

might be attributed to the high partial pressure of oxygen in pure air when breathed at 130 lb., or to impurities in the air which was actually supplied to the divers, but Sir Leonard Hill has made tests on the same men which satisfy him that neither oxygen nor carbon dioxide is responsible. It seems to be an extreme case of the subtle change in character and behaviour which comes over some men at less high air pressures and is well known to experienced diving officers. Divers affected in this way generally keep fairly quiet on the subject, as they do not wish to be thought excitable or foolish about their work. The steel decompression chamber was employed to great advantage in these experimental dives, but, as Prof. Haldane pointed out in concluding the discussion, the stages of decompression given to the men were not calculated on the principles which have proved so satisfactory hitherto and do not appear to have given sufficient margin of safety. This is a matter which can easily be rectified if necessary without invalidating the ingenious methods and appliances which have been elaborated for this extremely difficult sort of diving.

The Italian divers now working on the wreck of the *Egypt* at a depth of 400 feet have cut out all danger of compressed air illness and the need for a

host of hampering precautions by using the Neufeldt and Kuhnke armoured apparatus, which, though flexibly jointed, sustains the enormous hydrostatic pressure of 170 lb. per sq. in. corresponding to that depth and enables the man inside to breathe air at atmospheric pressure. The gain in safety and economy of working time which results is partly offset by a loss of mobility and manual efficiency as compared with a rubber-dressed diver, but this again is compensated by the elaborate grabs and machinery of the salvage ship. The diver on the bottom has become less the working agent and more the eye and brain directing engines which are lowered to him and worked from above. Conceivably some such semi-automatic system of working may develop in caisson and tunnel work, though it does not seem called for with the pressures likely to be used in the near future. None of the speakers expressed any doubt that all serious illness could be prevented by suitable decompression: the real problem is to key these lengthy decompression periods in with the design of the tunnel, the scheme of work, and the system of shifts, so that they may become something less wasteful and unsatisfactory than hours of enforced idleness passed in dismal steel cylinders.

G. C. C. DAMANT.

### Centenary of the Royal Geographical Society.

THE Royal Geographical Society will celebrate on Oct. 21 and the two succeeding days its centenary of inauguration. The Duke of York will open the proceedings on the afternoon of Oct. 21, and delegates from the Société de Géographie, of Paris, and the Gesellschaft für Erdkunde, of Berlin, both of which have already celebrated their centenaries, will present addresses. In the evening, Sir Charles Close, president, Mr. Douglas Freshfield, Sir Francis Younghusband, the Marquess of Zetland, and Dr. H. R. Mill will speak on the history of the Society. On the mornings of Oct. 22 and 23, a series of short papers on "The Habitable Globe" will be read by British and foreign geographers, and in the afternoon of Oct. 23, another series on "Incidents in the History of Exploration" will be read by Lord Lugard, Sir Martin Conway, Sir Francis Younghusband, Sir Halford Mackinder, Col. H. Bury, Mr. J. M. Wordie, and others. The centenary dinner of the Society, at which the Prince of Wales will preside, is to be held on Oct. 23.

Enjoying, on Dec. 31, 1929, the enviable roll of 6369 members, inclusive of 679 women, the Royal Geographical Society emerges from one hundred years of vicissitudes a successful and vigorous English institution. Among our readers there must be some of an earlier generation privileged to retain contemporary recollections of intercourse with intrepid pioneer discoverers who, in their day, lifted the veil in fields of the Society's operations—of, for example, John Rae, Erasmus Ommanney, McClintock, Inglefield, Nares, Leigh Smith; of John Kirk, Grant, Burton, Joseph

Thomson. To these elders the centenary proceedings should, for this reason, bring especial interest and point.

Space would not permit notice here of the position of geographical knowledge among the nations at the time of establishment of our home-born organisation. Most of us know, however, that in the early years of the nineteenth century, science was moving definitely towards co-operative effort and in departments—its horoscope was cast that way, though no seer maybe could have forecast our present-day delimitations and specialisation. There sprang into existence new bodies—offshoots of the parent Royal Society—and with each that institution observed terms of amity, though Banks was, perhaps, an unduly obstinate element. Among such were the Geological Society (1807), Institution of Civil Engineers (1818), British Association (1831). As regards individual effort and consequent influence on thought, it is useful to recall that Lyell published the first volume of his "Principles of Geology" in 1830; that year witnessed also the issue of Charles Babbage's argumentative "Reflections on the Decline of Science in England".

