

*HANDBOOKS PREPARED UNDER THE DIRECTION OF THE
HISTORICAL SECTION OF THE FOREIGN OFFICE.—No. 116*

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AZORES AND MADEIRA

LONDON :
PUBLISHED BY H.M. STATIONERY OFFICE

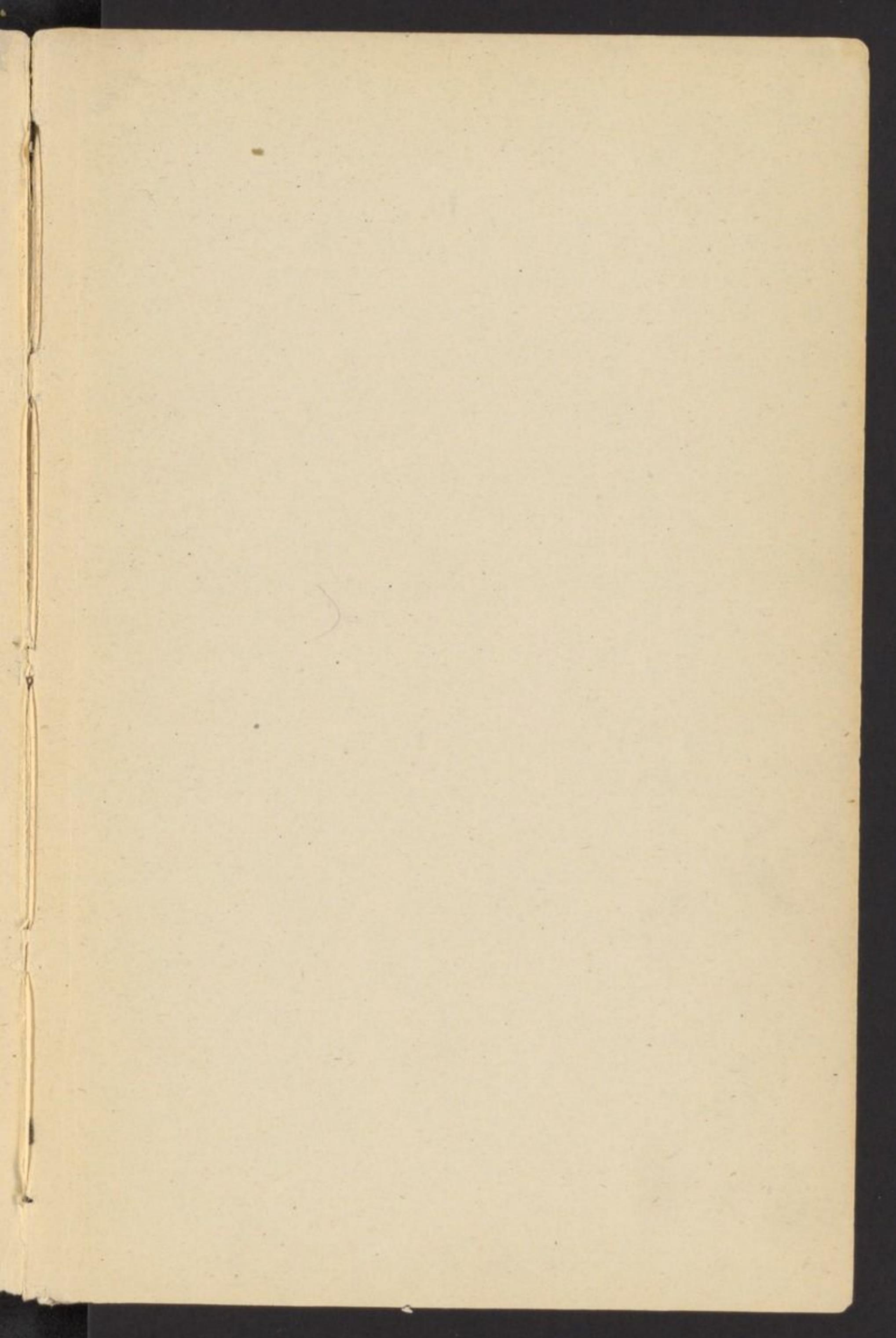
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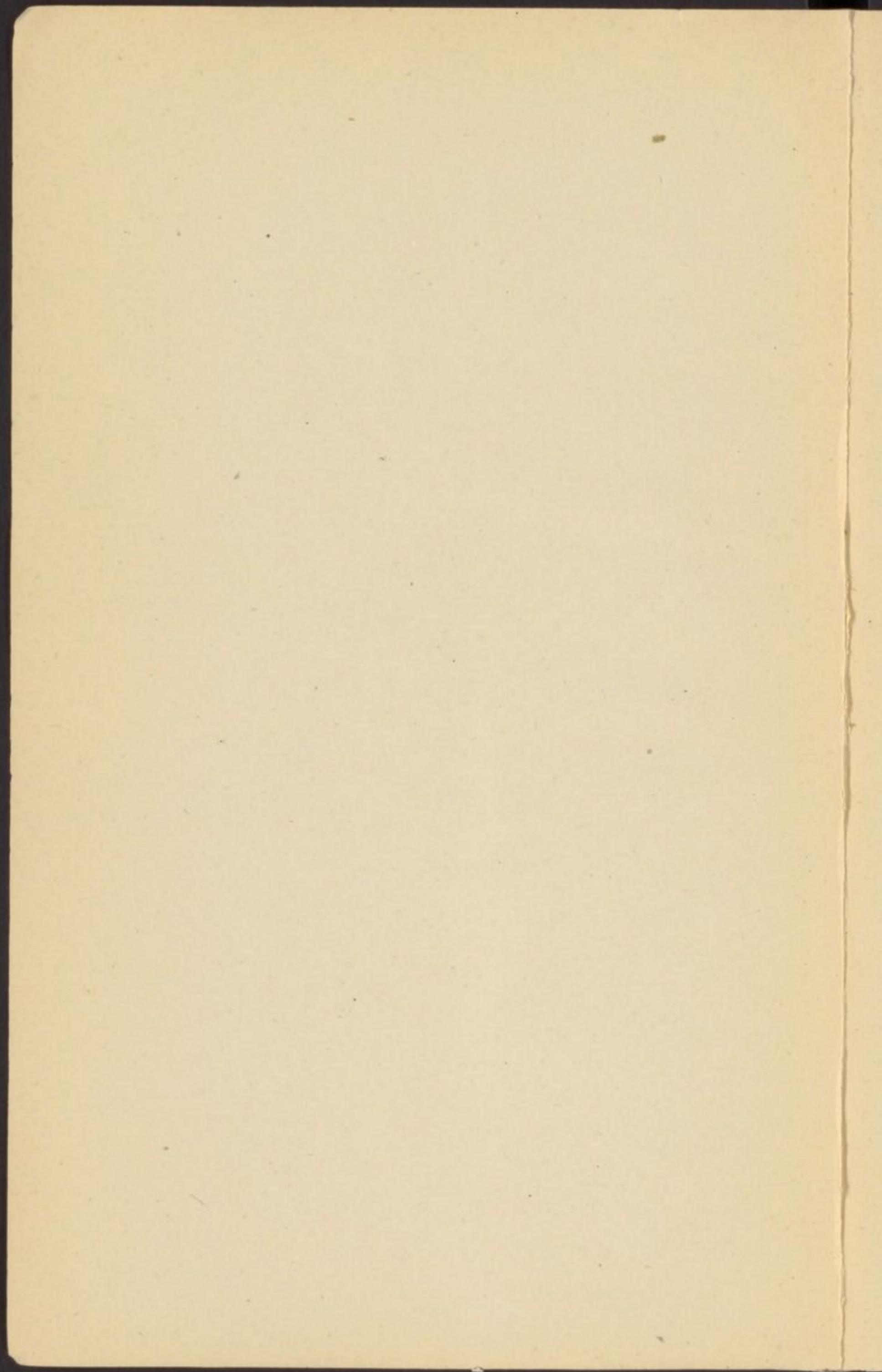


