

damage to the cerebral tissue ; it allowed elicitation and study of the 'march' (that is, the spreading) of movement which Jackson had noted to be of diagnostic value in the epileptoid convulsion ; it brought the clonus characteristic of epilepsy under observation as a feature of cerebral 'after-discharge.' Ferrier's method of stimulation has been followed by all observers since.

A conception which Ferrier formed regarding the localisation of function in the cortex held it to be primarily 'sensori-motor.' He conceived this region which yielded, in such systematic order, purpose-like actions of limb, etc., to represent so to say a motor executive ; and he distinguished outside it, in contradistinction to it, fields which he regarded as sensory inasmuch as he read them to be dominantly connected each with a special sense. In short, 'motor' and 'sensory' were the fundamental categories underlying the scheme of localisation in the cerebral cortex in his pioneer interpretation of it. Not 'motor' and 'sensory' of course with the crudity of the efferent and afferent sides of a simple reflex arc ; but yet distinguishably 'motor' and 'sensory.' The problem thus entered upon has exhibited during the succeeding fifty years continual increase of complexity at every renewal of attack. None the less, in intrinsic conformity with Ferrier's original point of view regarding the 'motor region,' we have to-day the experience of so versed and highly qualified an observer as Dr. Gordon Holmes, to the effect that "the pre-central gyrus [the motor region proper] has no sensory functions." In addition, Ferrier's scheme, which assigned the major part of the cerebral surface to specific sensory fields, can stand as a prototype of that which comparative anatomy and cytoarchitecture have step by step since then substantiated. Also, the modern finding of Pavloff and his school arrives no less at a functional scheme which, even more than did Ferrier's original, allocates the cerebral surface to territories representing the several specific receptor-systems, with exclusion and negation altogether of 'pure association' fields.

The interpretation of observations regarding cortical functions forms an arena which has seemed to invite conflict. Ferrier arrived at a conception with the fundamental simplicity of which there corresponds, very probably, a fundamental truth. As regards animal mind, analytic psychology has not yet reached the elements needed in application to the problem. Be that as it may, a tribute which was quickly paid to Ferrier's work was that subsequent investigation of the nervous system, whether by adherents or by opponents of his views, for many years did little else than search for 'localisation' of something. A tide of localisation flowed with subversion of other interests. A 'localisation' era followed on Ferrier's work. The vogue became, as time went by, tedious, and in many respects infertile ; but the importance of the work which ushered it in can never be forgotten.

It is difficult now to think back to a functional neurology which resigned itself to picturing the

cerebral cortex as an uncharted sea, an unknown uniformity. With Ferrier's experiments that state of things came to its term. There followed consequences theoretical and practical. One beneficial practical result was that the symptoms of certain brain tumours, etc., viewed in the light of his 'localisations' in the ape, allowed the physician to locate the seat of mischief within the skull and so sometimes enabled relief of the patient by surgery. An element of irony attaches to the fact that as a consequence of his experiments Ferrier was prosecuted by anti-vivisectionists. The charge against him fell unfounded.

If this brief notice has occupied itself chiefly with one outstanding achievement in the earlier career of a long and active life, that must not convey the impression that the subsequent years had not also their rich yield of labour given and worthy contributions made. It was as a lover of knowledge that Ferrier pursued knowledge. He had a share in many undertakings to foster and advance it. He was of those who at a meeting in London in the spring of 1876 founded the Physiological Society ; the Society elected him to its honorary membership in January of last year. On the title-page of the *Journal of Physiology* his name has stood as a collaborator for thirty-four years continuously. He was one of the small band who in 1878 launched *Brain*. He was a founder of the Neurological Society in 1886 ; its president in 1894. His zeal and interest in neurology, and indeed other science, never staled. When he no longer himself carried on experimental research it afforded him pleasure to watch others experimenting. His talk possessed a certain penetrative piquancy partly veiled in simplicity ; it had a knack of getting to bottom. In literature he enjoyed dipping within the ancient classics. He was of artistic taste, in pictures as in other matters. The sea and the sea-coast were his favourite setting for a holiday. Numerous honours came to him. He was elected F.R.S. in 1876, and he received from the Royal Society a Royal medal in 1890. He was a laureate in Paris in 1878. His knighthood was conferred in 1911. C. S. S.

MISS J. E. HARRISON.

WE regret to record the death of Miss Jane Ellen Harrison, which took place in London on April 16, at the age of seventy-seven years. She was born in East Yorkshire on Sept. 9, 1850. At an early age she showed a special aptitude for languages, which she maintained until the end of her life. Before she entered Cheltenham Ladies' College at the age of fifteen, she had already acquired a knowledge of Latin, Greek, German, and Hebrew ; while after she had attained the age of seventy, she made herself acquainted with the elements of Persian.

