duced by the penetrating radiation. While it is to be hoped that in the years to come we may have available for study in our laboratories swifter beta-rays and higher-frequency radiation than we have to-day, we can hardly hope in the near future to produce artificially radiations, atoms and electrons which have an individual energy of the order of 100 million to 1,000 million volts, such as are present in our atmosphere.

It is thus of great interest and importance to use every promising method of attack to throw light on the nature and origin of these penetrating radiations and the effects arising in their transmission through matter. The magnitude of the effects to be observed is small and not easy to measure with accuracy; but with the ever-increasing delicacy of methods of attack we may hope to gain much further information. The study of these extraordinarily penetrating radiations is not only of great interest in itself, but also for its promise of throwing new light on fundamental processes in our universe connected with the building up and destruction of atoms. It may take many years of faithful experiment before the evidence is sufficient to test the correctness of the numerous interesting speculations that have been advanced to account for the origin and nature of these radiations.

ERNEST RUTHERFORD

SCIENTIFIC EVENTS

THE NATIONAL RESEARCH COUNCIL OF ITALY

THE National Research Council of Italy held its inaugural meeting on February 2 in the presence of Signor Mussolini and of the president, Senator Marconi. Modern scientific research, said Signor Mussolini, according to the London *Times*, required an adequate organization and vast means. It was the lack of these in the past that had led to the present decadence of research and to the paucity of research workers in Italy. To remedy this situation individual research workers needed to be assured that they could "live by science and for science."

The National Research Council, added Signor Mussolini, must keep in living contact with the industrialists, agriculturists, the business men and the administrative authorities, and in particular with the different confederations of employers and workers, since scientific research ultimately resulted in improvement and increase of production. The Seamen's and Airmen's Confederation had already offered 100,000 lire to the council for research into ways of life-saving at sea and the better utilization of fuel by ocean craft.

The inadequacy of individual and unorganized research was also laid stress upon by Senator Marconi, who referred to the need of coordination and discipline among research workers. It was important, he said, that a discovery made or piece of research work begun in Italy should mature and develop so far as possible in Italy. At the same time, means should be found for a rapid development and application in Italy of inventions made abroad. Twelve national research committees had already been formed in Italy in the fields, respectively, of agriculture, astronomy, biology, medicine, chemistry, physics, geodetics, geography, geology, engineering, mathematics and wireless telegraphy. Research in agriculture was for Italy of capital importance, as also was every application of science destined to make Italy less dependent on foreign imports. In conclusion, Senator Marconi recalled for the inspiration of Italian researchers the motto of Galileo, the greatest of their scientists: "Try and try again."

A BELGIAN ROYAL COLONIAL INSTITUTE

THE *Journal* of the American Medical Association reports that a royal decree has established a Belgian Royal Colonial Institute. Similar institutes exist in all large countries possessing colonies. Particularly the royal colonial institution of Amsterdam has awakened appreciation of the important services that a central colonial institute can render when it carries on scientific researches and serves as a clearing house of practical information in connection with the economic problems that affect the colonies. Many organizations in Belgium are engaged in the study of colonial problems, such as native politics and jurisprudence; agricultural and industrial colonization; transportation problems and equipment for the colonies. Now their activities will be concentrated and a unity of direction will be established. It is desirable that interest in the colonies be developed in the universities and in other institutions of higher learning. The young people of the country should become familiar with colonial needs and colonial services, for that would aid later in procuring physicians, civil engineers, magistrates and administrators whose knowledge and experience would contribute to the efficient administration of the colonies and to the prosperity of colonial enterprise.

The Institut Royal Colonial Belge is divided into three sections. The first section, of moral and political sciences, deals particularly with questions pertaining to history, native politics, colonial legislation, ethnology, languages, literature and missions. The second section, of natural and medical sciences, deals with questions of physical and commercial geography, geology, chemistry, botany, zoology and entomology, hygiene and medicine, agriculture and