

possibly, yet typical of the man, whose first aim was self-consistency and internal checking in all he attempted. Yet he was bold and adventurous in interpretation, with a masterly grasp over complexity. He had a deep respect for A. Fowler, who went to the other extreme and was hesitating and cautious. Paschen admired this caution and once remarked: "Fowler has never yet made a mistake". He confided to me that independently and simultaneously with Fowler he had arrived at the important analysis of carbon and silicon which showed the existence of multiple ionization spectra. Fowler's classic paper on this appeared first, and Paschen considered it was so much better than his work that he tore up his own manuscript. This was typical, for Paschen was the last man to take even due credit for himself, and was scrupulously just in apportioning credit and priorities to others.

Until the advent of Hitler, Paschen was president of the Physikalisch Technische Reichsanstalt; in 1933 he was dismissed by the Nazis and replaced by Stark. He had made himself highly unpopular with the Nazis by persistently purchasing considerable costly spectroscopic equipment from England, maintaining that German makers could not equal the British products. After 1933 he was permitted to use a small room in the Reichsanstalt. He strongly disliked the Nazis and their methods; but possibly his age saved him. He wrote me an open denunciatory letter in 1936, which if intercepted must surely have led him to the concentration camp. Between 1933 and 1939 his time was largely devoted to measuring old plates, and a few papers were published. In 1943 he lost all his possessions in a fire raid, but although seventy-eight years of age still kept on working, and to the last was engaged on calculations.

He had many pupils and has trained a whole generation of spectroscopists who have much to thank him for, particularly in Germany and in the United States.

S. TOLANSKY

The Right Hon. Sir Halford Mackinder, P.C.

BORN at Gainsborough on February 15, 1861, Halford John Mackinder was the son of a medical practitioner and received his school education at Epsom College, whence he proceeded to Christ Church, Oxford, becoming president of the Oxford Union in 1883.

It is not clear what turned Mackinder's attention in his student days to geography, which was then a subject unknown in the universities and despised by schools, but it was almost immediately after graduation that he planned a series of lectures under the title of "The New Geography" for the Oxford University Extension Lectures. His ideas he crystallized into a paper on "The Scope and Methods of Geography" which he read before the Royal Geographical Society in 1887. It was through the interest created in the Council of the Society that the University of Oxford appointed Mackinder in the same year to a readership in geography, the only previous holder of such a post having been Richard Hakluyt in the reign of Queen Elizabeth.

Although called to the Bar in 1886, Mackinder devoted himself to university work. He became a Student of Christ Church, Oxford, in 1892, and in the same year was appointed principal of University College, Reading, now the University of Reading.

While holding those posts he became president in 1895 of Section E (Geography) of the British Associa-

tion for the Advancement of Science, and put forward a powerful plea for the formation of a university institute of geography, where might be brought together what we now call 'physical' and 'human' geography on the same platform. It is again to the credit of the University of Oxford that the School of Geography there was created in 1899.

Mackinder lived to see his great aims for the university teaching of modern geography realized by the creation of honours schools in nearly all the universities of Great Britain, and there is no doubt that the part he himself played was an extremely important one.

Although he continued as reader in geography at Oxford until 1905, in 1903 he left Reading to become director of the London School of Economics and Political Science. The School was then only eight years old, and Mackinder succeeded Prof. W. A. S. Hewins. It is well known that the School was founded by a group of Socialists headed by Mr. and Mrs. Sidney Webb and Bernard Shaw; but its founders realized the danger of allowing party political views to dominate the activities of a young institution the sphere of work of which was, and is, a dispassionate academic study of economics, politics and the social sciences generally. Mackinder was already known for his Liberal-Unionist political views (he had contested Warwick as a Liberal in 1900), and his choice as director of the School supplied a valuable balancing influence and removed once and for all what might have been a real danger.

In 1909, at the age of forty-eight, Mackinder entered his political career by standing as Unionist candidate for Hawick Burghs. Though not successful in this attempt, in the following year he was elected for the Camlachie Division of Glasgow, a seat which he retained until 1922. He relinquished his post as director of the London School of Economics in 1908 but remained as reader in geography at the School (a post he had held part-time since 1900), later as professor, until 1925, serving under Pember Reeves and Sir William (now Lord) Beveridge as successive directors.

In 1920 Mackinder took charge of a special temporary mission as British High Commissioner for South Russia, at the completion of which he was knighted. After his retirement from academic work he served as a member of the Royal Commission on Food Prices in 1925, and in the following year was made a Privy Councillor, and became chairman of the Imperial Economic Committee. He was already chairman of the Imperial Shipping Committee, a post which he held from 1920, the year of its formation, until 1945.

It is difficult to assess the whole influence of Mackinder on the development of geographical thought. Although what he initiated and taught at Oxford, Reading and London has become absorbed as an essential part of geography as it is now studied throughout the universities of Britain, his ideas were often so in advance of those of his political contemporaries that they are only now coming to be appreciated. His most famous work, "Britain and the British Seas", appeared in 1902. It is rightly described as a classic. For the first time it related the physical features of our own familiar land with the sequence of human occupation and development and with our economic interests. In lucidity of language which is used to clothe the thoughts of a clear and brilliant brain, it has never been surpassed. His masterly analysis of the factors of position is only

now being appreciated in connexion with the development of world airways; his concept of regional contrasts, especially between Highland Britain and Lowland Britain, or between Metropolitan England and rural areas, is only now being recognized by the development of physical planning on a regional basis so that contrasts in needs and aims can receive adequate consideration in practice. The problems of Highland Scotland, to take an extreme example, are difficult of comprehension in Metropolitan England. Mackinder made free use of diagrammatic maps or cartograms, on which selected facts only are represented, to drive home his points—this is an art well known to geographers but still relatively unfamiliar to the public.