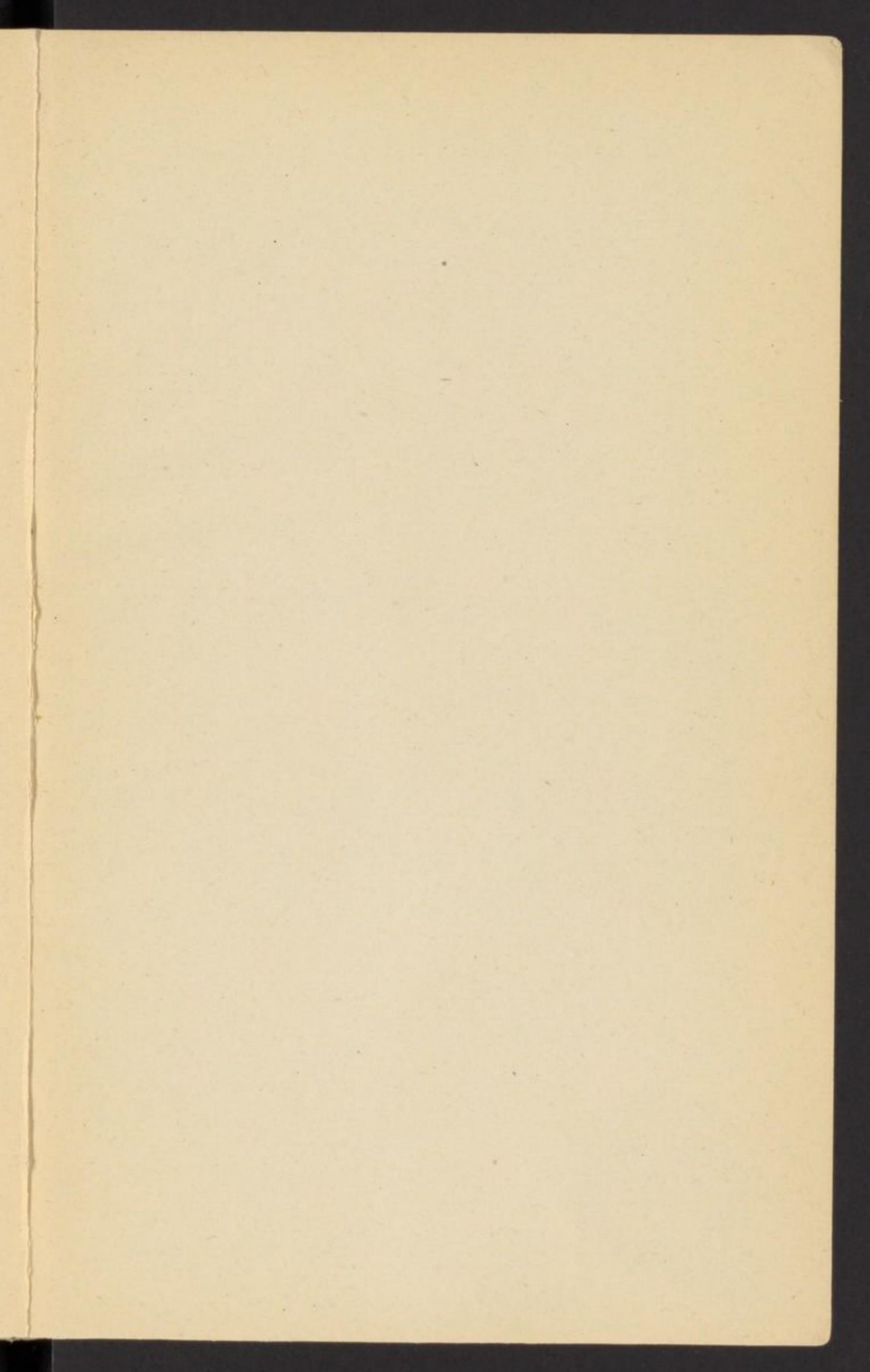


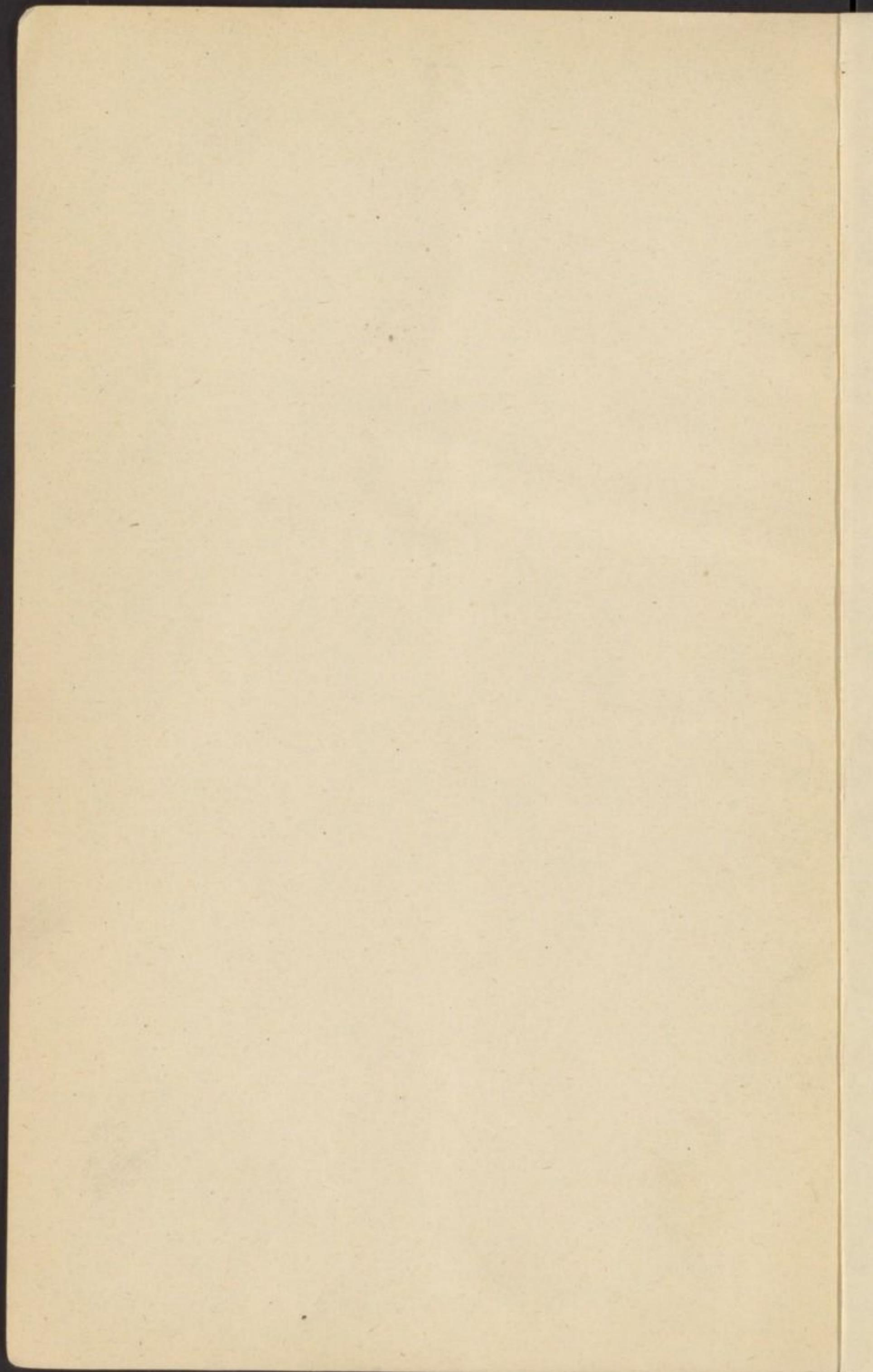
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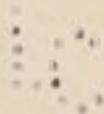
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EDITORIAL NOTE

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

EDITORIAL NOTE

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.

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I. GEOGRAPHY PHYSICAL AND POLITICAL

THESE two groups of islands lie in the Atlantic, the Azores in the latitude of Portugal, and the Madeira group off the coast of Africa. They belong to Portugal, and are treated as parts of the mother-country.

AZORES

(1) POSITION AND AREA

The Azores (Portuguese, *Açores*) lie between $36^{\circ} 59'$ and $39^{\circ} 44'$ north latitude and $24^{\circ} 45'$ and $31^{\circ} 16'$ west longitude. Their aggregate area is 922 square miles. The largest island, San Miguel, is 700 miles from the coast of Portugal and about 750 miles from Cape Cantin in Africa, and the islands lie in an advantageous position on many of the great trade routes.

(2) SURFACE AND COASTS

The islands lie in a line which runs about north-west and south-east. They constitute three groups, of which the westernmost consists of Corvo and Flores, the central of Fayal, Pico, San Jorge (St. George), Graciosa and Terceira, and the easternmost of San Miguel (St. Michael) and Santa Maria (St. Mary), with the rocky group of the Formigas. The archipelago is volcanic in origin, the only island which shows no signs of volcanic activity being Santa Maria. The volcanic material decomposes rapidly, and the soil is fertile. There is very little level ground, and there are numerous craters, many of which contain lakes—sometimes, as in the case of Sete Cidades in San Miguel, more than one. There are many mineral springs. The sea coasts are as

a rule high and abrupt, and caves are common; in the Caldeira on Graciosa is a very remarkable cave of vast dimensions.

Corvo, which is the northernmost and the smallest of the nine islands, has an area of seven square miles, and is separated from Flores by a strait 10 miles in width. It consists of a single extinct volcano (2,548 ft.) with short elongations to north and south; the crater, which is $3\frac{1}{4}$ miles in circumference, occupies all the north-west of the island. The bottom of the crater contains two lagoons, on which there are islands with pasture for numerous cattle and sheep. The west coast has no indentations, but the east forms a gentle curve, with almost inaccessible cliffs. On a bay on the east coast is the fishing village of Rosario.

Flores has an area of 57 square miles, and is the most westerly of the Azores. The whole island is very mountainous, but it is fertile and much cultivated, and owes its name to the beauty of the flowers that abound on it. Flores has plenty of timber and is well watered, containing seven lakes and a great number of streams. The latter unite to form the Ribeira Grande, a stream which often causes inundations, especially near its mouth at Fajasinha. The highest summit is Morro Grande (3,087 ft.) in the north-west, and the south of the island is occupied by mountains averaging about 2,000 ft. in height, down the slopes of which numerous cascades fall into the sea.

The east coast is the most indented and has several anchorages.

Fayal has an area of 64 square miles. It is mountainous and wooded, and the centre of the island is occupied by Pico Garda (3,351 ft.), where the crater of an extinct volcano encloses a considerable lake. There are also several small volcanic mountains in the north-west of the island. Fayal is very fertile, although the water

supply is deficient; the pasture land is excellent. The coast is precipitous; the lowest part of it is along the south of the island, west of Gina Point.

Pico is separated from *Fayal* by a strait less than 4 miles wide, and has an area of 175 square miles. The name of the island is derived from the volcano in the south-west of the island, O Pico (7,613 ft.), the highest summit of the Azores, which is still active. Between this and the eastern extremity of the island rises a range with many peaks of over 2,000 ft., and one, Pico Topo, of 5,357 ft. The lagoon of *Lagens* is connected with the sea at high water. The coast is steep, the eastern part of the north coast being somewhat higher and more precipitous than the rest; there are no harbours, but there are several coves where small craft can find anchorage, and passengers and goods can be landed in fine weather. The north side of the island is well wooded; on the south and west a great part of the surface is covered by streams of lava.

San Jorge has an area of 40 square miles. It is a long, narrow island, separated from *Pico* by a deep channel, 10 miles wide. Along it runs a range of volcanic mountains, the highest being near the centre and rising to a height of 3,498 ft. The north-western extremity of the island is sharp and pointed and the coast in general is precipitous. Wood and water abound, and there is much pasturage on the island.

Graciosa has an area of 17 square miles, and lies 23 miles north of *San Jorge*. It is one of the least mountainous and wooded of the Azores; its highest hill (1,349 ft.) is at the south-east extremity. The coast is on the whole high and rocky. Near *Praia*, in the south-east of the island, is the *Caldeira*, which is the crater of an extinct volcano and contains a large lake; near it is a great cave, the *Furna do Enxofre*. *Graciosa* is perhaps the most fertile of the Azores.

Terceira, the most central of the islands, has an area of 223 square miles. It has suffered much from earthquakes and volcanic eruptions. The interior is generally mountainous, and the highest summit, the Caldeira de Santa Barbara (3,500 ft.), occupies the extreme west of the island; in the south-east there is a high and almost circular plateau over three miles in diameter, surrounded by high mountains, which was once the crater of a volcano. The island is very fertile. The coast is high and surrounded by rocks, and has many small bights; there are also two more considerable bays, Angra Bay, in the centre of the southern shore, and Praia Bay at the east end.

San Miguel is the largest and most important of the Azores, and has an area of 297 square miles. Its narrowest part lies just to the east of the chief town, Ponta Delgada. The island is mountainous and full of volcanic cones; the only level ground is the high heathery plateau called Achada das Furnas, lying between Maia and the thermal station of Furnas. In the north the land slopes gradually to the sea; east, south, and west it is more precipitous. The eastern part of the island is the highest, being occupied by mountains with an average altitude of more than 2,000 ft., of which the highest are Pico da Vara (3,569 ft.) and Serra de Agua de Pão. In the west of the island the highest point is Pico da Cruz (2,777 ft). North of it, at Sete Cidades, is Lagoa Grande, a considerable lake with a depth of 14 fathoms, separated by a causeway from Lagoa Pequena. There are many other lakes in San Miguel, which is also full of mineral springs. It has been more subject to recent volcanic activity than any other of the Azores. There are several bays, but few are inhabited; most of the population is concentrated on the southern side of the island.

Santa Maria, the easternmost of the islands, has an

area of 42 square miles. It is the least volcanic of the group, and has none of the lake-bearing craters that are characteristic of the other islands. A range of hills, of which the highest is Pico Alto (1,870 ft.), rises abruptly from the south-east extremity of the island and terminates at its northernmost point. Between it and the west coast, where the cliffs are about 100 ft. high, is a plain of two or more miles in width. The coast is abrupt and precipitous. The chief harbours are those of San Lourenço in the north-east and Villa do Porto in the south-west. Although the climate is drier than that of the rest of the group and there are sometimes droughts, the island is usually fertile.

The *Formigas* are a group of black rocks about 24 miles north-east of Santa Maria. The most elevated is called Hormigon.

(3) CLIMATE

The climate of the Azores, which differs considerably from that of Portugal, partly owing to the oceanic position of the islands, and partly to the influence of the trade winds, is extremely temperate and uniform, the difference between winter and summer being comparatively slight. During five years (1896-1900) the minimum winter temperature was 41° F. (5° C.), the maximum summer temperature 82° F. (28° C.). There is not much difference between the various islands, but the eastern group is drier than the central and western.

In summer the Azores lie within the northern boundary of the north-east trade winds; in winter south-west and west winds prevail, and stormy days are especially numerous. Continuous fine weather can only be expected between the middle of June and the end of September, when the climate is usually very agreeable. The winters are generally unpleasantly wet.

Snow is rare and only lies for any length of time on the summit of Pico.

The average temperature for the year at Ponta Delgada (alt. 73 ft.) is 62.6° F. (17° C.); the month with the maximum average is August with 71.6° F. (22° C.), the months with the minimum, January to March with 55.4° F. (13° C.). At Angra (alt. 146 ft.) the mean temperature for the year is 62.6° F. (17° C.); the month with the maximum average is August with 69.8° F. (21° C.), the month with the minimum, February with 55.4° F. (13° C.). At Horta the mean temperature for the year is 62.6° F. (17° C.); the month with the maximum average is August with 71.6° F. (22° C.), the month with the minimum is February with 57.2° F. (14° C.). The rainfall is less evenly distributed. At Ponta Delgada, where there are 171 rain-days, the average rainfall for the year is 35.4 ins. (89.9 cm.). November is the wettest month with an average of 4.36 ins. (11.07 cm.), July the driest with an average of 0.87 ins. (2.2 cm.). At Angra the rainfall for the year is 42.4 ins. (107.69 cm.), and November is the wettest month, with an average of 5.44 ins. (13.81 cm.), July the driest, with an average of 1.18 ins. (2.99 cm.). At Horta the rainfall for the year is 45.54 ins. (115.67 cm.), and the wettest month is December, with an average of 5.12 ins. (13 cm.), the driest April, with an average of 2.04 ins. (5.18 cm.).

(4) SANITARY CONDITIONS

The Azores are healthy, and such disease as there is arises rather from the dirty condition of the towns than from the climate.

Of the various islands Santa Maria is healthy owing to the dryness of its climate; San Miguel is especially suited for invalids, and the mineral waters of Furnas are

beneficial to rheumatic patients and to sufferers from skin and throat diseases. Pico is especially suitable for consumptive invalids, and Fayal, which is damper than Pico, has a mild climate and is free from diseases that arise from climatic causes. The climate of Terceira is remarkably mild and enervating, but it is not unhealthy.

(5) RACE AND LANGUAGE

The inhabitants are for the most part of Portuguese origin, but there is a certain admixture of Moorish and Flemish blood. The Flemish strain dates from the fifteenth century, when Fayal was attached to the Duchy of Burgundy, and its presence among the islanders may be partially responsible for the fact that they are specially active and enterprising.

There are a certain number of negroes and mulattoes, and in the port towns are a number of British, Germans, Americans and Brazilians. The Germans are found especially at Horta. The Americans are largely engaged in whale-fishing. The number of foreign residents in 1900 was 1,490.

The language is Portuguese, but a good number of the inhabitants of Fayal, owing to their association with America, speak English with fluency.

