Science News a Century Ago

Sir Goldsworthy Gurney and his Steam Carriages

AMONG the successful pioneers of steam locomotion on roads was Sir Goldsworthy Gurney (1793–1875), the Cornish surgeon and inventor, known also for his invention of the oxy-hydrogen blowpipe and the limelight. It was while living in London that he turned his attention to steam-carriages, and in 1829 he went from London to Bath and back at a rate of fifteen miles an hour. On July 18, 1836, in the House of Lords, reference was made to the Steam-carriages Tolls Bill which had then passed through the committee stage. The Marquess of Salisbury, however, proposed it should be referred to a select committee for further consideration. In the course of his reply to this suggestion, the Earl of Radnor said: "Mr. Gurney, a gentleman of considerable talent, had directed all his attention to the construction of steam-carriages applicable to the road. He had given up a lucrative business, and applied himself wholly to that point. He had brought his invention to a state of great perfection; when all at once, a bill was introduced, not directly affecting his invention, but by a side-wind, entirely obstructing it, and laying such a tax on steam carriages as would completely defeat his object. His invention had been used without any accident whatever occurring; and this bill was intended merely to take off that burden which indirectly would operate greatly to the prejudice of Mr. Gurney".

Geology of the Island of Ascension

ON July 19, 1836, H.M.S. *Beagle* reached the island of Ascension, which Darwin compared to "a huge ship kept in first-rate order". Speaking of the geology of the island, he said: "The lava streams are covered with hummocks, and are rugged to a degree which, geologically speaking, is not of easy explanation. The intervening spaces are concealed with layers of pumice, ashes and volcanic tuff. . . . In several places I noticed volcanic bombs, that is, masses of lava which have been shot through the air whilst fluid, and have consequently assumed a spherical or pear-shape. Not only their external form, but, in several cases, their internal structure shows in a very curious manner that they have revolved in their aerial course". Describing more particularly one of these objects, he said: "The central part is coarsely cellular, the cells decreasing in size towards the exterior; where there is a shell-like case about the third of an inch in thickness, of compact stone, which again is overlaid by the outside crust of finely cellular lava. I think there can be little doubt, first, that the external crust cooled rapidly in the state in which we now see it; secondly, that the still fluid lava within, was packed by the centrifugal force, generated by the revolving of the bomb, against the external cooled crust, and so produced the solid shell of stone; and lastly, that the centrifugal force, by relieving the pressure in the more central parts of the bomb, allowed the heated vapours to expand their cells, thus forming the coarsely cellular mass of the centre".

The Herbarizing Dinner of the Society of Apothecaries

ON July 20, 1836, "the annual herbarizing dinner of the Society of Apothecaries took place . . . preceded by a lecture given at their hall by John Lindley, Ph.D., Professor of Botany to the Society. The noble President of the Medico-Botanical Society (Earl Stanhope), the Vice Presidents of the Linnean and Horticultural Societies, the President of the Royal College of Surgeons (Sir Astley Cooper), the ex-censors of the Royal College of Physicians, the Professors of Botany at the Metropolitan Schools of Medicine, and about 150 other gentlemen, attended on the occasion" (*The Times*).

Death of Jean-Félix-Adolphe Gambart

ON July 23, 1836, the French astronomer Jean-Félix-Adolphe Gambart, died at the early age of thirty-six years. He was born at Cette, in the Department of Hérault in May 1800. While quite a young boy he went to sea and then lived with his father, a teacher of navigation at Havre. His talents having attracted the attention of Alexis Bouvard (1767–1843), "the computing partner" of Laplace, he went to Paris, and in 1819 through Bouvard was made an assistant at the observatory at Marseilles of which Jean Louis Pons (1761–1831) was then the director. Pons having removed to Italy, Gambart in 1822 was made director of the Observatory, and though supplied with somewhat inferior instruments, in the course of eleven or twelve years discovered thirteen comets, including Biela's comet, first seen on February 17, 1836. In recognition of his work he was made a member of the Paris Academy of Sciences. Recalled to Paris in 1834 for work at the Bureau des Longitudes, his promising career was cut short by consumption.

Medical Statistics

IN his retrospective address delivered at the third anniversary meeting on July 23, 1835, of the Provincial Medical and Surgical Association held at Oxford, Dr. J. C. Prichard, F.R.S., senior physician to the Bristol Infirmary, said that there could be no method of research more in harmony with the philosophical character of the present age than inquiries which were termed statistical. There was no investigation more calculated to extend our knowledge, on a great scale, both of the physical and moral condition of mankind without opening the door to anything discursive or imaginary. Statistical researches were likely to afford the most satisfactory solution of difficult problems which had hitherto been thought to lie within the realm of speculation; and our mistrust of the speculative way of treating such questions was increased by the remark that in almost every inquiry submitted to the test of accurate numerical calculations, the result had turned out in direct opposition to what appeared to be the most probable conjecture. Who, for example, would ever have imagined that human life would not exhibit a larger average duration in the genial climate of Greece, Italy and other countries on the northern coast of the Mediterranean . . . than on the inclement shores of the Baltic and Frozen Ocean? It had been demonstrated, however, in a memoir drawn up with great accuracy of research and presented to the Academy of Sciences that human life had double the duration, or that men lived on the average twice as many years in the *Ultima Thule*—the bleak Iceland and on the Norwegian coast—as in the delightful plains of Campania and in the valleys of Andalusia.—(*Trans. Prov. Med. and Surg. Assoc.*, 1836.)