Lorraine by Louis XIV, he was educated for the Protestant ministry, but took up law instead and became cypher-secretary and confidential translator to the United Provinces of Holland. He is said to have known at least eight languages. In 1742 he published a translation from German into French of F. C. Lesser's "Insectotheologie", with drawings and comments. Having taught himself the art of engraving, he supplied the plates for Abraham Trembley's "Mémoires". His most famous book, which has been described as the most laborious and beautiful example of minute anatomy that has ever been executed, is the "Traité anatomique de la Chenille, qui ronge le bois de Saule", published at The Hague in 1760. It is remarkable for the eighteen beautiful plates depicting his exquisitely delicate dissections of the head of the goat-moth caterpillar (*Cossus ligniperda*). Copies dated 1762 contain an extra plate showing the author's microscope and dissecting instruments, in answer to certain critics who had protested that such minute work was impossible and could not be genuine. Lyonet also studied the anatomy of the sheep-tick, the house-spider and various beetles, and the life-history of Diptera and Lepidoptera. Failing eyesight at the age of sixty put a stop to further microscopic investigations and to engraving. His later researches were published posthumously by W. de Haan under the title "Recherches sur l'Anatomie et les Métamorphoses de différentes espèces d'Insectes" (Paris, 2 vol., 1832). He was a foreign member of the Royal Society of London, and a member of the Royal Academies of Rouen and of Berlin, of the Imperial Academy of Natural History of St. Petersburg, and of the Society of Sciences of Holland. He died at The Hague on January 10, 1789, in his eighty-second year.

Discovery of Element 102

Element 102, as yet unnamed, has been discovered in the course of a joint research project by scientists from Sweden, Great Britain and the United States. In the experiments performed to make this new element, curium-244 deposited upon a thin foil was exposed to a stream of accelerated carbon ions generated by the 225-cm. cyclotron at the Nobel Institute, Stockholm. The carbon ions included both carbon-13 and carbon-12 particles. Absorption of carbon-13 particles in the curium led to the formation of element 102. The element 102 formed was collected on a separate foil placed near the target foil, along with other atoms produced and ejected by the interaction of the beam of particles and the target. The experiment required very close control of the energy of the incident beam of bombarding ions, since the probability of observing the formation of the new element is critically dependent upon the number of neutrons lost in the reaction; the number of neutrons lost in the reaction is increased, as the energy of the beam is increased beyond the lowest energy at which the reaction begins to occur. Element 102 was identified among the products on the capture foil by radiochemical methods; the isotope identified had a half-life of about 10 min. and emitted alpha-particles with an energy of 8·5 MeV. The isotope probably has a mass of 253 but this has not yet been established with certainty.

The members of the research team were: Hugo Atterling, physicist; Wilhelm Forsling and Lennart Holm, chemists; and Björn Alström, electrical engineer (Nobel Institute for Physics); John Milsted, chemist; and Alan Beadle, chemical technician (Harwell); Paul R. Fields, group leader in the Chemistry Division; and Arnold M. Friedman, who is working at Harwell for one year under an exchange of United States and British nuclear scientists (Argonne).

International Geophysical Year: Broadcast Warning Service

In order to assist the International Geophysical Year programme the B.B.C. is to broadcast information about the expected solar activity at 11.03 p.m. in the Home Service after the 'news' and before the weather forecast. It will be broadcast by all medium wave and very high frequency transmitters carrying the Home Service. Announcements will be made of the beginning and end of Special World Intervals, and preparatory warnings will be issued. This scheme was put into operation on July 15 and it will continue until the end of the International Geophysical Year (December 31, 1958).

The central World Warning Agency has been established at the United States National Bureau of Standards Radio Warning Service at Fort Belvoir, Virginia. There reports on solar activity from the Central Radio Propagation Laboratory at Boulder, Colorado, will be studied, and when it is considered likely that solar flares or other disturbances will occur on the Sun an 'alert' will be declared. If the activity is maintained a Special World Interval is declared. Should the expected activity fail to occur, the Special World Interval will be cut short. The 'alert' will be rescinded when the solar activity subsides or the active region disappears around the other limb of the Sun. In order to transmit information about the declaration of 'alerts' and Special World Intervals, use has been made of the existing meteorological communication system, which is used for transmitting weather information from one part of the world to another. The World Warning Messages initiated at Fort Belvoir will be transmitted by land-line to the transmitters in New York, Miami and San Francisco, and from there by a network of radio, telegraph and telephone links to meteorological communication centres and thence to International Geophysical Year stations. The messages will be transmitted from Fort Belvoir at 1600 U.T. (Universal Time, which is equivalent to Greenwich Mean Time), and if a Special World Interval is declared it will take effect at midnight on the same day. In Britain the messages will be received by the Meteorological Office Telecommunications Centre at Dunstable, and will be distributed by telegraph to scientific stations by the General Post Office and more widely by the B.B.C. announcements. The United Kingdom Antarctic stations will receive messages by radio from Port Stanley in the Falkland Islands.

Radiation Society of Australia

A highly successful conference on "Radiation Biology" was held at the Cancer Institute, Melbourne, in December 1955. This conference made apparent the number of people in Australia interested in the effects of radiation, and led to the suggestion of the formation of a Radiation Society. The Society is intended to lead to a better understanding among the workers in the various disciplines involved, and thereby to encourage research investigations. A committee has been elected, and comprises: Sir