(6) POPULATION

Distribution

The census of 1911 gives the population of the Azores as 243,378, which means that the density is about 264 per square mile. The estimates given of the population and its density in the different islands vary considerably, but the most trustworthy seem to be as follows:—

	Population	Density per square mile
Corvo	746	106
Flores	7,233	127
Fayal	20,461	319
Pico	21,966	125
San Jorge	14,309	357
Graciosa	7,747	455
Terceira	48,029	215
San Miguel	116,619	392
Santa Maria	6,268	149

Towns and Villages

There are only three towns in the Azores which have more than 3,000 inhabitants, viz. Ponta Delgada in San Miguel, Angra in Terceira, and Horta in Fayal.

Ponta Delgada (population 17,620 in 1900) is a flourishing town containing various factories.

Angra (10,788 in 1900), in full *Angra do Heroismo*, is the capital of the Azores and the seat of a bishopric.

Horta (6,574) is the headquarters of the whale-fishing of these parts and an important telegraph centre, but owes its chief importance to the fact that it is a place of call for ships bound to the West Indies.

The chief towns on San Miguel, after Ponta Delgada, are Ribeira Grande, Villa Franca do Campo, Furnas, Alagoa and Capellas. Pico contains a larger number of towns than any island save San Miguel, but none of importance. The other important towns in the islands are Villa de Vellas and Ribeira Sera in San Jorge, Guadalupe and Santa Cruz in Graciosa, Santa Cruz in Flores, Villa do Porto in Santa Maria, and Rosario in Corvo.

Movement

The population of the Azores fluctuates, but shows no marked tendency either to increase or decrease. The figures of four recent censuses are: 1881, 269,401; 1890, 255,534; 1900, 255,892; 1911, 243,378. The decrease visible in these numbers is due more to

emigration than to any other cause. The birth-rate is high, the mortality not abnormally heavy, families are large and the health conditions, generally speaking, good. In several of the islands, however, the women largely outnumber the men, because of the emigration of the more enterprising of the latter.

MADEIRA

(1) POSITION AND AREA

Madeira lies between $32^{\circ} 37'$ and $32^{\circ} 49'$ north latitude and $16^{\circ} 39'$ and $17^{\circ} 16'$ west longitude. It has an area of 314 square miles. With it are included the other islands of the group, Porto Santo, 23 miles to the north-east, and the Desertas, 11 miles to the south-east; also the Selvagens, which lie about 156 miles from Madeira, between it and the Canaries.

(2) SURFACE, COASTS, AND RIVER SYSTEM

Madeira is about 90 miles in circumference. Its extreme length, from Ponta do Pargo to San Lourenço, is 38 miles, and its extreme width, from Ponta de San Jorge to Ponta da Cruz, nearly 15. It is of volcanic origin, but there are only three real craters in the island, the Lagoa at Santo Antonio da Serra, the double crater of Fanal, and the Lagoa of Porto Moniz. A range of mountains runs from west to east across the island, the highest peak of which, Pico Ruivo, is 6,056 ft. high, while several more rise above 5,000 ft. From this range there are branch ridges that run north and south, parted by deep ravines, which break up the country and make communication difficult. High passes cross the main ridge, two of the most important being Portellæ (1,800 ft.) and Lamaceiros (2,380 ft.) in the eastern part of the island. On the whole the north side of the principal range is abrupt, and the south side slopes more gently

to the sea. There is only one considerable piece of level ground, the Paul da Serra, towards the west, a swampy plateau with an elevation of 5,000 ft. and on most sides a steep escarpment. The volcanic soil is very fertile, though there is little cultivation above the 3,000 ft. limit.

The sea round Madeira is very deep, and the shores as a rule are steep, with the exception of occasional small beaches. The north coast has a peculiarly bold and precipitous line of cliffs with a sheer drop of nearly 2,000 ft., but the loftiest cliff of all, Cape Girão, is on the south coast. Funchal Bay, at the head of which is the port of Funchal, is about $5\frac{1}{2}$ miles wide, but penetrates the island very little. Camara de Lobos, farther west, affords an excellent harbour for fishing boats. At the east end of the island is the promontory of San Lourenço, a narrow, irregular, rocky peninsula about a mile long; a dangerous channel, about two hundred yards wide, parts it from Fora Island.

There are no considerable rivers in the island, but a large number of small streams run north and south from the principal mountain range, some of which, like the Metade, flow through precipitous gorges of extreme beauty. They are liable to flood.

Porto Santo is seven miles long, and runs north-east and south-west; its mean breadth is $2\frac{1}{2}$ miles and it is 19 miles in circumference. The north-east part contains many considerable hills, the highest of which is Pico da Facho (1,665 ft.). The central portion is lower, and contains many sandy plains, gradually sloping towards the south and south-east, where a sandy beach forms the entire shore, while the south-west extremity is elevated and rocky, with hills that rise to a height of 900 ft. The north point of the island is a bold promontory, and the north coast generally is characterised by high rocky cliffs, for the most part inaccessible. Timber and water are scarce. The chief

town is Villa Baleira on Porto Santo Bay, where there is a harbour, satisfactory in settled weather. Off Calheta Point to the south-west is Baixo Island.

The *Desertas* are three uninhabited islands extending in a chain about 14 miles long, which are occasionally visited by fishermen, herdsman and sportsmen. The northernmost, Chão, is bare, table-topped, and surrounded by high rocky cliffs; it is a mile long and a quarter of a mile wide at its northern extremity, and rises to a height of 340 ft. To the north is the Sail Rock, 160 ft. high. Parted from it by a very narrow strait is Deserta Grande, seven miles long and one mile broad at Bedegal Point, its widest part. From the high land in the interior a continuous rocky chain runs to the southern extremity, the greatest height being 1,600 ft. North of this is a double ridge with an extensive valley between. The southernmost island, Bugio, is four miles long and nowhere more than half a mile wide. A ridge traverses the whole length of the island, which in form is almost like two islands. On the eastern side there is a bight which penetrates to a depth of half a mile. The greatest height in the northern part of the island is 1,300 ft., in the southern 1,070 ft.

The *Selvagens* (Salvages) are two groups of rocky islands 156 miles from Madeira, distant nine miles from each other. To the north-east is the island of Great Salvage, three miles in circumference, with several small islets and rocks scattered round it; the other group, to the south-west, is formed by the Pitons, two small islands, respectively three miles and three-quarters of a mile long. Both groups are uninhabited, and except for some green on the south side of Great Piton are apparently bare.

(3) CLIMATE

Madeira enjoys a peculiarly mild and equable climate, and on this account the south coast has become a great resort for invalids, especially during the winter, although it is not uncomfortably hot during the summer. The other coast is exposed to the prevalent winds from the north, and is unpleasant during the winter months by reason of its excessive damp. Madeira is too far north for the full effect of the trade wind to be felt; the north-east is the prevalent wind, and is said to blow for 200 days in the year. The *leste* (north-east to south-east) sometimes blows from the Sahara, bringing a red dust, but this wind never lasts more than ten hours.

The temperature is very equable, and at Funchal the annual mean is 64.4° F. (18° C.). In January the average is 59° F. (15° C.), in April 62.6° F. (17° C.), in July 71.6° F. (22° C.), and in October 68° F. (20° C.). The hottest month is generally August, but the temperature varies considerably in accordance with the height and aspect of the locality. During an observation of 25 years the extremes noted have been 89.6° F. (32° C.) and 42.8° F. (6° C.).

The average rainfall in Funchal is 27 ins. (68 cm.), and there are 79 rain-days in the year. Most of the rain falls between November and March, the wettest month being December, while the driest is August. A good deal of the exceptional fertility of Madeira is due to the frequent presence of clouds round the mountain tops, which screen the island from the sun during the day. Snow falls during the winter as low as 2,500 ft. on the north side, and 3,000 ft. on the south side of the island, but it seldom lies for any length of time below 5,500 ft. Most snow falls in March, when the wind is often in the north-west.

(4) SANITARY CONDITIONS

Funchal has become a noted health resort, and the advantages of its climate and situation are increased by the fact that there is little dust, owing to the scarcity of wheeled vehicles. The natives enjoy good health, and the fact that in personal cleanliness they compare favourably with the inhabitants of the Canaries reduces their liability to disease.

Of recent years leprosy has been observed, especially in the west of the island, and septic pneumonia appeared at Santo Antonio in 1907. In 1906 there was a severe epidemic of smallpox.

(5) RACE AND LANGUAGE

Most of the inhabitants are of Portuguese origin, but in the lower strata of the population there are strains of other peoples, including Jews, Moors, negroes and Italians. On the west coast and in the Gran Curral the peasantry retain much of the Moorish type, while in the north negro characteristics are prevalent. The negro strain has come from the slaves imported from Africa. Since the abolition of slavery (1775), the freed negroes have intermarried with natives of European descent; hence come the prevailing dark complexions and certain peculiarities of custom in the island. The Moorish blood is the result largely of piratical raids. There is a certain strain of Flemish blood, dating from the early (Burgundian) period of colonization, but it is less marked than in the Azores.

The language of Madeira is Portuguese, but English is much spoken in Funchal.

(6) POPULATION

Distribution

In 1914 the population of Madeira was 168,374, which gives a density of about 536 to the square mile.

In Porto Santo the population was 2,311, of whom about 1,800 inhabited the town of Villa Baleira. Funchal and its environs account for nearly one-third of the population of Madeira; the rest of the inhabitants are mostly found along the coast, especially in the south.

Towns and Villages

Funchal had in 1911 a population of 25,800. With its environs it has slightly over 50,000 inhabitants, which makes it the third largest city of Portugal. It is an important coaling station and port, as well as a health resort.

Next in importance to Funchal is *Camara de Lobos* (population 7,150), the centre of a vine-growing district. *Machico* (6,128) lies in the east of the island; *Santa Cruz* (5,876) is on the south-east coast; *Ponta do Sol* (5,665) is west of Funchal; and along the north side of the island are *San Vicente* (4,896) and *Santa Anna* (3,011). *Camacha*, east of Funchal, is in a healthy position; *Prazeres* is the chief village in an agricultural district; *Calheta* (3,475) is a fishing town on the south coast; and *Magdalena*, farther east, has banana plantations.

Movement

The population of Madeira has been increasing. In 1885 it was about 134,000, in 1900 it was 150,574 (including 830 foreigners), and in 1910 it was 166,826. The birth-rate is high and is not declining, and infant mortality is less than might be expected. The births considerably outnumber the deaths, and the increase of population would be greater were it not for emigration.

The majority of the foreign population are tourists and invalids, and persons engaged in the wine trade. Most of them are British, of whom there are about 300 in Funchal, but there are also Germans, Dutch, Scandinavians and Russians.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1418-20. Discovery and Settlement of Madeira.
 1432. Discovery of the Azores.
 1444. First settlement of San Miguel.
 1450. First settlement of Terceira.
 1461. Introduction of the vine and sugar-cane into Madeira.
 1514. Funchal becomes a bishopric.
 1524. Introduction of the sweet orange into the Azores.
 1566. Funchal attacked and plundered by the French.
 1580-83. War in the Azores against Philip II.
 1589. Van Linschoten in the Azores.
 1591. Fight of the *Revenge*.
 1635. The Mandarin orange introduced.
 1801-2. Temporary English occupation of Madeira.
 1807-14. " " " "
 1828-32. Dom Miguel holds Madeira.
 1831. Dom Pedro's expedition against Dom Miguel organized in the Azores.
 1832. The Azores declared by Dom Pedro to be a province of Portugal and no longer a colony.
 1836. The Azores divided into three districts with capitals at Ponta Delgada, Angra and Horta.
 1903-6. German syndicate formed to exploit Madeira.

AZORES

Although these islands are clearly shown in certain Genoese maps of the 14th century, i.e. the *Conoscimento* of 1330 and the *Portolano* of 1341, yet there is no record of any discovery of them before Prince Henry the Navigator, relying probably on these maps, sent out an explorer to look for the islands in 1431. Gonçalo

Cabral, with Diego de Sevil as his pilot, first found the cluster of rocks called the Formigas (or Ants), and in 1432 he discovered the small island of Santa Maria. In 1444 he discovered the island of San Miguel and, having received a commission to colonize it, founded the city of Ponta Delgada. San Miguel and in fact the whole group were uninhabited when discovered. The next island discovered was Terceira (i.e. the Third) in 1450. This and other islands of the central group received a large number of Flemish settlers brought out by Josua van der Berge of Bruges (Jacques de Bruges), who received a charter from Prince Henry. The last group to be colonized was that to the north-west, consisting of the small islands of Flores and Corvo. Other Flemings were brought out by Van Huerta, from whom Horta, the principal town of the island of Fayal, is said to have taken its name. But the great mass of the people are of Portuguese descent, and Portuguese is the only language. Owing to the large Flemish settlement in some of the islands, the Azores were often called by writers of the 16th century "the Flemish Islands." Van Linschoten in 1589-91 found the descendants of the early Flemish colonists still clearly distinguished from the Portuguese, but they spoke only the Portuguese language. All traces of a varying origin have now disappeared. In the island of San Miguel there are traditions of a Breton settlement, which is commemorated in the name of the village Bretanha, but of this there is no historical evidence. The island of Graciosa was colonized from Portugal by Sodré.

