

THE
GEOLOGICAL MAGAZINE

NEW SERIES. DECADE VI. VOL. VI.

No. VI.—JUNE, 1919.

NOTICE OF CHANGE OF ADDRESS.

On and after June 1 all communications for the Editor of the "Geological Magazine" should be addressed to R. H. Rastall, Esq., M.A., F.G.S., Christ's College, Cambridge. Letters for Dr. Henry Woodward, F.R.S., to be sent to Tudor Cottage, Clay Hill, Bushey, Herts. Books and parcels to be directed to Messrs. Dulau & Co., 34-36 Margaret Street, Cavendish Square, W. 1.

EDITORIAL NOTES.

BY the death of Sir Frank Crisp, Bart., on April 29, in his 77th year, science in general has lost a very generous supporter and a valuable fellow-worker. Late senior partner in the well-known City firm of Ashurst, Morris, Crisp & Co., solicitors, Throgmorton Avenue, he devoted fifty years to law, but gave all his leisure and much of his income to scientific pursuits. He was a keen student and lover of microscopic research, and was an ardent supporter and honorary secretary of the Royal Microscopical Society, for which Society he obtained a Royal Charter. From 1879 to 1889 Crisp wrote the bulk of the invaluable bibliographical abstracts in the *Journal R.M.S.*, and generously supported the publication by every means in his power. He formed, with much knowledge and at great expense, a most instructive and remarkable collection of instruments from the very earliest known microscopes to those of the most modern and costly construction provided with a great series of lenses of every kind. These he presented to the nation for the new Science Museum at South Kensington, the delay in the completion of which (caused by the War) has hitherto prevented their exhibition to the public. Sir Frank was also a Fellow of the Linnean Society, on the Council of which he served for nearly forty years, filling the various offices of Treasurer, Vice-President, and Solicitor. He procured the modification of the Society's charter to cover the admission of women as Fellows in 1904. He was pre-eminent as a botanist and collector of rare and remarkable living plants, to procure which he spared no expense. In Alpine plants alone he has brought together upwards of four thousand different species. His rock-garden at Friar Park, Henley, crowned with an

accurate model of the Matterhorn, needed for its construction no less than 20,000 tons of Carboniferous Limestone from Yorkshire, and with the other gardens, caves, lakes, and cascades renders this beautiful spot one of the finest gardens in England. At the time of his death he was preparing a great work on *Gardens, Ancient and Modern*, for which he had gathered an ample library of rare and curious books.

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Now that Belgian scientific publications are beginning to reappear, we are not surprised to see, accompanying those of the Académie Royale, a "Rapport succinct sur l'Etat du Palais des Académies après le Départ des Allemands". This has been compiled by M. Louis le Nain, Secrétaire de la Commission Administrative, whose duty it was to report on the work necessary for restoring the apartments to a condition fit for their original purposes. From this report it is clear that the work of restoration will take some considerable time, as the building and its contents had suffered during the German occupation. Certain rooms had been used as hospital wards, one even being set aside for tubercular cases, others as store-rooms, and so on, thus necessitating some structural alteration. Everywhere M. le Nain found the utmost confusion, disorder, and filth; and the photographs accompanying his report show this to be the case.

The Library too had suffered; some books had disappeared, others were misplaced, but when found were in a damaged condition. This was particularly the case with the Stassart Collection. Certain Belgian busts and paintings had been disfigured, the portrait of Leopold I being decorated with an iron cross; others had been damaged.

M. le Nain therefore considers that the building must be thoroughly cleansed and repaired before it can be again used, and that the number of objects stolen, lost, or misplaced must be discovered. Some time must elapse before this can be accomplished.

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An oil-painting of Gideon Algernon Mantell has recently been presented to the Geological Society of London, by subscription among a number of the Fellows. Unfortunately, the history of this painting is not known. The collection of oil-paintings in the possession of the Society is very small, consisting of only nine, including the portrait of Mantell, and that of Dr. Henry Woodward, referred to in these notes in the April number. The other oil-paintings, at present hung in the Society's Meeting Room, consist of the portraits of William Smith, Buckland, Lyell, De la Beche, Phillips, Huxley, and Prestwich. There is also the painting of the group of geologists at the meeting of the British Association at Newcastle in 1838. On the walls of the Council Room are hung the portraits of the former Presidents of the Society. This series is complete, and consists chiefly of engravings, with large photographs of the later Presidents.

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THE veteran Swiss geologist, Albert Heim, attained his 70th birthday on April 12, 1919. The event has been duly commemorated by the publication of a Festschrift, issued by a special committee, with Dr. Paul Arbenz as chairman, as a double number of the Vierteljahrschrift der Naturforschenden Gesellschaft in Zurich. This is a handsomely prepared volume of 518 pages and 12 plates, and contains 24 separate contributions, besides a complete catalogue of Professor Heim's publications. Most of the contributions to this Festschrift naturally deal with various branches of the geology of Switzerland; other subjects, however, have received attention. Thus, A. Hartmann deals with the hydrology of the Magdalena Bay district, in Lower California; L. Zehnder contributes a short discussion on the causes of geological epochs; E. Blumer reviews the principal petroleum deposits; E. Bloesch gives an account of the tectonics of the Front Range in Colorado; while W. Staub presents the results of recent geological exploration in Eastern Mexico. The value of Albert Heim's own work is well recognized in this country; he was elected a Foreign Correspondent of the Geological Society of London in 1887, and was made a Foreign Member in 1896. It will be remembered that he was one of the six distinguished geologists on whom the University of Oxford conferred the honorary degree of D.Sc. on the occasion of the Society's Centenary in 1907.

