote Commerce*

Numerous organizations existed in Germany for assisting trade and industry in overseas protectorates. By these the whole field of commercial opportunities was carefully mapped out, every section covered, and all large-scale enterprises systematically interlocked. Most of these organizations had their head-quarters either in Berlin or in Hamburg. The great propaganda institution, the German Colonial Society (*Deutsche Kolonial-gesellschaft*), with its subsidiary body the Colonial Economic Association (*Kolonial-Wirtschaftliches Komitee*), has been discussed in the book on *Tanganyika*, No. 113 of this series, p. 86. Second only to the Imperial Government in its anxiety to foster German trade in South-West Africa was the Senate of Hamburg, which lent support both to individual firms and to commercial bodies. The shipping interests of the Protectorate were in the hands of the big Hamburg lines, and landing rights at the ports were a monopoly of the *Woermann-Linie*. Hamburg also exercised its influence through the *Hamburgisches Kolonialinstitut*, which was both a colonial training college and a research institute, and was closely linked up with the Central Intelligence Bureau.

The rivalry between the Hamburg Institute, backed by the Senate, merchants, and shippers of Hamburg, and the German Colonial Society with its offshoots and various subsidiary Intelligence Bureaux, all supported by the Imperial Colonial Office at Berlin, was often acute. The German Government knew well how to

make the rivalry between the two centres serve its purpose when circumstances seemed to call for a vigorous colonial policy, and how to repress their activities when continental expansion was considered to be in Germany's best interest.

Within the Protectorate the chief organizations which helped to promote trade were the Chambers of Commerce, the Chamber of Mines, the Agricultural Advisory Board, the Stock Exchanges, the Co-operative Associations, and the Diamond Régie.

Chambers of Commerce existed at Windhoek, Swakopmund, and Lüderitz Bay. All of these did useful work in dealing with matters affecting trade and industry.

The Chamber of Mines was formed at Lüderitz Bay in 1910. It handled such questions as the supply of labour, the reform of the Régie, and the regulation of taxes of all kinds levied on the diamond industry. It was also active in pressing for alterations in the Mining Ordinances.

The Agricultural Advisory Board was constituted in terms of an Ordinance of 1913, to replace the three farmers' associations which had previously existed for the three districts, northern, middle, and southern. The new Board, composed of members elected by the German farmers in each division, was commissioned to advise the Government on agricultural matters. At the first meeting, fixed for March 1914, the Government experts were to submit for the Board's consideration draft laws on animal diseases, fencing, and water rights. Expenses up to about £400 per annum were met by the Government.

The opening up of the diamond fields led to the creation of a fairly active local market for stocks and shares. A few brokers did considerable business, and the banks made arrangements for purchasing stock for clients on the European and neighbouring African Exchanges. The largest of the Protectorate Exchanges was at Lüderitz Bay and was founded by the local Stock Exchange Association (*Börsen-Verein*).

Several co-operative produce-associations had been started before the war by private enterprise among the farmers. These included the *Ein- und Verkaufsgenossenschaft, Windhuk*; the *Ein- und Verkaufsgenossenschaft in Grootfontein* and the *Grootfonteiner Verwertungs-Gesellschaft*; and the *Verwertungs-genossenschaft Okahandja*. Of these the Windhoek company carried on a slaughterhouse business, and marketed dairy and farm produce. Its business grew steadily and rapidly. The produce handled was valued at £13,118 in 1910, £19,631 in 1911, and £22,073 in 1912. In 1911 its liabilities were £5,200 and its capital £2,450. Of the two Grootfontein associations the former was closed down by 1912, and the latter was then formed by the local farmers in order to supply the mining community at Tsumeb. The Okahandya association was engaged solely in slaughterhouse business.

The function performed by the Diamond Régie in marketing the diamonds recovered on the Protectorate fields has been described on p. 76. That the position held by the reconstituted Régie was recognized as authoritative is shown by the fact that it was officially represented in London in July 1914, at the joint meeting held by the various diamond industries of the world.

(d) *Non-German Interests*

Foreign interests have not been attracted to the Protectorate in any large measure, although a certain proportion of the capital invested in the various companies was drawn from the United Kingdom and from the Union of South Africa. The proportion of British subjects in 1913 was 12·2 per cent., while other foreigners represented 4·9 per cent. of the total white population. The total number of British subjects had declined from 1,866 in 1911 to 1,799 in 1913. Boers and British owned a number of farms, about 10 per cent. of the Protectorate total, between the Orange River and the northern limits of the Hasuur district, more especially in the neighbourhood of Klipdam.

The Boer settlers were neither popular nor contented with the German Administration, which, contrary to its pledges, had denied them separate Dutch schools and had not released them from the obligation of military service.

(e) *Economic Penetration*

The Germans were not more skilful in penetrating foreign territories than they were in limiting foreign influences in their own protectorates. German South-West Africa was well guarded even by its physical features; for not only were the land frontiers practically closed by natural barriers such as the native states of Ovamboland in the north and the wide stretch of the Kalahari towards the east, but the seaboard facilities were limited to two small and unfavourable ports, Swakopmund and Lüderitz Bay. These natural defences were strengthened deliberately and skilfully. The necessary excuse for handicapping foreign trade was discovered in the alleged difficulty of providing harbour facilities. It was argued that the interests of shippers and traders alike required the careful regulation of the loading and discharging of cargo; and on this pretext an elaborate contract was drawn up, by which the Government granted the Woermann-Linie a practical monopoly of the landing rights for a number of years. British and other foreign firms were thus debarred from employing agents of their own nationality, and all trade, whether of German origin or not, was compelled to pass through German channels. Further, although, in the absence of manufacturing industries within the country, the imports extended over a very wide range, including almost all the essentials of food-stuffs, clothing, house and farm equipment, machinery, and materials for building and construction, the heavy taxes imposed on non-resident commercial travellers under the German regime made it practically impossible for outsiders, canvassing for foreign firms, to compete with the local German merchants.

(2) FOREIGN

(a) General Remarks

Although the detailed trade statistics of German South-West Africa before the war will be of value to traders dealing with the country in the near future, they are not a clear index to the trade prosperity of the colony. One might even say that they are as likely to mislead as to instruct. The reason is that the diamonds and copper, which constitute almost the entire exports, are produced by outside capital, and the profits are consequently spent in other countries, serving to stimulate internal trade only to a limited extent, and perhaps only temporarily. Against this, it may still be argued that these two industries may some day develop on a very large scale. As has happened in South Africa, towns must spring up round mines; and such towns create a demand for agricultural produce and for manufactured articles, thereby causing an increase in the trading and agricultural communities, and eventually, though very much later, bringing about the introduction of manufacturing interests. This is a question which is constantly discussed in the neighbouring territories of the Union, especially in its application to the gold mines of the Rand and the great diamond mines of Kimberley. For South-West Africa the contingency is too remote to need more than a mention here.

