

Eberstein" (the names are imaginary). I gave him my name in return. After a minute or two the second man got up: "My name is Goldschmidt." I gave him my name. When the third man got up I fortunately remembered that I had a trump card to play, and after he had gone through his ritual I replied, "My name is Dr. Schuster," laying stress on the title. Whereupon all three silently left in a body. My degree was a suffi-

cient distinction in rank to justify me in dispensing with the formality of asking for an introduction to them. I asked my friend what would have happened if I had not been a graduate: his reply was, that I should have had either to fight at least one duel or been treated as an outcast by German universities. All this happened fifty years ago, and must not be considered to apply to the present day.

Obituary.

SIR JAMES MACKENZIE, F.R.S.

BY the death of Sir James Mackenzie the medical profession and the world at large has lost a physician whose life was devoted to the advancement of our knowledge of practical medicine. His researches on diseases of the heart effected nothing less than a revolution in this branch of medicine, which had been stagnant for nearly a century.

Sir James Mackenzie was born at Scone in 1853, and received his medical education at the University of Edinburgh, where he graduated in 1878. After extending his training by resident appointments in the Royal Infirmary he took his M.D. in 1882. Then followed twenty-eight years of busy general practice in Burnley, and it was during these years that he made the greater part of the observations which made his fame. It soon struck him, as it must strike many medical men, that for the diagnosis and treatment of a vast proportion of illness, his teachers had been unable to give him anything like adequate guidance. Mackenzie, greatly stirred by discontent, set himself to the filling of some of the gaps, and two examples of this pioneer work may be mentioned. The value of pain as a guide to diagnosis was realised when he found that it was referred from the offending organ to particular areas of the surface of the body through the agency of the nervous system, and that the organ was not itself painful. This fundamental change in the conception of pain was independently discovered and extended by Dr. Henry Head. Another gap so brilliantly, almost completely filled, was the classification of the irregularities of the heart. For this purpose Mackenzie invented a clinical polygraph for recording not only the pulse but also simultaneously the venous pulse in the neck. It thus became possible for the first time to observe the action of the auricle, which proved a key to the elucidation of arrhythmia. Irregularities and murmurs were shown to be significant or insignificant by the rational, though laborious, method of following cases exhibiting them for years until their degree of importance became manifest.

Great interest was aroused at home and abroad by the immediate value of these discoveries, and when Mackenzie relinquished his general practice at Burnley in 1907 to take up consulting work in London, he was recognised as the foremost investigator and authority in the world on heart disease. His popularity as a consultant was not allowed to interfere with research, which was continued first at the Mount Vernon Hospital and later at the London Hospital. The action of digitalis in disease was studied to such purpose that, as Prof. Cushny has said, "more progress was made in fifteen years than in the preceding century." The

impetus of progress was given to disciples from all over the world, and to them were opened fields of thought and work which seem sufficient for a generation.

When the War came, Mackenzie initiated through the War Office a special hospital for the elucidation of problems connected with "soldier's heart." In 1918 he retired from consulting work and went to St. Andrews, where he founded the Institute for Clinical Research. He had realised that attention was habitually directed to fully developed disease, so that, as he said, patients seemed to be admitted to hospital when they had the physical signs of obvious disease and might almost be described as incurable. He determined to study afresh the nature of symptoms as met with in practice, so as to learn of disease in its early and perhaps curable stage. As time went on, he foresaw that the phenomena of disease might be governed by simple laws which he formulated as a basis for further examination by his colleagues at the Institute. Then his health failed, but not his faith and courage, and he finally retired to London, where he died on January 26.

Mackenzie's personal qualities were an ornament to the greatness and originality of his mind, and endeared him to all his pupils. He was indefatigable himself, an inspiring and generous master, a superman, but none was more human. His personality will remain as worthy of admiration as was his relentless pursuit of knowledge, not only for its own sake but also for its application in the relief of suffering humanity.

In 1911 Mackenzie was appointed physician to the cardiac department of the London Hospital. In 1915 he became a fellow of the Royal Society, and received the honour of knighthood; later he was appointed honorary consulting physician to the King in Scotland. His most important works are "The Study of the Pulse" (1902), "Diseases of the Heart" (1908), "Symptoms and their Interpretation" (1909), "Principles of Diagnosis and Treatment in Heart Affections" (1916), and "Angina Pectoris" (1923).

MR. WILLIAM WATSON.

WE regret to announce the death of Mr. William Watson, which occurred at St. Albans on January 30. He was well known in botanical and horticultural circles through his long tenure of the curatorship of the Royal Botanic Gardens, Kew, a position he held from August 1901 until June 1922.

Mr. Watson was born at Garston, near Liverpool, on March 13, 1858, and received his first appointment at Kew in 1879, following several years' experience in trade establishments. His knowledge of tropical and sub-tropical plants was probably unrivalled. For many years he was a regular contributor to the