

should be appointed secretary and educational adviser to the London County Council Technical Education Board in 1893. In this position, he probably achieved his most important work. He was largely responsible for the development of the London polytechnics and worked in harmony with both the City Parochial Charity Trustees and the great City companies. When the old Technical Education Committee was superseded by the London County Council Education Committee, Dr. Garnett was appointed educational adviser, and although this position relieved him of the responsibility of much educational routine, he exercised a great influence.

Dr. Garnett had a personality which was felt by all who were brought in contact with him. In his presence, none could fail to realise that they were dealing with a man of force of char-

acter, ideals and originality. He had, moreover, the power of inspiring devotion in those with whom he was associated. J. L. S. H.

WE regret to announce the following deaths :

Prof. U. S. Grant, professor and head of the Department of Geology and Geography at Northwestern University, Evanston, Illinois, who has done much work in economic and petrographic geology, on September 21, aged sixty-five years.

Prof. A. B. Hill, emeritus professor of hygiene and public health at the University of Birmingham, president of the Society of Medical Officers of Health in 1911-12 and of the Association of County Medical Officers in 1917-1924, a leading authority on national public health, on November 5, aged seventy-eight years.

News and Views

Royal Society Medallists

HIS MAJESTY THE KING has approved of the following awards this year by the President and Council of the Royal Society in respect of the two Royal Medals: A Royal Medal to Prof. R. Robinson, for his distinguished work in organic chemistry; A Royal Medal to Prof. E. Mellanby, for his distinguished work on dietary factors, especially in connexion with rickets. The following awards of medals have also been made by the President and Council: Copley Medal to Dr. G. E. Hale for his distinguished work on the magnetic field of the sun; Rumford Medal to Prof. F. Haber for his distinguished work in the application of thermodynamics to chemical reactions; Davy Medal to Prof. R. Willstätter for his distinguished researches in organic chemistry; Darwin Medal to Dr. C. E. Correns for his distinguished researches in genetics; Buchanan Medal to Prof. T. Madsen for his distinguished theoretical and practical work on immunity, especially in relation to diphtheria antitoxin; Hughes Medal to Dr. J. Chadwick for his distinguished researches on radioactivity.

Barnaba Oriani, 1752-1832

THE centenary falls on November 12 of the death of the eminent Italian astronomer, Barnaba Oriani, who for many years was director of the Milan Observatory, and to whom Piazzi communicated his discovery of the minor planet Ceres. Piazzi first observed the planet on January 1, 1801, and a few weeks later he wrote to Oriani and Bode, the former of whom calculated its orbit. Oriani was born near Milan on July 17, 1752, and was educated by the Barnabites. He was made a priest at the age of twenty-three years and almost immediately entered the Observatory, which had not long since been founded at the College of Brera, Milan. He soon attained a recognised place among Italian astronomers and was among the first to publish tables of the planet Uranus, discovered by Herschel. In 1786 he was sent to London to obtain instru-

ments from Ramsden. At this time he became acquainted with Herschel, with whom he afterwards corresponded. With his colleagues, Francesco Reggio (1743-1804) and Angelo Cesaris (1750-1832), he carried out geodetical operations in northern Italy. He published various works on the motion of the planets. Although, during the greater part of Oriani's life Milan formed a part of the Austrian dominions, it was seized by the French in 1796, and in 1802, the year in which Oriani was made director of the Observatory, it became the capital of the Cisalpine republic, with Napoleon as first president. On this occasion, it is said, that on Oriani's refusing to take the oath swearing hatred against monarchy, the wording of the oath was accordingly altered for him. Oriani's successors at Milan have included Carlini, Schiaparelli and Celoria.

Atomic Projectiles

ATOMIC projectiles and their applications formed the subject of the nineteenth Thomas Hawksley lecture delivered by Lord Rutherford on November 4 before the Institution of Mechanical Engineers. At present the maximum velocity that can be communicated to matter in bulk is not more than two miles a second. This is of the same order of magnitude as the average speed of the molecules of gases under ordinary conditions. But if we turn to individual charged atoms, methods have been developed which enable us to produce atomic projectiles moving with enormous speed. When the velocity becomes comparable with that of light, we have to take into account the change of mass of the particle with speed. As the velocity is generally produced by the acceleration of the particle in an electric field, it is convenient to speak of a thousand-volt particle, meaning thereby that the particle has the speed and energy equal to that gained in passing freely between two points differing in potential by a thousand volts. In the experiments of Cockcroft and Walton in the Cavendish Laboratory, Cambridge, a steady difference of potential up to 600,000 volts can be