

THE INTERNATIONAL ASSOCIATION OF  
ACADEMIES.

THE delegates of the International Association of Academies met at the Royal Society on Wednesday, May 25, and Sir Michael Foster, K.C.B., was elected president of the general assembly. A number of resolutions were adopted at that and other business meetings, and are incorporated in the official report of the proceedings, but this has not yet reached us.

The delegates were received by the King at Windsor on May 25, and attended a *conversazione* at the University of London on May 27. Throughout the evening many objects of scientific interest were on view, but, with a few exceptions, the exhibits were the same as those shown at the recent *conversazione* of the Royal Society, and already described (May 19, p. 70). Among the additional exhibits were the following:—Horse face-pieces and other ornaments from the trappings of cart-horses, Miss L. Eckenstein; prehistoric Egyptian stone vases, Mr. Randolph Berens; (1) Japanese paintings (*Kakemono*), (2) photomicrographs of iron and steel, Prof. W. Gowland; series of Egyptian beads, Prof. W. M. Flinders Petrie, F.R.S.; mimetic resemblance of the different forms of a single species to two or three different models, Prof. E. B. Poulton, F.R.S.; seed-bearing plants from the Coal-measures, Mr. E. A. Newell Arber, Miss M. Benson, Mr. R. Kidston, F.R.S., Prof. F. W. Oliver, and Dr. D. H. Scott, F.R.S.; paradoxical shadows in a non-homocentric beam of light, Prof. Silvanus P. Thompson, F.R.S.; freshwater phytoplankton from various parts of England and Ceylon, Dr. F. E. Fritsch; series of rubbings of brasses, Hilda Flinders Petrie; stone implements and model of raft from the lowlands of eastern Bolivia, Dr. J. W. Evans; (1) model of steam ship *Turbinia*, (2) (a) 4 kilowatt turbine-driven dynamo, (b) model of 4000 kilowatt turbine-driven alternator, (3) turbo-blowing engines, the Parsons Marine Steam Turbine Company, Limited.

On Saturday the foreign delegates visited Oxford and Cambridge in two parties, and the honorary degrees referred to elsewhere (p. 115) were conferred by the universities. A complimentary banquet to the delegates was given at the Mansion House on Monday by the Lord Mayor of London.

ROBERT McLACHLAN, F.R.S.

THE death of Robert McLachlan, familiarly known to his friends as "Mac," removes from our midst one of the most prominent characters in the London entomological world during the last half-century. He joined the Entomological Society as long ago as 1858, and always interested himself greatly in its welfare, having successively filled the offices of secretary and president, and still holding (as he had done for many years past) the office of treasurer at the time of his death. Till the last few months, when failing health compelled his absence, he was most regular in his attendance at the meetings. He was also one of the five original founders of the *Entomologists' Monthly Magazine* (in 1864), and up to the last was still one of the acting editors—the last of the founders—the other four having all died or retired many years ago.

Mr. McLachlan was the son of a ship's-chandler on Tower Hill, whose instruments were very highly esteemed by the mercantile community. Being possessed of independent means, he devoted his life to entomology, though, as a child, he tells us, in some autobiographical notes in his Presidential Address to the Entomological Society, in January, 1887, he had

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taken most interest in botany. He made one voyage to the Southern Seas in 1855, and finally settled himself at Lewisham, near his intimate friend Stainton, occasionally visiting various parts of the British Isles, and the Continent of Europe; especially when any entomological congresses were on foot, which he was very fond of attending. Like most of his contemporaries, Mr. McLachlan commenced his entomological studies with British Lepidoptera, as we learn from the list of entomologists in the *Entomologists' Annual* for 1858, where his name first appears, at which time he was living at Forest Hill; but he soon turned his attention to Neuroptera, the study of which order in England received a great impetus just then by Dr. Hagen's papers in successive *Annals*. McLachlan especially attached himself to the Trichoptera, or caddis-flies, which he studied largely from an anatomical standpoint, often, in later years, speaking contemptuously of coloured figures of butterflies as being only fit for children. He contributed many important papers on British and foreign Neuroptera and Trichoptera to entomological journals, and being in constant communication with the leading neuroptologists at home and abroad, was able to bring together one of the finest collections in the world in his special groups, part of which, at least we hope, will find a permanent home at the Natural History Museum, South Kensington. Part of the national collections of Neuroptera, previously catalogued by Walker, were rearranged and annotated by McLachlan. He compiled (with the exception of the Ephemeroidea, which were undertaken by the Rev. A. E. Eaton) the catalogue of British Neuroptera published by the Entomological Society of London in 1870, and he also compiled the reports on Neuroptera and Orthoptera for the *Zoological Record* from 1869 to 1885. His most important scientific work was his "Monographic Revision and Synopsis of the Trichoptera of the European Fauna" (1874-1884), but his smaller publications are extremely numerous. Mr. McLachlan was never married. He died at his residence at Lewisham at the age of sixty-seven, on May 23, to the regret of a wide circle of entomological friends and acquaintances.

W. F. K.

ÉMILE SARRAU.

THE great advance in modern artillery and ballistics is due principally to the efforts of the French Government, determined not to be caught a second time at a military disadvantage. The progress has been made in the most rapid and economical manner by the appointment of committees, composed of experts chosen for their exact scientific knowledge, such as Sebert, Berthelot, Vieille, to investigate the problem and to solve the details by a judicious combination of theory and experiment.

Chief among these scientific experts, Sarrau was also the director of the Government factories of modern explosives, and at the same time professor of the theory at the École Polytechnique in Paris, and the School of Application at Fontainebleau.

We can follow the general course of his lectures by his published books on the theory of explosives, these will emphasise the lead taken by the French, and their contempt for any secretiveness about the laws of nature involved in the corresponding phenomena.

His books and other practical achievements serve to show his success in design and invention; at the same time the obituary notices by his colleagues tell us how highly he was appreciated and esteemed as a teacher by his classes of pupils.