Already, however, in the geographical domain, Paris had instituted the Société de Géographie (1821); Berlin, the Gesellschaft für Erdkunde (1828). There was at this period half a world of unknown tracts of land to conquer. All Europe, too, was discussing the achievements of Baron Alexander von Humboldt, traveller and naturalist. This illustrious geographer, welcomed constantly in English philosophical circles, had been elected

a foreign member of the Royal Society in 1815, had dined with the men of science at their club in 1817, accompanied by Arago and Biot, visiting them again, with Kater as host, in 1827. Much was to ensue from these movements and international greetings and friendships.

In the last-named year, another London dining club, the Raleigh, composed mostly of men of travelling proclivities, came into being, and it early realised that a British institution for the advancement of geographical science was a necessity. The idea found current expression in the influential *Literary Gazette*. In the issue for May 24, 1828, over the initials "A. C. C.", the following appeared: "This society [*i.e.* the Asiatic] has certainly filled up one great hiatus . . . but there is another almost equally important to supply . . . I allude to the want of a Geographical Society, a want which is the more singular, as our nation has always been, and still is, the very foremost in promoting geographical discoveries. I am convinced that if such an Association were now to be formed it would in a few years become even more eminently useful than the famous society of Paris."

The outcome of various individual efforts and alliances of views was the foundation of our London society, brought about at a public meeting held on July 16, 1830, and under the advantageous and able chairmanship of John Barrow, secretary to the Admiralty. Viscount Goderich was elected the first president. King William IV. became patron, directing that the Society's title should be the "Royal Geographical Society". Further, His Majesty granted an annual donation of fifty guineas to constitute a premium for the encouragement and promotion of geographical science and discovery. Four hundred and sixty names were enrolled, forty-three of whom were naval officers, fifty officers of the army, all the leading statesmen of both political parties, including the Duke of Wellington (then Prime Minister), and men of science eminent in all its branches.

The first president, Viscount Goderich, was not, in strict sense, a geographer, neither had his qualifications, so far as one can be aware, any particular scientific bearing or significance. His interests lay in active politics. Notwithstanding these drawbacks, if indeed they were, he seems to have been considered a good figurehead for a Society that had to make beginnings, and a safe one to start with. Educated at Harrow and St. John's College, Cambridge, he entered the House of Commons as the Hon. Frederick John Robinson, filled various subordinate posts, eventually becoming Chancellor of the Exchequer from 1823 until 1827. Upon Canning's death in 1827, he was raised to the peerage as Viscount Goderich, and was Prime Minister for a short while. At the time of election to the presidency of the Royal Geographical Society he was Secretary for War and the Colonies, and a fellow of the Royal Society. He was created Earl of Ripon in 1833.

The *Gentleman's Magazine*, under date Nov. 14, 1831, provides a lively notice of the Society's

inaugural session, held in the rooms of the Horticultural Society in Regent Street. We read:

"The first meeting for the season of the Royal Geographical Society took place, the president, Viscount Goderich, in the chair. The room was very much crowded to witness the presentation of his Majesty's first premium of fifty guineas, placed at the disposal of the Society, to Richard Lander, for his discovery of the termination of the Niger, or Quorra, in the sea. After the secretary had read a long paper by Col. Leach on the very interesting question, 'Is the Quorra the Niger of Antiquity?' the noble chairman stated that the meeting had been made special for two specific objects, both of great importance to the general purposes of civilisation, but more particularly to this Nation. The first was to present, on this, the first occasion on which the Society had to dispose of the bounty of his gracious Majesty, the prize to an individual certainly the most enterprising of those men who had their names recorded in the annals of geographical discovery. He felt convinced all who heard him would agree that the first award placed at the disposal of this Society by their gracious Sovereign could not be more appropriately disposed of, than by conferring it on an individual whose talents, courage, and enterprise had achieved so much for the advancement of science. His lordship then presented Lander, who rose for the purpose from his seat at the noble chairman's right hand, with the first premium. The latter, in a few words returned his acknowledgments and expressed his deep gratitude. The second proposition was to incorporate the African Association with the Society, which was carried."

Here it should be mentioned that the African Association, referred to as merged in the new Society, was formed in 1788, mainly through the efforts of Sir Joseph Banks and Major Rennell. It had a small but select membership, and, as its name would imply, concerned itself with the geography of Africa and with schemes for forwarding exploration in that continent.

In connexion with the first allotment, in 1830, of the Royal premium to Richard Lander, it may be recalled that his pioneer explorations (and those of Mungo Park) are commemorated by an obelisk, erected last year on Jebba Island in the Middle Niger. A tablet bears the following inscription:

"To Mungo Park, 1795, and Richard Lander, 1830, who traced the Niger from near its source to the sea. Both died in Africa for Africa."

The fifth annual premium at the disposal of the Society took the form of a gold medal, and the practice continued. On the accession of Queen Victoria it was resolved to award two gold medals annually: (1) the Founder's medal; (2) the Patron's medal.

