deriving this assemblage of families as two distinct branches—one from the tree Magnoliales and the other from the herbaceous Ranales. Each branch in its ramifications is depicted as giving its quota to the “Apetalæ,” the tree-line supplying chiefly the Amentifera, and the herb-line such alliances as the peppers, docks, and chenopods. In one case the arborescent habit continues dominant, though herbs eventually arise in the highest forms, *e.g.* in the Papilionaceæ; in the other case herbs prevail, though shrubs and trees occasionally make their appearance. This novel and suggestive idea requires thorough sifting to see how far it may be considered sound. In this connexion, we may here point to his treatment of the family, Saxifragaceæ, as defined in the “Genera Plantarum” and “Pflanzenfamilien.” Most will admit that this family, as at present constituted, is cumbersome and unnatural. Hutchinson brings his tree-herb speculation to bear upon it and cleaves it in two. The herbaceous Saxifragæ and their allies are placed along with the Crassulaceæ in the order Saxifragales, derived directly from the Ranales (in the strict sense); while the remainder of the old family—the bulk of it, in fact—is split into the Escalloniaceæ, Grossulariaceæ, and Hydrangeaceæ, and as such compose part of his new order, the Cunoniales, derived directly from the arborescent Dilleniales. In consequence, the old family is separated into two sections placed far apart. In this

connexion one would like to know how he views the hitherto supposed relationship between Spiræa and Astilbe. If he still recognises it, then no provision appears to be made for it in his scheme. He derives the Rosaceæ, and presumably the genus Spiræa, from the woody Dilleniales; whereas the Saxifragaceæ, as he now limits the family, to which Astilbe should naturally belong, are obtained from the herbaceous Ranales. He partly saves himself in a footnote⁷ as follows: “It is probable that some herbaceous Rosaceæ have not had a common origin with their ligneous associates.” But among the Spiræas are many ligneous forms. These will still require explaining.

In conclusion, it may be thought that the introduction of a new classification of Flowering Plants is a task of too great importance to be entrusted to a single individual. Some may hold it to be a matter for a body of experts. Taxonomy, however, in the past has not progressed in this way. Systems have largely been the result of individual effort. Some have become authoritative, others have not. A single mind tends to keep throughout a consistent value for the various grades of classification. The whole effort will show on completion a symmetry and balance which it otherwise would not possess. This is far from saying that a new system should not be subjected to searching criticism while it is yet in the process of elaboration.

⁷ *Kew Bulletin*, 1924, p. 117.

Obituary.

RIGHT HON. SIR CLIFFORD ALLBUTT, K.C.B., F.R.S.

THE sudden and quite unexpected death, after a few minutes' distress, early on the morning of February 22, of Sir Clifford Allbutt, Regius professor of physic at Cambridge since 1892, robs British medicine of its acknowledged leader, who from his scholarly accomplishments recalls Samuel Johnson's description of William Heberden the elder (1710-1801) as “Ultimus Romanorum, the last of the learned physicians.” He was indeed remarkable for his wide knowledge not only of modern but of ancient medicine, and for the broad horizon of his conception of the relations of medicine and how its future course should be directed. Thus he was ever insistent on the importance of a sound general educational basis on which medical studies should be engrafted, and he held strongly that universities should provide a liberal education and not lay themselves out for the more utilitarian qualification for the practice of any art or trade, and should not compete with hospital schools. His high standard was shown in a work—the result of many years' research—on “Greek Medicine in Rome” (1921). Since 1888 he had advocated the necessity for the study of comparative medicine and pathology, and happily he lived to see his own University start an Institute for this branch of research, and appropriately he was the first president of the Section of Comparative Medicine at the Royal Society of Medicine.

The wisdom of Allbutt's selection as Regius professor of physic in 1892, and of the departure from the existing custom of appointing a resident physician, has been signally justified. By a similar change at Oxford in 1905, by which Sir (then Dr.) William Osler was

transplanted from the Johns Hopkins Hospital, Baltimore, the two older universities were represented by a pair of Regius professors with a world-wide reputation, such as had never before fallen to their lot, for clinical experience and scientific attainments. There were, indeed, some curious coincidences in the lives of these two friends: they became members (1878) and fellows (1883) of the Royal College of Physicians in the same years, gave the Goulstonian Lectures in successive years, and, though these are the almost natural duties of such Regius professors, delivered the Harveian Oration at the College, and edited successful “Systems of Medicine” which have gone through two editions and are destined for a third in the near future by other hands.

Thomas Clifford Allbutt, the son of the Rev. Thomas Allbutt, Vicar of Dewsbury in Yorkshire and friend of Charles Waterton the naturalist, was born on July 20, 1836, and was named Clifford after his godfather, an artist, who married his father's sister, and whose son Edward Clifford painted the portrait of Lady Allbutt hanging in his study at St. Radegund's, Cambridge. Before the Allbutts' time, Patrick Brontë had been one of the curates at Dewsbury, and they knew his famous daughters well; Sir Clifford regarded it as a sacred duty to contradict the impression given in Mrs. Gaskell's *Life of Charlotte Brontë* that the family were isolated and not in touch with the country people.

