Eskimo culture. He found the oldest culture among the Caribou Eskimo, west of Hudson Bay. This spread to the arctic coasts and became dependent on marine animals, and then east and west until the Thule culture was homogeneous from Greenland to Alaska. An Alaskan culture, borrowing Asiatic influences, spread eastward as far as Greenland and is superimposed on the earlier culture. Rasmussen's researches on the Caribou Eskimo were a new chapter in ethnography.

With Denmark's increased attention to East Greenland subsequent to her suzerainty being established over the whole country, Rasmussen turned his attention to the east in the sixth Thule expedition of 1931. The aim was to explore the coast between Cape Farewell and Angmagssalik. Many additions to the charts were made and it was found that this part of the east coast is relatively free from ice in late summer. The seventh Thule expedition of 1932 was the largest that Rasmussen led. It was also the first on which he made aerial surveys. The work was the outcome of the previous year's reconnaissance and resulted in detailed surveys from Cape Farewell to Umivik, as well as two flights across the ice-sheet. Equally important was the archæological work on former Eskimo habitation of the coast. Rasmussen decided that seals were numerous enough to support a scattered Eskimo community. Hunters remained to investigate this problem more fully. It was from a resumption of this work that Rasmussen returned ill to Copenhagen last year.

Several of Rasmussen's works have been translated into English, including "The People of the Polar North" (1908), "Greenland by the Polar Sea" (1921) and "Across Arctic America" (1927). The reports of the various expeditions appeared in English and Danish in *Meddelelser om Grönland* and elsewhere. He also wrote several books in Danish including "Nye Mennesker" (1905), "Under Nordenvindens Svöbe" (1906) and "Myter og Sagn fra Grönland" (1921–25). In all his works he had the happy faculty of combining a charming lucidity of style with a wealth of information. Among the many honours bestowed on Rasmussen were the Founder's Medal of the Royal Geographical Society, the Danish Medal of Merit and the orders of Dannebrog, St. Olav and the North Star.

R. N. R. B.

WE regret to announce the following deaths:

Sir William Hardy, F.R.S., director of food investigation in the Department of Scientific and Industrial Research, secretary of the Royal Society in 1915–25, and president this year of the British Association, on January 23, aged sixty-nine years.

Dr. F. L. Kitchin, F.R.S., palæontologist to H.M. Geological Survey of Great Britain, on January 20, aged sixty-three years.

News and Views

The Endless Adventure of Government

PROBLEMS of government and citizenship in the modern world were discussed by Mr. Walter Elliot, the Minister of Agriculture, in his rectorial address as Rector of the University of Aberdeen on January 18. Government to-day, he said, is passing through a great transformation both at home and abroad. Governments and States are no longer merely geographical or political units, but economic units which every kind of intercourse has to take into consideration. Production is becoming decentralised; international trade less and less an interchange of specialised lines of production and more and more a competition in similar lines. The powers of modern science tend to make it feasible for specialised lines to be produced anywhere in the world, or to be replaced by others just as good; hence the national unit has become possible, although not necessarily desirable.

Interdependence of Various Countries

THE formula of the continually increasing interdependence of the world requires qualification. Mr. Elliot gave three examples in illustration. In the first he traced the change in the economic aspect of the trade in nitrate for use as a fertiliser. In the nineteenth century a great trade was built up with South America; steel rails went out and nitrate came back. Large fortunes were made, international lending improved, and the economists were happy. But men of science, thinking it unnecessary to transport nitrogen to fields already supporting the pressure of a column composed mainly of that gas, found a means of producing it in Europe, which was good for production but bad for trade. Referring to the neon lamp, Mr. Elliot said it was the old lamp, and not the new, which demanded all the paraphernalia of nineteenth century economics; whilst the new artificial plastics derived from acetylene are replacing walnut and maple and the mahogany which took our forefathers to the West Indies. Mr. Elliot next turned to foreign investment, another section of the world's work where interdependence is no such certain sequence as was once assumed. A great deal of what is described as 'trade' is not exchange, but investment. The uneconomic nature of a great deal of foreign development has been masked by the free gift to competitors of transport systems, railway and steamer lines, which have been constructed at the expense of the producers in Great Britain and presented to their competitors.

Marketing Boards

THE 'endless adventure of government, has become the problem of problems, the real riddle of the Sphinx. The reason is immediate fear—fear both of war and of peace. Organisation is essential; there are two methods—to organise the world at once, or to organise smaller units and gear them up to each other as soon as time and hard thinking will

permit. Both methods are required. The States of the British Commonwealth of Nations have many economic problems in common, and the need of some standing organisation to examine these problems has been repeatedly felt. Mr. Bruce, formerly Prime Minister of Australia, has suggested that some of the best minds available should be applied exclusively to these formidable tasks, particularly in view of the emergence of British agriculture as one of the great and growing agricultures of the Empire. Mr. Elliot greatly hopes that the work will be undertaken. But an organisation which holds within itself the possibility of just such a development—the Empire Marketing Board—has within the last few months been brought to an end. The failure of some of these attempts, the difficulties of others, do not exonerate us from the necessity for making fresh trials. Let us try marketing boards to cover the United Kingdom if we cannot get one to govern the world, if we cannot get one to span the Empire. In agriculture we are working on the lines of self-government in industry. We are trying to reconcile the producers and the customers, the industrial and the political aspects of the nation, which can no more be separated than the front and the back of a man's head.