For a whole decade after inception, the Society met in the apartments of the Horticultural Society. Thereafter, circumstances necessitated sojourns elsewhere, so that the Society became itself a traveller, seeking, yet not securing, a fixed location where all its functions could be performed under one roof. These peripatetic phases are happily ended. Its house at Kensington Gore, occupied in 1913, offered settled habitation, and a long-cherished scheme for additional buildings has come to fruition. It is gratifying to learn that the

structures include a meeting hall with seating for 850 persons; ample library space, worthy of the Society's fine collection of books; with other easements necessary to complete the working scope and social aims of a scientific corporation of this kind.

No reference to the Society would be adequate without testimony to the wonderful and enlightened activity it has consistently displayed in regard to exploration in Africa and in Arctic and Antarctic regions, and help in such undertakings as the successive Mount Everest Expeditions, as well as in others. Scientific men and a vast

public are well aware of these services; and, should the lands fail in a measure, there remains the air. Already the Society has encouraged the British Arctic Air Route Expedition by supplying it with "the best instruments it could furnish, and a little of its money".

It remains to add that Admiral Sir William Goodenough has been chosen as the new president in succession to Sir Charles Close, whose term of office ends as the one hundred and first year of the Society begins. Scientific workers generally wish the Society continued prosperity and increased activity in this second century of its existence.

### Obituary.

MR. M. A. GIBLETT.

WHEN in 1924 it was decided to take up again with renewed energy the development of airships, it at once became clear that a prime necessity was a specialised meteorological service devoted entirely to airship problems. What exactly were those problems was not known: weather forecasting was obviously one, but there were others, not yet formulated, connected with the forces present in the atmosphere which would affect largely the success of airship transport. It was therefore necessary to place the new Airship Services Division of the Meteorological Office under an able Superintendent. The man chosen for this responsible post was at the time a relatively junior Assistant Superintendent in the Forecast Division, but a man who had already made his mark by his scientific ability and outstanding personality.

Mr. M. A. Giblett was then only a little more than thirty years old, having been born on July 15, 1894. He had been educated first at Upton School, Slough, and Modern School, Maidenhead, and then at the Universities of Reading and London. Three years as nautical master on the Cadet Ship *Worcester* under Capt. Sir David Wilson Barker were no doubt responsible for his becoming interested in meteorology, and in March 1919 he joined the staff of the Meteorological Office for training preparatory to going out to the British Expeditionary Force in North Russia on meteorological duties. He sailed for Russia at the end of July 1919 and received his commission as 2nd Lieutenant in the Meteorological Section, Royal Engineers, while actually on the voyage. He was stationed at Archangel, but had been there only a few weeks when the British Expedition was withdrawn. He returned to the Meteorological Office and resumed his duties as professional assistant in the Forecast Division in October 1919.

As soon as Giblett received his appointment as Superintendent of the Airship Division, he set to work with great energy to plan and build up the meteorological organisation which was to be an integral part of the Imperial scheme for the development of airships. At first this scheme only visualised an airship route to India. He found an almost unexplored field before him.

It is true that at each end of the route there were highly developed meteorological services, but between the shores of India and the east of the Mediterranean there was no meteorological service and no synoptic charts had ever been drawn for these regions. Further, although practically every country in Europe prepares its own synoptic charts, there was no single chart of Europe on a scale sufficiently large to make it possible to study in detail the changes of weather even in Europe as a whole. Giblett therefore set to work to collect from every possible source observations for the whole area embracing the route from England to India, and from these prepared a series of daily weather charts for a whole year. It was a stupendous piece of work, which is not yet entirely finished, but with the aid of these charts it was possible to study the routes open to airships and to calculate in detail the times it would occupy to travel each route in different types of weather.

Although at that time the route to India was the only one on which it was planned to employ the airships, it was necessary to make a preliminary survey of possible airship routes to all parts of the Empire. In 1926 this became an urgent problem, for the Air Ministry wished to place before the Imperial Conference which was held in that year a scheme for the development of Imperial air transport. This scheme was presented to the Imperial Conference in a book, afterwards published, entitled "The Approach towards a System of Imperial Air Communications", in which sections on the meteorological investigation of the England-India route and on the meteorological organisation in connexion with the development and operation of airship services were written entirely by Giblett. This description of possible routes, the necessary ground organisation for meteorology, and the co-operation required between the meteorological services was a remarkable piece of work and received much commendation at the Imperial Conference: it showed a power of planning and organising seldom met with in so young a man and a 'scientist' to boot.

It had by that time become clear that meteorology would play an important if not the chief

(Continued on p. 619.)