the nation was well able to make good the numerical losses involved by a serious war; that its numbers tend to increase steadily; and that the rate of increase has hitherto shown a marked acceleration in periods of commercial expansion.

The estimated area and population of the Spanish possessions in Africa, exclusive of Ceuta, are shown below:—

|  |  |  |
| --- | --- | --- |
|  | Area in sq. m. | Pop. |
| Rio de Oro | 70,000 | 130,000 |
| Muni River Settlements .... | 9,800 | 140,000 |
| Fernando Po, Annobon, Corisco, &c. | 800 | 22,000 |
| Melilla, Ifni, &c | 40 | I5,000 |
| Totals . | 80,640 | 307,000 |

Its extraordinary lack of population differentiates Spain from every other country possessed of equal natural advantages and an historic civilization. Spain occupies an unsurpassed geographical position; its resources are rich, varied and to some extent un­exploited; its inhabitants include the Basques and Catalans, noted for their commercial enterprise, and the Galicians, noted for their industry. Nevertheless this country, which appears, more than 2000 years ago, to have supported a population nearly thrice as numerous as its present inhabitants and larger than that of the United Kingdom in 1901, is almost as thinly peopled as the most deserted province of Ireland (Connaught 94∙5 inhabitants per sq. m.). The depopulation of Spain dates certainly from the Moorish con­quest, possibly from the earlier Visigothic invasion. The Moors decimated the native population ; when they in turn were expelled, the country lost not only a numerically large section of its inhabitants, but the section best able to develop its natural wealth. The wars of the 16th, 17th and 18th centuries, and the vast potentialities of fortune which drew men to the Spanish colonies in America, caused a further serious drain upon the population.

As regards the distribution of population between town and country, Spain contrasts in a marked manner with Italy, Spain having but few large towns and a relatively large country population.

*Communications.—*The communications in Spain were greatly improved during the 19th century. In 1808 there were little more than 500 m. of carriage roads; in 1908 the aggregate length of the state, provincial and municipal roads was about 40,000 m. But there are still many parts of the country where trade—and especially mining—is retarded by the want of good roads. In the mountainous districts, where there are only narrow paths, frequently rather steep, it is still not uncommon to meet long trains of pack-mules, which, with ox-carts for heavier goods, constitute the sole means of transport in such regions.

Railways have made great advance since the middle of the 19th century. The oldest line is that from Barcelona to Mataró, 17½ m., which was opened on the 28th of October 1848. From 1850 onwards the rate of construction increased apace, and during the last decade of the 19th century about 205 m. were opened to traffic every year. In January 1910, 9020 m. had been completed, and the whole kingdom was covered by a network of railways which linked together all the principal towns. The Spanish railway system at this time communicated with the French at Irun and Portbou, west and east respectively of the Pyrenees; and with the Portuguese at or near Tuy on the northern frontier of Portugal, and near La Fregeneda, Ciudad Rodrigo, Valencia de Alcántara and Badajoz on the E. All the Spanish railways belong to private companies, most of which have received state subventions, and they will fall in to the government mostly at the end of 99 years. In granting a concession for a new railway the practice is to give it to the company that offers to construct it with the lowest subvention. For strategical reasons the Spanish gauge was made different from that of France; and military considerations long postponed the construction of any railway across the Pyrenees. The roads which wind through the Pyrenees in northern Aragon, Navarre and Catalonia had long been the channels of an important traffic, although great inconvenience was caused by the snow which blocks the passes in winter. In 1882 the French and Spanish governments proposed to overcome this obstacle by constructing two railways: one from Huesca to Oloron, through the Canfranc Pass, and through an international tunnel which was to be built at Somport; the other from the Ariège railway system to the Spanish northern system in the province of Lérida. The first line was completed on the Spanish side as far as Jaca, the second was only surveyed; both were opposed by the ministries of war in the two countries concerned. The matter was taken up at the beginning of the 2oth century by M. Delcassé, the French minister for foreign affairs, and on the 18th of August 1904 a convention was signed providing for the construction of (1) the Huesca-Oloron line, (2) a line from Ax les Thermes in the Ariège to Ripoll in Catalonia, (3) a line from St Girons in the Ariège to Sort, and thence to Lérida. The Spanish government agreed to finish the Lérida-Sort section by 1915, and the Noguera Pallaresa valley was chosen as the route from Sort to the frontier, where junction with the French railways would be effected through the ’ort de Salau. All three schemes were ratified in 1904 by the Cortes and the French Chambers. Seventy per cent. of the railways of Spain, and an even larger proportion of the tramways and narrow-gauge railways, especially in mining districts, have been constructed and worked with foreign capital. The postal and telegraphic sendees have been placed on the same footing as in other civilized countries. In 1907 the number of letters and post-cards carried in the inland service was 133,201,000, in the international service 44,219,000. The length of state telegraph lines increased from 6665 m. in 1883 to 20,575 m. in 1903. In 1907 there were 84 urban telephone systems and 71 inter-urban circuits.

