

polar bodies of oögenesis as rudimentary gametes. He set up the numerical law of the chromosomes, and adduced cogent evidences in favour of the persistence of their individuality from cell-generation to cell-generation. He discovered the curious "casting-out of chromatin" in *Ascaris*, and some of his beautiful experiments relate to the history of an organism destitute of maternal attributes, due to the fertilisation of an egg-fragment by one or two sperms. His cytological memoirs, among the classics of the science, are contained mainly in the six published parts of the "Zellenstudien" (1887-1907), in Richard Hertwig's "Festschrift" (1910), and in the magnificent monograph on the development of *Ascaris*, which he contributed, as one of his pupils, to the "Festschrift für Kupffer" (1899).

#### ADOLPHE GREINER.

ADOLPHE GREINER, director-general of the John Cockerill Co., Seraing—the foremost steelworks in Belgium and one founded by an Englishman of that name many years ago—and president of the Iron and Steel Institute, died at his residence near Liège on November 20.

Mr. Greiner was born in Brussels in 1843 and was the eldest son of Gustave Greiner, private secretary to King Leopold, the first King of the Belgians. Educated at the University of Liège he obtained the diploma of the School of Mines in 1864, and shortly afterwards was elected to the post of engineer chemist to the Société Anonyme John Cockerill, which was the first steel manufacturing company on the Continent to adopt the Bessemer process. Five years later he was appointed manager of the steel works, and in 1887 he became director-general, a position he continued to fill until his death. He was responsible for the introduction there of the basic process for steel making, and was one of the earliest promoters of the use of blast furnace and coke oven gas for the direct driving of internal combustion engines.

Not only was he one of the most distinguished figures in the industrial life of Belgium, but he played an important part in the development of the iron and steel industries of other countries. Numerous honours were conferred on him during his long career by the sovereigns of his own and other countries. He had been president of all the leading scientific Belgian societies, and as president of the central committee of industrial labour he had rendered important services to the social welfare of Belgium. He joined the Iron and Steel Institute in 1876, was a frequent attendant at its meetings, served for many years on the council, and was elected president in May, 1914. The year previous he had been awarded the Bessemer Gold Medal.

During the siege of Liège in August, 1914, Mr. Greiner remained at his post continually, encouraging with his unflinching spirit the members of his staff and his workmen, and organised means for the alleviation of distress among the large

population dependent on his company for employment. In the following months he set on foot experiments in the heating of open-hearth furnaces by means of tar in order to overcome the difficulty of the shortage of gas coal. His results were presented to the Iron and Steel Institute in a short paper in May of this year, and this last contribution will remain as a record of his courage and resource in the midst of many difficulties and adversities. He was a man of large mind and wide sympathies, and towards the members of his staff and the thousands of operatives employed at the works he occupied a kind of patriarchal position, and was ever ready to help any of them from the highest to the lowest with his advice or benevolent assistance.

#### ANNIVERSARY MEETING OF THE ROYAL SOCIETY.

THE anniversary meeting of the Royal Society was held on Tuesday, November 30, when the report of the council was presented and Sir William Crookes delivered his presidential address, extracts from which are subjoined. In the report of the council particulars are given of the various committees of the society concerned with scientific problems connected with the war. We hope to publish the main part of this account in another issue, together with a description of the work of other committees with like objects. Meanwhile, we give Sir William Crookes's outline of the Royal Society's activities in this direction.

Towards the end of last year a war committee and sub-committees were appointed to consider a variety of questions, including the supply of drugs and other chemicals which hitherto have been mostly imported. It was finally decided that it would be best for the council as a whole to act as a general war committee, the original sub-committees being converted into four sectional committees, which have met regularly throughout the year. A memorial to the Prime Minister was drawn up, directing attention to the urgent need for closer co-operation between those engaged in scientific research and the directors of the nation's industries, and was presented by delegates of the Royal Society and the Chemical Society. The President of the Board of Education has since issued a scheme for the organisation and development of scientific and industrial research, which has met with approval on all sides, and indicates that the Government is ready to give the country a strong lead in the way of recognition of the value of scientific training and work. An important step has been taken in appointing a committee to prepare a scheme for the establishment of a permanent board in collaboration with technical and other scientific societies for the discussion of questions in which joint action appears desirable.

Owing to unavoidable delay in printing, the Royal Society's Catalogue of Scientific Papers has progressed only slowly, and there appears to be no likelihood of its being completed at the present rate until the middle of 1921. The director of the catalogue, Dr. McLeod, who has been indefatigable in his labours, has been obliged by ill-health to retire. It is proposed not to appoint a new director, but to continue the work under the able management of the chairman of the Catalogue Committee, Prof. Silvanus Thompson.