

brary of the American Museum of Natural History and the Library of Congress.

HERMON C. BUMPUS

SCIENTIFIC EVENTS

THE LISTER INSTITUTE¹

THE Lister Institute is unique among the medical establishments of London, because it is an independent organization endowed by private benefactors. The only comparable institution is the London School of Tropical Medicine, which, however, is in the enjoyment of government support. The Lister Institute is one of the schools of the University of London, admitted under the statute which empowers the senate to admit any institution within the prescribed area founded for the promotion of science or learning to be a school of the university for the purpose of research or the cultivation of any special branch of science or learning. Its director, Dr. C. J. Martin, F.R.S., is professor of experimental pathology in the university, while several members of its staff are readers or recognized teachers in the university. But its connection with the university is otherwise shadowy and its affairs are managed by a governing body which includes Major General Sir David Bruce, K.C.B., F.R.S. (chairman), Professor F. W. Andrewes, M.D., F.R.S., Professor W. Bulloch, F.R.S., Sir James Kingston Fowler, K.C.V.O., and Professor E. H. Starling, C.M.G., F.R.S. There is also a council containing representatives of the members of the Institute and of many learned bodies.

The report to be presented at the annual general meeting gives an account of the various activities of the institute during the year, and contains a section in which its future general policy is discussed. A great deal of the time of the staff of the institute—which, owing to the war, was much diminished—was given to routine bacteriological examinations for the London County Council and other public bodies, and the production of serums and vaccines for the War Office and the Government of Egypt. But some of the work done for the War Office has reached out

to research, as, for instance, investigations made by Dr. Arkwright and Mr. Bacot as to the virus of trench fever and typhus fever, and the transmission of these diseases by lice. Miss Muriel Robertson has continued researches upon anaerobic bacteria of wounds and the preparation of standard samples of the toxin of *Vibrio septique* which have been used in preparing and standardizing the serums issued to the army from the serum laboratories of Messrs. Burroughs, Wellcome and Co. Much of present knowledge of the pathogenic anaerobes has been gained since the beginning of the war, and in its acquisition Miss Robertson, who is secretary of the anaerobic committee originated by the Medical Research Committee, has taken a prominent part.

In another direction researches stimulated by the war have yielded results of permanent importance to physiology and general medicine—and indeed to sociology and statecraft also. Dr. Harden and Dr. Zilva have made a series of investigations into the properties of accessory food factors and the effects of the deprivation of them on various animals. A related research was that conducted by Dr. Harriette Chick, at the request of the military authorities, into the cause of scurvy; it was eventually expanded to include certain other deficiency diseases. The research demanded the greatest care in the adjustment of the diets and the feeding of the animals, and the help of many volunteer workers was enlisted. This inquiry has had many parts, but those concerned with the quantitative determination of the relative antiscorbutic efficiency of natural foodstuffs, and with the loss of antiscorbutic value during the drying of vegetables, are now practically complete; work is still in progress with regard to the preservation of lemon juice and root vegetables, and as to the antiscorbutic and growth-promoting properties of cow's milk, with special reference to infant feeding. The novel feature of the investigations has been the attempt to get a quantitative estimate of the amount of accessory food facts in various foodstuffs, the first step being to determine experimentally

¹ From the *British Medical Journal*.

for each substance the minimum daily ration which will protect the experimental animal. A committee on accessory food factors, with Professor Hopkins as chairman and Dr. H. Chick as secretary, has been sitting during the year, and has prepared a monograph to meet the needs of the general scientific and medical reader.

SCIENCE IN AUSTRALIA

THE newly founded Commonwealth Institute of Science and Industry, Melbourne, has begun the publication of a monthly journal entitled *Science and Industry*. The editorial foreword says:

No competent scientific investigator need fear the coming of the institute. It will not attempt to do work that others are doing already. There is more than sufficient work for all. No one needs to look round for a job. They are everywhere at hand. While there is still dust in Sydney's streets, or smoke issuing from the chimney stacks at the factories at Footscray, while there is waste timber being eternally burnt around the saw-mills of the west, while the molasses expressed from the sugar-cane of the north still finds its way down to the sea, who can deny the width of the field for scientific investigation? While the rich lands of Queensland are continually being given over to the prickly pear, and arable areas of Victoria to St. John's wort, while artesian water ceases to flow, or the bores to corrode, while stock die of strange diseases in the night, and their young perish before birth, while there are still mineral treasures that have not yet been exploited by the prospector, while air transport is still with us an undeveloped means of locomotion, while a thousand and one articles of daily use are still being imported from foreign lands that could easily be manufactured by our own people, who will say that there is no room for science?

Hitherto in Australia, and in most other English-speaking countries, the scientist is only now beginning to get back some of his own. In the past there has been observable a certain suspicion of science. The primary producer used to regard the man of science as a dreamer or at best a theorist. They talked of Collins-street farming. The scientific man, on his part, had little respect for those who allowed their actions to be hampered by the ideas of their grandparents. But gradually it was seen by producers that the man of science

had something to teach them if they were only prepared to listen, and if he was willing to express his thoughts in every-day language. The man on the land no longer despises science as he did a quarter of a century ago—at least, the more progressive do not. The manufacturers are not precisely in the same plight. With some few and notable exceptions, they have been inclined to ignore the lessons of science. The scientists themselves are somewhat to blame for this, or, at any rate, they have themselves to thank. Business men have one test of value, and that is cost. Scientists who love their science place it above money. Much of the most valuable scientific work done in the world has been done for a pittance. The reward of the investigator was not necessarily expressed in the augmentation of his banking account. Business men could not understand this. Services that could be had cheaply were nasty. If they were valuable, they would be much sought after in the market. So argued these men of affairs, and this was the basis of those advertisements asking for the services of fully-qualified chemists at £200 a year or less. These bad old days must end if science is to come into her own. In the field of science the laborer is worthy of his hire.

The institute is the youngest department of the commonwealth government. It is not yet old and effete, with a large number of its officers eagerly looking for the retiring age. It represents the young commonwealth, youthful and virile, and realizes, as it has been expressed, that "the frontier of knowledge is the starting point of research."

SIGMA XI AT SYRACUSE UNIVERSITY

THE Society of Sigma Xi at Syracuse University has elected as officers for the ensuing year the following: *President*, Edward D. Roe, Jr.; *Vice-president*, C. C. Adams; *Secretary*, Geo. T. Hargitt; *Treasurer*, Henry F. A. Meler. During the past year the following scientific program has been presented by members of the society:

November 18. Edwin F. McCarthy. Occurrence of knots and spiral in Adirondack red spruce.

Carl J. Drake. Notes on *Nezara viridula*, a serious plant pest in the south.

December 13. R. S. Boehner. Gas warfare.

E. N. Pattee. The outlook for chemical industries in the United States.

January 10. T. C. Hopkins. Exploring and