When the figures of export and import for the seven years before the war are subjected to closer examination, it becomes clear that the trade balance which appears to have been so satisfactorily established is in reality wholly dependent upon the copper output, which was growing, and the diamonds recovered, which were stationary in value. As the Deutsche Afrika Bank pointed out in 1913, the export of copper ores benefits the colony directly only to the extent of that proportion of the wages of officials and labourers which is expended in the colony itself. As both of

these classes to a great extent were recruited from other countries, to which they periodically returned—the officials every few years and the labourers for the most part every year—the total amount of wages available for local dispersal is heavily discounted. This is true of the diamond fields also. But the two industries contributed materially, if indirectly, to the economic progress of the Protectorate. The Otavi copper mines, lying far inland, were the original cause and are still the mainstay of a narrow-gauge railway line, 400 miles long. They have thus effectively assisted the agricultural and commercial development of the districts opened up by the railway. The same claim cannot be made on behalf of the diamond fields. The light line which serves them is only seventy miles long, and the country traversed is a barren waste of gravelly sand incapable of agricultural production. But the high taxes paid by the diamond companies to the Government sufficed to cover the whole of the Budget and to provide an appreciable surplus, which was available for development work elsewhere in the Protectorate, and thus ultimately stimulated its commercial prosperity.

In respect of the investment of capital in the Protectorate and of income arising from such investments, it may be said that at the outbreak of war one set of people in Germany was drawing a considerable income from the dividends of the diamond and copper companies, whilst quite another set was annually investing considerable sums in South-West Africa farms, which could be expected only very gradually to return a regular income.

With reference to the foreign trade proper, although four other countries are shown as participating, nearly seven-eighths of the total was with Germany, as may be seen from the distribution statistics given below under 'Imports' and 'Exports.' As the Union Government's Memorandum points out, the policy of the German Government was obviously to keep both import and export trade in German hands. The

exceptional position of the United States of America in 1912 was doubtless due to the existence of direct steamer communication with that country. The introduction of foreign steamship services would have done something to foster trade with other countries; but the real reason why Germany secured such a large proportion of the trade is that practically all merchants and traders were Germans, and that the Government had ensured for German exporters facilities which were not enjoyed by the merchants and manufacturers of other countries.

(b) *Export and Import Trade*

Values of exports and imports.—Statistics show that practically all the trade in pre-war years entered or left the Protectorate through the German seaports. Less than 2 per cent. of imports in 1911 and less than 1 per cent. in 1912 crossed the other frontiers—the southern frontier almost exclusively. Of exports a still more insignificant percentage followed these routes. The railway connexion now established with the Union seems certain to lead in future to a large development of trade. Before the war the export trade with South Africa was inconsiderable, while imports included live-stock, agricultural produce and seeds, groceries, fruit, vegetables, textiles, machinery, metals, and hardware. Since the British occupation, moderate consignments of alcoholic liquors, grain, sugar, fats, and other food-stuffs, boots, soap, and tobacco have been imported from the Union. The table given below shows the values of exports and imports from German South-West Africa from 1900 to 1913. For the years previous to 1909 the figures are given to the nearest thousand. In earlier years they cover only private goods, but from 1906 onward goods purchased on Government account are included. Imports were exceptionally high in 1906 owing to the large importation of Government stores and ammunition for military use in the Herero War, which lasted

from June 1904 to March 1907. The war was also responsible for the shrinkage of exports by more than 90 per cent. during the years 1904-6. The discovery of diamonds led to the sudden and remarkable rise in export values from 1908 onward.

Values of Imports and Exports of German
South-West Africa for 1900-13

Year.				Imports.	Exports.	Total Trade.
				Marks.	Marks.	Marks.
1900	..	..	..	6,968,000	908,000	7,876,000
1901	..	..	..	10,075,000	1,242,000	11,317,000
1902	..	..	..	8,568,000	2,213,000	10,781,000
1903	..	..	..	7,931,000	3,444,000	11,375,000
1904	..	..	..	10,057,000	299,000	10,356,000
1905	..	..	..	23,632,000	216,000	23,848,000
1906	..	..	..	68,626,000	383,000	69,009,000
1907	..	..	..	32,396,000	1,616,000	34,012,000
1908	..	..	..	33,179,000	7,795,000	40,974,000
1909	..	..	..	34,713,448	22,070,904	56,784,352
1910	..	..	..	44,344,280	34,691,331	79,035,611
1911	..	..	..	45,301,955	28,573,244	73,875,199
1912	..	..	..	32,498,899	39,035,340	71,534,239
1913	..	..	..	43,424,806	70,302,830	113,727,636

Nature and destination of exports.—The principal items of export in 1913 were as follows:

	£
Diamonds	2,945,475
Copper and copper ore	396,436
Tin, lead and other ores	54,751
Horns, hides and skins	31,415
Ostrich feathers	6,204
Wool	6,814
Cattle, small stock, and meat	15,669

The diamonds all went to Germany in the first instance; but the bulk of the copper was shipped to other than German ports, and a considerable amount went to the United States. A more detailed analysis of the exports for the years 1911 and 1912 is given in the following tables:

Summary of Exports during the Years 1911 and 1912

	1911.	1912.
	<i>Marks.</i>	<i>Marks.</i>
Products of agriculture and forestry ..	4,345	28,368
Live stock	45,515	53,414
Animal products	525,795	739,515
Raw minerals and fossils	27,173,079	37,215,380
Manufactures, curios, &c.	824,510	998,663
Total exports	28,573,244	39,035,340

Chief Articles of Export during the Years 1911 and 1912

	1911.	1912.
	<i>Marks.</i>	<i>Marks.</i>
Cattle	21,600	16,519
Small stock	1,890	18,345
Meat.. .. .	14,544	28,974
Horns	24,526	24,003
Hides, goat- and sheep-skins	246,417	297,787
Skins of wild animals	34,051	29,575
Sealskins	43,543	41,569
Ostrich feathers	79,804	97,012
Wool.. .. .	74,172	149,658
Marble	1,232	19,968
Other stones and earths	9,184	5,485
Rough diamonds	23,034,146	30,414,078
Copper	325,000	229,850
Copper ores	3,428,703	6,293,408
Tin ore	—	9,400
Other ores	28,946	15,064
Lead	345,868	228,127
Leather and leather ware	14,863	18,535
Photographs	27,158	8,671
Curios and miscellaneous articles.. .. .	115,378	154,397
Packing cases, materials re-exported	667,111	817,060
Mohair	—	17,617
Wood and forestry products	779	14,154

The distribution of the exports, in respect of their values,¹ among the different countries of destination, was as follows in the years 1910-12:

	1910.		1911.		1912.	
	<i>Per cent.</i>	£	<i>Per cent.</i>	£	<i>Per cent.</i>	
Germany	82·6	1,197,683	85·2	1,595,661	83·2	
Union of South Africa	0·6	10,779	0·8	17,555	0·9	
United Kingdom	0·1	4,643	0·3	4,074	0·2	
France	—	84	—	15	—	
United States	7·1	34,755	2·5	103,870	5·4	
Other countries	9·6	156,904	11·2	198,058	10·3	

¹ The total values of exports, as quoted here from British official sources, differ to a slight extent from the German official figures quoted on p. 91.