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THE views set forth in the Report of Sir Joseph Thomson's Committee on Scientific Education (*Report of the Committee of the Privy Council for Scientific and Industrial Research for the Year 1917-18*), are evidently endorsed by opinion in the Colonies. In the recently established New Zealand Journal of Science and Technology (the organ of the New Zealand Board of Science and Art), the matter is discussed by the editor under the title of "Training Research Workers". Certain passages are quoted from the Privy Council Report, and particular stress is laid on the prefatory exhortation to prompt action. In the opinion of the editors of this New Zealand Journal, even if scientific research were adequately endowed in the Dominion a dearth of investigators would be at once apparent. Granted that the true research spirit is a matter of natural ability rather than the result of training, it still remains that the potential worker must be able to get proper facilities for development. The War has made us aware of many deficiencies: one of these is the need of adequate scientific training of a University type. The feeling of the natural independence of the New Zealand youth is not confined to that Dominion; he wants to find himself as independent financially while pursuing his University course as he would if starting a business career. An extension of the scholarship system is the only means of attaining this except in the case of the rich.

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GEOLOGY and geography have so much in common that it is not always easy to draw the line between them. It is accordingly

a matter of some interest to the geologist that the University of Cambridge has recently established a Tripos in Geography. Hitherto geography has not been recognized by any British University as a subject for a degree in honours, and the highest distinction awarded was a Diploma, such as that of Cambridge or Oxford. The Diploma in Geography has proved a very valuable and useful qualification to teachers, but it did not carry with it an honours degree.

The new Tripos is divided into two parts. Part I corresponds very closely with the old examination for the Diploma, and will probably still remain the most useful qualification for teaching purposes. It covers a wide ground, and no candidate can pass it creditably without showing a sound and broad knowledge of all the different branches of geography. Part II is designed more for the specialist, and the man who intends to undertake original research takes up one or two sections only, but is required to study these more deeply and to be acquainted with the other branches of knowledge which bear upon the section which he selects. There is, for instance, a section "Geomorphology", and the student who chooses this must be a geologist. There is, however, a geographical side to geology, and it is to this, and its influence on surface features, rather than to details of stratigraphy, palæontology, and petrology, that he will devote most attention.

The other subjects in Part II are Geodetic and Trigonometrical Surveying, Oceanography and Climatology, Historical and Political Geography, and Economic and Commercial Geography.

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WE referred recently in our Editorial Notes to the question of the existence of workable quantities of petroleum in England; since that date another important contribution to the subject has come to hand in the shape of a paper read to the Manchester Geological and Mining Society by Mr. T. Sington on "The Search for Petroleum in Derbyshire now in Progress". This paper describes the exact situation of the seven boreholes now being put down to the south-east of Chesterfield and their relations to the geological structure of the district. The author points out in the clearest terms that if any considerable amounts of oil or gas now exist in the rocks to be penetrated by these bores they have had every opportunity to show themselves, owing to the abundance of colliery workings in the neighbourhood, and he feels confident that none will be found. In the discussion that followed this view received the support of every speaker, including the weighty authority of Professor Boyd Dawkins, who pointed out that while petroleum is often found in the Coal-measures, it is always in quantities to be measured by a tea-spoon rather than a bucket, and that it is extremely improbable that at lower levels it will occur in any larger proportion. This entirely agrees with the views of the authorities already quoted. In this connexion the Editors are pleased to be able to say that they have in hand a valuable paper by Mr. V. C. Illing, which will be published in an early issue of the Magazine, after the conclusion of the paper on Potash by Dr. Holmes begun in the present number.

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ARISING out of the previous question, as they say in Parliament, it is perhaps permissible once more to draw attention to a most important subject, namely, the proper examination, treatment, and preservation of the cores from borings. According to the details given by Mr. Sington, there will be no cores from the Derbyshire borings; nevertheless the principle is the same: all material obtained from deep bores should be inspected by competent geologists and the results carefully recorded. Cores are frequently treated in the most haphazard fashion, being examined only by the borer, who often records their character in jargon intelligible only in the district where they happen to be, and totally useless anywhere else. It is rarely that a core is inspected by a competent geologist and the results published in a scientific form. It is, of course, obvious that it may be necessary in certain cases that the details of a boring should be kept secret for a time, but in the national interest control should be compulsorily exercised over all borings, which should be inspected during their progress by Government geologists and the facts carefully registered as the work progresses. Thus intending prospectors could at any rate obtain information as to whether the work proposed had already been done in that particular district, and unnecessary expenditure thus prevented. One of the most important functions of applied geology is to prevent people wasting their money on fruitless enterprises.

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THE Department of Mines of the Dominion of Canada has shown commendable promptitude in the issue of its "Preliminary Report of the Mineral Production of Canada during the Calendar Year 1918", which bears date February 27, 1919. One can only say *O si sic omnes!* The total value of the minerals produced during the year shows an increase of 10·8 per cent over that of 1917, while since 1913, the last complete year before the War, the increase is no less than 44·3 per cent. More than half of the increment of value since 1917 is due to the higher price of coal, while silver, cobalt, and asbestos reached considerably higher prices, the actual production of the two latter being also higher. Copper, lead, and molybdenite show a considerably greater output, but the price of the last has fallen off sadly, owing to the lessened demand for munition purposes. For the first time for some years a small output of tungsten is recorded from the Yukon, Manitoba, Nova Scotia, and New Brunswick. The nickel industry of the Sudbury district fully maintained its position, and many of the minor products and non-metallic minerals showed substantial increases, especially petroleum, magnesite, and gypsum. Altogether the mineral industry of the Dominion appears to have been in a flourishing condition in 1918.