His deservedly popular lectures exercised a great influence on the many thousands of students who crowded to hear him. Though delivered without notes, they showed his dislike of slipshod work: they were balanced, closely reasoned and inevitably closely allied to the series of sketch maps which always adorned the walls when he was lecturing.

Although he worked steadily among his parliamentary colleagues to secure an appreciation of geographical analysis, he was still in advance of his time when he published "Democratic Ideals and Reality" in 1919. It aroused interest, but not enough; and it was left to the Nazis to prostitute geography to their ideology in the school of Geopolitik. It was only during the Second World War that this remarkable work of Mackinder's began to be appreciated. The original edition was still in print when the book was re-issued in a popular form. Most great problems of the day need analysis from economic, political, sociological, historical and geographical points of view: too often wrong conclusions are reached through the neglect of one of these points of view, and the most neglected approach is still that of the geographical. In this sense Mackinder's work has still to bear its full fruit. His outstanding contributions to geographical thought were recognized towards the close of his long life by the highest award the Royal Geographical Society has power to bestow—the Patron's Medal; and the highest award of the American Geographical Society, the Charles P. Daly Medal, was presented to him in 1944.

It is not widely known that Sir Halford was a mountaineer of the first calibre. In 1899, with the help of two Swiss guides, he was the first to ascend Mount Kenya, and it was thirty years before another climber succeeded in making what is still regarded as a very difficult ascent.

He retained his brilliant intellect until the end, inconvenienced only by increasing deafness, and only a few months before his death on March 6, 1947, he had visited his old Department at the School of Economics and discussed problems with his former colleagues and students. L. DUDLEY STAMP

Sir Ali Ibrahim Pasha, K.B.E.

THE death of Sir Ali Ibrahim Pasha, of Cairo, removes the greatest personality in the medical profession of the Middle East. Sir Ali's career was a model of what perseverance and study can do.

Born in 1880, he graduated from the Cairo School of Medicine in 1901. After holding a house appointment in the famous Kasr el Aini Hospital of Cairo, he began his career as a young assistant surgeon in the provincial hospitals of Upper Egypt. Within a

few years his skill as a surgeon, his personality as a humane doctor and a very pleasant colleague made his name popular and well known in many Mudirahs of Upper Egypt.

He was then recalled (in 1907) to take up an appointment as assistant surgeon at his old hospital, the Kasr el Aini. Again his charming personality, his diagnostic acumen and surgical skill soon made him the recognized surgeon in Cairo and later in the whole of Egypt.

He became dean of the Faculty of Medicine in 1928, and took an active part in the reorganisation of medical teaching, and in the draughting and execution of a huge programme of construction and equipment of the Departments of the Faculty and the teaching hospitals. In fact, his term of office as dean from 1928 until 1940 may be considered a period of renaissance in the history of medical education in Egypt.

Ali Pasha's activities extended far beyond the boundaries of a Faculty. He instituted and organised the Royal Egyptian Medical Association on the lines of the British Medical Association. That Association now has an imposing building of its own in Cairo, with a big ceremonial hall, a library, a museum, and it issues a medical journal.

Ali Pasha was an active member and later president of the Egyptian Red Cross Society.

He was instrumental in his short career as Minister of Health in passing through Parliament a Bill creating a Syndicate of the Medical Profession to look after the interests of the profession and to provide funds for an insurance scheme.

During the last six years Ali Pasha was rector of the Fouad I University of Cairo, when his constructive genius was again most productive and his powers of organisation were most evident.

His death at the age of sixty-six was certainly a great loss to the medical profession and to the whole of Egypt. I. S.

Major M. Connolly

MATTHEW WILLIAM KEMBLE CONNOLLY was born in Bath on February 13, 1872, the son of Vice-Admiral Matthew Connolly, R.N., and Harriet Connolly, *née* Kemble. He was educated at Haileybury and Sandhurst, and for some years led the life of the Army officer of his period. He married Muriel Vernon, of Clontarf Castle, Dublin, who, with their one son, survives him.

After retiring from the Army, Major Connolly became an unofficial scientific worker in the Department of Zoology of the British Museum. He was especially interested in the Mollusca, particularly the land and freshwater molluscs of Africa, of which he had profound knowledge and on which he was the leading authority. Many papers on this subject were published from 1910 onwards: the most important was, undoubtedly, "A Monographic Survey of South African Non-marine Mollusca" (*Ann. S. Africa Mus.*, 33, 1-660, pls. 1-19; 1939).

In later life Connolly was badly crippled by arthritis and could walk only with difficulty. Despite this handicap, he insisted on doing everything himself; indeed, I had known him for more than twenty years before he would let me walk across Cromwell Road with him, and even then only because the fog was thick and the crossing more than usually dangerous. Inside the Museum he went from room to