Nature and origin of imports.—The table given above on p. 91 shows the values of imports, which may be said to have averaged £2,000,000 per annum in recent years. In 1912, in consequence of a depression in diamond mining in 1911, and of the cessation of work on the railway lines, which had then been completed, they were abnormally low. The following year, however, they had almost regained their former level.

The different classes of imports are shown in the following analysis of the returns for 1911 and 1912. It will be seen that the imports cover the usual wide range of the needs of a young country.

Imports during the Years 1911 and 1912

	1911. <i>Marks.</i>	1912. <i>Marks.</i>
Products of agriculture and articles pertaining to these (including grain and cereals, vegetables and fruit, groceries, provisions and beverages, seeds, living plants and products of forestry)	15,162,379	11,797,118
Animals and animal products	4,068,644	2,752,462
Raw minerals, fossils and mineral oils	2,804,693	2,335,676
Oils, fats, resins, &c.	533,576	370,605
Chemical and pharmaceutical products	705,254	646,639
Textiles	4,936,759	4,196,520
Leather and leather wares, oilcloths and furs	1,570,332	1,110,479
Indiarubber and gutta-percha goods	73,755	67,680
Wooden, plaited, and carved articles	823,787	688,480
Paper, cardboard, printed matter, works of art, &c. ..	585,739	471,045
Earthen, stone and glass ware	425,769	312,202
Metals and hardware (excluding instruments, machinery, and firearms):—		
(a) Unwrought metals and metals partly manufactured	3,572,425	637,262
(b) Manufactured	4,644,584	3,769,152
Instruments, machinery and locomotives	4,457,679	2,698,054
Guns and ammunition	528,429	375,392
Articles imported for the military, as guns, ammunition, &c. (excluding provisions)	—	270,133
Specie	408,151	—
Total imports	45,301,955	32,498,899

In the following table the imports for 1910–12 are classified according to countries of origin :

	1910.		1911.		1912.	
	<i>Per cent.</i>	£	<i>Per cent.</i>	£	<i>Per cent.</i>	£
Germany	77·6	1,831,885	82·2	1,300,038	81·37	1,300,038
Union of South Africa ..	14·8	301,819	13·6	194,953	12·20	194,953
United Kingdom ..	1·8	29,742	1·3	15,681	0·98	15,681
France	0·1	310	0·1	157	—	157
United States	0·2	13,751	0·6	53,841	3·37	53,841
Other countries	5·5	49,829	2·2	33,190	2·08	33,190

(c) *Customs and Excise*

The Protectorate was not subject to the German Imperial Customs Regulations, but had its own tariff—the Customs Tariff of 1908, with subsequent amendments. Under a Director of Customs at Windhoek there were chief customs-offices at Windhoek, Swakopmund, Lüderitz Bay, and Keetmanshoop. Minor customs-houses existed at Davignab, Hasuur, Ukamas, Stolzenfels (Schuit Drift), Raman's Drift, Sandwich Harbour, Ururas (near Walvisch Bay), Haigamkhab, Outyo, Grootfontein, and Gobabis. There was an excise station for brandy at Osona (near Okahandya), and a postal customs-house at Usakos.

The Estimates for 1914–15 provided for the following officials: a director of customs, a controller of the central warehouse, 4 controllers of customs-houses, 10 inspectors of customs, 23 customs officers and tide-waiters, and one storeman.

The imports on which customs were levied were tobacco, liquors, slaughter cattle and sheep, fresh meat, milk, butter, margarine, sugar, arms and ammunition, matches, chemicals, and drugs. Export dues were payable on female cattle, hides, guano, and diamonds.

The estimated revenue under the head of customs in 1913–14 and 1914–15 was:

	1913–14.	1914–15.
	£	£
Import duties	115,000	100,000
Export duties	50	50
Sundry revenue	1,650	1,500
Total	116,700	101,550

Excise was levied on beer and on brandy. The estimated excise revenue for three years was as follows:

	1912-13.	1913-14.	1914-15.
	£	£	£
Excise on beer	3,000	2,500	2,500
Excise on spirits	3,000	2,000	2,000
Total	6,000	4,500	4,500

Details of the customs tariff in force before the war are given in the Consular Report for 1910. If this tariff is compared with the Union tariff it will be found that in nearly every instance the Protectorate rate was the lower; and it is clear that the recent application of the Union tariff to South-West Africa will, under normal conditions, result in a considerable increase of revenue. This measure was announced in a Proclamation (No. 6 of 1917) extending to South-West Africa the duties specified in the Union of South Africa's Customs and Excise Duties Act, 1917.

(d) *Commercial Treaties*

There was, prior to the war, no commercial treaty in existence between the United Kingdom and Germany. The treaty formerly in force had been terminated in 1898, and subsequent attempts to conclude an arrangement acceptable to both sides had failed. The recent state of war, therefore, has not had the effect of abrogating any instrument of first importance. Germany had rightly understood that, so far as the United Kingdom was concerned, it was not proposed to introduce any change of practice to her detriment; and on her side she procured the assent of the German Bundesrat at regular intervals to enactments extending most-favoured-nation treatment to all our dominions, colonies, and possessions without exception.

There were, however, one or two instruments affecting commercial intercourse between the United Kingdom and Germany in force at the outbreak of war. One was a Declaration of 1869, providing for the free admission into the respective countries, subject to certain conditions, of patterns and samples brought by commercial travellers. Another was a

Declaration of 1874, granting joint-stock companies and other commercial, industrial, and financial associations established in the territories of one country the privilege of access to the tribunals and of exercising their rights in the territories of the other. An Agreement, supplementing the Declaration of 1869, provided certain facilities for expediting the passage of commercial travellers' samples through the custom-houses of the respective countries; and a further Agreement of 1913 extended the Declaration of 1874 to cover the Protectorate and Consular Court Districts of both parties thereto. Beyond these there was nothing affecting the British Empire except arrangements relating to Protectorates in Africa and the western Pacific.

On January 1, 1909, Germany adhered on behalf of the Protectorate to the Berne Copyright Convention of September 9, 1886, and to the Additional Act and Declaration signed at Paris on May 4, 1896. The Protectorate, as such, would also appear to be a party to a number of other recent international conventions.

In the absence of a commercial treaty, commercial relations between Germany and Great Britain were established by Acts renewed from time to time and published in England every two years. Nevertheless, as a matter of fact, British shipping and British trade were effectively boycotted in the Protectorate. The boycott was carried on by the co-operation of the German Government with the financial and shipping interests of Berlin and Hamburg; and this was done, it must be remembered, under cover of admirably drawn paper agreements.

