Obituary.

SIR GEORGE CARTER, K.B.E.

BY the death of Sir George Carter, there passes one of the greatest figures in the shipbuilding industry of the last twenty years. He had been in ill-health for rather more than twelve months, but had not formally retired from his position of managing director of Messrs. Cammell Laird's famous shipbuilding and engineering works at Birkenhead. Sir George Carter was trained at the Royal Dockyard at Portsmouth, and furnishes another name on the list of great shipbuilders who have come from that excellent nursery, the Dockyard Schools.

Soon after completing his training at Portsmouth Sir George Carter proceeded to the well-known Tyneside firm of Messrs. Armstrong, Whitworth, and Co., where his uncle, Sir Philip Watts, was naval architect. A man of extraordinary vigour and of sound judgment, he was quickly given the important post of shipyard manager, and his tenure of this position for eighteen years witnessed the production of some very notable and epoch-making ships as well as a large extension of the firm's premises at their merchant shipyard at Walker.

Though always an important figure in the industry, it was during the last ten years that Sir George Carter came very prominently before the public, when in 1912 he became managing director of the Merseyside firm. He succeeded in extending the firm's business and premises in a remarkable manner, and when the war came in 1914 he was able to devote his whole energies to, and to utilise to the full the firm's great resources in the construction of warships.

Sir George Carter's activities were too numerous for mention in a short notice of his career, but reference must be made to the very important part he played as chairman of the Advisory Committee on Merchant Shipbuilding under the Shipping Controller in the fateful days of the early part of 1917. It was this committee that evolved the standard ship and made a supreme effort to organise the whole industry in order to simplify manufacture and increase output. Sir George also occupied many positions of importance, being a member of the council of the Institution of Naval Architects, of the Committee of Lloyd's Register of Shipping, of the Mersey Docks and Harbour Board, and of the Court of the University of Liverpool.

All those who knew Sir George Carter intimately and were familiar with his work during the war will agree that he spent himself in the service of his country and sacrificed some years of his life in its behalf.

T. B. A.

DR. H. LYSTER JAMESON.

WE regret to announce that Dr. Henry Lyster Jameson died at his home at West Mersea, Essex, on February 26, of hæmorrhage of the lungs, at forty-seven years of age. Dr. Jameson was educated at Trinity College, Dublin, where he took the degrees of B.A. and D.Sc. He spent a year at the Royal College of Science, London, and then worked at the University of Heidelberg, where he studied zoology under Bütschli. Afterwards he went to British New Guinea, where he had charge of a pearling station, and this gave him opportunities for research into the causes of pearl-formation, an investigation which he continued at the Lancashire Sea Fisheries Station in Piel, Barrow-in-Furness. There he established the parasitic theory of pearl-formation in the common sea mussel, and he extended the research later into a study of the various processes by which the orient pearl is formed, publishing a series of papers in the *Proceedings of the Zoological Society* and elsewhere. About this time his health broke down, and, threatened with pulmonary phthisis, he went to South Africa, where he was, for a time, on the staff of the Natal Education Department and, later, a lecturer at the Technical College in Johannesburg.

Some few years before the war Dr. Jameson returned to England and was appointed to a post in the Board of Education, becoming a Senior Examiner. At the outbreak of war in 1914 he was seconded for special service in the Ministry of Agriculture and Fisheries, and, later, became District Inspector for the South-Eastern Coast. At that time the slipper-limpet was becoming a pest to the oyster fisheries, and Dr. Jameson organised a system of collecting and disposing of this noxious mollusc. A very successful factory for the preparation of shell-grit from the limpets dredged up in the course of the oyster fishing was set up at West Mersea, and he was in charge of this up to the time of his death. In 1918 he became Adviser on Inshore Fisheries to the Development Commissioners and his work became largely administrative, but lately he was very active in the investigation of vitamins in molluscan shell-fish, working on this subject in collaboration with Prof. W. Bayliss.

Such was Dr. Jameson's persistent ill-health that any form of physical activity became impossible, but under this strain he developed a strong and most engaging personality and wide interests in social and economic reform movements. He was a man of great general culture, a very accomplished field zoologist, and a most lovable friend to those who knew him well. He leaves behind him a widow and two daughters.

SIR EDWARD GONNER, K.B.E.

WE record with great regret the death, on February 24, in his sixtieth year, of Sir Edward C. K. Gonner, who was for more than thirty years the Professor of Economic Science in the University of Liverpool, and whose skill and power of organisation have done much to earn for that University the high position it holds as a centre of economic teaching. The view which he entertained of the difficulty and of the importance of economic study, and which inspired him in his work, is well expressed in the address he wrote for the Toronto meeting of the British Association in 1897, as President of Section F: "This is needed by all those who, either by action, word, or vote, have a part in the direction of the destinies of a country." Again appointed President of that Section at the Australian meeting in 1914, he enforced the same moral. He published some valuable text-books on economic subjects. He served on the Royal Commission on Shipping Conferences. As chairman of the War Savings Committee for Cheshire he also rendered public service, and was appointed a Companion of the Order of the British Empire. He was promoted to a

knighthood of the same Order last year. Sir Edward Gonner's early death was due to an attack of influenza. At a time like the present when the inculcation of sound economic principles seems to be more than ever necessary, the loss of so good and practical a teacher as Sir Edward Gonner will be deeply felt.