The fertility and temperate climate of the Azores caused the population to grow rapidly. The sweet orange was introduced by João Correa of Terceira (1524), and the China orange or "Mandarin" was brought from Goa in 1635. These trees suited the soil and climate, and the orange export trade flourished until

the recent destruction of trees by disease; it has now almost disappeared.

The Azores were of great value to Portugal during the great days of her colonial empire as a depot for provisioning the fleets returning from the East. The earliest example is that of Vasco da Gama, who landed at Terceira on his return from his first great expedition. His brother Paulo da Gama died there.

Ships from Brazil and afterwards from Spanish America made these islands their port of call. They were at the same time very accessible to attack from enemies, especially during the time when Portugal was under Spanish rule (1580–1640). Their isolated position has also on more than one occasion led to these islands becoming the nucleus of rebellions or a refuge for pretenders to the crown. In 1580 they took up the cause of Dom Antonio, who claimed the throne against Philip II of Spain. The island of Terceira led the way, and the first Spanish force which landed there was defeated by the villagers. The island of San Miguel, however, had been occupied without resistance and was attacked by Dom Antonio's fleet with a considerable French force, which made a successful landing and occupied a great part of the island. A desperate naval battle with a Spanish fleet off Villa Franca ended in the defeat of Dom Antonio and the French. Dom Antonio took refuge again in Terceira, which was not finally subdued till 1583. Terceira, with its excellent port Angra do Heroismo, became the centre of Spanish rule, and its neighbourhood a happy hunting ground for the English fleets, which took many valuable prizes both from the East and West Indies.

Van Linschoten, the Dutch traveller, who returned from India with a Portuguese fleet and arrived at Terceira in 1589 soon after the defeat of the Armada, gives a vivid account of the precarious conditions

attending the fleets of those days and the daring of the small English ships which roamed at their will about the islands, taking or sinking ships and frequently landing without opposition to get supplies or even carrying on trade. Van Linschoten was detained about three years in the Azores, as his ship would not sail without an escort; and during this period English fleets under Frobisher and Hawkins frequently visited the islands. A great fleet sent out in 1590 from Coruña to convoy the numerous ships to Lisbon put back without carrying out its task, and the English fleet near Corvo was not attacked. About a year later another fleet arrived at the islands and met the English fleet off Flores. Van Linschoten's account of what followed, including the celebrated fight of the *Revenge* under Sir Richard Grenville and the great storm which afterwards destroyed the Spanish fleet, is one of the chief authorities for these events. His long stay at Terceira enabled him to collect much information about the Azores, of which he gives a very full account.

The second occasion on which the Azores served as a rallying point for the party out of power was in 1831, when they took up the cause of Donna Maria II, the youthful queen, against her uncle Dom Miguel who had usurped the throne. Dom Pedro, the young queen's father (the ex-Emperor of Brazil), gradually got together sufficient forces in the islands to attack the Miguelists on the continent; and the brilliant landing near Oporto led to the fall of Dom Miguel and the re-establishment of constitutional government.

Up to this period the Azores had been considered a colony and were under the rule of a Captain-General; but in 1832, after the assistance they had given in the restoration, Dom Pedro declared them to be a province of Portugal, with its capital at Angra in Terceira. In 1836 three districts were constituted, the Eastern, in-

cluding the islands of San Miguel and Santa Maria, with Ponta Delgada as capital; the Central, including Terceira, San Jorge and Graciosa, with Angra as capital; and the Western, including Fayal, Pico, Flores and Corvo, with Horta as capital.

The Azores suffered considerably from the loss of the orange trade mentioned above and from other causes; and the poverty which followed among the crowded population has led to very considerable emigration, principally to Brazil, the United States and the Sandwich Islands. The peasant immigrants into the Sandwich Islands have been very successful, and the climate suits them better than that of Brazil. The present Republican Government of Portugal is endeavouring to divert some part of the emigration to the more healthy uplands of southern Angola.

MADEIRA

Madeira is the principal island of a group, the smaller and less important members of which are generally included in the name. Of these the only one inhabited is Porto Santo, which lies 23 miles north-east of Madeira. Madeira is not considered to be a colony, but is an integral part of Portugal, and, like the Azores, is represented in the Cortes.

The discovery by the Portuguese took place in the years 1418-20. The first landing on Porto Santo is considered as having taken place in 1418 and that on Madeira in 1420. The islands at the time showed no traces of having been inhabited by man. Two travellers, of whom the chief was João Gonçalves, nicknamed Zarco (blue-eyed), who had been sent out by Prince Henry to explore the African coast, were driven by a storm to an island which, in recognition of their escape from destruction, they called Porto Santo, or the Holy

Port. As the island seemed fit for colonization, they returned to Portugal and reported to Prince Henry. He immediately fitted out three ships, two under the first discoverers and one under Bartolomeu Perestrello. They occupied Porto Santo, whence Perestrello subsequently returned to Portugal. In his absence, João Gonçalves and his companion, Tristão Vaz, made a landing on the larger island, which, owing to the dense forests then covering it, they named Madeira, or the Wood. The first landing was made on the south coast at a spot nearly six miles west of Funchal, which they called *Camara dos lobos marinhos* (the seals' chamber) from the number of tracks of these animals. From this João Gonçalves was given the surname of Da Camara under which the family became famous. The town was laid out on a plain covered with fennel (*funcho*) and hence received the name of Funchal.

Madeira was divided by Prince Henry into two captaincies, which he gave to the two discoverers; Porto Santo he bestowed upon Perestrello. Colonization at once began and promised well, but Porto Santo was rendered almost uninhabitable by a plague of rabbits, which had been introduced by Perestrello. In Madeira progress was delayed by the outbreak of forest fires, which are said to have raged for seven years and nearly drove the colonists from the island. However the natural fertility of the soil soon made the settlement prosperous. Prince Henry introduced the Malmsey vine from Crete and the sugar-cane from Sicily, and both became sources of great wealth. Until the development of the sugar plantations in the West Indies, Madeira was one of the principal sugar-growing countries, but, as this supremacy passed away, it came to depend more and more on its wine.

Funchal was raised to the rank of a city in 1508; and the bishopric founded in 1514 was afterwards raised to

an archbishopric to which was attached, as De Barros says, "the Primacy of the Indies."

The government of Madeira continued under the Camara family until the island, with the rest of Portugal, passed under the rule of Philip II in 1580. Porto Santo was long under the Perestrello family; and Columbus, who married the daughter of the first Governor of this family, is said to have lived some time in Porto Santo and afterwards in Funchal when he was collecting the information which led to his great discovery.

The history of Madeira after its settlement and colonization is not marked by many events of importance. The city of Funchal was attacked, plundered, and partly destroyed in 1566 by a French raiding fleet led by Pierre Beltrau de Montluc. In the 17th and 18th centuries, after the alliance between England and Portugal had been strengthened by the marriage between Charles II and Catherine, daughter of João IV and sister of King Pedro, trade with England began to flourish. Lisbon and Madeira became favourite resorts for Englishmen; and the wines of Oporto and Madeira were in greater favour than any other.

The most remarkable manifestation of the privileged position of the British in Madeira was the establishment of the British Factory, a corporate body formed to protect and further the interests of English merchants in the island. In the course of the eighteenth century this body, which had the right to levy duties on all British exports and imports, became exceedingly powerful and played a large part in the development of its adopted country. Its activities were not confined to commercial channels. It spent its funds freely on works of public utility, such as the construction and extension of irrigation channels and harbour and municipal improvements. Meeting under the presidency of the British Consul-General, it acquired a semi-official position which

enabled it to obtain certain important concessions, such as the right to build an Anglican church and to form a Protestant burial ground. It nominated and paid a number of Portuguese officials, and even, for a time, made an allowance to the governor of the island. Ultimately, however, its power, and the practical monopoly of trade which, on its own showing, it had established, aroused local jealousy, and attacks were directed against it in the press. The Factory fought hard to retain its position, but by the third decade of the nineteenth century its influence was well on the wane; its functions were one by one abandoned; and gradually it ceased to have any corporate existence, though some of its philanthropic and ecclesiastical work is still carried on by prominent English merchants.

The Napoleonic wars led to the occupation of Madeira by the British for two periods, the first in 1801 and 1802, and the second from 1807, when Junot entered Lisbon, till the close of the Peninsular War.

Madeira was to some extent involved in the Miguelist disturbances in 1828. The island was in favour of Dom Pedro and the young queen, his daughter Donna Maria, but had to give way to a force sent out by Dom Miguel in 1828, until the final overthrow of his regime in 1832.

The designs of a syndicate formed in Germany in 1903 to obtain control over the resources of Madeira under the disguise of a philanthropic scheme were exposed in 1906 (see below, p. 55).

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

THE separation of Church and State effected by the Republican Government in Portugal applied also to the Azores and Madeira, which are an integral part of the Republic. The Roman Catholic bishoprics of Angra and Funchal are now suffragans to the see of Lisbon.

(2) POLITICAL

The Azores have, since 1832, constituted a Portuguese province. The islands are represented in the Cortes of Portugal, and the administration in no way differs from that of continental Portugal¹. Azorians are strongly represented in modern political movements and in every branch of Portuguese life, and most of the young men of means complete their education at Coimbra University. The first President of the Republic, Senhor Theophilo Braga, an author of distinction, was a native of San Miguel.

A scheme of local self-government for Madeira was sanctioned in 1902, but this does not imply any real autonomy. Madeira is in fact part of Portugal, and, like the Azores, is in exactly the same position as a province of continental Portugal. It is represented in the Lisbon Cortes by deputies. Funchal is the capital.

¹ For the administrative districts see pp. 18-19.

IV. ECONOMIC CONDITIONS

AZORES

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads and Tracks*

THE archipelago is well provided with roads. Fayal and Terceira possess carriage roads, which encircle the islands and cross them in various directions, while San Miguel is similarly encircled and intersected throughout nine-tenths of its area, the rest being served by tracks. The islands are mountainous, but their slopes are not so precipitous as those in Madeira and the Canaries; hence the roads are suitable for motoring and cycling.

(b) *Posts and Telegraphs*

There are postal-telegraphic offices in every island, and a number of sub-offices in the larger ones; San Miguel and Terceira have five or six each.

(2) EXTERNAL

(a) *Ports*

The chief port is *Ponta Delgada*, in San Miguel. It possesses a safe harbour, with accommodation for a dozen large ocean-going steamers and numerous small vessels. There is a mole which when complete will be over 4,200 feet in length; 1,200 feet have still to be built. A store at the inner end of the harbour holds 8,000 tons of coal. Ordinary repairs can be executed. Of the 221 vessels (aggregate tonnage, 641,489) that entered

the port in 1913, 97 were British (396,221 tons), 30 German (63,794 tons) and 39 French (114,328 tons). Nearly all of these vessels were steamships in ballast.

Angra do Heroismo, in Terceira, is the next in importance; it has three moles and a sheltered anchorage, which is safe from January to September and only exposed to gales from the south-west.

Horta, in Fayal, is a very fair natural harbour, with anchorage in all weathers for large ships within 300 yards of the landing place. There is a breakwater 2,400 feet long, alongside which four large vessels can be berthed in a depth of five fathoms, while the harbour should be capable of sheltering from 15 to 20 large vessels. South-west winds blow strongly into the bay. At the Government breakwater works only slight repairs can be made. Of the 75 vessels, mostly steamships in ballast, with an aggregate tonnage amounting to 244,995, which entered Horta in 1913, three were British (6,443 tons) and 29 French (156,289 tons).

The importance of both Ponta Delgada and Horta as coaling-stations will be increased as the result of the opening of the Panama Canal.

(b) *Shipping Lines*

The islands have not hitherto been very well served by shipping lines. The *Empreza Insulana*, which connects Lisbon with the Azores, used before the war to run a monthly steamer to several of the islands, calling at Madeira; the round trip covered a period of about two weeks and a half. There was also a fortnightly steamer to San Miguel, Terceira and Fayal. Of foreign lines, the Royal Mail Steam Packet Co.'s boats made occasional calls at Ponta Delgada between April and September, and the port was visited by the White Star Line on their eastward sailings from New York and Boston to the Mediterranean. It was also a

place of call for the steamers of Cyprien Fabre & Cie., plying between Naples or Marseilles and New York.

(c) *Cable and Wireless Communications*

Horta is connected by cables of the Eastern and Associated Telegraph Company with Porthcurno (England), through Ponta Delgada with Carcavellos (Portugal), and with San Vicente in the Cape Verde Islands; it is also connected with New York, Cape Canso in Nova Scotia, Emden, and Waterville (Ireland). Between 1893 and 1904 there were no less than five breakages in the cables within the triangle formed by the islands of San Miguel, Pico and Terceira, due either to submarine eruptions or to the fusion of the insulating gutta-percha.