Miss Harrison entered Newnham in 1874 and, it was stated privately, was at the head of the Second Class in the Classical Tripos in 1879. She returned to Newnham as a fellow in 1900. On the termination of her college course she took up

the study of Greek art and literature, publishing her first book on the story of the *Odyssey* in 1882, her object being to elucidate the Homeric myths in the light of Greek art, especially as exemplified in the art of vase and gem. Other books on art and on the topography of Attica and primitive Athens followed; but as might have been expected from the bent of a mind which, tradition has it, would have preferred the Moral Sciences to the Classical Tripos, she found herself more and more absorbed in the study of Greek religion as time went on.

In her "Prolegomena to the Study of Greek Religion" (1903), and her admirable "Ancient Art and Ritual," Miss Harrison showed that she had given herself over to the study of Greek religion on comparative lines under the influence of Frazer and of Ridgeway's methods of utilising the customs and culture of primitive peoples in dealing with the problems of Greek archaeology. Not, indeed, that she was attracted to the study of primitive custom as such, for she expressed herself as repelled by much of the material through which she had to wade. She always succeeded in keeping herself fully abreast of the literature and of the latest developments in theory in anthropology and psychology, and it is interesting to follow the development of her thought in her later books, "Themis" (1912) and "Epilegomena to the Study of Greek Religion" (1921), as she came successively under the influence of the French sociological

school—Durkheim and Levy-Bruhl in particular—of Bergson, and later of Jung and Freud. Her last book, "Reminiscences of a Student's Life," appeared in 1925.

Even though Miss Harrison may have been apt to generalise too hastily and prone to allow herself to be dominated by a theory as if it were always of universal application, she was a pioneer in her field, and in the study of Greek religion her work will hold a permanent place.

WE regret to announce the following deaths:

Sir William Church, Bart., president of the Royal College of Physicians from 1899 until 1905, and a trusted leader of the medical profession in Great Britain, on April 27, aged ninety years.

Mr. A. J. Jenkinson, O.B.E., tutor, librarian, and senior dean of Brasenose College, Oxford, known for his work on philosophy and economics, on April 19, as the result of an accident, aged fifty years.

Prof. Theodore W. Richards, For. Mem. R.S., professor of chemistry at Harvard University since 1901 and director of the Gibbs' Memorial Laboratory since 1912, a distinguished authority on atomic weights, on April 2, aged sixty years.

Mr. F. W. Shurlock, formerly Principal of the Derby Technical College, on April 19.

Mrs. Sollas, wife of Prof. W. J. Sollas, and widow of Prof. H. N. Moseley, Linacre professor of human and comparative anatomy, Oxford, whose son, H. G. J. Moseley, the brilliant young physicist, was killed at Gallipoli in 1915, on April 28.

News and Views.

THE fifteenth International Geological Congress meets at Pretoria on July 29, 1929. As the British Association for the Advancement of Science is visiting South Africa at the same time, and has secured a large contribution from Government, professional people and the mining houses have raised a substantial sum privately as a guarantee for the Congress; the local committee is therefore able to offer subsidies towards the expenses of visiting members, as well as a reduction of from 35-50 per cent. in the railway fares. Negotiations are in progress with the shipping companies for similar concessions, the results of which will be announced later. So heavy have been the calls on the community in South Africa that an urgent appeal is issued to everyone who can, to apply for membership of the Congress, addressed to the General Secretary, Post Office Box 391, Pretoria, South Africa. The membership fee is one pound. The main discussions at the meeting will be on magmatic differentiation, pre-Pleistocene glaciation, and the genesis of petroleum, but the most attractive feature will be the excursions, which have been arranged so as to cover all the classic areas. At Cape Town will be seen the intrusions of granite into slate, described by Basil Hall in 1813, which were used by Dr. Hutton in illustration of his theory. North of this are the folded mountains, bringing down the Devonian beds, with fossils of an American type. On the margin of the Karroo occurs the Permian glacial deposit, the Dwyka Conglomerate, which will be seen in its full development. Later excursions will enable the members to

see the Lower Cretaceous at Uitenhage, and the enormously fossiliferous Cretaceous rocks of Zululand. In the Transvaal, the Bushveld Laccolite dominates the stratigraphy, with its margin of basic rocks containing platinum. Three subsidiary structures are of special interest, the Pretoria soda caldera, the Pilansberg, and the Vredefort granite mass.

ECONOMIC geologists attending the International Geological Congress will have an opportunity, very rarely given nowadays, of seeing the full working of the Kimberley mines, and of comparing them with the Premier Diamond Mine. In Johannesburg the surface and underground workings of a mine in the central area and on the Far East Rand will be shown, while a comparison of the Rand section with that of Pretoria with the iron deposits will be demonstrated. In Rhodesia the Great Norite Dyke is of interest, but the Victoria Falls, with the vast chasm of the Batoka Gorge, will be the greatest attraction. All the mineral deposits, chrome, asbestos, and the various gold ores will be seen in specially favourable circumstances. Applications for these excursions must be received before April 1, 1929. The meetings will be held in Pretoria on July 29–Aug. 7, but the excursions will extend from July 16 until Aug. 24, beginning and ending at Cape Town. The secretary of the Geological Society of South Africa appeals at the same time for additional members. He points out that the publications of the Society are indispensable to anyone interested in the geology of Southern Africa and the