year for three years for the Institute of Education, to aid in the development of the Institute's relations with students from the Dominions and Colonies; this is to be used for short-period fellowships for students from the Dominions and for payment of a university teacher from the Dominions to act as "Adviser to Overseas Students". An interesting and important development on the 'external' side of the University concerns the recognition of colleges for the purpose of the external degree in engineering. As external candidates will in future have to submit course work carried out in an approved institution, colleges in various parts of Great Britain have applied for, and forty-two have already obtained, approval for this purpose. Certain overseas colleges are contemplating similar action.

OXFORD.—Mr. T. W. Chaundy has been reappointed lecturer in mathematics for five years from October 1. Mr. C. N. Hinshelwood, Dr. A. S. Russell and Mr. H. J. George have been appointed, or reappointed, lecturers in chemistry for the same period.

Dr. Donald Pollock has undertaken to provide £500 a year from October 1 towards the stipend of the Donald Pollock reader in engineering science, a new readership.

Congregation on May 28 recorded its thanks to the Czechoslovak Government for its loan six months ago, for three years, of 1,636 mgm. of radium for use in the Clarendon Laboratory.

Degrees of D.C.L., *honoris causa*, will be conferred on June 26 on Lord Bledisloe, Sir Herbert Samuel and Sir John Reith, and the degree of D.Sc. on Prof. Peter Debye.

The Romanes Lecture on "Then and Now: or the Changes of the Last Fifty Years" will be given on June 14 by Prof. Gilbert Murray.

Science News a Century Ago

Death of Edward Troughton

Edward Troughton, the famous Fleet Street instrument maker, whose name is still borne by the firm of Cooke, Troughton and Simms, Ltd., died on June 12, 1835. Like the other eighteenth century mechanicians Sharp, Graham, Bird and Ramsden, Troughton came from the north, being born in Corney, Cumberland, in 1753. At first brought up to farming, at seventeen years of age he became an apprentice to his elder brother John in London, and the two for a short time were partners as mechanicians. On his brother's death, Troughton carried on the business alone until 1826, when he took into partnership William Simms (1793–1860). So early as 1778, Troughton had introduced a new method of graduating arcs of circles, which was eventually to lead to the award to him of the Copley Medal, and he gradually gained a reputation as an instrument maker second to none. Instruments of his were erected in observatories at Paris, the Cape, St. Helena, Madras, Cracow, Cadiz, Brussels, Edinburgh, Cambridge and Greenwich.

A man of simple and frugal habits, Troughton was never married, and towards the end of his life, it is said, he was seldom absent from his dingy parlour at 136 Fleet Street, London, where he sat with a huge ear trumpet at hand, wearing clothes stained with snuff, and a soiled wig. Elected fellow of the Royal Society in 1810, he was an original member of the Royal Astronomical Society, and a marble bust of him by Chantrey, subscribed for by his friends, was placed in the Royal Observatory, Greenwich. His grave is in Kensal Green Cemetery.

Wilkinson on Gunpowder

According to the *Athenæum* of June 20, 1835, the Friday evening meetings of the Royal Institution for the summer closed on June 12 with a lecture on the history and manufacture of gunpowder by Mr. Henry Wilkinson, who had on several former occasions delivered lectures on warlike machines of the ancients, etc. Mr. Wilkinson was of opinion that gunpowder was known to the ancients, and that it was highly probable that Alexander the Great actually met with gunpowder and firearms in India. He quoted the Gentoo laws to show that they contain a prohibition of gunpowder and firearms, and from this and other authorities referred to, he seemed to be of opinion that gunpowder had been known in China and Hindustan, far beyond all period of investigation. His lecture was accompanied by some interesting experiments on the action of fulminating powders on gunpowder.

Progress on the London and Greenwich Railway

In the *Mechanics Magazine* of June 13, 1835, is a communication from a correspondent who wrote: "On Monday last a number of shareholders and directors of this undertaking met at the works near the Blue Anchor-road to witness the experimental running of the Company's locomotive engine 'The Royal William'. A distance of one mile was performed in about four minutes. A glass of water, filled to the brim, was placed on the block holding the rail, to ascertain the degree of vibration, when the engine, with the tender with water and coal, and several passengers, the whole train weighing at least 14 tons, passed along. Not a drop of water was spilled, nor was any vibration perceptible. Persons who stood under the arches when the engine passed over, were astonished to find that the noise was no greater than what would be occasioned by the passing of a hackney coach".

Airy and the Royal Observatory, Greenwich

In the latter part of 1834, Airy, then at Cambridge, had been asked whether he would accept the office of Astronomer Royal, but a change of Ministry caused a delay in the negotiations. The various steps which finally led to his appointment are given in his autobiographical notes for 1835. "The Ministry," he wrote, "had again been changed in the spring, and the Whigs were again in power. On June 11th Lord Auckland, who was again First Lord of the Admiralty (as last year) again wrote to me to offer me the office of Astronomer Royal, or to request my suggestions on the filling up of the office. On June 15th I wrote my first reply, and on June 17th wrote to accept it. On June 18th Lord Auckland acknowledges, and on June 22nd the King approved." On August 13 Airy had a meeting with Lord Auckland and Mr. Charles Wood, the Secretary of the Admiralty. "At this meeting Lord Auckland and Mr. Wood expressed their feeling, that the Observatory had fallen into such a state of disrepute that the whole establishment ought to be cleared out. I represented that I could make it efficient with a good First Assistant; and the other Assistants were kept. But the establishment was in a queer state. . . ." Airy took charge of the Observatory in October 1835, having for his first assistant Robert Main.