

## OBITUARIES

## Mr. J. J. Shaw. C.B.E.

THE death on May 23 of Mr. John Johnson Shaw at the age of seventy-four severs yet another link with the pioneers of the study of earthquakes in Great Britain.

J. J. Shaw was born at Gornal, near Dudley, educated at King Edward's School, Birmingham, and then apprenticed to an engineer. During the latter part of his engineering studies, he designed some gas and some steam pumps, and although he soon forsook his engineering to become a pawnbroker, he never lost his love for engineering. It was in the year 1908 that he read a newspaper article on the recording of earthquakes, and this encouraged him to visit Dr. John Milne, who, having retired from his professorship at Tokyo Imperial University, had settled in the Isle of Wight and set up a seismological observatory there. John Milne and J. J. Shaw became friends, and Shaw, on returning home, set up his first seismograph, which included as components an old treacle tin as drum, a wheat straw as pointer and a driving mechanism taken from an old German clock costing 1s. 11d. This instrument recorded some violent, world-shaking earthquakes, including the Messina earthquake of December 28, 1908, and with this early success and John Milne's encouragement, Shaw set about improving his instrument. The task became a life study, and in each Milne-Shaw seismograph made under Shaw's personal supervision some improvement on the previous one was embodied. Milne-Shaw seismographs are now working in many observatories throughout the world and are excellent for recording strong distant earthquakes.

Microseisms are now thought to be largely due to storms at sea. They gave ever-recurring trouble to the early observers, and Shaw suggested that data concerning them could best be obtained by the use of the tripartite seismograph station (British Association Seismological Committee Report, 1920), a method which in the hands of Father J. E. Ramirez at St. Louis, U.S.A., and later workers has given such good results.

Shaw, like John Milne, never lost an opportunity to make a friend for seismology. He fitted an electric bell to the seismograph system at his home in West Bromwich, so that he could be ready with instrumental results when any newspaper reporter rang him up about an earthquake. Reporters were often surprised at his perpetual cheerfulness over the telephone at any time of the day or night, and at the fact that his seismograph and his reference files often gave earlier information than their own telephone systems. A few years before the Second World War, Shaw was particularly pleased to set up one of his instruments in Selfridges Store in London, so that any passer-by could see an earthquake being recorded should one occur at the instant he happened to be near the instrument. This instrument was suspended from one of the main structural steel pillars of the building, and since the steel went deep into the ground the pendulum recorded waves from distant earthquakes but was unaffected by street traffic or the movement of people in the store. This instrument is now in the Science Museum at South Kensington.

Shaw first became a member of the British Association Seismological Committee in 1914, probably having been proposed by his friend John Milne just

prior to the latter's death in July 1913. John Milne had been honorary secretary of the Committee for many years, and Prof. J. Perry had taken over the duties of secretary as a temporary measure on John Milne's death. At Manchester on September 8, 1915, Prof. Perry resigned the secretaryship and J. J. Shaw took over. He continued as honorary secretary until July 26, 1946, and was a member of the Committee until his death. As a member of the Seismological Committee of the British Section of the International Union of Geodesy and Geophysics, J. J. Shaw took part in many international meetings and established a world-wide reputation as an instrumental seismologist. He was also a popular scientific lecturer of considerable renown in the Birmingham district, having an infectious enthusiasm for popular science in general and instrumental seismology in particular; being a kindly, forthright man, he made many friends. He was made C.B.E. in 1931, and awarded an honorary M.Sc. by the University of Birmingham a year later.

Mr. Shaw had suffered from knee trouble for some years, and on May 22 one leg was amputated; the operation was successful, but he had a relapse and died the next day. He will be missed by many people not only in his home town and district, but also by a wide circle of friends and acquaintances throughout the world. His son, Mr. Harold V. Shaw, is expected to continue the observatory.

ERNEST TILLOTSON

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 Dr. J. M. Dalziel

DR. J. M. DALZIEL, whose death was recently reported, was educated in Edinburgh and spent the first years of his career in South China as a medical missionary with the English Presbyterian Mission. His interest in natural history was evident even then. He eventually transferred to the West African Medical Service, where his work during many years took him to all the British West African Colonies. His greatest love was for Northern Nigeria in general, and the Hausas in particular. He was a good Hausa scholar, and also had a considerable knowledge of Fulani. He was a keen observer, and collected a number of new species, especially of Northern Nigerian plants, although he collected animals as well, and recorded their vernacular names. He tried to record the vernacular names and the uses of every plant he encountered, and his field notes were always most thorough and painstaking. His Hausa names of plants, with scientific equivalents, and often with derivations of the names, were published in 1916 as "A Hausa Botanical Vocabulary", an invaluable work, unfortunately now out of print, and in which the majority of the information given is still accurate. During that period Dalziel helped, with his field notes, in J. H. Holland's monumental "Useful Plants of Nigeria".

In zoology Dalziel was a keen bird watcher, as his little booklet "Bird Life round Accra" testifies. He also collected insects of importance as vectors in tropical medicine, and presented his carefully prepared specimens to the University of Edinburgh.

On his retirement from the West African Medical Service, Sir Arthur Hill, then director of the Royal Botanic Gardens at Kew, secured his services to help Dr. J. Hutchinson in the production of the "Flora of West Tropical Africa", a work which occupied the years 1923-36. It was a fortunate choice, for Hutchinson had a great knowledge of the African