

MODERN ARGENTINA.¹

FEW countries outside the British Dominions are more interesting to the inhabitants of Great Britain than the Argentine Republic. Enormous amounts of British capital are invested there—some 170,000,000*l.* in the railways alone, indeed Great Britain has financed most of the developments—about a quarter of our imported food-stuffs come from there, and a number of young Englishmen go out to find employment on the great estancias. At present the bulk of the population centres round Buenos Aires, the enormous hinterland being only thinly populated, and in many regions not thoroughly explored. And yet the country is not new; it has a history of three centuries, two of which, however, were under the old Spanish régime, when only Spanish emigration was permitted, and the few adventurers and officials who went out preferred the life of the town to that of the country.

The administration in 1907 very wisely determined to take stock of the present agricultural position, and a scheme for a census, or, more strictly, a great inventory, was drawn up. It was, however, necessary to proceed cautiously, and for some time an advertising campaign was conducted informing the people exactly what information was wanted, and why. The census was taken in 1908, and the results are now published; there are two volumes of figures, and one volume devoted to monographs dealing with the physical conditions, the agriculture, and the people.

From these volumes we learn that the Argentine is now growing at a good, but not very rapid, rate. Of its 4,500,000 inhabitants in 1900, about a million were foreigners, nearly half being Italians, followed by Spaniards and Americans; under 22,000 are English. The exports are wheat, maize, linseed (Argentine being the chief producer of this) and other cereals, meat, both chilled and tinned, hay, quebracho (used for tanning), and similar commodities, the total value being in 1909 79,000,000*l.* Formerly it was mainly a grazing country, but of late years crops have been grown extensively.

The wheat supply from the Argentine has an interesting history. As in other newly settled countries—*e.g.* Canada—wheat is one of the earliest crops the newcomer grows, because it requires but little capital and trouble, and is always saleable. But wheat does not necessarily remain the staple crop; in the more closely settled parts of Canada mixed farming comes into greater prominence, and in the Argentine wheat gives place to lucerne, which yields valuable hay, and is also excellent for cattle food. In improving land, the usual method is to plough it up and sow maize, then linseed, then wheat, and finally lucerne, which is left for hay and the cattle, the colonist moving on to break up more ground. There is this difference between the Argentine and other new countries, that in the Argentine much of the land is already owned by absentee landlords, who put in a manager—commonly an Englishman, who does well as a rule—but do not themselves take any part in the development. The system is admittedly bad, but it is a legacy from the old days, and is not easily displaced. The agriculture is, however, sound; lucerne enriches the soil in nitrogenous organic matter, and leaves it in a fertile condition for any subsequent arable crop that may be taken.

Geologically, the surface of the country is mainly derived from Tertiary and later formations; the Archæan occurs only in small and isolated patches; the Silurian occurs extensively in a few districts the Devonian runs from north to south, and contains a certain amount of coal; the lower Triassic has not yet been found, but the Jurassic has, and agrees well with the formation as found elsewhere. It is, however, not prominent in the Argentine, and has not been found east of the Pampean ranges and on the plains. The Cretaceous system is well marked, running north to south, but does not cover a wide tract of country. The great plains and the Pampas are formed of loess, a fine-grained sand varying from light to dark

grey in colour, and containing calcareous nodules; the origin of this deposit is not settled, but the current idea seems to be that sea water, fresh water, and wind have all played an important part in its formation. One general feature is that the soil is so rich in salts that it not infrequently deposits a white efflorescence containing sodium chloride and sulphate with other salts. Nine different groups of flora are distinguished: the Antarctic forest in the south, consisting mainly of beech with some cypress; the Patagonian, in a dryer region, comprising herbaceous plants, shrubs, and trees; the Pampean, in a moister region, absolutely without trees, consisting of Gramineæ, Compositæ, and Leguminosæ; then further north, in another dry region, the Chafiar, or bush flora, especially mimosas; and further north again the sub-tropical region, the garden of the Argentine. Of the other four regions, one in the north-west is desert and one in between the rivers is bush. Why the Pampas should be without trees when trees occur in the surrounding dryer regions is not clear.

Turning again to the agriculture, cattle are of great importance, but sheep, as in other countries, are diminishing in number. The stock is being steadily improved; some of our best pedigree bulls and rams are imported, and the Argentine buyer never hesitates to secure what he considers suitable animals, whatever the price may be. The decrease in the number of sheep is considerable, and is attributed to two causes: certain "worms" have proved very fatal, and the sheep have been found to injure lucerne, and therefore have lost favour with the estancieros. This result can only be regretted; sheep are as much wanted as ever, and they are a very valuable support for the agriculture of a country. To cut them out is to narrow the basis on which the system of agriculture is built.

It is clear that the Argentine has some serious problems to face, but the rapid increase in its volume of trade and in its area of land under cultivation justifies the hope that continued progress will be made, and that the country will still retain its high rank among the food-producing countries of the world.

METABOLISM IN DIABETES MELLITUS.¹

THE depth of the tragedy into which the most recent investigators of the disease "diabetes mellitus," whose observations are described in the memoir referred to below, have inquired, is sufficiently indicated by the fact that seven of their ten "severe cases" have died since coming under observation in the early part of 1908. Diabetes is considered as being primarily a disturbance of nutrition tending to develop a condition of starvation, and yet it will be noted that in six of these cases the fatal result is attributed to "diabetic coma." Diabetic coma is in no sense due to any deprivation of nutriment experienced by the central nervous system, but rather to a very real poisoning assignable to an appearance in the blood of unusual chemical compounds or to an appearance of compounds in an unusual quantity which are normally present only in minute traces. Nutrition, in short, is not only deficient, leading to a great emaciation of the patient, but is also disordered, leading to death by internally developed poisons. Medical treatment of this disease, its causation having been fully developed prior to the arrival of the doctor, is therefore directed to maintain nutrition in very adverse circumstances by expert adjustments in the diet, and to secure the elimination, or at least neutralise, the effects due to the presence of these poisons. As a valuable contribution to our knowledge of the principles underlying such treatment, this account of the extremely precise and varied observations of Benedict and Joslin will meet with a wide welcome.

Everyone, taught by numerous and by no means reticent guides to the true ritual of diet, is aware that diets necessarily contain certain nitrogenous materials, "proteins" and certain non-nitrogenous materials, "fats and carbohydrates." Almost as many know that the diabetic patient is incapable of dealing with more than a minimal quantity of carbohydrate material. In his alimentary

¹ "Metabolism in Diabetes Mellitus." By F. G. Benedict and E. P. Joslin. Pp. vi+234. (Washington, U.S.A. Carnegie Institution, 1910.)

¹ Journal of the Royal Society of Arts, December, 1910. Argentine Republic—Agricultural and Pastoral Census of the Nation. Stock-breeding and Agriculture in 1908. Vol. I., Stockbreeding, pp. xviii+435; vol. II., Agriculture, pp. x+441; vol. III., Monographs, pp. xciv+705+xliv plates.

Live Stock and Agricultural Census of the Argentine Republic, May, 1908. 5 maps. (Buenos Aires: Argentine Meteorological Office, 1909.)