

of Illuminating Light-houses, as Depending on their Situation and the Object contemplated in their Erection". The paper was contained in a letter sent from Constantinople on March 14, 1837. The younger Barlow had been trained as an engineer at Woolwich Dockyard, and in 1832 had been sent to Turkey by Mandslay, Sons and Field, to erect cannon-boring machinery, and had then been employed by the Turkish Government on the erection of lighthouses at the Bosphorus entrance to the Black Sea. The object of his paper was to investigate the principles on which the illuminating power, resulting from the employment of reflectors and of lenses, depends. He had arrived at the inference that the advantage gained by the employment of lenses does not arise from their superior perfection as optical instruments, but from their using the light more economically, in consequence of their producing less divergence of the rays both horizontally and vertically, and illuminating a much smaller space on the horizon.

Peter Barlow was for forty-one years professor of mathematics at the Royal Military Academy, Woolwich; his son became famous as a railway and bridge engineer, and was one of the committee appointed to consider designs for the Forth Bridge.

The Woray Poison

At a meeting of the Medico-Botanical Society on April 26, reported in *The Lancet* of May 6, 1837, Dr. Hancock showed specimens of the woray plant gathered from the mountain Courantine on the Rio Parime, with a bundle of arrows poisoned thereby. Dr. Hancock said that woray was undoubtedly a species of *Strychnos*, although its flowers had never been seen by any botanist. The poison was put up in small gourds or fruit capsules of the woray plant, and the arrows were propelled by blowing them through a reed formed of a slender spike of palm. Divers false reports had been published with regard to the manner in which the poison was prepared and its toxicological effects on the animal economy. Many native charlatans living near the settlement made Europeans believe that it was formed of a great variety of substances, such as pepper, serpent's teeth and other such ingredients. The genuine poison, however, was undoubtedly prepared as an extract formed solely from the bark of the plant. Its mode of action was curious, for though when introduced into the blood it soon became fatal, when taken into the stomach, it produced no sensible effect, in which respect it differed from every other species of the *Strychnos* family.

United Service Museum, Whitehall

THE *Gentleman's Magazine* of May, 1837, gives the following account of the activities of this museum at that date: "Dr. Ritchie has begun a series of lectures on experimental Philosophy—the properties of matter—statics, mechanics, strength of materials, laws of motion, hydrostatics, etc., and Dr. Lardner is delivering others on the particular subject of steam communication with India.—Captain Norton, late of 31st regt., is also about to discourse on rifles, shells and sundry modern projectiles, with some remarks on the Boomerang, or New Holland spear, and on the ancient Balista. . . . Already has the Museum acquired respectable funds from which it is proposed by the Council to found a permanent Professorship for the instruction of the members in mathematical and experimental science."

University Events

BELFAST.—Dr. J. H. Biggart, at present lecturer in neuropathology in the University of Edinburgh, has been appointed to the Musgrave chair of pathology as from October 1 next.

BIRMINGHAM.—Prof. L. G. Parsons has accepted an invitation to deliver the opening address at the annual meeting at Niagara Falls, Ontario, of the Canadian Society for the Study of Diseases of Children, and Prof. H. Beckwith Whitehouse, of the Department of Gynaecology, is to represent the British Medical Association at a conference at Ottawa in June next.

CAMBRIDGE.—It is recommended that the degree of M.A., *honoris causa*, be conferred upon Colonel F. J. Hayter, honorary keeper of the Australian and Fiji Collections at the Museum of Archaeology and of Ethnology since 1928.

The Linacre Lecture will be delivered by Prof. A. V. Hill, Foulerton professor of the Royal Society, on May 10, at 5 p.m., in the lecture room of physiology. The title of the lecture will be, "The Heat-Production of Muscle and Nerve: A Critical Survey".

OXFORD.—Prof. T. G. B. Osborn, of the University of Sydney, has been appointed Sherardian professor of botany, as from October 1 next (see p. 746).

Dr. J. L. Stocks, vice-chancellor of the University of Liverpool, has been elected an honorary fellow of St. John's College.

Societies and Academies

Dublin

Royal Irish Academy, March 16.

J. J. DOWLING and T. G. BULLEN: Precision measurements with a radial deflection oscillograph. The cathode beam is caused to revolve in the annular space between an extra pair of concentric conical electrodes in a modified cathode ray oscillograph. Two applications are specially considered. Using a double frequency synchronized circular time-base, the radial deflection results in a limaçon-like curve. This was employed to measure instantaneously small variations in the radio-frequency of the Droitwich carrier-wave during the U.R.S.I. emission of March 1935. The use of high-speed spiral time bases in 'comparator' measurements of long time intervals (*NATURE*, 137, 279; 1936) is also dealt with in detail. Preliminary results indicate that the difference in the periodic times of two two-second pendulums can be determined to one tenth microsecond in an experiment lasting less than half a minute. The method is being applied to the measurement of the gravitational attraction constant G .

Paris

Academy of Sciences (*C.R.*, 204, 925–1016; March 22).

HENRI LEBESGUE: A construction of the regular polygon of 17 sides due to André Marie Ampère, from some documents preserved in the archives of the Academy of Sciences.

CHARLES ACHARD, AUGUSTIN BOUTARIC and MLE. SUZANNE THÉVENET: Viscosimetric researches on solutions of the various proteins of the serum.