Another Large South African Diamond

A DIAMOND of fine quality was found in January by Jacobus Jonker in South Africa in the Elandsfontein alluvial diggings on a tributary of the Pienaars River, near the Premier diamond mine and north-east of Pretoria. The weight is given as 726 carats (145·2 gm.). There is no evidence to support the suggestion that this new 'Jonker' diamond is the missing portion of the 'Cullinan' diamond, which was found in 1905 in the yellow ground in the wall of the Premier mine at a depth of 18 ft. beneath the surface. The 'Cullinan' weighed 621·2 gm. (3106 metric carats), and, as shown by the large cleavage surface, it was evidently only a portion (perhaps rather more than half) of a larger crystal. Diamonds sometimes become fractured during the eruption of the kimberlite magma into the pipes. Other large stones, but of doubtful quality, have been recorded from the Premier mine, namely one of 1640 carats in 1912, another of 1500 carats in 1919, and another of 1195½ carats in 1924. The first of these weighings would be against the English carat of 205·304 mgm., and the last two presumably against the metric carat of 200 mgm. The next largest stone is the 'Excelsior' found in 1893 in the Jagersfontein mine in Orange Free State, which in the rough weighed 199·04 gm. With the older diamonds there still exists an unfortunate confusion in the weights when expressed in carats. The re-cut 'Koh-i-Noor', usually listed as $106\frac{1}{16}$ carats, weighs 21·786 gm. or 108·93 metric carats. A mass of carbonado (a compact aggregate of small crystals of diamond) found in Bahia in 1895 weighed 630 gm.

Sir Hans Sloane's Collections

A TEMPORARY exhibit of a selection of minerals and botanical specimens and books from the Sloane collections is now displayed in a lighted case in the Central Hall of the Natural History Museum at South Kensington. It was these collections that formed the nucleus of the British Museum in 1753, and they contain many objects of considerable intrinsic value and of historic interest. A recent study of the voluminous MS. catalogues written by Sloane himself has led to the identification of many mineral specimens belonging to his collection. There is a good series of "pretious stones", including a magnificent Indian-cut sapphire weighing 31·5 carats, and a wonderful series of objects carved in agate, mocha-stone, carnelian, jasper, rock-crystal, nephrite, lapis-lazuli, etc. Most interesting are two drawers with the original labels from an old cabinet of minerals supposed to have medicinal virtues and listed as 'officinalis'. Sir Hans Sloane was a celebrated physician—it was he who certified the death of Queen Anne in 1714; and he succeeded Sir Isaac Newton as president of the Royal Society. One of the quaint entries in his MS. catalogue reads: "Lapis variolosus if hung about the Person makes the small Pox come favourable and hinders their being mark'd from its Signature". The Sloane collections were formerly in the old Manor House of Chelsea (built by Henry VIII), and his memory is preserved in a dozen streets, places, and squares named Hans or Sloane.

Indian Earthquake of January 15

A BRIEF notice of this great earthquake, based on the earliest reports, was inserted in our last issue (p. 94). Later accounts add considerably to the first estimates of the loss of life and of the extent of the disturbed area. It is clear that the number of deaths will amount to several thousand—in Monghyr alone, 4,000 are reported as killed. The epicentre, given by the seismographic records at Kew and Bombay, lies in lat. 26·8° N., long. 86·3° E., or a short distance to the east of the towns (Patna, Muzaffarpur, Monghyr, etc.) which suffered most from the earthquake. Thus, it would seem that the crust movement started a few miles east of Darbhanga and spread rapidly westwards for fifty miles or more. The distances from the epicentre of some of the places from which reports of the shock come are so great that it is only their close grouping that justifies their acceptance. Bombay is about 970 miles from the epicentre and Madras 980. Still farther to the south, and somewhat isolated, are Madura (1,250 miles) and Aleppey in Travancore (1,330 miles). If we assume the disturbed area to be bounded by a circle passing through Madras, it would contain three million square miles. The area included within the isoseismal of intensity 4 of the Kansu earthquake of December 16, 1920, was about 2½ million square miles, so that the area actually shaken must have been of the same order of magnitude as that disturbed by the recent earthquake.

Early History of the Reverberatory Furnace

AT a meeting of the Newcomen Society held on January 17, Mr. Rhys Jenkins read a paper on "The Reverberatory Furnace with Coal Fuel, 1612–1712". The term reverberatory, he said, came from the Low Latin "reverbero", to beat back; to-day, by reverberatory furnace, we mean one in which the