Educated at St. Peter's School, York, he went up in 1856 as a classical scholar to Gonville and Caius College, Cambridge, and his name was the only one in the first class of the Natural Science Tripos for 1860 with distinc-

tion in chemistry and geology. Entering on November 5, 1858, as University students then usually did, the Medical School of St. George's Hospital, and while a clinical clerk for Dr. H. Bence Jones, F.R.S., secretary of the Royal Institution and an ardent chemist, he became interested in acute aortitis, a subject which afterwards much engaged his attention in connexion with his view of the causation of angina pectoris. With Lockhart Clarke, who was then working at the hospital, he was on friendly terms, and was influenced by his microscopical investigation of the central nervous system; while to J. W. Ogle he ascribed the stimulus to apply the ophthalmoscope to general medicine. He took the M.B., Cambridge, so early as 1860 and the M.D. eight years later. After leaving St. George's he spent some time in Paris following the teaching of the great Trousseau, and about 1862 settled down to practice in Leeds, where he was attached to the Royal Infirmary (1864-1884), and had a most extensive consulting practice in Yorkshire and the North of England, while at the same time carrying out much research and literary work.

In 1889 Allbutt left Leeds for London on accepting a Commissionership in Lunacy, and thus became associated again with Sir James Crichton-Browne, with whom he had worked at the West Riding Asylum; but his stay in London was cut short in 1892 when, after first refusing, he was persuaded to succeed Sir George Paget as Regius professor of physic in the University of Cambridge. For the remaining thirty-two years of his extremely active life, though taking a prominent part in the medical activities of the University and of the country in general, sitting on commissions and numerous committees, he was no longer driven by the exigencies of a busy consulting practice, and this spare time he utilised to the full and to the great advantage of his medical brethren. A notable service in this respect was the editing of a "System of Medicine" (1896-1899) in eight volumes, which was the lineal successor to the "System of Medicine" (1866-1879) in five volumes edited by Sir J. Russell Reynolds. Allbutt's "System" passed into a second edition (1905-1911) in eleven volumes, and received a well-deserved welcome from the medical profession.

It is difficult to summarise Sir Clifford's contributions to medicine, for in addition to his philosophically minded addresses and historical work, he ranged far and wide over the province of medicine. But his name will be more especially connected with certain advances; in the first place, he did much to introduce the now general use of some instrumental methods in medicine; thus in 1868 he introduced the present form of clinical thermometer in place of the long and unwieldy one previously available, and made many observations on the temperature of the body in health and disease, reading a paper in 1873 on the effect of exercise on the bodily temperature to the Royal Society, of which he was elected a fellow in 1880, and was subsequently councillor for two sessions and vice-president.

In 1871 there appeared Allbutt's epoch-making work, "The Use of the Ophthalmoscope in Diseases of the Nervous System and of the Kidneys, and also in certain other General Diseases," which, in addition to giving his own extensive experience, covered the literature, as

his published work always did, in an admirably complete manner. It is worth noting that this monograph appeared in the year of the death of the original inventor of the ophthalmoscope—Charles Babbage (1792-1871)—and that its practical use, and of Helmholtz's later modification, in medicine, though suggested by Sir Spencer Wells, is largely due to the advocacy of Allbutt and of Hughlings Jackson. He also did much to bring in the now familiar use of the stomach tube and the sphygmomanometer for the estimation of blood pressure.

Allbutt's most consistent work was on diseases of the cardio-vascular system; in 1868 he gave one, if not the first, of the descriptions of syphilitic disease of the cerebral arteries, buried in the now extinct St. George's Hospital Reports; two years later he insisted on the effects of overwork and strain on the heart and great vessels, published in the same series; since 1895 he had described hyperpiesia or high blood pressure of obscure origin, and insisted that it was not secondary to arterial disease or necessarily to nephritis. Angina pectoris has been variously explained, the most popular view being that it is due to disease of the coronary arteries of the heart, but since 1894 he argued that its real cause is disease of the first part of the aorta. His observations on these various subjects were collected in 1915 in his "Diseases of the Arteries, including Angina Pectoris" (2 volumes, Macmillan), and there is in the press a supplementary work on "Arteriosclerosis: A Summary View." Though he wrote much, he did so with a very critical and careful eye, and, as mentioned in his "Notes on the Composition of Scientific Papers," now in a third edition, he usually made four drafts at least before the manuscript was ready for the printers. The finished charm of his writings aptly corresponded to his personality.

A wide reader, he was most generous in recognising good work by unknown men, and though advanced in years always maintained the mental elasticity of youth. This was, indeed, in keeping with his physical activity; for, like his friend the late Sir Hermann Weber, he was until well on in years a keen Alpine climber; as he wrote to the *Times* a week or so before his death about the proposed alteration, artistically for the worse, of the bridge over the Rotha's "living wave" at Grasmere, he had walked in the Lake District almost every year since he was fourteen, and he rode a bicycle or tricycle last year. With a now somewhat old-fashioned courtesy he was independent, and on occasion spoke out vigorously against what he thought wrong; for example, his castigation of the practices of some gynaecologists in his "Visceral Neuroses" (1884), and more recently his disapproval of psycho-analysis. What would be eagerly sought as honours by many men came by natural right to this beloved physician, and deservedly the list is too long to detail. They were accepted with pleasant expressions of modesty and appreciation, but it could not but be felt that the givers of honorary degrees and medals really honoured themselves by their award. He was made K.C.B. in 1907, and a Privy Councillor in 1920, and could, had he desired it, have been made a peer. English-speaking medicine can well be proud of its great and broad-minded leader.

HUMPHRY ROLLESTON.