MR. GEORGE CUSSONS.

IT is with regret that we record the death on February 10, at the age of seventy-five years, of Mr. George Cussons, the founder of the well-known firm of scientific apparatus makers of Lower Broughton, Manchester. Mr. Cussons in his early manhood gained a studentship at the Royal School of Mines, London, and upon the completion of the course became a drawing-master and also a teacher of geometry and mechanical subjects in evening classes in towns near Manchester. Having considerable mechanical skill, acquired in the course of his apprenticeship, he devised a variety of models and apparatus, which he employed effectively to demonstrate the problems arising in the course of his teaching. Finding great advantage accruing therefrom, he was induced to enter business life as a manufacturer of apparatus to be used in the demonstration of the subjects of geometry, theoretical and applied mechanics, and of physics. Among other excellent apparatus he designed and patented a much-improved Atwood's machine to demonstrate the laws of falling bodies. His firm gained well-deserved repute among Technical Institutions for the excellence and adaptability of its apparatus.

Mr. Cussons, whilst he was a student at the evening classes of the Owens College, Manchester, made the acquaintance of Osborne Reynolds, the eminent Professor of Engineering at the College, and brought to his notice certain models for use in Descriptive Geometry. He suggested various improvements which were adopted, and the models were exhibited at the National Health Exhibition of 1884, where they gained a medal for excellence. Since that time the firm has been awarded medals for the superior character of its apparatus at exhibitions held at home and abroad, and has supplied scientific equipment to practically every country in the world. It furnished a large number of models for geometrical and mechanical drawing, together with a considerable equipment, for the extensive mechanics laboratory of the Manchester College of Technology, which have proved of eminent service. Mr. Cussons was in close touch with all the principal science institutes, and was always ready to discuss any new suggestions for apparatus, and to place his practical training and his knowledge of the teaching of mechanical and physical science at the service of those concerned.

THE death occurred on January 28, in his 52nd year, of Dr. Charles Baskerville, who had been professor of chemistry at the College of the City of New York since 1904. Dr. Baskerville had previously occupied a similar post at the University of N. Carolina. He did notable work on the rare earths, and carried out many investigations in the chemistry of anæsthetics. His inventions included processes for refining oils, hydrogenation of oils, plastic compositions, reinforced lead, etc.

WE notice with much regret the announcement of the death on March 3, at fifty-five years of age, of Prof. Benjamin Moore, Whitley Professor of Chemistry in the University of Oxford.

THE *Chemiker Zeitung* reports the death on February 13 of Prof. Theodor Liebisch, of the University of Berlin, well known for his work on physical crystallography, especially in the department of crystal optics.

Current Topics and Events.

A NATIONAL tribute to the memory of Sir Ernest Shackleton took the form of a special service in St. Paul's Cathedral at noon on March 2. The service was conducted by Dean Inge and the Cathedral clergy and was short and simple but impressive and of great beauty. It included some sentences from the Burial Service, the twenty-third Psalm, the lesson from 1 Corinthians xv., the anthem "Thou wilt keep him in perfect peace," and two special hymns, "Eternal Father, strong to save" and "For all the saints who from their labours rest." The soft beauty of the perfect music was followed with striking effect by the shrill sounding of "The Last Post" by the boys of H.M.S. *Worcester*. It was impossible amid the splendour of the ceremonial and the distinguished congregation representative of the most refined civilisation not to picture in contrast the rough chapel on South Georgia and the toil-stained whalers who surrounded Sir Ernest Shackleton's grave, and the little *Quest* carrying on the mission on which he perished, tossing in the huge waves of the Southern Ocean or beset by the Antarctic ice. The congregation at St. Paul's included the widow and three children of the explorer, several of his sisters and other relatives, representatives of the King, Queen Alexandra, the Prince of Wales, the Duke of Connaught, the Colonial Secretary, the First Lord of the Admiralty, the Trinity House, and the diplomatic representatives of Norway, Denmark, Portugal, Argentina, and other countries. The Royal Geographical Society was represented by its President, a large number of the Council, and the principal officials, and many other societies and institutions sent representatives. Amongst those with special interest in the Antarctic regions were Mr. John Q. Rowett, Sir John Scott Keltie, Dr. H. R. Mill, Dr. H. O. Forbes, and a strong muster of Sir Ernest's old comrades, including Captain C. W. R. Royds, R.N., and Mr. L. C. Bernacchi of the *Discovery* expedition, Capt. W. Colbeck of the *Morning*, Sir Philip Brocklehurst of the *Nimrod* expedition, Mr. J. M. Wordie, Mr. Greenstreet, and Mr. Rickenson of the *Endurance* expedition, and Mr. Mason, who had sailed on the *Quest*, but had to return on account of his health. No doubt others were present who were not recognized in the great congregation.

MR. CAMPBELL SWINTON gave some very interesting reminiscences at one of the meetings recently held to celebrate the Jubilee of the Institution of Electrical Engineers. In particular he recalled some of the experiments carried out in 1879 by David