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EDITORIAL NOTES.

IT is with very great regret that the Editors find themselves compelled to announce to their friends and subscribers that a crisis has arisen in the affairs of the GEOLOGICAL MAGAZINE, gravely imperilling its future existence. For some years past the Magazine has been conducted on an extremely narrow margin between profit and actual loss, and now, owing to a further sudden rise in the cost of production, the former trivial, almost negligible, profit will be converted into a considerable loss on next year's working unless some further economic steps are taken. The whole situation has been most carefully considered between Editors, publishers, and printers, and certain minor adjustments are suggested in connexion with business arrangements. As to these it is not necessary to enter into detail here. But these measures of economy alone would be quite inadequate to make up the deficit: some considerable increase of revenue is indispensable, and the only possible source for this is an increase in the price of the Magazine. The sole alternative is to cease publication at the end of the present volume. The Editors feel, however, it is hoped without undue egotism, that this course would be a serious blow to the science of geology, and after long and anxious consideration they have decided to raise the price of the Magazine as from January next to 2s. 6d. per copy or 30s. per annum. In taking this step they are compelled to rely on the loyalty of friends and subscribers, and feel confident that this trust will not be misplaced. The Editors venture to appeal most earnestly to present subscribers to continue their subscriptions, and to use every effort in their power to obtain fresh support, so that the GEOLOGICAL MAGAZINE may be enabled to continue unbroken its career, which it is hoped and believed has been one of usefulness and honourable effort in the cause of progress in geology. The Editors on their part will spare no effort to maintain the traditions of the past, and by strict attention to business to carry on the Magazine through the period of storm and stress, which is perhaps only of a temporary nature. Such is the present situation: the future rests with our readers.

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WE understand that the department that was set up by the Ministry of Munitions early in 1917 for the development of the mineral resources of this country, in the first instance under the control of Sir Lionel Phillips, has been taken over by the Board of Trade, and will be continued as a branch of its Industries and Manufactures Department under the care of Dr. F. H. Hatch.

“AFTER three years of anxiety and stress,” says Sir Charles Parsons, the President, at the Bournemouth Meeting of the British Association, the meetings for the intervening years having been cancelled, the Association accepted the renewed invitation of friends and colleagues to Bournemouth for September 9–12, 1919. The President (after referring to the critical time of the meeting, when after the great upheaval the elemental conditions of organization of the world are still in flux) pointed out in what way the British Association could best assist in the great work of reconstruction and progress now lying before us. (1) By requisitioning and printing reports on the present state of different branches of science; (2) by granting sums of money to small committees or individuals to enable them to carry on new researches; (3) by recommending the Government to undertake expeditions of discovery, or to make grants of money for certain national purposes, which were beyond the means of the Association. [As a matter of fact it has, since its commencement, paid out of its own funds upwards of £80,000 in grants of this kind.]

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HE proceeded to discourse on some of the developments in engineering during the period prior to the War, in engines and turbines, in Naval architecture, on tungsten steel, on gaseous explosions, on the science of war, the advance in artillery and aircraft, on sound-ranging and listening devices, and on electricity. The President referred to the problems of the future, especially on the relative cost of producing a given amount of electrical power from coal and from water-power. It is estimated that the average capital required to produce electrical power from coal is less than half the amount that is required in the case of water-power; but the running costs in connexion with water-power are much less than those in respect of coal. The cost of harnessing all the water-power of the world would be about 8,000 millions, or equal to the cost of the War to England.

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SIR CHARLES devoted the penultimate section of his address to borehole projects (which he had studied in 1904). He proposed to sink a shaft 12 miles in depth—about ten times the depth of any shaft in existence. The estimated cost was £5,000,000, and the time required about eighty-five years, a period not often reached in one lifetime! One question raised was: would the rocks at this great depth crush in and destroy the shaft? Professor Frank Adams, of McGill College, Montreal, published some results of his experiments on crush-strains on rocks in the *Journal of Geology*, 1912, from which he estimated that in limestone a depth of 15 miles would probably be practicable, and in granite a depth of 30 miles might be reached. Little is at present known of the earth's interior except by inference from a study of its surface, upturned strata, shallow shafts, the velocity of transmission of seismic disturbances, its rigidity and specific gravity. Some attempt, he suggests, should be made to sink a shaft as deep as may be found practicable at some locality selected by geologists as the most likely to afford useful information. In Italy, at Lardarello, boreholes have been sunk, which discharge

large volumes of high-pressure steam, which is being utilized to generate about 10,000 horse-power by turbines. At Solfatara, near Naples, a similar project is on foot to supply power to the great works in the district. It seems, indeed, probable that in volcanic regions a very large amount of power may be, in the future, obtained directly or indirectly by boring into the earth, and that the whole subject merits the most careful consideration.

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FROM motives of strict economy in printing and paper on the part of the Treasury, the Annual Reports of the Keepers of the various Departments in the British Museum which accompany the Return of Receipts and Expenditure presented to the House of Commons have been reserved to a future and more prosperous time. The statement relating to the British Museum, Bloomsbury, shows the precautions taken to protect the collections from air-raids, etc., in 1916-18, and the parts, still closed to the public, lent to the Registry of Friendly Societies. Precautions were also taken to protect the most choice specimens in Bloomsbury and in the Galleries of the Natural History Departments at Cromwell Road, but with the exception of the Northern Galleries of Geology all the exhibits in the latter building were open, and the public have been admitted on week-days from 10 till 4 o'clock. An exhibition of the boring Mollusca and Crustacea destroying wood and stone, and those attached to piers and ships below the water-line, has been arranged by Dr. W. T. Calman for Government and public information. Reports have also been prepared on Fishes valuable as food, and on the utilization of whale-flesh. The preservation of elephant seals and the reintroduction of fur-seals, also the acclimatization of the reindeer in South Georgia, are instances in which scientific advice has been afforded to Government by the Museum staff.

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MRS. HINDE has presented to the Geological Department the valuable collection of fossils, chiefly from the Silurian and Ordovician rocks of Canada, the United States, and Sweden, made by the late Dr. George J. Hinde, F.R.S., together with his unique series of microscopic preparations of rocks and fossils.

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THE Royal Microscopical Society have given 1,000 slides of samples of "oozes", spread over the ocean-floor at great depths, collected by the late Dr. G. C. Wallich, and an additional series from Mr. E. Heron-Allen, F.R.S., with maps and charts.

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A LARGE collection of fossil shells and vertebrate remains from the Ameki cuttings on the Port Harcourt Railway, Southern Nigeria, have been presented by Mr. A. E. Kitson, Director of the Geological Survey of the Gold Coast.

