

July 7, and was entitled "Some Biographical Anecdotes of the late Mr. William Curtis" by the editor of the *Gentleman's Magazine*. He had access to an autobiography of Curtis, since he quotes from it. He may have obtained it from Dr. John Sims, F.R.S., with whom it is known Curtis left some such memoir. Needless to say, this document, at present lost, would be of much interest to-day; but perhaps it may have been destroyed by the 'pious' hand of someone who wanted to hush up any expression of the resentment felt by Curtis when "English Botany" was begun by Sowerby and Smith in 1790. Goodenough expressed regret that Curtis did not receive a "polished education", the lack of which he avers leads to the mind being unable "to fix itself; conscious of great and various powers, it runs from subject to subject"; though he recognized that this was not to be imputed to Curtis as a fault, but to his family's circumstances. His appreciation of Curtis's personal character is, however, unreserved: "In short, Mr. Curtis was an honest, laborious, worthy man, gentle, humane, kind to every body, a pleasant companion, a good master, and a steady friend. His *Flora Londinensis* will be a *monumentum aere perennius*. The size, the accuracy of the work, the masterly exemplification of dissection of flowers, will do much for the establishment of the Linnæan system as any work which ever appeared. . . ." Again, "there never was a pleasanter companion than Mr. Curtis: he abounded in innocent mirth; and good-humour ever floating uppermost gave a pleasant cast to every thing he said or did". If the passage from the autobiography is added—"I have no pretensions to be considered as a man of letters, or of great mental powers, I know myself and my imperfections. A consciousness of my inabilities makes me diffident, and produces in me a shyness, which some have been ready to construe into pride", it must be admitted that Curtis was indeed a worthy representative of the best type of eighteenth century naturalist; and although Goodenough may have been right in his views on education, it seems nevertheless true that had Curtis received a "polished education", the world might not have had either "*Flora Londinensis*" or the *Botanical Magazine*.

As a practical man, Curtis used the means available to begin to realize his dream of a complete *Flora* and *Fauna* of Great Britain; and about the year 1777 he decided to give up taking an active part in his business as an apothecary and to concentrate his energies on that task. He gave up also his post as demonstrator at the Chelsea Physic Garden, which he had held since 1772. His small garden at Grange Road, Bermondsey, becoming inadequate for his scheme, he took a more extensive piece of ground in Lambeth Marsh (its position to-day would be just north-east of Waterloo Station), where he proceeded to open the London Botanic Garden* for growing the wild flowers which were to be figured in the "*Flora Londinensis*" and on which he was to lecture to the subscribers who supported his garden. In 1789 he transferred the Garden to Brompton, partly because the smoke of London spoiled his plants and partly because a new lease of the land involved too heavy a rent.

William Curtis accomplished much in his comparatively short life, in spite of his lack of a "polished education". Without doubt his early enthusiasm must have weakened when financial difficulties began to slow up the publication of "*Flora Londinensis*".

**Chronica Botanica*, 9, plate 9 (1945), reproduces James Sowerby's water-colour drawing of the Garden, painted before 1787.

Goodenough attributed the financial failure of the "*Flora Londinensis*" to the slowness with which Curtis issued the parts; and even blamed the French Revolution! In spite of the sale of each part not rising above three hundred copies, Curtis refused to withdraw from his original proposal that each part should be sold at 2s. 6d. plain; 5s. coloured; and 7s. 6d. coloured with extra care (probably by William Graves, who out of about thirty plate-colourists employed by Curtis was the best colourist; and who continued to work until he was seventy-three years of age, when his colouring is recorded to have been as good as ever). It is characteristic of Curtis that he was ready to sacrifice much to carry out his scheme for picturing life-size every British plant; but in spite of generous help from friends the scheme was too big for one man to accomplish. By good fortune, his founding of the *Botanical Magazine*, with its wider horticultural appeal, proved a success from the start; and his name will always be remembered as its founder.