There are wireless stations at Santa Cruz in Flores, at Cedros in Fayal, at Ponta Delgada, and in Corvo and Santa Maria.

(B) INDUSTRY

(1) LABOUR

The population of the Azores is mostly white, but, as in the African possessions of Portugal, there is a large infusion of negro blood. The inhabitants have a reputation for honesty and industry, but there is little on record about their capacity as labourers. The inhabitants of Flores are known to make good sailors.

The resources of the islands are inadequate for the support of the islanders, whose numbers increased from 80,000 in 1818 to nearly 250,000 in 1911. Consequently there is much emigration: it is estimated that from 2,000 to 3,000 emigrants leave the Azores every year. In the year 1903 alone the emigrants from the district of Ponta Delgada numbered 2,316, from that of Angra, 1,341, and from that of Horta, 1,270. As a rule the natives of San Miguel, Santa Maria and

Terceira emigrate to Brazil; those of Fayal, Flores, and San Jorge to the United States. Both classes have a tendency to return to their native land, but on their return the "Americanos" make much better citizens than the "Brazileiros." There is also a certain amount of emigration to Hawaii and to the Portuguese possessions in Africa.

(2) AGRICULTURE

(a) *Products of Commercial Value*

Vegetable Products.—Plants belonging both to the tropical and to the temperate zones flourish in the Azores, and there are many exotic crops which are cultivated with great success.

Among native crops, or crops that have been so long acclimatized that they are regarded as native, the leading place is taken by *maize* and *beans*. The former supplies the staple food of the inhabitants, but other cereals are grown, including *wheat*, *barley* (especially in Graciosa), and *millet* (in Santa Maria). The maize and beans of the Azores find a ready and increasing market in Portugal.

Of exotic crops the most important used to be the *sugar-cane*, which grows freely in the islands, but, though protected by a tariff none too favourable to foreign goods, its produce has been unable to hold its own in the Lisbon market, and its cultivation has been superseded by that of *beet*. At first, shipments of dried beet-pulp used to be made, but now the prepared sugar is exported. San Miguel and Terceira are the centres of the sugar-beet industry.

Fruit grows abundantly. *Oranges* used to be a source of profit in the past and are still grown, but on a very restricted scale, as they can be raised and marketed more cheaply elsewhere; many of the orange groves have been destroyed by disease recently, and their place

has been taken by *sweet potatoes* and *pineapples*. From the former alcohol is made in three distilleries. The pineapples, which are grown under glass, especially in San Miguel, are at present the favourite crop and yield handsome profits; they are exported mostly to London. Other fruits exported are *bananas* and *apricots*, great quantities of the latter being grown in Pico. *Yams* are grown in Fayal, and *figs*, *lemons*, *loquats*, and *pomegranates* prosper in the archipelago. The *vine*, as in Madeira, had a period of failure owing to oïdium and phylloxera; from this, however, it has recovered. It is planted chiefly in Pico and San Miguel; the Isabella grape, one of the varieties grown on those two islands, gives the wine a special flavour. The best wine comes from Coloura in San Miguel. It does not, however, come up to the standard insisted upon by the foreign residents, for whose use a considerable quantity of Portuguese table-wine is imported.

Other crops include *tobacco*, *New Zealand flax* (*Phormium tenax*), of which a good deal is planted for the use of the inhabitants, *coffee*, and *tea*, which is prepared in San Miguel for the Lisbon market. A kind of *indigo* used to be grown, but it has now disappeared. *Orchilla* is still grown in some of the islands.

The acclimatization of plants has been hampered by the absence of a well-marked winter and summer. There is no frost or drought to control the various pests to which non-indigenous plants are liable, and the uniform warmth and persistent damp of the island climate impartially stimulate the growth of the plant itself and of the parasite which injures or destroys it.

Live-stock.—The island most noted for its flocks and herds is Terceira. Its bulls are savage animals, used for bull-fights, and dangerous to strangers. Cheese and butter are exported, chiefly from Terceira. In

San Jorge a kind of Gruyère cheese is produced, which has a considerable reputation.

(b) *Methods of Cultivation*

The methods of cultivation do not differ materially from those in vogue in Portugal. Owing to high and steady rainfall, artificial irrigation is rarely necessary, and the fertility of the soil is such that three or four crops in the year are often produced.

(c) *Forestry*

The island forests were once of great value, but, except in Pico, where a certain amount of timber survives, they have been largely destroyed by reckless felling. Of recent years there has been much replanting; various trees have been introduced, including pine, poplar, eucalyptus, the tulip tree, the African palm-tree and many others. The forests, which grow luxuriantly on the volcanic mountain-sides, come right down to the cultivated land, and form a belt between it and the shrubland (*macchia*) which is found on the highest points.

(d) *Land Tenure*

There is not much to distinguish the system of land tenure in these islands from that of Portugal itself. The land is largely in the hands of big landed proprietors living in Portugal, who let out their estates in small lots.

(3) FISHERIES

Fresh-water fishing may be had in most of the lakes formed by volcanic craters throughout the archipelago. Eels, which are a staple article of diet with the islanders, are abundant in the streams. The deep-sea fishing is excellent, especially in the channel separating the islands of Fayal and Pico, and on the Princess Alice

Bank 50 miles south-west of Fayal. The chief sea-fish caught are mackerel, tunny, and bonito, which is a variety of tunny. Dolphins are numerous off San Miguel; their flesh is boiled down for the sake of the oil it contains. Whaleries are conducted by Americans; the chief are in Fayal and at Capellas in San Miguel.

(4) MINERALS

There are no minerals of special value in the Azores. In the seventeenth century a certain amount of *alum* used to be extracted in San Miguel, and factories for its preparation existed at Caldeira and Furnas; but the industry has long disappeared. *Basalt* and allied rocks are the only building stone. On some coasts boulders of granite and schist are found, but in quantities too small to be of any economic importance. Among the products of rock decomposition are various *clays*, some of which are employed in the manufacture of pottery, as in Santa Maria, while others are said to be exported for the manufacture of pozzolanic cement. There is an unimportant deposit of *lignite* near Furnas in San Miguel.

Mineral springs abound. There are hot and cold springs of therapeutic value at Furnas, and in the same neighbourhood are the springs of Lombadas, the source of the table-water of that name, which is generally consumed in Portugal and the Portuguese colonies in Africa. There are many mineral springs in the north of San Miguel, and in the west are hot springs at Mosteiros and Ponta Ferraria. Of the other islands the richest in hot springs seem to be Flores and Graciosa; the best are near Ilheos Point in the south-west of Flores, and at Carapacho in Graciosa.

(5) MANUFACTURES

The industries are, as a rule, small and primitive. In San Miguel, as also in Fayal, drawn linen work (*crivo*) of the Peniche type and wickerwork are made. At Ponta Delgada two tobacco factories occupy 400 workmen and many women, and there are also sugar factories and a brewery. In the same district cotton fabrics, spirits and straw hats are manufactured and tea is prepared for the market. There is a pottery at Lagoa; the potteries on Santa Maria have been already mentioned. In the Angra district linen and woollen goods are manufactured, also soap, bricks and tiles. In the Horta district the chief industry is the manufacture of baskets, mats and other articles from straw, osier, and the pith of fig-wood.

(C) COMMERCE

(1) DOMESTIC

(a) Organizations to promote Trade and Commerce

The Azores have been granted a certain limited (almost nominal) autonomy, and an organization for promoting local interests exists under the title of *Autonomia Michaelense*; but very little information is forthcoming about its activities. The *Partida Regionalista* is a semi-political commercial union with headquarters at Ponta Delgada. There is also an association of retail shopkeepers, the *Associação de Logistas*.

(b) Foreign Interests

A glance at the local directory shows that, judging by the names, the bulk of the trade of the Azores is in Portuguese hands; but foreign mercantile shipping and banking interests, chiefly American, are out of all proportion to Portuguese. There is only one Portuguese line of steamers plying between Lisbon and the

Azores, and that with a fleet not exceeding three ships. While there are seven Portuguese banks with branches or agencies, there are no less than thirty American banking establishments, besides five English. The amount of business done by these agencies is not declared. Apart from the banks and the American whaleries already mentioned, probably the chief foreign establishment is the Azores Coaling Co., Ltd., at Ponta Delgada.

(2) FOREIGN

(a) Exports

Quantities and Values.—The available sources of information do not make it possible for a complete statement of exports to be prepared. The total exports from San Miguel in 1913 amounted in value to £214,976, and in 1914 to £270,472, while those from Fayal amounted to £32,728 in 1913 and £26,477 in 1914.

The chief export of the Azores is the pineapple, which accounted for half the exports of San Miguel in 1913 and for nearly a third even in 1914, when the trade was affected by the closing of the Hamburg market. Next in importance are tobacco, sugar, and beans, followed by maize and alcohol. The export of maize greatly exceeds the import of cereals. Corn and maize, butter, cattle, hides, and sperm oil figure among the chief exports from Fayal to Portugal; detailed particulars of the exports from that island to the United Kingdom are not available. The chief exports from Angra, in Terceira, are grain, vegetables, flour, butter, cheese, and cattle.

The following table shows the values of the principal articles exported from San Miguel in 1913 and 1914:

	1913	1914
	£	£
Alcohol	15,959	16,563
Beans	14,749	50,018
Maize	3,245	14,869
Mineral waters ...	2,344	2,682
Pineapples	111,926	66,444
Sugar	—	50,021
Tea	8,192	8,416
Tobacco and Cigars ...	48,531	51,708

The returns for Fayal do not distinguish between the different articles exported except in the case of those sent to Portugal, the chief of which were as follows:

	1913	1914
	£	£
Butter	4,170	4,320
Cattle	2,852	1,767
Corn and Maize ...	5,406	319
Hides	1,575	1,298
Sperm oil	1,183	1,089
Wheat	447	335

Countries of Destination.—The destination of most of the exports from the Azores is Portugal. Out of the total exports from Fayal in 1913 a value of £20,475 went to Portugal, and of £12,253 to the United Kingdom. This last figure represented a huge increase over 1912, when the value was £3,174 only. In 1912 the United States took goods to the value of £6,927, but they took nothing in 1913 or 1914.

(b) *Imports*

Quantities and Values.—The total value of the imports to San Miguel was £334,633 in 1913 and £272,510 in 1914, while those to Fayal amounted in value to £93,691 in 1913 and £78,824 in 1914.

The chief imports are textiles, coal, salt, soap, flour and wheat, wines and spirits, machinery, dried fish, timber, matches, and petroleum. The following table shows the values of the principal imports to San Miguel in 1913 and 1914:

	1913	1914
	£	£
Alcoholic Beverages ...	12,041	3,203
Coal	45,361	26,147
Fertilizers	2,363	10,576
Fish, Dried	14,177	5,936
Flour	10,267	10,261
Iron and Ironwork ...	10,606	10,223
Matches	11,732	10,328
Petroleum	6,308	6,214
Salt	20,812	21,596
Soap	11,902	13,111
Textiles	40,623	36,078
Wines	9,158	9,397

The chief imports into Fayal in corresponding years were as follows:

	1913	1914
	£	£
Coal	11,654	8,307
Cotton	15,936	10,755
Flour	6,990	4,857
Iron	1,737	3,120
Leather	2,119	2,139
Sugar	6,207	7,109
Tobacco	5,656	5,266
Woollens	3,659	2,915

Countries of Origin.—Portugal holds the first place in the import as well as in the export trade of the Azores. In 1913 the Portuguese imports amounted to two-thirds of the total for San Miguel, and were not much less for Fayal. Next in importance are those from the United Kingdom, which are roughly a fifth of the total both in Fayal and in San Miguel, though

in 1912 they rose to more than a quarter in the case of the former. The United States came third, and Germany before the war was fourth.

The chief imports from Portugal are textiles, salt, soap, flour, wines and spirits, and fertilizers; from the United Kingdom, coal (which in 1913 amounted in value to nearly £16,000), textiles, fertilizers, machinery, lubricating oil, dried fish, and cement; from the United States, wheat, timber, motor-cars, petroleum, petrol, and textiles; from Germany, textiles, tobacco, seeds and plants, cereals, chemicals, fertilizers, machinery, iron and iron-work. France sends motor-cars, textiles, and printing-paper.

The following table shows the share of the different countries in the imports to San Miguel in 1913 and 1914:

	1913	1914
	£	£
France... ..	4,144	2,458
Germany	17,408	13,334
Portugal	219,589	193,013
United Kingdom ...	68,550	42,743
United States... ..	23,210	17,990
Other Countries ...	1,732	2,972

The share of the countries in the imports to Fayal in the same years was as follows:

	1913	1914
	£	£
France... ..	1,241	682
Germany	4,801	3,846
Netherlands	528	271
Portugal	57,852	52,367
United Kingdom ...	19,194	15,979
United States... ..	9,932	4,616
Other Countries ...	143	1,063

(D) FINANCE

(1) *Public Finance*

Finance is not a matter of local administration, as the islands are theoretically an integral part of Portugal, and provision is made for them in the national budget.

