

century, when Thomas Cohan wrote his "Haven of Health", for the welfare of students living in Oxford. Special mention was made of the work of Hariot the mathematician, of Merrett and Dyer among botanists, and finally of Gilbert White and of those Tractarians who attended scientific lectures.

At a meeting of Congregation to be held on February 12, details of the establishment of a museum of the history of science will be presented. It is suggested that the museum shall consist of the collection of scientific instruments and books presented to the University by the late Mr. Lewis Evans in 1924, any additions made to the collection since 1924, and any further additions of objects and books illustrating the history of science, with special reference to scientific work in Oxford, as may be accepted or acquired by the University after the passing of the statute. A committee, consisting of the Vice-Chancellor, the proctors, and six others, would be appointed. The duties of the committee would be to appoint a curator of the museum, to accept or otherwise acquire, outright or on loan, objects and books illustrating the history of science, and to formulate rules for the governing of the museum.

Science News a Century Ago

The Royal Geographical Society

At a meeting of the Royal Geographical Society held on February 9, 1835, an extract was read from the private journal kept by Mr. Oldfield, late surgeon with Mr. Lander, detailing the circumstances which attended the attempt made by the expedition to ascend the Tshadda (Benue), the great eastern confluent of the Quorra (Niger). From these it appeared that the chief difficulty arose from the alarm, and consequent hostility, of the natives, which made it impossible to obtain supplies of provisions. Otherwise the stream, though rapid, running at the rate of $2\frac{1}{2}$ knots, was easily ascended by the steamer, and though navigation of the river was uncertain, the bed of the river being thickly set with small islands and shoals, it was not difficult, and appeared even clearer where the expedition stopped than lower down. The utmost extent reached was 110 miles.

Chesney's Expedition to the Euphrates

A century ago both the British and Indian Governments were taking steps to further the project of shortening the passage to India by means of steam navigation. In connexion with this, Col. Francis Rawdon Chesney (1789-1872) was entrusted with the task of exploring the route via the Euphrates. For this expedition, Laird's of Birkenhead constructed two small iron steamers, the *Euphrates*, 105 ft. long, 50 h.p., and the *Tigris*, 86 ft. long, 20 h.p., which were to be conveyed to Syria and transported in sections across the desert to the banks of the Euphrates. When ready, the steamers were stowed aboard the sailing vessel *George Canning*, which left Liverpool on February 11, 1835, with some of the members of the expedition. Writing of this event, the *Athenæum* said that it was intended that the *George Canning* should call at Cork, from which place she was to be escorted to the River Orontes by H.M. Steam Vessel *Alban*. Some workmen from Laird's accompanied the expedition, which

included also some artillerymen who had been instructed in iron working.

While the main object of the expedition was to survey the Euphrates as far as the Persian Gulf, attention was not to be entirely confined to steam communication, for it would provide opportunity, said the *Athenæum*, "to make the necessary examinations of that celebrated part of the world, where the first human formations may be looked for with confidence". The expedition met with many difficulties and it was not until March 16, 1836, that the steamers began the descent of the river. On the passage down, the *Tigris*, with all her journals and surveys, was lost, and Chesney was nearly drowned. He, however, continued the voyage in the *Euphrates* and on June 19, 1836, reached the Indian Ocean. His account of the expedition was published in 1850.

Matthias Baldwin's Locomotives

No one in America contributed more to the improvement of the locomotive than Matthias Baldwin (1795-1866), who in 1835 transferred his works from Minor Street, Philadelphia, to Broad Street. The Franklin Institute was much interested in his work and on February 12, 1835, the committee on science and the arts of the Institute submitted a report on the locomotives he was then building, in which it found "numerous improvements affecting nearly every part of the machine". The report made special mention of his improvements in the valves, the feed pumps, the reversing gear and the axles and wheels. Mr. Baldwin, it was stated, "has completed several engines; one of them may be seen in operation on the Philadelphia and Trenton Rail-road, and four on the state road to Columbia; all of which, as well as one in use at Charleston, South Carolina, have given entire satisfaction by their performance. . . . The Committee are informed that some of these improvements have been secured to their inventor by patents; and that he richly deserves to reap the benefit of them, will be admitted by any one who is aware of the extensive use and increasing demand for these costly structures."

Lyell and the Geological Society

At the anniversary meeting of the Geological Society held early in February 1835, the Wollaston Medal was awarded to Gideon Mantell (1790-1852), the Lewes surgeon who had made a close study of the chalk formations in Sussex. The meeting was followed by a dinner, of which Lyell, the president of the Society, wrote to Mantell: "The dinner went off famously, more than a hundred present. After the toasts had been given of the King, Royal Family, Geological Society, late president and president, I gave you. I send you a copy of my speech almost word for word as delivered. . . . I assure you I had the feeling of the meeting with me, and in some respects it produced a better effect than if you had been there. It was by far the longest toast given, but I am sure they were not tired. Lord Lansdowne, who was on my left hand, asked all about you. I got him to give Oxford and Buckland. Fitton gave Cambridge, followed by Sedgwick; Sedgwick the Royal Society, answered by Lubbock; Buckland the Linnean; I the Astronomical, answered by Baily; Greenough the Geographical, answered by Murchison. We then drank Burnes who made a good speech."