

The Twelfth International Geographical Congress.

THE twelfth International Geographical Congress, after several days in London devoted chiefly to social functions, met in Cambridge on July 17-25 for the communication and discussion of papers. The president was General N. Vacchelli, and the vice-presidents were General Gomez Nuñez and Prof. N. Yamasaki. Three commissions appointed by the International Geographical Union at a previous congress presented reports. These were on: (1) the International map on the scale of 1:1,000,000; (2) rural habitation; and (3) Pliocene and Pleistocene terraces. The first of these has completed its work, but the other two have still a considerable amount of work to undertake, that on terraces comprising only a study of certain European seaboard. Another report presented was on internal drainage areas, which was accompanied by a map prepared by Prof. E. de Martonne and L. Aufrère. The papers were grouped into six sections. Some of the sections were very full, while others, notably biological geography, had few papers.

In Section A (Mathematical Geography, Surveys, and Maps) papers were read on two important new atlases. The International Atlas of the Touring Club of Italy, described by Prof. G. Bognetti, will have English, French, Spanish, and German translations, besides the original Italian edition. The New Atlas of Egypt, described by Hussein Sirry Bey, has the whole country on the million scale and several new climatic and population maps.

In Section B (Physical Geography) a number of papers on climatic changes included one by Prof. J. W. Gregory, in which he argued that the evidence of physical geology and palæontology showed that the climate of the earth has been remarkably stable throughout the past. Geology gives no evidence of a uniform climate over the whole earth, and the claims for tropical conditions in the Arctic, based on fossil plants, are inconsistent with the cold sea of the contemporary marine deposits. He held that geographical changes in the distribution of land are adequate to account for local changes in climate that may have occurred.

Prof. J. L. Myres, in a paper on the climate in prehistoric Greece, found evidence of considerable variations in temperature and humidity in the past from movements of peoples as deduced by ethnology, and changes in architecture and clothing. Prof. G. B. Barbour, speaking on the nature and origin of loess in China, said that the confusion surrounding the problem of the origin of loess has arisen from a failure to distinguish between three types of superficial deposit: (1) Tertiary residual clay; (2) true loess of middle Pleistocene, a wind-driven deposit; and (3) younger gravel and loess beds in process of formation by the action of wind and water. Only the finest material has been carried from the interior of Asia across the frontier of China. Coarser debris is fixed by the vegetation of the mixed marginal belt.

In a paper on the tilting of the land blocks in Japan, Prof. N. Yamasaki described his measurements of movements in the littoral province of Echigo on the coast of the Sea of Japan, where two mountain blocks are separated from each other by a low plain of depression. Precise levellings were carried out in 1894 and 1927, and showed that both the blocks had subsided, during the interval, 2 mm. to 113 mm. The depression decreases from west to east until it reaches

its minimum near the east end of each block and then increases suddenly to its maximum. Thus the movement is a tilting with the scarp in the east. This scarp coincides with a pre-existing fault.

Prof. P. Fourmarier spoke on the origin of the hydrographic system of the Congo. This cannot be adequately explained as the progressive draining of a great basin. It is the outcome of complex tectonic movements beginning in Jurassic times by the elevation of a ridge separating the Congo basin from that of the Zambezi, and later by the elevation of ground to the north and east of the basin, thus forcing the water to flow west. Com. L. Mancini explained the active steps that are being taken by Italians in oceanographical and geophysical researches in the Red Sea.

In Section C (Biological Geography) the papers dealt mainly with zoological distribution. Prof. G. Negri urged the importance of further study of the ecology of plants and animals in mountain areas, and the section was in favour of a committee being appointed to investigate this matter and report to the next congress.

Section D (Human Geography) was opened by Sir Halford Mackinder, who in a short address on the content of philosophical geography restricted the study to the distribution of phenomena within the limits of the hydrosphere, that is to say, the totality of waters on the earth, whether in ocean, air, clouds, glaciers, rivers, or percolating underground. Prof. M. Amer discussed some problems of the population of Egypt. The change from the old basin system of irrigation to the perennial system has made Egypt dependent on a single crop, cotton, and led to the necessity of importing foodstuffs. This change has been accompanied by a rapid increase in population, so great that all available land will be occupied by the seventies of this century. The rate of increase is exceeded only by that of the United States. In discussing the causes of rural depopulation, Dr. S. Vere Pearson directed attention to the loss of nitrogenous fertilisers of human origin which through the introduction of water carriage system of sanitation are lost to the soil. Thus the natural fertility of the soil is decreased.

In Section E (Historical Geography) there were a number of useful papers on the history of cartography and old maps. Section F was devoted mainly to regional geography. One of many valuable papers was by Dr. K. Uchida on the distribution of cultivated land in Japan. The cultivated area of Japan proper is only about fifteen per cent of the country, but supports half the families. Ground suitable for rice supports the highest density, and therefore the tendency is to cultivate rice wherever possible.

A lecture by H.R.H. the Duke of Apulia described his experiences in the little known Tripolitanian Sahara. An address by Dr. W. Atwood, of Clark University, on the place and functions of a graduate school of geography, outlined conditions of work, staff, and equipment, that showed forcibly how far British geography and the appreciation of geographical work have to go in Great Britain before they can reach the level of attainment in the United States. After the congress a number of long-distance excursions took place to various parts of England and Wales.