(2) *Currency*

The islands use the Portuguese currency, so far as its nomenclature goes, but reckon it in *reis fracos* instead of the *reis fortes* of European Portugal. Thus the local (paper) *escudo* and its decimal divisions (copper only) are merely the equivalent of four-fifths of the Portuguese coinage of the same denomination. All quotations of price are made in local currency.

(3) *Banking*

There are branches or agencies of the Bank of Portugal in Ponta Delgada, Angra and Horta. In Ponta Delgada there are also the Banco Michaelense, Caixa Economica, and Caixa Esperança; and in Angra the Banco Commercial de Lisboa, the Banco Alliança and the Banco de Lisboa e Açores. Several other Portuguese establishments carry on banking operations, among them Bensaude & Co. in Horta. As has been said above, there are a large number of American and other foreign banking establishments in the islands.

(E) GENERAL REMARKS

The chief asset of the Azores is their geographical position, and this will be rendered even more advantageous than it was by the opening of the new trade route *via* the Panama Canal, which will increase the importance of the islands as a coaling station. The group is not blest with so fine a climate as Madeira, and has no mineral resources; but fruit grows abundantly and the fruit trade could probably be stimulated.

The islands have come a great deal under American influence, not only because they are on the natural highway from Europe to America, but because a great number of emigrants from the Azores to the United States return home in sympathy with American ideas.

After Portugal came into the war as an ally of the Entente Powers, the Azores were very valuable as a supply depot and coaling station for the Allied fleets. The harbour of Ponta Delgada, being the best in the Central Atlantic, afforded a useful rendezvous; during the years 1917-18 the American armies made great use of it, and the aerodrome they established near Ponta Delgada was able to do good service in the protection of trade. Ponta Delgada was once bombarded by a German submarine.

MADEIRA

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads and Tracks*

The streets in Funchal are generally maintained in reasonably good order and have recently been improved on account of the introduction of motor-cars. Apart from these streets Madeira in 1917 possessed only two macadamized roads; one running westward from the capital to Camara de Lobos; the other, of which also some four miles had been completed, running eastward towards Caniço, six miles from Funchal, to be prolonged eventually to Santa Cruz and Machico, when its total length will be eleven miles. Some guide-books, with a more liberal interpretation of what constitutes a good road, assign greater lengths to the completed portions of these roads.

A road has been planned to replace the existing track which roughly bisects the island from north to south. It will connect San Vicente on the north coast with Ribeira Brava on the south. Two or three other roads are under consideration, which are intended to link up the outlying villages of Porto Moniz, in the extreme north-west, and Santo Antonio da Serra, near Machico, towards the eastern end of the island, but their construction has not yet been sanctioned. Meanwhile, the numerous tracks paved with cobble-stones serve as highways, and the *levadas* or water channels (see below, p. 47) are frequently used. The customary means of transit are bullock-carts, sledges, and portable hammocks.

(b) *Rivers and Canals*

There are no navigable rivers, and such canals as exist are intended for irrigation only.

(c) *Railway*

A rack railway, two and a half miles long, connects the Terra da Lucta (3,000 ft.) with the town of Funchal, serving on its way the group of hotels at Monte (about 2,000 ft.). The lower terminus of this line is connected by a tram-line with the landing-place at the port, and the car-service is quite adequate for the traffic. Possibly the railway will be extended to Poizo and Pico Arriero.

(d) *Posts and Telegraphs*

There are post and telegraph offices at the chief ports of call of the coasting steamers, and also at Santa Anna and San Vicente. There are a dozen telegraph and three semaphore stations in the island.

(2) EXTERNAL

(a) *Ports*

The only harbour in Madeira is that of *Funchal*. It is still imperfect, being little more than an open

roadstead about $5\frac{1}{2}$ miles wide with a central stone pier for boats and launches. It is dangerous in bad weather, being especially exposed to surf when the wind is west or south-west. The sea is too deep for a really good harbour to be constructed. There is a plentiful supply of water and coal, and some facilities for small repairs. Part of the roadstead is Portinha Bay, which is made by an artificial embankment carried south to Ilhéu (Loo Rock); this is sheltered from the south but offers very cramped space, and may only be used by vessels which have been damaged and need repairs. Loo Rock is a fortified islet with a battery of coast artillery upon it; the best anchorage, especially during the winter months, lies south of it.

Funchal is served by a number of steam launches belonging to the *Empreza Funchalense de Transportes Maritimos a Vapore*, which are used principally for carrying passengers to and from the steamers. Of the 1,027 vessels that entered the port of Funchal in 1914, 485 were British and 284 German, most of them in ballast. The Portuguese vessels entering numbered 116.

There have been proposals to make a new harbour at *Porto Moniz* and to build a good road between that place and Funchal, from which it is 30 km. distant.

At *Porto Santo*, on the island of the same name, the arrangements for landing and embarking are still very primitive, but the bay affords fair shelter in settled weather.

(b) *Shipping Lines*

Before the war the vessels of some six or seven British, four or five German, and one or two French companies used to call at Madeira on their regular voyages weekly, fortnightly, or thrice a month.

The Union-Castle liners from Southampton to Cape

Town carried mails to Madeira once a week, calling weekly on the return voyage for a cargo of fruit and potatoes in addition to the mails. The Royal Mail Steam Packet Company had weekly sailings from Southampton and fortnightly from London. The Elder-Dempster Line had fortnightly sailings on Saturdays from Liverpool and sailings from Hamburg on the 9th of every month. The Booth Line (fortnightly from Liverpool and Penarth) and the Yeoward Line made a speciality of tourist traffic with Madeira and the Canaries. The leading German lines were the Woermann, Norddeutscher Lloyd, Hamburg Süd-Amerika, and Hamburg-Bremer-Afrika. Two French companies that called regularly were the Chargeurs Réunis and the Société Générale de Transports Maritimes à Vapeur, the latter sailing from Marseilles and Genoa. A Dutch company, the Koninklijke West-Indische Maildienst, had sailings from Amsterdam to Madeira. Two Portuguese lines, the Empresa Nacional de Navegação, reconstructed in 1918 as the Companhia Nacional, and the Azores boats of the Empresa Insulana, used also to call at Funchal on the outward and homeward voyages. The former used to make two calls a month each way; the latter came once a month.

Besides ocean-going vessels there is a fairly efficient coasting service. Vessels sail eastward from Funchal to Santa Cruz and Machico three times a week, with occasional extra trips on intervening days; and westward to Camara de Lobos daily, except Sundays, to Campanario and Ribeira Brava three times a week, with extra trips to the former on Saturdays, and to Ponta do Sol, Anjos, Magdalena, Arco de Calheta, Paul do Mar, and Ponta do Pargo three times a week. There are also vessels carrying freight (and, exceptionally, passengers) from Machico and Campanario to the northern ports. These make two or three runs a month in the

summer and autumn only. Sailings to and from the island of Porto Santo are irregular. Finally, Blandy Bros. run three passenger-boats and two coaling-boats to all the island ports and Porto Santo, which ply all the year round.

(c) *Cable and Wireless Communications*

Madeira is connected with Lisbon by two cables, and with Porthcurno (England) by a cable which is extended to San Vicente in the Cape Verde Islands, and thence to Pernambuco, and also to the Cape of Good Hope *via* Ascension and St. Helena.

The Marconi Company in 1914 proposed the establishment of a wireless station at Ponta do Pargo, to communicate with the Cape Verde Islands, the Azores, and Lisbon.

(B) INDUSTRY

(1) LABOUR

Madeira, with a dense population, has an agricultural area of only 45,000 or 50,000 acres, and even this, owing to the nature of the soil, is broken up into such small and scattered properties that its cultivation entails an inordinate expenditure of time and labour. Hence there has always been a good deal of emigration, which is further stimulated by the heavy customs dues in force and the consequent high cost of living. More than a thousand persons leave the island every year; the greater number go to British Guiana, Brazil, California, South Africa, the Sandwich Islands or Portuguese Africa. Of the permanent population more than two-thirds are engaged in agriculture, while local trades and industries and domestic service give employment to a large part of the remainder.

The land on the lower levels, which is naturally the most fertile, is mainly in the hands of large proprietors, who employ a certain amount of hired labour. Higher

up are small holdings, which often consist of artificially formed terrace-land. These are cultivated by the occupants and their families at the expense of incessant toil, the burden of which falls chiefly upon the women. During the summer a good deal of the agricultural work is done at night. Many of the inhabitants of Madeira are skilful gardeners, but they are conservative and not very ready to learn new methods.

(2) AGRICULTURE

(a) *Products of Commercial Value*

Vegetable Products.—The cultivated area of Madeira seldom extends for more than two and a half miles inland on the south side of the island or for more than half that distance on the north. There are three zones of cultivation: up to 600 feet grow bananas, sugarcane, dates and figs; between 600 and 1,800 feet grow vines; above 1,800 feet are European fruit trees, vegetables, cereals, pasture and forest. Above 2,500 feet the hills are too barren and wind-swept for cereals to be grown, but they furnish heath and broom, which are largely used as fuel. The most important products for purposes of export are wine and sugar.

Of the *cereals*, *wheat* occupies from 4,500 to 5,000 acres. The harvest, including that of the island of Porto Santo, where wheat is the leading crop, amounts to 1,800 metric tons per annum, but as the annual consumption of wheat in the islands is close upon 9,000 metric tons, a large quantity has to be imported. The chief wheat-growing country is round Prazeres in the west. A certain quantity of *maize*, which is a staple food of the natives, is raised in the northern part of the island, but this crop also falls far short of the demand and has to be supplemented from foreign sources. *Barley* is grown to a limited extent.

Fruit and vegetables are produced to some extent for export as well as for domestic consumption. The shipment of the former was for many years hampered by customs restrictions upon the import of packing materials, but by 1913 the injury thus being done to the trade of the island began to be recognised by the authorities and arrangements were made for the material to be imported in bond. *Bananas, dates and pineapples* (grown under glass) enjoyed a sure market in Lisbon until scarcity of food in Madeira and war conditions led to the prohibition of their export; a certain amount of trade is also done with the ships that come into Funchal harbour. Angel Marvaud (1909) estimated the area under bananas alone to be about 250 acres, yielding annually 3,000–4,000 bunches of 200 fruits each, and giving a return of about 525 *escudos* per acre; the Chinese banana is especially common, the best plantation being at Magdalena. The fruit trees familiar in Great Britain grow side by side with those of Southern Europe and tropical climes. There are many fine *walnut* trees in the valley of San Vicente, and extensive *cherry* plantations in Serra d'Agna. Other fruits grown are *oranges, lemons, three species of figs, guava, mango, loquat* and *pawpaw*, the fruit of the latter being used, it is said, to make meat tender.

Madeira puts early vegetables upon the market. *Potatoes* and *sweet potatoes* yield three or four crops a year; the leaves of the latter are used as fodder for pigs and cattle. *Cabbages* and *onions* produce several crops a year, onions being largely exported. *Pumpkins* grow to great perfection, and the *pepinella*, a variety of cucumber, is extensively cultivated and is in season during the winter months. The principal leguminous plants are grown largely for local consumption, the chief being *haricot beans, peas, lentils, and garbanzo* (or chick-pea), which are articles of daily food among

the natives. Peas and beans, as well as cabbages and cauliflowers, are grown in the vineyards in winter after the vines have died down. Peas lose some of their flavour if the plants are not renewed from Europe at intervals.

Sugar-cane was introduced even earlier than the vine, and for a long time the production of sugar was the most important industry of the province. After the abolition of slavery it fell into decay, but regained importance after the vine disease of 1852. It now thrives chiefly owing to tariff protection, foreign sugar being penalised in Portugal by an *ad valorem* duty of 300 per cent., and the raw material in the island enjoying an artificial price of 16 *escudos* (about £3. 4s.) per ton delivered at the monopoly-holding company's mills as against an average price of 10s. per ton in the British colonies and 7s. in Cuba. These arrangements not only enhance the price of the prepared sugar to the consumer, but they furnish an incentive to the agriculturist to bring all available land under sugar-cane at the expense of other food-stuffs—a calamity for which Madeira paid dearly during the war. Sugar-cane is an exhausting crop, and little else can be grown with it; nor is the system of small holdings favourable to its development. In 1909 about 3,000 acres were devoted to this crop, but the area is understood to have increased greatly in subsequent years. In 1914 about 80,000 tons of cane were produced, of which about 55,000 tons were used in the manufacture of sugar. Besides the sugar extracted, half of which finds its market in Portugal, a certain amount of alcohol is distilled for use in fortifying the wine of Madeira.