The Portuguese Government concluded an agreement with Germany on December 30, 1886. This was embodied in a Declaration containing two economic articles, No. IV and No. V, as follows:

Art. IV. Portuguese subjects in the German Possessions of Africa, and German subjects in the Portuguese Possessions, shall enjoy in respect to the protection of their persons and goods, with the acquisition and transfer of personal and real property, and to the exercise of their industry, the same treat-

ment without any difference whatever, and the same rights as the subjects of the nation exercising sovereignty or protection.

Art. V. The Portuguese and Imperial Governments reserve to themselves the right of concluding further Agreements to facilitate commerce and navigation, as well as to regulate the frontier traffic in the African Possessions on both sides.¹

H.M. Government protested against this treaty on August 15, 1887, on the ground that it arrogated to Portugal large territories between Angola and Mozambique in which there was no sign of Portuguese jurisdiction or authority.

(D) FINANCE

(1) *Public Finance*

The chief features of the financial administration of the Protectorate will be easily grasped from the following table giving estimates of revenue and expenditure for the years ending March 31, 1913-15 :

		REVENUE		
		1914-15.	1913-14.	1912-13.
		£	£	£
A. Ordinary Revenue :	£			
1. Taxation :				
Diamonds	689,500			
Licences, Land Tax, Transfer Duty, &c. .. .	27,150			
	—	716,650	357,150	388,775
2. Customs		101,550	116,700	131,500
3. Fines, Forfeitures, Fees of Office, and Departmental Receipts		98,242	82,500	69,495
4. Mining Department :				
Government Diamonds ..	37,875			
Other	3,290			
	—	41,165	49,900	145,376
5. Railways :				
State	73,360			
Otavi	82,875			
Southern	11,500			
	—	167,735	151,745	110,900
6. Harbours :				
Swakopmund	24,650			
Lüderitz Bay	6,750			
	—	31,400	31,400	34,250
7. Interest and Adjustment of Account		130	130	—
8. Military Medical Services and sales of Cast Animals, &c.		8,100	4,655	—
		—	—	—
Total Ordinary Revenue ..		1,164,972	794,180	880,296

¹ Hertslet: *Map of Africa by Treaty*, vol. ii, pp. 703-5.

	1914-15.	1913-14.	1912-13.
	£	£	£
B. Non-Recurrent Revenue :			
1. Savings and Surplus ex 1912, 1911, 1910	225,000	114,061	229,252
2. Imperial Contribution towards Military Expenditure	681,185	731,342	691,417
Total Revenue	2,071,157	1,639,583	1,800,965

EXPENDITURE

A. Ordinary Expenditure :

1. Salaries of fixed Establishment ..	88,150	80,942	82,973
2. Salaries of non-fixed Establishment	48,257	50,204	74,975
3. Native Employees' Wages	3,580	4,940	10,408
4. Pensions, Gratuities, &c.	7,468	6,825	5,569
5. Public Health, Hospitals, &c. ..	12,350	10,850	9,500
6. Public Worship and Schools ..	12,300	10,300	8,550
7. Upkeep of Government Buildings, Lands, Furniture	28,650	26,160	25,475
8. Upkeep of Live Stock, including Stud Stock and Stock for Bacteriological and Veterinary Researches	16,175	16,675	45,420
9. Agriculture and Surveys	47,300	35,705	9,800
10. Transport and Sundry Expenditure	59,193	58,426	93,521
11. Police Vote	185,670	185,875	143,380
12. Military Expenditure	689,285	691,203	714,485
13. Railways and Harbours	123,960	99,300	42,350
14. Interest and Sinking Fund on Public Debt	182,425	165,925	132,900
15. Equalization Fund	17,984	—	10,000
Total Ordinary Expenditure ..	1,522,747	1,443,330	1,409,306

B. Extraordinary Expenditure :

1. Civil Administration, including:	£		
Public Works	50,000		
Waterworks, Wells, and Roads	52,900		
Payment of Revenue Contribution towards Railway Construction	350,000		
Contribution towards the upkeep of Garrison ..	54,786		
Grants-in-aid, Eradication of Pests, &c... .. .	24,122		
		531,808	146,678
2. Police—Buildings and Allowances ..	5,600	4,780	—
3. Deficit, 1911, 1910, 1909	11,002	44,793	60,755
Total Extraordinary Expenditure	548,410	196,251	395,755
Total Expenditure	2,071,157	1,639,581	1,805,061

These figures call for some comment. In the first place, it is to be noted that they constitute a statement of estimates, not of actual receipts and disbursements. Details of realized revenue and expenditure were not accessible to the author of the Union Memorandum on South-West Africa, from which the statistics given in this paragraph are mainly drawn, but a surplus was apparently recorded in each of the five years immediately preceding the war. This is said to have amounted to £230,000 in 1910; £114,000 in 1911; £225,000 in 1912; £350,000 in 1913; and £800,000 in 1914.

Of the ordinary revenue three-fifths was drawn from the tax on diamonds, the annual profits of the Government diamond claims (£25,000), and the Government share in the profits of the Deutsche Diamanten-Gesellschaft (£12,525). The railway earnings come second, and the customs receipts third in order of value. The receipts and expenditure on posts and telegraphs were not included in the Protectorate figures, as this service was controlled by the Imperial Government. Receipts from dog-taxes and from spirit and other trading licences were assigned to the local government authorities. Commercial travellers' licences cost from £10 to £12 10s. per quarter for each fiscal division in which business was transacted.

The non-recurrent revenue includes two items. One of these consists of the surplus revenue from the third year before. The second item is the Imperial grant-in-aid, which represented in recent years nearly two-fifths of the total revenue. This contribution was latterly assigned to the maintenance of the garrison, but in earlier years it was both greater in amount and more general in character, as the very large deficits which were recorded annually were all made good by the Imperial Government. Further, all the expenditure in connexion with the Herero War, 1904-7, was met by special Imperial subsidies. The total sums provided up to 1912 under these two heads were as follows:

[4312]

I

(a) GRANTS-IN-AID		(b) NATIVE WAR EXPENDITURE	
	£		£
1904	40,100	1904	5,406,800
1905	2,220,000	1905	6,112,300
1906	297,500	1906	6,423,100
1907	3,740,750	1907	3,253,550
1908	5,332,000	1908	1,903,300
1909	1,387,500		
1910	1,508,900		
1911	721,300		
1912	570,800		
Total	15,782,850	Total	23,099,050

The Imperial authorities apparently anticipated that at some future date the Protectorate might accept responsibility for a part at least of this debt; but latterly, it would appear, they had realized that Empire as well as Protectorate would benefit if surplus revenue were devoted to internal development—to the construction of railways, harbours, and public buildings, and the prosecution of water-boring and irrigation schemes. The surplus revenues were therefore credited annually to a Reserve or Equalization Fund, and employed in subsequent years to meet the amounts voted under the head of Extraordinary Expenditure. The objects for which they were employed were the construction of piers and jetties, roads, wells, and water-works, hospitals and a quarantine station, the upkeep of the garrison, the Fish River Irrigation Scheme (first instalment), the purchase, at £1 each, of 50,000 shares in the Diamond Régie, and—most important of all—the construction or relaying of railways. The items of Ordinary Expenditure are self-explanatory.