*Agriculture.—*Agriculture is by far the most important Spanish industry. In general it is in a backward condition, and is now much less productive than in the time of the Romans and again under the Moors. The expulsion of the latter people in many places inflicted upon agriculture a blow from which it has not recovered to this day. Aragon and Estremadura, the two most thinly peopled of all the old provinces, and the eastern half of Andalusia (above Seville), have all suffered particularly in this manner, later occupiers never having been able to rival the Moors in overcoming the sterility of nature, as in Aragon, or in taking advantage of its fertility, as in Andalusia and the Tierra de Barros. In some districts the imple­ments used are still of the rudest description. The plough is merely a pointed stick shod with iron, crossed by another stick which serves as a share, scratching the ground to the depth of a few inches. But the regular importation of agricultural implements betokens an improvement in this respect. In general there has been considerable improvement in the condition of agriculture since the introduction of railways, and in every province there is a royal commissioner entrusted with the duty of supervising and encouraging this branch of industry. Among other institutions for the promotion of agricul­ture the royal central school at Aranjuez, to which is attached a model farm, is of special importance. Of the soil of Spain 79\*65 % is classed as productive; 33∙8% being devoted to agriculture and gardens, 20∙8 to fruit, 19∙7 to grass, 3·7 to vineyards and 1·6 to olives. The land is subdivided among a very large number of proprietors; over 3,400,000 farms or estates were assessed for taxation in 1905.

The provinces in which agriculture is most advanced are those of Valencia and Catalonia, in both of which the river valleys are thickly seamed with irrigation canals and the hill-slopes carefully terraced for cultivation. In neither province is the soil naturally fertile, and nothing but the untiring industry of the inhabitants, favoured by the rivers which traverse the province from the table-land of New Castile and the numerous small streams *(nacimientos)* that issue from the base of the limestone mountains and by the numerous torrents from the Pyrenees, has converted them into two of the most productive regions in Spain. In the Basque Provinces and in Galicia the cultivable area is quite as fully utilized, but in these the difficulties are not so great. The least productive tracts, apart from Aragon and Estremadura, are situated in the south and east of New Castile, in Murcia, and in Lower Andalusia—the marshes or *marismas* of the lower Guadalquivir and the *arenas gordas* between that river and the Rio Tinto. By far the greater part of the table-land, however, is anything but fertile, the principal exceptions being the Tierra de Campos, said to be the chief corn-growing district in Spain, occupying the greater part of Palencia in the north-west of Old Castile, and the Tierra de Barros, in the portion of Badajoz lying to the south of the Guadiana in Estremadura.

Except in Leon and the provinces bordering on the Bay of Biscay and the Atlantic, irrigation is almost everywhere necessary for cultivation, at least in the case of certain crops. Almost all kinds of vegetables and garden-fruits, oranges, rice, hemp and other products are generally grown solely or mainly on irrigated land, whereas most kinds of grain, vines and olives are cultivated chiefly on dry soil. The water used for irrigation is sometimes derived from springs and rivers in mountain valleys, whence it is conveyed by long canals (*acequias)* along the mountain sides and sometimes by lofty aqueducts to the fields on which it is to be used. Sometimes the water of entire rivers or vast artificial reservoirs *(pántanos)* is used in feeding a dense network of canals distributed over plains many square miles in extent. Such plains in Valencia and Murcia are known by the Spanish name of *huertas* (gardens), in Andalusia by the Arabic name of *υegas,* which has the same meaning. Many of the old irrigation works—such as those of the plain of Tarragona—date from the time of the Romans, and many others from the Moorish period, while new ones are still being laid out at the present day. Where no running water is available for irrigation, water is often obtained from wells by means of waterwheels *(norias)* of simple construction. In most cases such wheels merely have earthenware pitchers attached to their circumíer- ence by means of wisps of esparto, and are turned by a horse har- nessed to a long arm fitted to a revolving shaft. In recent years many artesian wells have been sunk for irrigation. In all, about 9 % of the entire surface of Spain is artificially watered, but in 1900 the government adopted plans for the construction of new canals and reservoirs on a vast scale. The system was designed to bring a greatly increased area of arid or semi-arid land under irrigation. The irrigated portions of the Ebro and Tagus valleys yield twelve times as large a crop per acre as the unirrigated.

Cereals constitute the principal object of cultivation, and among these wheat ranks first, the next in importance being barley, the