The culture of the *vine*, which was originally introduced from Crete, dates from the fifteenth century both in Madeira and in Porto Santo. The best district for vines is in the south of Madeira, though they also

grow well in the neighbourhood of Seixal and San Vicente in the north. The prevalent vine is the Verdelho, three-quarters of the grapes produced in the island being of that species. Other varieties are the Malvasia (Malmsey), Bual, Sercial, and Tinta. Vines are grown for wine-making up to 1,500 feet; above that height the grape is only cultivated for eating. The best soils for viticulture are a mixture of red and yellow tufa, and also *cascalho* (a species of basalt in decomposition). Up to 1852 the industry was most prosperous, but in that year the vines were attacked and almost totally destroyed by a blight, the *Oidium tuckeri*. Measures were taken to combat this pest; hardier species of vine were introduced, and the old grape budded on to Californian stocks now yields the best wines. In 1873 phylloxera appeared in Madeira, though Porto Santo escaped entirely; it continued to be very destructive till 1883. Since then, however, the disease has been successfully combated, and the industry has been progressive. At present the chief menace to the vine-grower's prosperity is the decline of the popularity of Madeira wine. The annual output in Madeira itself is about 10,000–12,000 pipes¹; in Porto Santo about 800–1,000 pipes. The total area under vines has been computed at 4,200–5,000 acres.

Among other plants cultivated in Madeira may be mentioned *tobacco*, which grows well, but is not yet developed, though very promising experiments have been made; the *castor-oil plant* (*Ricinus communis*), which is widely spread; and *aloes*, which can be used for sisal hemp. *Samphire* grows wild in many places along the north coast, and a good pickle is made from this plant in Funchal. From *Maranta arundinacea* good *arrowroot* is produced, especially at Magdalena. The *osier* (*Salix viminalis*), which is thought to be indi-

¹ 1 pipe=92 imperial gallons.

genous, is easy to propagate, and grows freely on the banks of streams. It is used in the wickerwork industry of the island. Stripped osiers from Madeira are said to fetch the highest prices in the London markets. Corridors (*latadas*) for the vines are made with *reeds* that are grown for the purpose along the river banks. *Black wattle* flourishes luxuriantly, and might be used to replace mountain scrub or lupine; so far it has not been cultivated for commercial purposes.

Live-stock.—*Cattle-breeding* has never been very successful in Madeira itself, apparently because the water contains too little lime for the health of the calves. Porto Santo, however, where this deficiency does not obtain, is able to breed and to supply Madeira with all the mature animals required. The chief place for stock-farming in Madeira is Prazeres. Oxen are used for transport everywhere in the island, and the beef produced is good, the best being geranium-fed. The supply of milk has not been very plentiful, but efforts have been made to establish dairy-farming. Several dairies for the manufacture of butter have been started in various parts of the island, the chief being that of Burnay & Co. at Santa Cruz, a firm which shipped about 2,000 kilos a month to Lisbon in 1913. The export of butter has increased considerably of late years; in 1912 30,518 kilos were shipped to Portugal and in 1913 the figure rose to 40,695 kilos, with a still further increase in the following year.

Sheep are increasing in number; there are flocks on the hilly ground near Funchal; and the production of wool has become a minor industry, though the mutton is poor and little esteemed. *Horses* are used for riding, and are well cared for. The average horse in Madeira is quite a fair specimen, with a height of seldom more than 15 hands; as a rule the horses of the island are very docile, and not a few show signs of breed. *Donkeys*

are used for carrying burdens. *Goat's* milk is commonly drunk.

There is a certain amount of *poultry-farming*. Some years ago a demand arose in South Africa for eggs from Madeira, and a trade sprang up. In 1896 only about 30 tons were shipped, but by the following year the quantity had increased to over 500 tons. In 1912, however, the number of eggs shipped was only 255,000 (about 14 tons), and in 1913 and 1914 the quantity fell to less than one-twentieth of that figure.

(b) *Methods of Cultivation*

Agriculture in Madeira depends very largely on irrigation, as in summer little or no rain falls, and reservoirs have to be constructed on the higher elevations, where there are no springs. The water-supply is conducted to the fields by means of channels (*levadas*), descending by gentle gradients over a tortuous course sometimes 50 or 70 miles long. These are permanent stone structures, carved out where necessary from the solid rock. Where ravines have to be crossed, bridges are made which maintain the necessary gradient, intervening hills being pierced by tunnels. One of these tunnels is 2,575 feet long, and carries its water-supply through a mountain at a height of nearly 3,000 feet above sea-level.

The *levadas* themselves are the property of corporations or of the Government. The distribution of water is regulated by an engineer assisted by an establishment subordinate to the Ministry of Public Works (*Fomento*) in Lisbon. The rights of individual cultivators are rigidly defined, and any encroachment upon them is jealously resented. The value of a property is largely determined by the extent to which its owner is entitled to use a *levada*. The system closely resembles that which, introduced by the Arabs, is still in use in

the irrigated regions of Valencia and other parts of southern Spain. Numerous as the *levadas* are, and notwithstanding the care devoted to their maintenance, a great deal of water still runs to waste in the mountain torrents of the island.

(c) *Forestry*

The island was originally clothed with laurel, and was so rich in timber as to derive its name (*Madeira* = wood) from the fact. But it was devastated by forest fires, said to have been started by the early settlers in order to clear a site for the town of Funchal. The fires are said to have lasted for seven years, and, when they had burnt out, the island was left almost as bare of trees as at the present day. On the higher lands a few conifers, chestnuts and oak trees are to be found. Several varieties of pine are cultivated for the sake of firewood, and planting has lately increased, as it has been found that pine forests pay better than badly cultivated land. From the laurel of the woods an oil is extracted. The small native juniper, used for cabinet-making and torches, is becoming extinct.

(d) *Land Tenure*

The customary tenure is known as *bemfeitoria*, and is closely allied to the French *métayer* system. The ownership (*senhoria*) both of the soil and of the water brought to irrigate it rests with the proprietor. The tenant owns all property, so far as it is the work of man, which is on or attached to the land. He is bound to keep all works in repair, and he may add to those in existence (except to build houses) at his own discretion. He is protected against eviction by his right to compensation on a scale which in case of dispute is interpreted, fixed and applied by official assessors. The greater the value of the improvements

effected, the better is the guarantee against expropriation.

The produce of the land is divided between landlord and tenant in such proportions as may be agreed upon; it is usually halved. The tenant must bear the burden of all necessary tillage operations, manuring, harvesting, and, in the case of a vineyard, pressing the grapes. He usually prefers, however, to grow as many vegetables as possible, since it is more difficult for the landlord to keep an eye on the progress of these and thus to make sure of his lawful share of the produce.

The system presents many pitfalls for the unwary, and land should not be rented on these terms by foreigners, who moreover are viewed with considerable jealousy by the native agriculturists.

(3) FISHERIES

About 250 varieties of marine fish, mainly European, are taken off the coasts of Madeira. The most important used to be the tunny. In 1909 a factory was erected for the salting and tinning of this fish, and a considerable trade ensued, but in 1914 the fish disappeared from Madeiran waters and the establishment had to close down. There is, however, an abundance of other fish which can be similarly treated, notably the horse-mackerel (*chicarro*) and sardine. The former of these is preserved and consumed as a sardine in Portugal. Fish is largely eaten in the island, and several varieties, caught and eaten fresh, are palatable and wholesome, the best being the sea-bream (*pargo*) and red mullet (*salmonete*). The *cherna*, a kind of cod, is sought after; and eels, the only fresh-water fish in Madeira, enjoy a certain repute. The octopus also is esteemed, as providing a nourishing soup. At the Selvagens there is an important fishery, specially in August.

(4) MINERALS

With the exception of an unimportant amount of iron ore at Ponta do Sol, there are no metals in Madeira. On Porto Santo there is a small bed of manganese, and there are rumours of the existence of quicksilver on the same island, but these have not been substantiated.

The basalt of Madeira (called *pedra viva*) furnishes good material for building. There is also a porous basalt, known as *cantaria rija*, which is used for making window- and door-frames; it is procured especially from Cape Girão. Near San Vicente, in the north of the island, is a limestone quarry; apart from this, all the lime used in Madeira is brought from Baixo Island (Ilhéu do Baixo), an islet south-west of Porto Santo. The lime-kilns are at San Lazaro.

Madeira is not endowed with mineral springs to the same extent as the Azores, but near Santo Antonio is a cold spring, the water of which contains some carbonate of iron, magnesia, and sodium chloride.

(5) MANUFACTURES

The most notable industry of Madeira is the manufacture of the famous wine that takes its name from the island. It is classified either as *vinho de canteiro* or as *vinho estufado*. The former grows old naturally in the vaults; the latter is kept at an artificial heat in a large heating-vat (*estufa*), where it matures very rapidly. The mellowing of the wine used to be brought about by taking it on a sea voyage.

The manufacture of sugar is an important industry; it is in the hands of an Englishman, who is bound in return for his monopoly to give a price of 16 *escudos* per ton for all cane that is brought to him. The British sugar factory has recently been improved and equipped with new machinery bought in the United Kingdom.

Embroidery is one of the most profitable industries of Madeira. There are two distinct classes of embroiderers in the island, the rural or occasional, and the professional workers. The former, estimated at 35,000, are to be found scattered over the south of the island, and in Porto Santo, where they make embroidery in the intervals of their domestic occupations. The latter, about 3,000 in number, are concentrated in Funchal and do the finest work; they also receive the highest wages—from tenpence to two shillings an hour according to their skill. The best products go to Germany and America. The trade was at its highest figure in 1911, when the exports were returned as 41,535 kilos; it fell in 1912 to 20,324 kilos, but by 1914 it had risen again to 33,683 kilos, the latest figure available. The export houses, as a rule, confine themselves to cutting out the pieces to be embroidered, stamping designs upon them, and giving the finishing touches to the work when they receive it back from the embroiderers, to whom it has been distributed by their travelling agents.

The making of wickerwork is another popular domestic industry. The osier (*Salix viminalis*), if not indigenous, was one of the earliest plants to be acclimatised, and it has acquired special characteristics which make it a very suitable material for this handicraft. Not more than half the osier grown is worked up; the rest is exported to Brazil, Cape Colony, and Great Britain, where it is made into furniture, costing far more than in Madeira. The manufacture of chairs, sofas, baskets, tables, etc. at one time employed some 700 workmen and their women and children, for the most part villagers of Camacha, about seven miles from Funchal. These people had no great originality of ideas, but confined themselves to copying catalogue designs. Seven business-houses were engaged in the export of these articles, 1911 being their best year,

with an export of 224 tons, valued at £18,000; in 1914 the export had fallen to 142 tons, valued at £13,740. A certain amount of this work, chiefly in the form of coarse baskets for coal-transport, packages for fruit, etc., is for local use, and may represent about £2,400 per annum.

There is a small trade in marqueterie, inlaid tables, trays, glove boxes, and other local souvenirs appealing to tourists, carried on by a group of craftsmen. The woods used are almost entirely indigenous, and, where they do not afford the desired variety of colours, they are stained artificially. The total value of this industry is under £2,400 per annum.

Another minor industry, which may become important, is tile-making. The Empreza Industrial Madeirense (Gonçalves & Co.) have established themselves both in Madeira and in the Azores, where they manufacture and sell roofing and flooring tiles, bricks, drain-pipes, and artistic pottery. The Portland cement which they use is imported.

Other industries are the manufacture of aerated waters, candles, soap, tobacco, paint, and chemical manures. There are near Funchal six flour-mills, five lime-kilns, and four saw-mills.

(6) POWER

Much water-power is available in the island. There are many waterfalls between San Vicente and Seixal along the north side. In the north-west of the island in the Rabaçal there are 25 waterfalls close to one another. The waterfall of the Risco is 330 feet high. There are many mills run by water-power.

(C) COMMERCE

(1) DOMESTIC

(a) Principal Branches of Trade

The island depends for most of its prosperity upon the attractions that it offers to tourists and invalids, and the chief branches of local trade are those which supply the needs of the foreign visitors. Hotel-keeping is probably the most important occupation, and other trades which cater for the tourists are those dealing in curios, basket-work, lace, embroidery, and fruit.

The capital is the only important focus of trade, the smaller towns (see p. 14) on the coast being little more than fishing villages. The peasant proprietors who have any produce to sell bring it down to Funchal in head loads or on sledges. There is, however, considerable coast-wise traffic between Funchal and the smaller ports (see p. 40).

(b) Organizations to promote Trade and Commerce

There is a Chamber of Commerce (Associação Commercial) at Funchal, and other institutions include the Camara Regional d'Agricultura and the Junta Agricola de Madeira, which are farmers' unions. The Junta Autonoma das Obras do Porto is a corporate body with powers of taxation over the local distilling of spirit, the proceeds of which are to be applied to the improvement of Funchal harbour.

