

papers on the eyes of insects and the eyes of spiders. For his microscopical mountings Mallock made use of StyraX, on which he contributed two letters to NATURE in 1924. His optical interests naturally drew him to experiment, as so many have done, with the brilliant colours of butterflies' wings and the metallic hues of beetles.

So long ago as 1874 Mallock noticed a colour phenomenon not very conspicuous, but ready to hand for almost everyone. As is well known, two sheets of wire gauze or perforated zinc laid one over the other give rise to patterns of the watered silk type but without colour. If, however, only one piece of fairly fine gauze be used and the other is the reflection in an ordinary looking-glass on which it is laid, the patterns are seen as before, but now they are coloured mainly with tempered steel colours. The simple explanation is given in the *Proceedings of the Royal Society* in 1918, and it is followed by a note on the colours of tempered steel.

Mallock was associated with Mr. Metford in the design of rifle bullets and in ascertaining their trajectories. He also carried out experiments on the extreme range of rifle bullets with Lord Cottesloe. An interesting example of his ingenuity and painstaking research is to be found in his apparatus for measuring the growth of trees. For this purpose he adopted an instrument which he had formerly used for observing changes in the dimensions of cracks on St. Paul's and other buildings. Another of his enterprises was the design and construction with his own hands of a machine for ruling diffraction gratings. This machine is now at the National Physical Laboratory.

These notes refer to a few only of Mallock's

contributions to physical science out of a great number. Fifty-six of his papers appeared in the *Proceedings of the Royal Society* and eighty-nine contributions from him were published in NATURE.

In 1904 Arnulph Mallock married Helena Maria Caroline Finlay, of Castle Toward, Argyllshire. In his last years with rapidly increasing blindness her devotion did much to alleviate his distress, for his mind and interests remained acute but first his beloved microscope and gradually all print ceased to be available to him.

WE regret to announce the following deaths :

Dr. Howard Ayers, president of the University of Cincinnati from 1899 until 1904, formerly professor of biology in the University of Missouri, on October 17, aged seventy-two years.

Prof. Erwin Baur, director of the Kaiser Wilhelm Institut für Züchtungsforschung, Berlin, on December 2, aged fifty-eight years.

Prof. Edwin S. Crawley, emeritus professor of mathematics in the University of Pennsylvania, known for his work on the geometry of curves, on October 18, aged seventy-one years.

Mr. Edward Evans, formerly in charge of the science classes at Burnley Municipal College, author of "Botany for Beginners", on December 23, aged seventy-eight years.

Prof. J. Cossar Ewart, F.R.S., formerly regius professor of natural history in the University of Edinburgh, a pioneer in animal breeding research, on December 31, aged eighty-two years.

Prof. T. Swale Vincent, formerly professor of physiology, University of London, an authority on the ductless glands, on December 31, aged sixty-five years.

News and Views

New Year Honours

THE New Year Honours List includes the following names of scientific workers and others associated with scientific work: *K.C.V.O.*: Sir Richard Glazebrook, chairman of the Aeronautical Research Committee, 1908-33. *Knights*: Dr. S. C. Cockerell, director of the Fitzwilliam Museum, Cambridge; Mr. G. Evans, principal of the Imperial College of Tropical Agriculture, Trinidad; Dr. Kenneth Lee, chairman of the Industrial Grants Committee, Department of Scientific and Industrial Research; Col. C. E. Merrett, president and trustee of the Royal Agricultural Society, State of Victoria; Prof. Robert Muir, professor of pathology, University of Glasgow; Dr. C. T. Hagberg Wright, secretary and librarian of the London Library. *C.S.I.*: Brigadier R. H. Thomas, lately Surveyor-General of India. *C.M.G.*: Prof. R. E. Alexander, director of Canterbury Agricultural College, Lincoln, near Christchurch, New Zealand; Mr. A. Holm, lately director of agriculture, Kenya. *C.I.E.*: Lieut.-Col. A. D. Stewart, director of the All-India Institute of Hygiene and Public Health, Calcutta; Lieut.-Col. Ram

Nath Chopra, professor of pharmacology, School of Tropical Medicine and Hygiene, Calcutta. *C.B.E.*: Mr. J. S. Buchanan, deputy director of technical development, Air Ministry; Mr. R. G. Hatton, director of the Horticultural Research Station, East Malling, Kent. *O.B.E.*: Mr. G. H. J. Adlam, senior science master, City of London School; Mr. M. C. C. Bonington, lately divisional forest officer and forest development officer, Andamans; Mr. C. Coles, principal of Cardiff Technical College; Mr. D. Mackay, for service in connexion with scientific exploration and survey in the interior of Australia; Prof. W. Makower, professor of science, Royal Military Academy; Dr. P. D. Strachan, superintendent, Leper Settlement, Botsabelo, Basutoland; Mr. H. B. Thomas, deputy director of surveys, Uganda Protectorate; Mr. A. H. Unwin, conservator of forests, Cyprus. *M.B.E.*: Mr. A. S. Buckhurst, assistant in the Plant Pathological Laboratory, Harpenden; Mr. B. J. Hartley, district agricultural officer, Tanganyika Territory; Mr. C. A. Pinto, curator in the Zoological Gardens, Lahore, Punjab; Mr. M. J. S. Rosair, extra assistant conservator of forests, Burma.