The loans outstanding against the Protectorate in 1914 amounted apparently to nearly £3,000,000. The Imperial Treasury granted loans of £390,000 and £180,000 in 1907 and 1908 respectively, and the Reichstag a few years later sanctioned the raising of an Imperial Protectorates Loan, of which the share assigned to German South-West Africa was £5,000,000. Of this amount about £2,100,000, raised at 4½ per cent., had been taken up at the end of 1913.

Against it were debited £1,250,000 for the Otavi Railway, about £1,000,000 for the other railways, £117,500 for the Swakopmund Pier, £250,000 for the capital of the Land Bank, and (probably) the cost of the completed sections of the Otyivarongo-Okahakana line.

(2) *Currency*

The monetary standard in the Protectorate was the same as that of Germany, the unit of legal tender being the mark. The denominations of metal currency were the same, and so too were those of the paper currency *Reichsbanknoten* and *Reichskassenscheine*. Notes of the German issuing banks other than the Reichsbank were not accepted by Government cashiers except at a considerable discount—an important consideration in a very thinly populated country. Both English sovereigns and South African pound notes were freely used, the sovereign being exchanged at 20 marks. The postal service was so widespread that within the Protectorate (following a custom much in favour in Germany itself) money was generally transferred by postal orders. The growth of the banking system, however, was latterly causing these to be displaced, in respect of larger amounts, by bank drafts and cheques.

It may be noted that weights and measures were the same as in Germany.

(3) *Banking*

Since the British occupation, the Standard Bank of South Africa and the National Bank of South Africa have established themselves in the territory. Both have branches in Windhoek, Swakopmund, and Lüderitz Bay, and the National Bank has also a branch at Keetmanshoop and agencies at Walvisch Bay, Usakos, and Karibib.

Under the German regime there were eight banks: the Deutsche Afrika-Bank, the banking department of the Deutsche Kolonial-Gesellschaft für Südwest-

Afrika, the Deutsch-Südwestafrikanische Genossenschaftsbank, the Swakopmunder Bank-Verein, the Spar- und Darlehnskasse, the Südwestafrikanische Boden-Kredit-Gesellschaft, the Omaruru Farmers' Bank, and the Government Land Bank.

The *Deutsche Afrika-Bank*, whose annual reports form a record of the progress of trade in the Protectorate, had its head-quarters in Hamburg. Its capital was found by the Norddeutsche Bank in Hamburg, the Disconto-Gesellschaft in Berlin, C. Woermann and Octavio Schröder of Hamburg. It was established in 1906 to take over the banking business of the Damara und Namaqua Handelsgesellschaft in Windhoek, Swakopmund, and Lüderitz Bay, and had also an agency in the Canary Islands. Its original capital of £50,000 was raised in 1913 to £100,000, and dividends of 8 per cent. were paid for several years up to and including 1913.

The *Deutsche Kolonial-Gesellschaft für Südwest-Afrika* conducted a banking section in Swakopmund. In Germany it was represented by the company's head-quarters in Berlin.

The *Deutsch-Südwestafrikanische Genossenschaftsbank* was a co-operative bank formed in Windhoek in 1908 by 26 farmers. Farmers' requirements were met by the issue of small short-term loans. The number of members had increased to 125 in 1911 and 131 in 1912. The capital was then £25,000 and liabilities £32,500. Dividends of 5 per cent. had been paid for a number of years. The bank was represented in Germany by the Reichsgenossenschaftsbank of Frankfurt and Hamburg, which has a network of affiliated co-operative agencies in other German towns.

The *Swakopmunder Bank-Verein* was a co-operative bank founded in 1911 by industrial workers. Its liabilities had grown from £13,500 in 1911 to £39,000 in 1912, and the number of members was 56 in 1912, 68 in 1913. For its first business year the association declared dividends amounting to 20·94 per cent.

The *Spar- und Darlehnskasse* was an unlimited liability association, which was founded by farmers and business men in Gibeon in 1902 and conducted a loan bank and a trading store. Its business, which was purely local, increased largely in consequence of the completion of the railway through Gibeon. In 1913 it had 44 members.

The *Südwestafrikanische Boden-Kredit-Gesellschaft* was established in 1912, with a capital of £50,000, and was the first bank in the Protectorate to perform all the ordinary functions of a bank. Loan operations, in respect of taking up mortgages and making advances, were at first restricted to communal bodies, but afterwards extended to owners of town properties. Country loans were regarded as involving risks which required a special Land Bank supported by the Government. The *Südwestafrikanische Boden-Kredit-Gesellschaft* was not allowed to acquire land itself except for its business premises or in order to save loss on its mortgages.

The report, issued in June 1914, on the first year's work, showed that 39 mortgage loans were issued, of a total value of £44,115. Twenty-two of these, of a total value of £15,240, were held in Swakopmund; 8, of £11,975 in Lüderitz Bay; 7, of £15,500, in Windhoek; and 2, of £1,400, in Keetmanshoop. As the number of loans applied for was 73, and the value £78,350, it appears that rather more than half of the applications were successful. Loans of values not exceeding £500 might be granted without reference to Berlin.

The original head-quarters of the association were at Swakopmund, but branches were very soon established at Lüderitz Bay and Windhoek, and official sanction was obtained at intervals to extend operations to other towns. As the original capital of £50,000 was likely to be exhausted at the close of the first year, 5 per cent. debentures, of the total value of £150,000, were issued in 1914.

When war broke out the bank had not been long

enough in existence to establish a profitable balance between the interest charged on mortgages and the interest it had itself to pay on its debentures, and was therefore content to cover the first costs of organization and management from the current receipts.

The *Omaruru Bank* was founded in December 1913 by a number of farmers, who obtained the promise of support from the newly established Land Bank on condition of accepting its complete control, of furnishing a membership of at least 100 shareholders, each guaranteeing £250, and of observing prescribed limits in the total of loans advanced.

The *Land Bank* was established, with head-quarters in Windhoek, under an Imperial Ordinance dated June 9, 1913. The Protectorate Government was required to provide the initial capital of £500,000, but further capital might be raised subsequently by debentures. The bank was empowered to make advances to farmers, on mortgage of land, for the purpose of making improvements, such as waterworks, buildings, fences, cattle and sheep dips, and the laying out of orchards and vineyards. The rate of interest was fixed at 6 per cent., which, with the amortization at $1\frac{1}{2}$ per cent., compared favourably with previous rates of 8 per cent. or more, on bonds liable to be called up on short notice. During its first year the bank advanced £67,464 for farm improvements, such as dam-making, water-boring, wells, fencing, and buildings.