(c) Foreign Interests

The connexion of Madeira with British trade is very long-established. Ever since the end of the seventeenth century the wine trade has been largely in the hands of British merchants, and there have been times when two-thirds of the wine merchants in the island were

British. Some of the most important firms to-day are of that nationality; for example, Blandy & Co. and Cossart, Gordon & Co. The latter were established as long ago as 1745. The British monopoly of the sugar trade has been already alluded to, and there are many other firms with British names connected with distilling, shipbuilders' repairing, chemical manures, lime, etc. Coaling has been in the hands of three British firms and one German, three-quarters of the coal of the German firm being British.

Although before the war British interests in Madeira had a much more promising outlook than German, Germany had made great progress. Among other things she had succeeded in capturing a very large share of the embroidery trade. A special drawback was conceded to Madeira embroidery worked on textiles of German origin. These were chiefly cotton, as linen for embroidery used to be imported by preference from Great Britain. At the outbreak of war the exporting houses at Funchal, which were about a dozen in number, included eight German concerns and one Swiss (Köller Frères), the last-named having a branch in Paris. Another stroke of German enterprise was the introduction of German motor-cars into the island, but here American and French competition deprived Germany of her initial advantage.

(d) *Methods of Economic Penetration*

The history of Madeira furnishes an instructive example of German methods of penetration. In March, 1903, Prince Frederick Charles von Hohenlohe succeeded in inducing the Government of Portugal to grant a concession for the establishment in Madeira of a vast sanatorium, casino, and hotel combined, under the management and control of a German company with unprecedentedly wide privileges. The institution was

to be allowed to import all its furniture and fittings duty free, although all the existing hotels, mostly British, had to pay in full for theirs; it was moreover to exercise the right of expropriating occupants of land and house property at will, and this right it at once proceeded to enforce against a British subject. A serious diplomatic situation arose in consequence, the Portuguese Government being simultaneously threatened from Berlin and London. It was discovered that the sanatorium was a mere mask, the casino being the main project, an establishment which should rival Monte Carlo; and no concealment was made of the German intention to drive the British out of the island. The Portuguese Cabinet, faced with the alternative of a breach with Great Britain or the repudiation of the concession, elected to cancel the latter and to pay compensation to the concessionaires. But the demands were so exorbitant that there was a public outcry in Lisbon against their being met. Finally Germany had to give way, and the casino remained untenanted.

(2) FOREIGN

(a) *Exports*

Quantities and Values.—The chief exports of Madeira are wine, sugar, dairy produce (eggs and butter), fruit, vegetables (especially potatoes and onions), lace work and embroidery, wickerwork furniture and raw material for wickerwork. The total value of the exports in 1913 was £185,260 and in 1914 £191,740.

The British Consular Reports do not show the values of the different commodities, and they are not very precise in other respects. For instance, the raw material for wickerwork is not separated from the manufactured articles, and no particulars are given as to the export of sugar.

The following table shows the quantities of some of the principal exports from Madeira in 1913 and 1914:

			1913	1914
Boots and Shoes	...	Pairs	730	195
Butter	...	Kilos	40,695	41,577
Eggs	...	Number	12,370	12,000
Embroidery	...	Kilos	25,256	33,683
Fruit, etc.	...	Tons	66	24
Onions	...	Tons	873	1,061
Potatoes	...	Tons	89	108
Tinned Fish	...	Kilos	238,770	29,668
Wickerwork	...	Tons	183	142
Wine	...	Pipes	8,150	7,472

Countries of Destination.—The principal recipients of the exports were Germany, with a considerable but decreasing predominance, Great Britain, France, and the United States. Portugal took a large proportion of the sugar exported, while France, Germany and Russia were usually the chief purchasers of Madeira wine. The following table¹ shows the share of the different countries in the exports in 1913 and 1914:

			1913	1914
			£	£
Brazil	...	...	5,356	3,541
France	...	...	32,902	22,860
Germany	...	...	45,750	29,514
Italy	...	...	4,281	83
Russia	...	...	18,712	5,362
Spain	...	...	1,640	64,365
United Kingdom	...	...	25,700	28,048
United States	...	...	25,182	24,521
Other Countries	...	...	25,737	13,446

(b) *Imports*

Quantities and Values.—The imports to Madeira (exclusive of those from Portugal) in 1913 amounted to £533,048 in value, and in 1914 to £506,627. The chief

¹ The *escudo* is converted at its nominal value, viz., 4s. 5½d.

articles imported are coal, food-stuffs, cereals (principally wheat and maize), tinned provisions, wines, textiles, cutlery, staves for wine-casks, motor-cars, and machinery and implements for the industries of the island.

Before the war the Portuguese Government laid it down that all the grain of the country must be exhausted before any foreign grain could be imported, and, even then, distribution was to take place under Government permit issued to registered millers and dealers, who were moreover forbidden to sell to one another. The quantity to be imported, and the rate of duty payable upon it, used to be fixed for the coming year in the August of the year before. When war broke out and Madeira became more or less isolated, these restrictions had to be abandoned, but they were removed too late to prevent famine.

The following table shows the quantities of the principal imports in 1913 and 1914:

			1913	1914
Candles	... ..	Tons	10	11
Cheese	... ..	"	21	14
Coal	... ..	"	143,228	61,452
Dry Goods	... ..	"	164	95
Lumber	... ..	Cub. ft.	68,796	not recorded
Maize	... ..	Tons	8,780	6,229
Paper	... ..	"	29	19
Petroleum	... ..	"	666	589
Rice	... ..	"	796	817
Salt Cod	... ..	"	362	198
Staves	... ..	Number	361,104	180,705
Sugar	... ..	Tons	661	620
Tea ...	... ..	Lb.	12,102	7,002
Tobacco	... ..	"	3,782	2,350
Wheat	... ..	Tons	8,520	7,484
Wine	... ..	Litres	194,410	184,489

Countries of Origin.—The recent British Consular Reports do not specify the proportion of the imports originating from Portugal. In 1909 Portugal supplied

goods to the value of £150,000, while imports from other countries amounted to £453,000. The chief articles imported from the United Kingdom and British Possessions are coal, cereals, tea, sugar, and barrel-staves; from Germany, tobacco, rice, tea, sugar, and motor-cars; from the Argentine, wheat and maize; and from the United States, cereals, lumber, and staves. The chief import from Portugal is wine.

The table below shows the share of the different countries (except Portugal) in the imports¹ in 1913 and 1914.

	1913	1914
	£	£
Argentine Republic ...	95,025	46,786
Belgium	148	11,666
France... ..	2,936	3,892
Germany	83,762	69,916
Italy	35	2,479
Netherlands	4,816	69,828
Spain	2,506	2,522
United Kingdom ...	250,723	223,676
United States... ..	18,403	25,567
Other Countries ...	74,694	50,295

(c) Customs and Tariffs

The customs tariff in force in Madeira is that of the mother-country, and comprises a list of 572 commodities, those on which an *ad valorem* duty is paid being taxed at rates which vary from two per cent. on staves for wine casks and three per cent. on hoops for the same, to 40 per cent. on musical instruments, ink and some other articles.

¹ The *escudo* is converted at its nominal value, viz., 4s. 5½d.

(D) FINANCE

(1) *Public Finance*

No separate information is available, because Madeira, like the Azores, is an integral part of Portugal, and its administration is centred in Lisbon.

(2) *Currency*

The currency is identical with that of Portugal, including the note-issues of the Bank of Portugal.

(3) *Banking*

The two Portuguese banks of the first rank in Madeira are the Bank of Portugal and the Banco Nacional Ultramarino. The Companhia Geral de Credito Predial Portuguez has an agency at Funchal, and the local directory shows six firms, English and Portuguese, which undertake banking transactions as part of their ordinary business.

(4) *Influence of Foreign Capital*

It has been already seen that foreign capital is of the utmost importance to the development of Madeira. British capital has maintained its ascendancy for many years, though Germany was making violent efforts to oust it.

(5) *Principal Fields of Investment*

The chief businesses of Madeira, such as the manufacture of wine, sugar, embroidery and wickerwork, have been already mentioned. Besides these it has been pointed out by French writers that there are considerable openings for dressmakers, and also for the introduction of a more elegant type of motor-car than the heavy machines hitherto supplied by English and German

agents. They recommend the establishment of a French commission agency to push the sale of wines, brandies, and Parisian novelties, and in return to find markets in France for Madeira wines. It has been suggested that flowers might be grown in Madeira, as in the Riviera, for the manufacture of perfumes.

(E) GENERAL REMARKS

Madeira is an island of great importance in many ways. From the point of view of trade it is most favourably situated at the crossing of the great Transatlantic routes, and the opening of the Panama Canal has done much to enhance its significance. It can be used as a port of call by vessels plying between Portugal and Brazil, Portugal and West, South, and East Africa, Gibraltar and Panama, Gibraltar and New York, and between British ports and West and South Africa.

Besides the advantages of its situation, Madeira owes much to its climate, through which it has won a recognized position as a health-resort. Its one real handicap is the inadequacy of Funchal as a port. The required improvements would be very expensive, but any considerable advance in the prosperity of the island largely depends upon their being made, and the expenditure, though heavy, ought to be remunerative.

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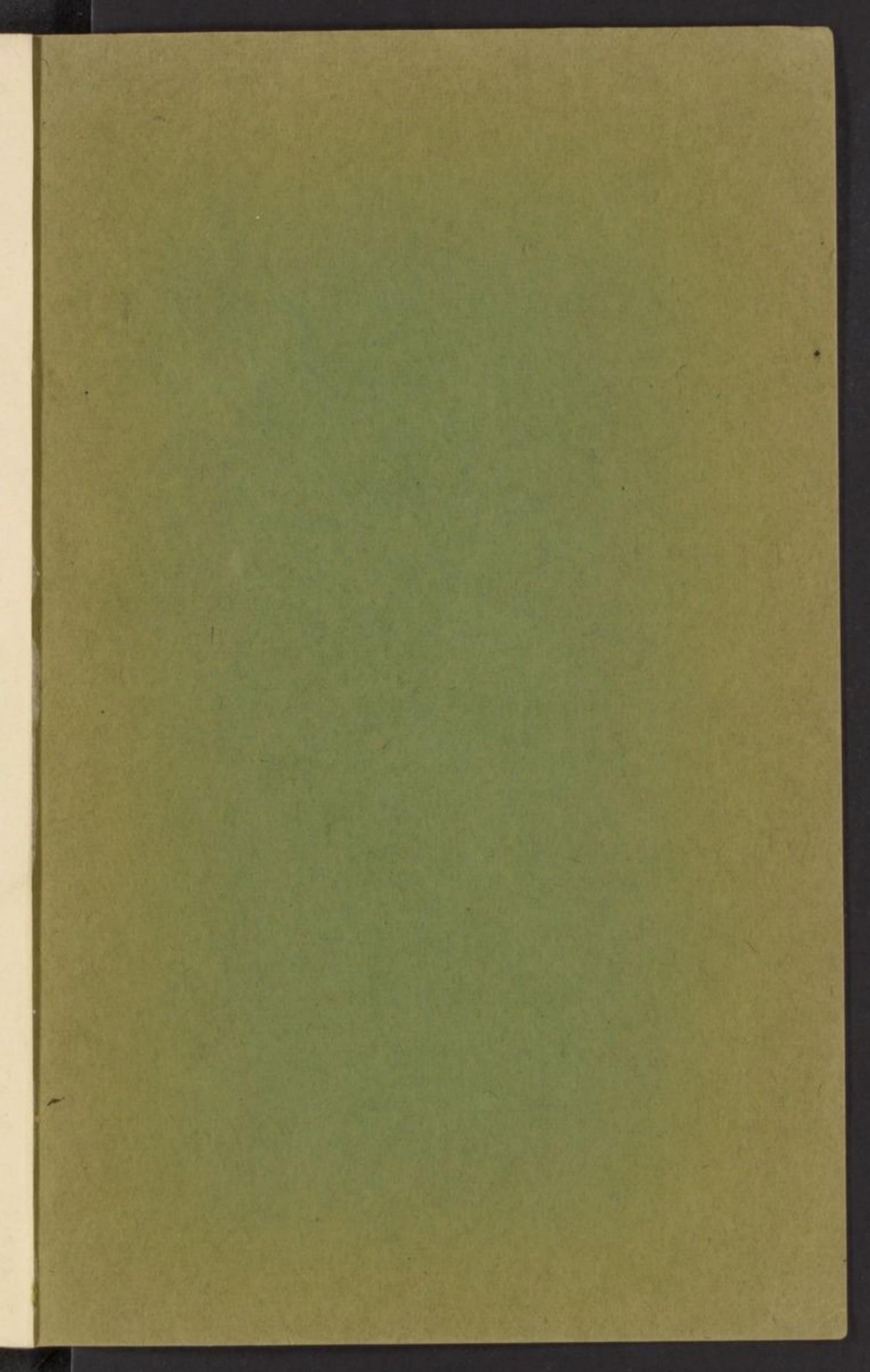
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