

News and Views

Sir John Flett and the Geological Survey

ON October 1 Sir John Flett retired from the directorship of the Geological Survey and Museum. He joined the Survey in 1901, in 1903 he was appointed petrographer, and in 1911 he succeeded Dr. John Horne as assistant director for Scotland. On the retirement of Sir Aubrey Strahan in 1920, he was made director. He took over his new duties at a moment when several important changes had been introduced; the Committee of Advice on the Geological Survey, which had reported to the Board of Education since Sir Jethro Teall's induction to office, now gave place to the Geological Survey Board, reporting to the Lords of the Committee of the Privy Council for Scientific and Industrial Research; at the same time there was a considerable increase in the scientific staff. With characteristic energy, Sir John Flett began at once to make full use of the improved conditions: one of the first steps was the establishment of three branch offices in coal-field centres, which proved of great value in permitting closer contacts with the industry.

DURING Sir John Flett's directorship, not only has steady progress been made with the primary 6-inch survey, the re-survey of economically important areas, and the provision of colour-printed 1-inch maps, but also there has been marked improvement in the production and style of reproduction, both of maps and memoirs. Other departments of the Survey's activity—the investigation of underground water supplies, recording of boreholes, photography of geological subjects for educational and record purposes, the study of geophysical methods of surveying—have been vigorously stimulated, and useful collaboration has been set up with other bodies in relation to research upon soils, coal and building stones. Sir John's single-minded devotion to the work of the Survey and Museum and to the needs of the public, backed by a keen and able staff, achieved a fitting culmination with the opening of the new Museum of Practical Geology and Survey offices in South Kensington last July.

As recorded in *NATURE* of July 20, p. 96, Dr. Bernard Smith has been appointed to succeed Sir John Flett as director of the Geological Survey of Great Britain. It is now announced that Mr. Henry Dewey has been appointed to succeed Dr. Bernard Smith as assistant director (England and Wales). Mr. C. E. N. Bromehead, district geologist in York, will shortly take charge of the London District, now vacated by Mr. Dewey. Mr. T. H. Whitehead has been promoted district geologist, and will take over the Survey Office in York upon Mr. Bromehead's withdrawal to London. Dr. J. Phemister has been appointed petrographer in succession to the late Dr. H. H. Thomas.

Faraday's Eyesight and the Blind Spot

UNDER the heading "Science News a Century Ago" a paragraph headed "Faraday's Eyesight" appeared in *NATURE* of January 12, p. 77. The note referred to an entry in Faraday's "Diary" of date January 15, 1835, in which Faraday stated he had noticed "a slight obscurity of the sight of my left eye". Dr. Frank Marsh, writing from the Pathological Laboratory, c/o Anglo-Iranian Oil Co., Ltd., Masjid-i-Suliman, via Ahwaz, South Iran, suggests that the quotation in *NATURE* indicates that "Faraday had discovered his 'blind spot', that is, the optic disc, the place of exit of the optic fibres from the retina, which exists in the retina of every normal person". We have consulted a leading authority on ophthalmology upon Dr. Marsh's suggestion, but he thinks that the explanation of the blur in Faraday's vision as being due to his blind spot is not satisfactory for several reasons. Faraday describes it as a "slight obscurity of the sight", that is, it was a definite blur—in ophthalmological phrase, a *positive* scotoma. The blind spot causes a hiatus in vision, but no positive blur; in other words, causes a *negative* scotoma. Apparently the blur was first noticed when Faraday used both eyes in reading, though it is not definitely stated that the right eye was open. If both eyes were being used, the blind spot would not be noticed in reading. Moreover, the size of the scotoma ("about half an inch in diameter") does not correspond with the visual angle subtended at the nodal point of the eye by the normal blind spot. Faraday's description is meticulously accurate, as one would expect from him, and it is unlikely that he would write "to the right and below the axis of the eye" if the true projection were to the left, as would be the case for the blind spot. It is probable that Faraday had a temporary retinal lesion, possibly a small retinal hæmorrhage, and that this accounted for the obscurity he described. In concluding his letter, Dr. Marsh asks whether Faraday's entry was "the earliest reference to observations on the physiological 'blind spot'". It was certainly not; for in the second volume of the *Philosophical Transactions* it is recorded that Mariotte demonstrated the blind spot to the Royal Society before King Charles II in 1668.