Although Curtis did not make any outstanding discoveries in natural history, being blessed with very keen eyesight he did make some. These Goodenough mentions in part. What is of greater importance is that he, as a benevolent average man, aroused in many thousands of his fellow-countrymen a taste for botanical and horticultural studies, and so performed a service of national importance. Indeed, as one whose constant aim was to help his fellows, as his miscellaneous publications most clearly show, he merits to be classed not only as a naturalist but as a humanist also.

A genus of *Cornaceæ*, *Curtisia* Aiton, was founded in 1789 in his honour. This is the Assagay tree of South Africa; perhaps not a very happy choice for honouring one of Quaker family. Two good contemporary portraits of Curtis exist—the oil painting by Wright in the Royal Horticultural Society's collection and a miniature by Angelica Kauffmann, R.A. Both are reproduced in Mr. Hugh Curtis's book. A third painting, in oils, said to be by Zoffany, was sold in 1923 and is now in an art gallery in India.

S. SAVAGE.

NEWS and VIEWS

New Year Honours List

THE New Year honours list, and another to be published on January 9, are much longer than the usual lists, so as to provide recognition for war services, military and civil, in the many theatres of activity during the Second World War. It includes the following names of scientific men and others associated with scientific work:

G.B.E.: Sir Edward Appleton, secretary of the Department of Scientific and Industrial Research.

Companion of Honour: Prof. A. V. Hill, a secretary of the Royal Society, for scientific services.

K.C.B.: Sir Donald Vandepuer, permanent secretary of the Ministry of Agriculture and Fisheries.

K.C.V.O.: Sir Stewart Duke-Elder.

K.B.E.: Sir John Renwick, lately controller of communications, Air Ministry, and of communications equipment, Ministry of Aircraft Production.

Knights: Mr. W. A. Akers, director of atomic bomb research, Department of Scientific and Industrial Research; Mr. D. C. Bailey, acting super-

intendent, Experimental Bridging Establishment, Ministry of Supply; Dr. C. Forster-Cooper, director of the British Museum (Natural History); Prof. C. D. Ellis, Wheatstone professor of physics at King's College, University of London, scientific adviser to the Army Council; Dr. P. G. Fildes, director of chemical bacteriology, Medical Research Council; Dr. C. F. Goodeve, deputy controller, Research and Development, Admiralty; Prof. I. M. Heilbron, professor of organic chemistry in the Imperial College of Science and Technology, London, lately scientific adviser, Ministry of Production; Mr. B. Loeckspeiser, director of scientific research, Ministry of Aircraft Production; Dr. E. J. Salisbury, director of the Royal Botanic Gardens, Kew; Dr. A. M. Carr-Saunders, director of the London School of Economics; Mr. H. R. Stewart, vice-chairman of the Imperial Council of Agricultural Research, India; Dr. H. A. Tompany, agricultural adviser to Secretary of State for the Colonies; Mr. F. Ware, director of animal husbandry, United Provinces, India.

C.B.: Prof. S. Zuckerman, professor of anatomy in the University of Birmingham, scientific director, R.A.F. Bombing Analysis Unit, for distinguished service; Mr. R. V. Jones, assistant director of intelligence (science), Air Ministry, for distinguished service.

C.M.G.: Prof. H. J. Channon, professor of chemistry, University of Liverpool, a member of the Advisory Committee on Education in the Colonies, for services to education; Prof. A. K. Macbeth, Angus professor of chemistry, University of Adelaide, for public services; Mr. J. Saint, director of agriculture, Barbados; Mr. E. Marsden, secretary of the Department of Scientific and Industrial Research, New Zealand.

C.I.E.: Mr. R. H. Hill, director of agriculture, C.P. and Berar; Sardar Gandasing Cheema, principal of the Agricultural College, Poona; Ram Chandra Srivastava, director of the Imperial Institute of Sugar Technology, Cawnpore; Mr. H. P. Smith, senior conservator of forests, Assam; Mr. P. H. Carpenter, director of the Scientific Department, Indian Tea Association, Assam.