The urgent need for the establishment of a Land Bank had been made clear by the state of credit prevailing in the country for several years previous to 1913. In Britain and in the British dominions it is customary to find traders with very small means who operate on a bank account, but in Germany such individuals usually resort to a savings bank or a co-operative bank. The tradition survived in South-West Africa to this extent, that the banks were used by a comparatively small number of the merchants in the chief towns, while throughout the rest of the country the leading merchants of each district acted

as bankers for the farmers and small traders. This led inevitably to a system of long credits, the natural result of which was to divert the capital of the merchants from its proper uses, hamper commercial development, and maintain high prices. The farmers also suffered, for they were so deeply involved that, when they had slaughter stock to dispose of, they found themselves compelled to sell it to the merchants at unduly low prices in part payment of their debt.

The general financial position was reflected in the mortgage returns. In 1911 mortgages amounting to £387,000 were passed on 866 farm properties. In these circumstances the banking institutions were naturally enough extremely cautious in issuing credit. The Genossenschaftsbank in Windhoek was the only bank that made an effort to grant loans to the limit of the funds available, but even so it confined itself to advancing money as working capital for short terms only, and chiefly to farmers. The other banks required the usual bankers' securities for loans, and these, naturally enough in a new country, were rarely forthcoming. The banks can hardly be blamed for their policy, because, in a young country and with unsettled conditions, free lending would have involved great risk of losses.

By 1913, owing to the scarcity of ready money among the country people, matters were approaching a climax, and general disaster might have overtaken merchants and farmers alike but for the prospect of the introduction of fresh capital through the establishment of the proposed Land Bank. Creditors and debtors were willing to hold out, in hope of relief, and it seems that the whole situation would have gradually improved in the course of a few years. The Land Bank had not had time before the outbreak of war to effect a marked change; in fact, it had not even matured its organization for dealing with the important matter of loans for dams and waterworks.

(4) *Foreign Capital*

The details given in the earlier sections of this volume have made it clear that of the capital invested in the land companies and in the mining and agricultural enterprises of the Protectorate by far the greater part was drawn from Germany, although appreciable amounts were also subscribed in Britain and in the Union of South Africa. The measures devised by the Protectorate and Imperial authorities had been successful in keeping practically the whole of the trade of the country, internal and foreign, in German hands; and the influence of non-German investments in furthering foreign infiltration may be said to have been conspicuously absent. The landward isolation of the Protectorate was a bulwark against economic penetration, and the oversea carrying trade was, as has been shown, a German monopoly. The British occupation, with the railway developments already described, has destroyed these barriers; but it is scarcely possible to predict the strength of the economic forces that will in future invade this quondam preserve of the commercial interests of Berlin and Hamburg.

(5) *Principal Fields of Investment*

The four main fields of investment are railways, copper, diamonds, and the cattle industry. Each of these has been treated in detail in earlier parts of this report, but a few general remarks upon their financial aspect may be added.

Before the war, railways were passing under the administration of the German Government, and now form part of a complex system owned and managed by the Union Government. They have already proved profitable investments. The Southern Railway has such difficulties to contend with in the lack of water and superabundance of sand that its net earnings have not yet equalled, and will probably never equal, those of the main system, much less those of the Otavi

Railway. The latter has been extraordinarily successful; the ratios of its net profits to gross receipts for the years 1911-14 were 42.4 per cent., 43.5 per cent., 50.6 per cent., and 53.4 per cent.

The Otavi Minen- und Eisenbahn-Gesellschaft retained the management of the Otavi Railway, even after selling it to the Government, and to this department of its activities owed about three-fourths of its net profits. These were such as to warrant the payment, in the years 1912-14, of dividends of 30 per cent., 40 per cent., and 45 per cent. respectively per ordinary share, and 25 per cent., 35 per cent., and 40 per cent. per deferred share. The remainder of the company's profits were derived from copper mining, and represented a dividend value of $11\frac{1}{4}$ per cent. on ordinary and 10 per cent. on deferred shares. The Otavi Company was probably the most successful of all the companies engaged in copper mining—an enterprise in which there was a considerable element of speculation.

If copper mining was speculative, the diamond industry of the Protectorate was peculiarly so. The occurrence of diamonds in the sand-fields is due to causes not yet ascertained, so that neither can the life of the deposits be predicted nor can further discoveries be confidently expected. Further, many of the companies were new and lacking in experience. The principal companies made extraordinary profits, others did well, but a considerable number failed to make good their expenses, and some never even reached the producing stage.

When compared with the dividends yielded by the best of the diamond companies, the profits hitherto achieved by the cattle-raising companies have been insignificant. The Windhuker Farmgesellschaft paid 8 per cent. in 1911, 8 per cent. in 1912, and 10 per cent. in 1913, and its shares remained fairly steady at 10 per cent. to 30 per cent. above par. The Südwest-Afrikanische Schäfererei-Gesellschaft, founded in 1901, had a capital of £33,500 in 1912, when it owned

112,593 hectares divided into less than a dozen farms. It had paid no dividends up to 1913.

The most important farming companies hitherto established in the Protectorate were the international firm of Liebig and the German firm of Brauss, Mahn and Company. The former operated locally under the title of the Deutsche Farmgesellschaft (A.-G. Düsseldorf), formed in 1907 with a capital of £250,000. It was engaged in cattle-breeding and intended to set up a meat-packing factory as soon as the number of cattle in the Protectorate was sufficiently large. Its holdings between the Swakop and Husab Rivers, mainly on hill country suitable for cattle and sheep, amount to 532,000 hectares, and it had also acquired about 160,000 hectares in the Okahandya and Gobabis districts. Its farms were well watered, and most of them well fenced and stocked. In 1913 it employed 23 white men and 329 natives, and its stock included about 500 horses, mules, and donkeys, 900 head of cattle, 11,000 sheep and goats, and a few ostriches.

Other large companies engaged in the meat industry in different parts of the world may be expected to establish similar ranches in the territory. Until the country is developed to the point where water-supply is easy and certain and local markets are sufficient, it is unlikely that farming on a small scale will be more profitable than the big ranches. The great companies are much better able to stand the risk of loss during the experimental period of cattle-breeding and during epidemics of cattle diseases. Nevertheless, Government assistance may well be extended, as far as possible, to the individual owner, the permanent occupier; and limits might reasonably be imposed upon attempts by large firms, especially by firms of alien complexion, to secure a preponderant share of the best lands for cattle-raising.

(E) GENERAL REMARKS

The chief features of the economic position of the territory have been fully discussed under the headings of Railways, Industry, and Commerce, and need not be recapitulated here. An unqualified reversion to pre-war conditions is scarcely possible, for the railway connexion alone must create new currents of trade and bring the country into closer touch with the rest of South Africa. It may be doubted whether the Germans had made, or would ever have been able to make, a financial success of their colony. Its administration since 1904 had cost the Imperial Government more than £40,000,000; and the economic results, direct and indirect, can scarcely have equalled this total. Even with the help in recent years of the funds derived from diamond taxation, the country's revenues were insufficient to meet the whole cost of administration; and the life of the diamond fields, it must be remembered, may terminate within a few years.

APPENDIX

EXTRACTS FROM TREATIES, ETC.

