plant from a distant part of the world, *e.g.* the date oases of California and Arizona, the durum wheat areas of the great plains, the rice fields of California and Texas. Prof. Kellogg remarked that the plants which grow in the colder regions of the earth are mostly species which have crept out of the tropics, adapting themselves as they have spread north and south to the conditions of colder climates, and he thinks there are probably ten times as many undiscovered useful plants remaining in the tropics as are to be found in the colder regions. The plant breeders of the United States are striving to select the hardiest of these tropical species and to adapt them for cultivation as far north as they will grow.

The conservation of migrating birds of practical and æsthetic value affords another example of useful international biology, for the extensive migrations of these birds require that conservation shall hold good in the extent of their range. The rational use and protection of the animals of the oceans that wash the coasts of North and South America was also cited, *e.g.* the fur seals of the Pacific were saved from extinction by international agreements made in 1911 between Great Britain, Russia, Japan, and the United States. But the sperm whale is passing, and unless international action is taken it will soon be gone.

Finally, Prof. Kellogg directed attention to the international exchange of human beings—the matter of emigration and immigration with all the perplexing biological problems inherent to it. While many people consider the economic and political significance of the problem, it is incidental to and determined by the biological results. The National Research Council of the United States has a special committee at work on "the scientific problems of human migrations," for it is fully realised that the strength of the nation rests at bottom on the kind of heredity possessed by the people of the nation—it rests at bottom on biological factors.

Petroleum in the Maracaibo Region, Venezuela.

THE Maracaibo Basin, situated in western Venezuela, is an area of some 25,000 square miles, embracing the State of Zulia and parts of the States of Mérida, Táchira, and Trujillo; within this region occur the principal oilfields of Venezuela, while those of the State of Falcon, lying to the east, are geologically connected therewith. Though the presence of oil in this country was known in the early days of the Spanish occupation, commercial exploration did not commence until 1878, when the Government granted a small lease in the State of Táchira; progress was slow, however, and it was not until 1912 that important developments were undertaken, resulting in the discovery of the now famous Mene Grande oilfield. To-day practically the whole of the basin area is held under exploration or prospecting licences, and besides Mene Grande, the oilfields of La Rosa, Ambrosio, El Mene, La Concepcion, La Paz, Rio Palmar, Rio de Oro, and some potential petroliferous territory in the south, have been discovered.

Geologically the Maracaibo Basin corresponds with a vast geosyncline, the centre of which is occupied by Lake Maracaibo; the peripheral mountain ranges to the west, south, and east are composed of igneous and metamorphic rocks flanked by Tertiary and Cretaceous sediments, of which the Miocene formation is conspicuous for its associated gas and oil seepages. West and south of the lake the structures trend N.E.-S.W., thus conforming to the prevalent Andean trend in this part of the country; east of the lake, especially in the Bolivar district, the E.-W. influence of Caribbean tectonics is shown by the major folds. The chief characteristic of all the structures within the basin is their great linear development, usually coupled with gently dipping rocks. The best-known folds are the Mene Grande-Curaçao anticline (with its curious 'spurs' or 'lobes' running at right angles, and on which the Ambrosio and La Rosa fields are located), the Rio de Oro and La Tarra anticlines southwest of the lake, and the Rio Poco fold running parallel to the Mérida Range in the south.

The most important field is that of La Rosa, situated 27 miles S.E. of Maracaibo city, the scene of a famous gusher in 1922, Barroso No. 2, which flowed a million barrels of oil in nine days; since then 125 wells on this field have accounted for 12,000,000 barrels of oil. The Mene Grande field yielded 18,000,000 barrels up to the end of 1925, the oil being of an asphaltic nature with gravity 0·956; it is piped to and refined at San Lorenzo, thence shipped by lake steamer to Curaçao and elsewhere. The El Mene field has produced 4,400,000 barrels from about 50 wells and is noted for its low gravity oil (0·850) and high petrol and kerosene yields (35 and 38 per cent. respectively). The other fields are smaller, though in most cases important extensions are anticipated. Mr. Campbell M. Hunter, from whose paper read before the Institution of Petroleum Technologists on April 13 the foregoing details are taken, is of the opinion that production for this year in the Maracaibo Basin will substantially exceed 30,000,000 barrels, thus placing Venezuela as the fifth, if not the fourth, largest oil-producing country in the world, a remarkable rise in a little more than seven years.

University and Educational Intelligence.

CAMBRIDGE.—The Civil Commissioner for the Eastern Division has written to the Vice-Chancellor tendering to the University the congratulations and thanks of His Majesty's Government for the very notable part it played in assisting towards maintaining essential services during the recent critical period. About 4000 students were enrolled for national service, more than 2000 were actually called up for work, and enthusiastic appreciation has been generally expressed by those who secured from the undergraduates services "willingly given and unselfishly and efficiently performed."

Notice is given that a professor of mineralogy, in succession to the late Prof. Lewis, will be elected on June 26. Candidates are requested to communicate with the Vice-Chancellor on or before June 19.

The Council has proposed graces for the conferring of the following honorary degrees among others: LL.D. on Sir Samuel Hoare, Mr. Ramsay MacDonald, and Sir Frederick Maurice; and Sc.D. on Sir Josiah Stamp.

Sir Arthur Shipley, Master of Christ's College, is being re-appointed as representative of the University on the Council of the Marine Biological Association.

Applications are invited for the John Lucas Walker studentship in pathology, value 300*l.* a year and tenable under certain conditions for three years. Applications must be sent to reach Prof. H. R. Dean, Pathological Laboratory, Medical School, Cambridge, before June 15.

EDINBURGH.—In recognition of the work done by students of the University at Leith Docks during the recent strike, Mr. Thomas Cowan, a retired shipowner, has sent a cheque for 10,000*l.* for the general purposes of the University. In a letter sent with the cheque