A Science News Service in London

OF recent years the desirability of establishing a closer relationship than exists at present between the very different realms of science and the newspaper press has been realised by an increasing number of leaders in both; and a year ago attention was again directed to the movement towards a British Science News Service by Sir Richard Gregory, who made "Science in the Public Press" the subject of his presidential address to the Association of Special Libraries and Information Bureaux. The formation

of a British Science Service, either as an independent venture or as a London bureau of Science Service of the United States, had long been desired by the director of Science Service, Mr. Watson Davis, and after a necessary period of preliminary discussion and experiment an organisation in the second form has recently been opened at 102-5 Shoe Lane, London, E.C.4, under the direction of Mr. Donald Caley. About twenty representatives of different departments of pure and applied science, including Sir F. G. Hopkins, president of the Royal Society, have consented individually to act in consultative capacities in connexion with this London organisation. The co-operation of scientific workers with the new venture is invited, by supplying information relating to researches on which they are engaged (such information to be treated as confidential when and for as long as desired); sending advance proofs of original communications to scientific journals which they edit or control, or regular copies of the journals, which will invariably be mentioned in newspaper summaries; and to make to Mr. Donald Caley any suggestions which may help him to increase the scope and usefulness of the organisation.

Cultural History in Nebraska

In another column of this issue (see p. 555) there appears a brief summary of certain conclusions as to cultural sequences in Nebraska, United States, which have emerged as a result of a review of the archaeology of that State by Mr. W. D. Strong. It does less than justice to a record of remarkable interest. Among the numerous investigations of recent date, to which Mr. Strong refers, is that of Signal Butte, a stratified site examined by himself, on which evidence of three distinct cultures is to be observed. The levels in which these are found are separated from one another by deposits of Æolian origin, the whole series being superimposed upon sands, which Mr. Strong himself holds to be water-borne and of Pleistocene age. The level of the earliest human occupation is immediately superimposed on these sands. The interpretation of the deposits in terms of climatic variations, based on a correlation with data from other sources, postulates for the whole series, beginning with the period of earliest human occupation, a period of 7,000-10,000 years. Further, this is the only site as yet discovered in America on which stratification gives a clue to the progressive development of type implements of stone in chronological succession. No less interesting and revolutionary in its geographical, archaeological and historical implications is a discovery, which hitherto has escaped the attention of archaeologists, that while there was a hunting culture on the plains dependent on the bison, in the earliest and in the latest phase of aboriginal existence until it was swept away by Caucasian culture, there intervened between early and recent hunters a semi-horticultural mode of life, akin to that of the Eastern Woodland type, which was forced back to the Missouri with the coming of the horse. This carries with it implications, fully elaborated by Mr. Strong, which necessitate a

modification of current views on geographic controls in the Plains area.

Primitive Traits in Amerindian Skulls

It is now generally accepted that no skeletal remains of the genus *Homo* other than those of 'modern' man have hitherto been found on the American continent. Since the arguments put forward by Ameghino early in the present century in support of the primitive character and high antiquity of the skulls he had found in South America were shown by Dr. Ales Hrdlička to be untenable, it has been claimed from time to time that human remains exhibiting characters other than those of *Homo sapiens* have been discovered; but invariably closer examination of the evidence has failed to support this interpretation. One of the latest discoveries of this nature is that of a fragment of a skull found by Dr. Earl H. Pell, of the Nebraska University, in a large mound of unknown age near the site of a prehistoric village in Nebraska. The skull was that of a middle age man which showed abnormally highly developed eyebrow ridges, intermediate in degree between Neanderthal man and 'modern' man. On the evidence of these supra-orbital ridges it was at first thought that the skull might be included in the Neanderthal group. It has now been subjected to a close analysis by Dr. Hrdlička, whose decision is not only adverse to any close affinity with Neanderthal man, but definitely rules that it comes within the 'modern' group, on the evidence that in all its characters, excepting the eyebrow ridges, it belongs to the type of the modern Indian. In discussing the skull (*Amer. J. Phys. Anthropol.*, 20, 2), Dr. Hrdlička goes on to point out that while the high development of these ridges may be regarded as evidence of "an ancestral connection with Neanderthal Man somewhere outside America" it does not show uninterrupted filiation, nor can it serve as an index of antiquity.

Recent Acquisitions at the British Museum, Bloomsbury

AMONG the recent additions of archaeological interest, which are described in the *British Museum Quarterly*, 10, 1, is a striking example of the artistic ability of the early Maya in the form of a cup with painted ornament, which has additional claim to attention in the fact that it comes from so far south as San Salvador. Especially important for students of early Buddhist art in India is a series of stucco figurines, twenty-five pieces in all, of which eighteen are heads, obtained by the French Archaeological Delegation in Afghanistan in 1926-28, at Hadda, about five miles south of Jalalabad. In accordance with the policy, foreshadowed at the time of the acquisition of the Eumorfopoulos collections, of devoting space in the *Quarterly* from time to time to descriptions of especially important examples of the art and culture of the Far East, two notes with illustrations deal respectively with a bronze of the Chou dynasty (1123-249 B.C.) and painted bricks of the succeeding Han dynasty. The bronze bowl or *tui* for holding cereals on ceremonial occasions,