I.—PROCLAMATION ANNOUNCING A GERMAN PROTECTORATE OVER THE COAST OF NAMAQUALAND AND DAMARALAND, August 16 (? 15), 1884.

His Majesty the German Emperor William I, King of Prussia, has commanded me to proceed to Angra Pequena with His Majesty's two-decked corvette, the *Elisabeth*, to place under the direct protection of His Majesty the territory belonging to M. A. Lüderitz, on the West Coast of Africa.

The territory of M. A. Lüderitz will, according to official communication, be taken to extend from the north bank of the Orange River to the 26° south latitude, 20 geographical miles inland, including the Islands belonging thereto by the Law of Nations.

In carrying out His Majesty's commands I herewith hoist the Imperial German flag, and thus place the above-mentioned territory under the protection and sovereignty of His Majesty the Emperor William I, and call upon all present to give three cheers for His Majesty.

Long live His Majesty the Emperor William I.

SCHERING, *Captain at Sea, and Commandant of His Imperial Majesty's ship Elisabeth.*

II.—DECLARATION BETWEEN GERMANY AND PORTUGAL, December 30, 1886.

Art. I.—The Boundary line which shall separate the Portuguese and German Possessions in South-West Africa follows the course of the River Kunene from its mouth to the waterfalls which are formed to the south of the Humbe by the Kunene breaking through the Serra Cana. From this point the line runs along the parallel of latitude to the River Kubango, then along the course of that river to the village of Andara, which is to remain in the German sphere of influence, and from thence in a straight line eastwards to the rapids of Catima, on the Zambesi.

III.—AGREEMENT BETWEEN THE BRITISH AND
GERMAN GOVERNMENTS RESPECTING AFRICA
AND HELIGOLAND, July 1, 1890.

Art. III.—In South-West Africa the sphere in which the exercise of influence is reserved to Germany is bounded—

1. To the south by a line commencing at the mouth of the Orange River, and ascending the north bank of that river to the point of its intersection by the 20th degree of east longitude.

2. To the east by a line commencing at the above-named point, and following the 20th degree of east longitude to the point of its intersection by the 22nd parallel of south latitude, it runs eastward along that parallel to the point of its intersection by the 21st degree of east longitude; thence it follows that degree northward to the point of its intersection by the 18th parallel of south latitude; it runs eastward along that parallel till it reaches the River Chobe; and descends the centre of the main channel of that river to its junction with the Zambesi, where it terminates.

It is understood that under this arrangement Germany shall have free access from her Protectorate to the Zambesi by a strip of territory which shall at no point be less than 20 English miles in width.

The sphere in which the exercise of influence is reserved to Great Britain is bounded to the west and north-west by the above-mentioned line.

It includes Lake Ngami.

The course of the above boundary is traced in general accordance with a map officially prepared for the British Government in 1889.

The delimitation of the southern boundary of the British territory of Walfisch Bay is reserved for arbitration, unless it shall be settled by the consent of the two Powers within two years from the date of the conclusion of this Agreement. The two Powers agree that, pending such settlement, the passage of the subjects and transit of goods of both Powers through the territory now in dispute shall be free; and the treatment of their subjects in that territory shall be in all respects equal. No dues shall be levied on goods in transit. Until a settlement shall be effected the territory shall be considered neutral.

AUTHORITIES

1. OFFICIAL AND SEMI-OFFICIAL PUBLICATIONS

- Africa Pilot*, part ii, 6th ed., 1910, with revised supplement, 1917. London.
- Bulletin of the Imperial Institute*, vol. xiii. London, 1915.
- Deutsches Handels-Archiv: Zeitschrift für Handel und Gewerbe*. Berlin, 1917.
- Deutsches Kolonialblatt: Amtsblatt für die Schutzgebiete in Afrika und in der Südsee*, herausgegeben im Reichs-Kolonialamt. Berlin, 1913, 1914.
- Die deutschen Schutzgebiete in Afrika und in der Südsee*, 1911-12, 1912-13. *Jahresberichte*, herausgegeben vom Reichs-Kolonialamt. Berlin.
- Diplomatic and Consular Reports: Reports on the Trade of the Consular District of German South-West Africa*, Annual Series. London.
- Jahrbuch über die deutschen Kolonien*, Jahrg. 1 (1908); 4 (1911) and 7 (1914). Essen.
- Memorandum on the Country known as German South-West Africa*. Pretoria, 1915.
- Parliamentary Papers. Union of South Africa*. Cd. 7873; 1915. Cd. 8371; 1916. Cd. 9146; 1918. *Department of Overseas Trade. Report on Trade Conditions and Prospects in the Protectorate of South-West Africa*. Cmd 842; 1920.
- Report of the Royal Commission on the Natural Resources, Trade, and Legislation of certain portions of His Majesty's Dominions*, Cd. 8462. London, 1917.
- Report on a Tour to Ovamboland*, by Major S. M. Pritchard. Pretoria, 1915.
- South African Railways and Harbours: Report for the year ended 31st December, 1916*. Pretoria, 1917.
- Statesman's Year Book*, 1918, edited by Sir J. Scott Keltie, LL.D. London.
- Taschenbuch für Südwestafrika*, 1912, Teil 1, edited by Kurt Schwabe. Berlin.
- The Geology and Mineral Industry of South-West Africa*, by Percy Albert Wagner. Pretoria, 1916.
- U.S.A. Consular and Trade Reports*, No. 218, December 11, 1913, September 17, 1914, and September 23, 1914. Washington.
- Von der Heydt's Kolonial-Handbuch: Jahrbuch der deutschen Kolonial- und Uebersee-Unternehmungen*. Jahrg. 6 (1912). Berlin.

2. PERIODICALS AND NEWSPAPERS

- Board of Trade Journal*: issues of August 2 and December 13, 1917, and May 2, 1918. London.
- Der Tropenpflanzer*: Nos. 4 and 5, 1914. Berlin.
- Geographical Journal*: issues of September 1915, January and February 1916, and April 1917. London.
- Journal of the African Society*: issues of January and July 1915, January 1916, January, April, and July 1917. London.
- Revue Économique Internationale*, October 15 and 20, 1909. Brussels.
- South Africa* (weekly journal): issue of July 21, 1917. London.
- South African Journal of Industries*: issue of March 1918. Pretoria.
- The African World*: issues of August 11, August 25, September 22, November 3, and December 8, 1917; January 19, February 3, February 9, and February 16, 1918. London.
- The Colonial Journal*: issues of January and April 1915, and January 1916. London.
- The Times*: issues of May 29 and 31, 1917. London.
- United Empire* (Journal of the Royal Colonial Institute): issue of August 1917. London.

