Dr. C. T. Green, president of the Liverpool Botanical Society and author of "The Flora of Liverpool", and Mr. Eric Hardy, librarian of the Liverpool Naturalists' Field Club, made a special survey of the present status of the flora, with the consent of the Royal Society for the Protection of Birds, to find whether the latter's sea-bird sanctuary on the dunes is also serving as a wild flower sanctuary. The dunes are unique for their profusion of *Pyrola rotundifolia* (round-leaved wintergreen) and *Parnassia palustris* (grass of Parnassus), probably more numerous there than anywhere else in England, and these flowers have been banned from the wild flower collecting sections of the Southport flower show in order to protect the dunes. The duneland orchid (*Epipactis dunensis*), which so far has not been recorded from any other part of the country, was found growing abundantly on the dry dunes, beside the pinewoods, and in the thinner pinewoods, its only enemy being the rabbits. The area is rich in Orchidaceæ. According to the records of the Liverpool Flora Committee, *Erythræa latifolia*, the broad-leaved centaury, which was first described from these sandhills by Shepherd and Bostock a century ago and has not been recorded from any other part of the country, is extinct, though profuse enough at the time of its discovery. The last specimen gathered from the sandhills at Formby is now in the collection at the British Museum (Natural History).

Electrical Calculating Machine for Simultaneous Equations

A MECHANICAL calculating machine for solving simultaneous linear equations up to ten in number under construction at the Massachusetts Institute of Technology by Drs. V. Bush and J. B. Wilbur was referred to in NATURE of December 8 (p. 877). An electrical machine designed for the same purpose, also working up to ten equations, has already been designed by R. R. M. Mallock and constructed by the Cambridge Instrument Co., Ltd. A full account of this machine has been published (*Proc. Roy. Soc.*, A, **140**, 457 ; 1933) and a note on it appeared in NATURE of June 17, 1933 (p. 880). The machine itself is set up and at work in the Engineering Laboratory, Cambridge. It is stated that this machine can determine rapidly a set of roots to an accuracy represented by about $0 \cdot 1$ per cent of the largest root in favourable cases when the equations are well conditioned. The fundamental principle of the machine is to use a number of alternating current transformers, the coils of which are coupled up to such numbers of turns as to represent a set of equations of condition for the fluxes through the transformers which are the linear simultaneous equations to be solved. Such machines promise to be of great value in the very large number of problems which can be reduced to the solution of such sets of equations.

Physiographic Map of Japan

AN instructive physiographic map or diagram of Japan on a scale of about 80 miles to an inch is published by Dr. G. T. Trewartha in the *Geographical Review* of July. Japan lends itself to this treatment since about seventy-five per cent of the land is mountainous and the lowlands are mainly peripheral. The diagram brings out in a striking way the contrasts between the main structural regions of Japan, that is to say, the inner and outer zones running the length of the islands and meeting in fault scarps and tectonic depressions, except in central Honshu where the great zone of depression cuts across the country and the rift is partly filled by later accumulations. The outer zone of Pacific fold mountains appears as a series of well-developed longitudinal ridges and valleys with few noteworthy plains, but separated in the south by subsidence into isolated mountain masses. By contrast the inner zone appears as a rugged hill country of dissected block plateaux, some upheaved and others depressed with much volcanic activity. The Inland Sea forms a notable area of depression in this zone.

Tibet Earthquake of January 3

AN earthquake of moderate intensity occurred in southern Tibet early on January 3. According to the report issued from Kew Observatory, the first movements were recorded there at 2h. 0m. 58s., G.M.T., and at Bombay at 1h. 54m. 23s. The epicentre was estimated to be 4,600 miles from Kew and 1,150 miles from Bombay, or in about lat. 30° N., long. 88° E., the time at the origin being 1h. 50m., G.M.T. The earthquake, though not of unusual intensity, is interesting as its epicentre lay about 120 miles to the south of that of the great earthquake of last December 15 (NATURE, **134**, 963, Dec. 22, 1934).

Third International Congress of Soil Science

THE Third International Congress of Soil Science will be held in Oxford, on July 30–August 7 this year, under the presidency of Sir John Russell. The two previous congresses of the series were held in Washington in 1927 and in Leningrad and Moscow in 1930, and were notable for the exceptionally international character of the personnel and the discussions. The Congress will meet as a whole in six plenary sessions, at which a general survey of recent advances in every branch of soil science will be made, and it will also work in sections or 'commissions' dealing specifically with (1) soil physics, (2) chemistry, (3) biology, (4) fertility, (5) classification, and (6) technology. Three sub-commissions will discuss problems relating to alkali, forest and peat soils respectively. A 16-day excursion round Great Britain leaving Oxford immediately after the Congress, and terminating in Cambridge on August 23, is being arranged for the benefit of members wishing to obtain first-hand knowledge of British agriculture and soils. Every member of the Congress will receive a copy of the official transactions, including the full text of papers read at the plenary sessions, and detailed reports of the discussions at the Commission sessions. The cost of the transactions will be included in the Congress fee (£2), payment of which will also entitle members to attend all meetings, receptions, etc., held in connexion with the Congress. College accommodation during the Congress can be