

## News and Views

Prof. I. P. Pavlov, For.Mem.R.S.

WE join with men of science the world over in congratulating Prof. Pavlov on the attainment of his eighty-fifth birthday. His devotion to, and understanding of, physiology appear to have revealed to him the secret of normal living even under the adverse conditions of the changing political states of his native land. He looks upon the Revolution as a grand-scale physiological experiment, which everyone hopes will ultimately turn out as successfully as Pavlov's experiments. The son of a village priest, Ivan Petrovitch Pavlov was born on September 14, 1849, and qualified in medicine in 1879. Then began his physiological career, which happily still goes on. Possessing a highly critical, yet productive mind, his investigations were prosecuted with extreme care, and his findings have consequently withstood the test of time. His additions to the knowledge of the working of the living body are of considerable magnitude and of the first order of importance, not only to physiologists but also to medical men and psychologists. The possession of the rare combination of a keen intellect with surgical skill and mechanical ingenuity led to important discoveries in the normal processes of digestion.

PAVLOV realised at an early stage of his career that the mode of working of an organ in the normal living body may be quite a different affair from the behaviour of the same organ under artificial conditions of isolation in a strange medium. His studies were carried out on normal dogs and he exploited the natural appetite of dogs for his researches. After the preliminary operation of bringing the duct of a salivary gland to the outside of the cheek or neck, or arranging an external opening for the stomach, complete healing was ensured and the dogs taken home to be well cared for with the aid of his wife and children. The dogs were trained to allow the attachment of bottles for the collection of juices and to a sound-proof room fitted with many silent and ingenious devices, for example, pneumatically operated feeding tables. Always exercising the greatest care to eliminate extraneous factors, Pavlov achieved his aim of studying the effect of one cause at a time even in such a complicated machine as a healthy living dog. Pure gastric juice was made available, and the part played by nervous action on the composition and flow of digestive juices could be assessed. This led on to the analysis of the rôle of the higher centres of the nervous system in secretory activity and formed the test method in his investigation of conditioned reflexes. The latter constitutes one of the most valuable contributions to the understanding of the working of the brain, and is a great step forward in the placing of psychology on a scientific basis. Prof. Pavlov figured as a "Scientific Worthy" in our issue of January 3, 1925, when an article on his life and work by the late Prof. E. H. Starling was published.

George Bentham (1800-84)

SEPTEMBER 10 is the fiftieth anniversary of the death of George Bentham, whose "Genera Plantarum" is still regarded as the standard work on the subject. Born in 1800 at Stoke, near Portsmouth, Bentham (who was a nephew of Jeremy Bentham, the distinguished jurist) in his earlier years studied law and philosophy. Though called to the Bar, he soon abandoned law for botany. He was elected a fellow of the Linnean Society in 1828, and in the following year became honorary secretary of the Horticultural Society. He travelled extensively, making botanical collections, which he ultimately presented to the Herbarium at Kew. Between 1832 and 1836 he published his important "Labiatarum, Genera and Species". He became friendly with Sir Joseph Hooker, director of Kew Gardens, who assisted him in the compilation of his greatest work, the "Genera Plantarum", which appeared at intervals between 1865 and 1883. From 1854, he was engaged at Kew, working quietly and systematically at the description of flowering plants. Here he assisted in the preparation of floras of the British Colonies. Bentham's "Handbook of the British Flora" (published in 1858) is still the standard guide to the naming of the native plants of Great Britain. He tells us that he "amused himself by writing it before breakfast". He was president of the Linnean Society from 1861 until 1874, and was made a fellow of the Royal Society in 1864. In 1878, on the completion of his labours on the Australian flora, he was made C.M.G. He died at Kew.

Centenary of the Death of Thomas Telford

ON September 2, Sir Henry Maybury, president of the Institution of Civil Engineers, placed a wreath on the tomb of Telford in Westminster Abbey, while Mr. W. H. Budgett, divisional inspector in Scotland for the Ministry of Transport, placed a laurel wreath at the memorial seat at Westerkirk, Dumfriesshire. Born at Westerkirk in 1757, Telford was educated at the parish school, and when fourteen years old was apprenticed as a mason. Down to 1783 he was a workman employed in his native district of Eskdale. Leaving home, he studied architectural and structural design at Edinburgh, proceeding afterwards to London, when he embarked upon the career which ultimately brought him fame and honour. The Institution of Civil Engineers began to take shape in 1818, and on February 3, 1820, the group who were fostering a scheme of association resolved to ask Telford to become their first president. Telford accepted, and gave an inaugural address, providing his colleagues with much counsel for the future. At the same time, he presented a large collection of books and drawings with the object of founding a library. There is a fine portrait of Telford in the Institution's house at Great George Street, by Lane, showing him seated; in the background is a view of Menai Bridge. Most