3. HISTORICAL AND DESCRIPTIVE WORKS

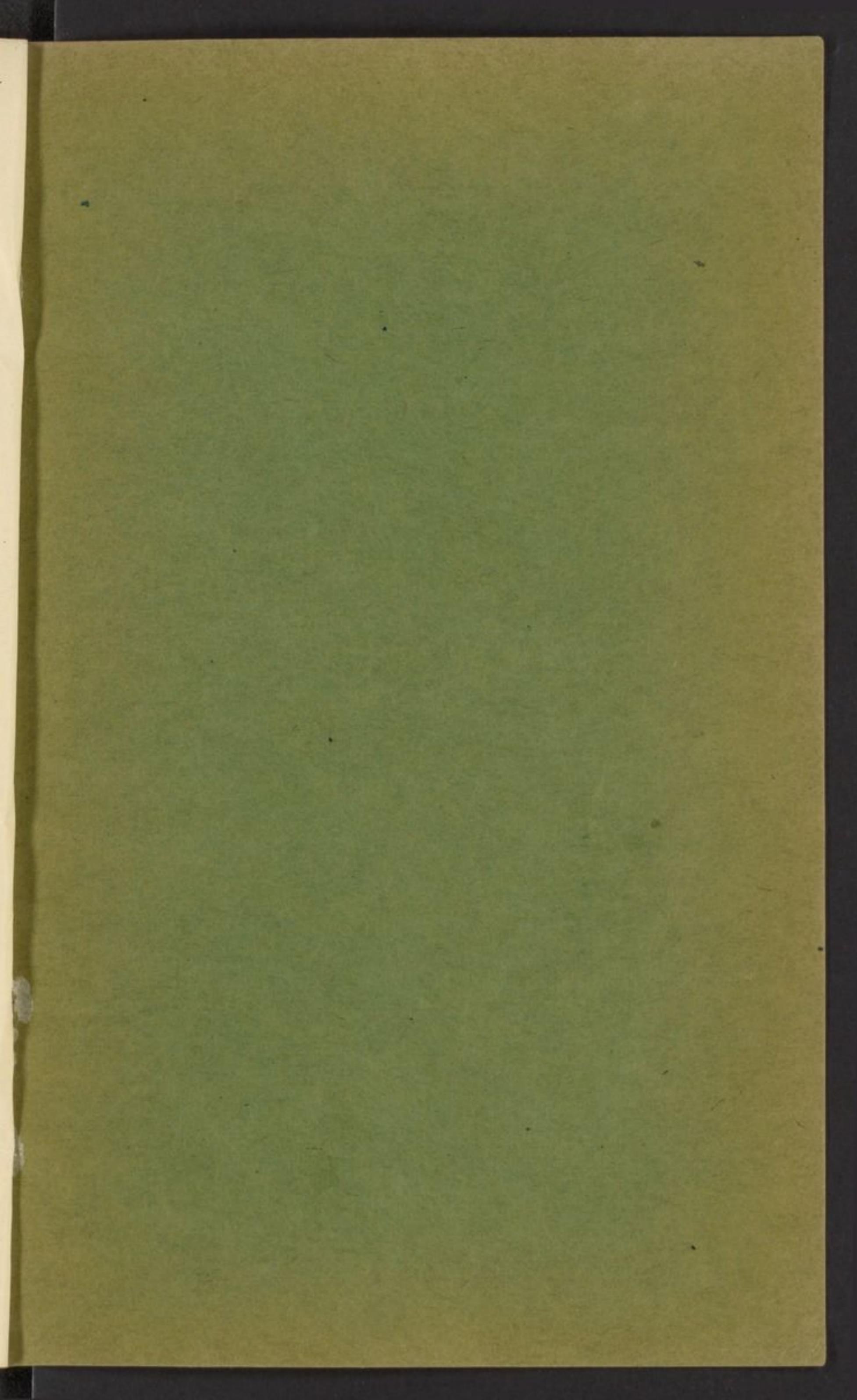
- BROWN, A. S., and BROWN, GORDON G. *Guide to South and East Africa*. London, 1918.
- BÜLOW, F. J. VON. *Deutsch Südwestafrika*, 2nd edn. Berlin, 1899.
- CALVERT, A. F. *South-West Africa during the German Occupation, 1884-1914*. London, 1915.
- *The German African Empire*. London, 1916.
- DOVE, PROFESSOR K. *Die deutschen Kolonien*. IV. *Südwestafrika*. Berlin and Leipzig, 1913.
- EVELEIGH, W. *South-West Africa*. London, 1915.
- FRANÇOIS, H. VON. *Nama und Damara*. *Deutsch Süd-West-Afrika*. Magdeburg [1896].
- FRENSSEN, GUSTAV. *Peter Moors Fahrt nach Südwestafrika*. Berlin, 1906. English translation, *Peter Moor's Journey to South-West Africa*. London, 1908.
- HASSERT, K. *Deutschlands Kolonien* (*Südwestafrika*, pp. 55-127), 2nd edn. Leipzig, 1910.
- IRLE, I. *Die Herero*. Gütersloh, 1906.
- LEUTWEIN, T. G. VON. *Elf Jahre Gouverneur in Deutsch Südwestafrika*. Berlin, 1910.
- LEWIN, EVANS. *The Germans and Africa*. London, 1915.
- OPITZ, W. *In Südwestafrika*. Leipzig, 1909.

- ROHRBACH, P. *Deutsche Kolonialwirtschaft*, vol. i, *Südwestafrika*. Berlin, 1907.
- *Wie machen wir unsere Kolonien rentabel?* Halle, 1907.
- SCHULTZE, PROFESSOR L. *Das deutsche Kolonialreich*. II. Band, ii. Teil: *Südwestafrika*. Leipzig and Vienna, 1914.
- SCHWABE, K. *Im deutschen Diamantenland*. Berlin, 1909.
- TONNELAT, E. *L'Expansion allemande hors d'Europe*. Paris, 1908.
- TÖNNESEN, T. *The South-West Africa Protectorate*. (Geographical Journal, April 1917.)
- ZIMMERMANN, A. *Geschichte der deutschen Kolonialpolitik*. Berlin, 1914.

MAPS

German South-West Africa is covered by the War Office Map (G.S.G.S. Provisional Map No. 2133), "German South-West Africa," on the scale of 1:3,000,000 (1914); also by sheets 113-115, 119, 120, 123, 124, 127-8 (old numbering) of the War Office Map of Africa (G.S.G.S. 1539).

War Office Maps (G.S.G.S. Nos 2914 *a*, *b*, and *c*) show, respectively, the disposition of the tribes in 1890, the rights of the principal land and mining companies, and the principal claim-holdings on the diamond fields of Lüderitz Bay.



LONDON :

PRINTED AND PUBLISHED BY H.M. STATIONERY OFFICE.

To be purchased through any Bookseller or directly from
H.M. STATIONERY OFFICE at the following addresses :

IMPERIAL HOUSE, KINGSWAY, LONDON, W.C. 2, and

28, ABINGDON STREET, LONDON, S.W. 1;

87, PETER STREET, MANCHESTER;

1, ST. ANDREW'S CRESCENT, CARDIFF;

28, FORTH STREET, EDINBURGH;

or from E. PONSONBY, LTD., 116, GRAFTON STREET, DUBLIN.

1920.

Price 2s. 6d. Net.