C.B.E.: Prof. A. W. Ashby, lately professor of agricultural economics, University College, Aberystwyth; Mr. R. Corless, assistant director of the Meteorological Office, Air Ministry; Mr. W. C. M. Couch, deputy director of electrical engineering, Admiralty; Prof. J. Cruickshank, professor of bacteriology, University of Aberdeen, for services to civil defence; Dr. P. Dunsheath, chief engineer and director, W. T. Henley's Telegraph Works Co., Ltd.; Mr. C. W. Goyder, chief engineer, All-India Radio; Prof. J. Gray, professor of zoology, University of Cambridge; Mr. G. R. D. Hogg, assistant secretary, Department of Scientific and Industrial Research; Prof. H. D. Kay, director, National Institute for Research in Dairying, University of Reading; Dr. T. Moran, director of research and deputy scientific adviser, Ministry of Food; Prof. R. E. Peierls, professor of applied mathematics, University of Birmingham, scientific consultant on atomic bomb research, Department of Scientific and Industrial Research; Mr. A. J. Philpot, director of research and secretary, British Scientific Instrument Research Association; Mr. J. D. Pratt, director and secretary, Association of British Chemical Manufacturers; Mr. W. G. Radley, controller of research, Engineer-in-Chief's Office, G.P.O.; Prof. F. E. Simon, professor of thermodynamics, University of Oxford; Mr. J. R. N. Stone, lately chief statistical assistant, Offices of the

Cabinet and Ministry of Defence; Mr. P. C. Vellacott, lately head of the Political and Psychological Warfare Department, Mediterranean Theatre; Dr. J. A. Scott-Watson, chief education officer, Ministry of Agriculture and Fisheries.

British Cast Iron Research Association: Dr. Harold Hartley

DR. HAROLD HARTLEY, technical director and managing director of Radiation, Ltd., has been elected president of the British Cast Iron Research Association. Dr. Hartley entered the University of Manchester in 1904, where he studied under Profs. Dixon, Perkin and Bone. Afterwards he travelled in Norway and Canada, collating data on the cost of power production for electro-chemical industries. On returning to Britain in 1909 he was elected to a gas research fellowship at the University of Leeds. In 1912 he was appointed to the staff of the Richmond Gas Stove Co. at Warrington to build up a research section. He was especially concerned in the development of furnaces both for non-ferrous metal melting and for heat-treatment processes generally. With the formation of the Radiation Group in 1919, Dr. Hartley was appointed chief chemist and head of the Research Department. In 1925 the new central research laboratories were inaugurated in London and there followed a period of activity which has led to marked developments in gas- and coke-burning apparatus. In 1937 additional new and enlarged laboratories were opened in Birmingham, and in 1939 the central research organisation was transferred to the Midlands. Shortly afterwards Dr. Hartley was appointed to the board of Radiation, Ltd., as technical director, and he became a joint managing director in 1944. Dr. Hartley has been associated for many years with the British Cast Iron Research Association, becoming chairman of the Research Committee in 1936 and chairman of the Council in 1938.

Atomic Energy and the Freedom of Science

At a meeting of the Physical Science Section of the Royal Netherlands Academy of Sciences held on October 27, the following resolution was carried unanimously and has been forwarded to the Netherlands Government:

"The Royal Netherlands Academy of Sciences, Physical Science Section, wishes to state,

"1. that as a result of scientific research, intra-atomic energy has been made available to human society as a new source of energy;

"2. that, consequently, far-reaching possibilities offer themselves for a better world economy;

"3. that, however, these discoveries have first of all been developed into the atomic bomb, the implement of which is an abhorrent destructive power;

"4. that men of science, which have created these possibilities, are well aware of their responsibilities in this respect;

"5. that it is unacceptable with regard to the furthering of science and with regard to the entailing development of social welfare and social hygiene, that results of scientific research be kept secret.

"The Academy therefore appeal to the sense of responsibility of Governments and of scientific institutions, to collaborate in solely making available the fruits of scientific research, to the benefit of civilization, and preventing them from becoming a threat.

"The Academy herewith express their desire that the