To this great task Righi devoted natural abilities singularly adapted to the needs of his science in the period of his greatest productive activity, when our views as to the nature of electricity and of matter were undergoing a fundamental reorganization.

Righi was a serious and well-trained thinker brought up in the old school and one who was too experienced to be led astray by brilliant generalizations which lacked sound experimental confirmatory evidence, and yet withal he possessed in some measure those gifts which we are most likely to associate with the poet or with women than we are with a man in an exact science—the gifts of imagination and intuition. That these two qualities were necessary in the building up of the electron theory nobody will deny. They are possessed by the living Thomson, Rutherford and a few of their co-workers and they were possessed by the dead Righi, and his name will stand with theirs in the history of his science.

AUGUSTUS TROWBRIDGE

SCIENTIFIC EVENTS

THE CENTENARY OF SIR JOSEPH BANKS

THE commemoration of the centenary of Sir Joseph Banks, Bart., who died on June 19, 1820, has been celebrated by the Linnean Society. According to the report in *Nature*, Dr. B. Daydon Jackson read the first communication on "Banks as a Traveller," speaking of his four overseas voyages—first, the visit to Newfoundland in H.M.S. *Niger*, on board which his friend Constantine Phipps, afterwards Lord Mulgrave, was a lieutenant; next, the adventurous voyage of the *Endeavour*, Lieutenant Cook commander, when Banks so amply proved his value in many untoward events; third, the voyage to Iceland; and fourth, his trip to Rotterdam in 1773, when he was still eager for an expedition to the north. The second paper, by Dr. A. B. Rendle, was entitled "Banks as a Patron of Science." Banks's life from his return to England in 1771 until its close in 1820 was that of an enthusiastic, liberal, and generally far-sighted patron of science. A friendship began with King George, which steadily increased, and Banks was consulted on important matters of very various kinds. He became botanical adviser to the King in relation to the Royal Gardens at Kew, which developed under Banks's guidance, becoming the repository of plants of economic and ornamental value from all parts of the world. Banks initiated or encouraged voyages of exploration, and kept up an extensive correspondence with men interested in science overseas. His house in Soho Square was the rendezvous of students and men of all classes interested in schemes of philanthropy or science; his magnificent library and herbarium were at the service of other workers, and after his death were bequeathed to the British Museum. For forty-two years he was president of the Royal Society. He was very closely, though indirectly, associated with the origin of the Linnean Society. Mr. James Britten, in the third paper, began by remarking that much of his paper was based upon the daily use of Banksian specimens for nearly half a century in the British Museum. The author showed that the popular belief that Banks left all his botanic work to his secretaries and curators, Solander and Dryander, was a mistaken one, and that Banks displayed great botanic acquirements. The president remarked that official records of the British Museum testified to the active interest taken by Banks in all matters connected with its advancement, and that keepers and trustees alike referred to him for his advice and decision. Certain objects closely connected with Banks were exhibited.

THE EPIDEMIC OF INFLUENZA IN ENGLAND

A FURTHER report on the great influenza epidemic has been issued by the Registrar-General. According to the abstract in the London *Times* the report states that the deaths allocated to influenza during 1918 numbered 112,329, the males being 53,883 and the females 58,446. The males included 7,591 non-civilians, and, deducting these, the deaths of civilians corresponded to a mortality of 3,129 per 1,000,000 civilian population.

No such mortality as this has ever before been recorded for any epidemic in this country since registration commenced, except in the case of the cholera epidemic in 1849, when the mortality from that cause rose to 3,033 per 1,000,000 population. None of the previous outbreaks of influenza can compare in mortality with that of 1918–19. During the 46 weeks, June 23–May 10, the total deaths allocated to the disease were 151,446, including 140,989 of civilians, the corresponding civilian death-rate for these 46 weeks being at the annual rate of 4,774 per 1,000,000 population.

It is pointed out that the mortality attributed to influenza does not represent the whole of that caused by it. The entries under other headings, especially those of respiratory disease, were always bound to increase during an epidemic, and though that did not occur in 1918 to the same extent as in other recent outbreaks, allowance must be made for these increases in mortality, allocated to other causes but really attributable to influenza, in endeavoring to measure the loss of life caused by the epidemic.

With regard to the deaths of females, when pneumonia, bronchitis, heart disease and phthisis are included, the deaths attributable to the epidemic during the third quarter of 1918 were 7,741, and during the fourth quarter 62,240. The figures for males for the same quarters were 8,088 and 51,359, respectively.

In earlier years influenza was less important under 55 years and more so above that period. In 1918–19 this position was suddenly and violently reversed. Those under 35 died in appalling number; those over 55 seemed to be relatively safe. The report says:

> It may be doubted whether so sudden and so complete a change of incidence can be paralleled in the history of any other disease, yet all the weight of medical testimony goes to show that the influenza of 1918 was essentially the same as that of former years. Attempts have been made to explain the change as due to alteration in the circumstances of the population. Thus it has been suggested that aggregation of young women in munition works in 1918 may partly account for their specially heavy mortality. No simple explanation on these lines is possible. The alteration in age incidence accompanying the increased prevalence and fatality of the disease in 1918 seems to be more easily explained by a sudden change in the infecting organism than in the soil provided for its growth.

THE ENFORCEMENT OF THE FOOD AND DRUG ACT[1]

During the last few years the people of the United States have been given a very material amount of protection against those swindlers who sophisticate the foodstuffs and drug supplies of the country. Especially good work has been done in obtaining convictions against "patent medicine" fakers who have made false and fraudulent claims for their nostrums. This protection has been given through the enforcement of the federal Food and Drugs Act. The administration of this law rests with the Department of Agriculture, which acting through its Bureau of chemistry, collects evidence and lays the groundwork for the legal machinery of the government to proceed against the offender. The activity of the Bureau of Chemistry of the Department of Agriculture has, of course, aroused the strongest antagonism on the part of the nostrum interests. These interests may well rejoice in the recent action of congress in cutting down the appropriations for the Department of Agriculture. Even under the appropriation given for the last fiscal year, which ended June 30, 1920, the department was greatly hampered in its work of enforcing the Food and Drugs Act. Under the plea of economy, Congress has reduced the appropriation for the enforcement of this act by thirty thousand dollars. The *Oil, Paint and Drug Reporter,* a highgrade and conservative publication, well states the fact, in commenting on this disgraceful condition of affairs, when it says:

> Under the reduced amount provided for next year, it will be impossible to supervise the regulation of the Food and Drugs Act as it should be supervised. This portends a rich harvest for those who misbrand and adulterate medicinal, pharmaceutical, disinfectant and other preparations. The vast public, which daily purchases and consumes

[1] From the *Journal* of the American Medical Association.