

Those wishing to investigate marine forms have only to take a short trip down the Caunau River to the Milpa on the inner neck of Cienfuegos Bay where they can be accommodated at Mr. Atkins's commodious summer place.

EXPENSES

Rates from New York to Cuba by water are very low, and those accepted as resident investigators will be under merely nominal expenses while working at the garden.

Those who desire to apply for a table should state what problem they wish to undertake and when they expect to be in residence. For further information address Professor W. M. Wheeler, dean, or Professor I. W. Bailey, secretary, The Bussey Institution of Harvard University, Boston 30, Mass.

E. M. EAST

BUSSEY INSTITUTION,
HARVARD UNIVERSITY

SCIENTIFIC EVENTS

IMMUNIZATION AGAINST PNEUMONIA

THE Influenza Commission of the Metropolitan Life Insurance Company announces the discovery of a new treatment for pneumonia which holds out the definite hope of accomplishing a radical reduction in the death rate of this disease, so often a sequel to influenza.

Dr. Lloyd D. Felton, assistant professor of preventive medicine and hygiene in the Harvard Medical School, working in the department of preventive medicine and hygiene, has found a method of precipitating and concentrating the antibodies in anti-pneumococcus serum. The concentrated antibody solution has been used with encouraging results in about sixty cases at the Boston City Hospital and in about sixty more in hospitals in New York and Brooklyn. Dr. Felton read a paper before the New England Health Institute in New York City on May 9 making public the methods and essential facts.

Dr. Felton's studies have dealt with the virulence of pneumococci, the pneumonia germs. He has sought to isolate the protective element in the serum taken from a horse immunized against pneumococci. The serum itself is weak and produces violent reactions in the form of chills, serum sickness, rashes, etc., which have radically diminished its value for the use of private practitioners.

While making studies with carbon dioxide precipitant, Dr. Felton observed that a very heavy precipitate was formed in the serum when diluted in plain water. Convinced that the substance carried with it the protective element of the serum and left behind the harmful substances, he tested it out with mice.

He injected virulent pneumococci into a group of mice. After six hours he injected the new serum into some of the mice, while he allowed the disease to run its course with the others. At the end of thirty-six hours the controls had died of pneumonia. The mice protected by the serum recovered.

After further refinements of the serum, Dr. Felton distributed his product to a group of clinicians in hospitals in Boston, New York and Brooklyn, to be used for the benefit of those suffering from pneumonia. The encouraging results include the fact that the serum sickness and other harmful reactions have been practically eliminated.

The injections in human treatment are made intravenously. Subcutaneous injections, tried recently by scientists in the hope of escaping the harmful reactions of the old serum, were found to have little protective power. Dr. Felton's preliminary tests with other than Type I pneumonia indicate that it will not be difficult to have the same success with the other types of lobar pneumonia.

Added importance is given to the work by the probability that the isolation of the protective substance in pneumonia serum has brought to light a general law concerning the action of protective antibodies. "In addition to pneumococci, as a matter of control," Dr. Felton states, "it has been found possible to isolate the protective substance in immune sera developed by other micro-organisms. There are indications that the protective antibody of the pneumococcus is one of many which act in a similar fashion, and its behavior represents a general law for certain groups of bacteria."

Dr. Felton worked in the laboratory of Dr. Milton J. Rosenau, professor of preventive medicine and hygiene in the Harvard Medical School and chairman of the Influenza Commission of the Metropolitan Life Insurance Company. He went to Harvard in the fall of 1922 where he has been steadily at work on the mechanism of virulence. He is a graduate of Wooster College, Ohio, A.B., '10, and of the Johns Hopkins Medical School in 1916.

EXPEDITION TO THE VALLEY OF THE AMAZON

DR. CARL D. LARUE, of the department of botany of the University of Michigan, landed in New Orleans on March 14, after spending over eight months in different parts of the valley of the Amazon in Brazil and Bolivia, where, as specialist in rubber investigation, he has been studying the present status of the industry for the Department of Agriculture.

The objects of the expedition were as follows:

(1) The investigation of the present state of the industry in Brazil, including the extent of wild rubber and the methods of production.

(2) Study of the types of trees, particularly along the lower Amazon. The rubber-producing trees of the Eastern world, which now furnishes the greater part of the entire supply—the Malay States, India, Borneo, Ceylon, Java and Sumatra—were all originally transplanted from Brazil.

(3) Physiological studies of rubber trees, and botanical studies in general.

(4) Diseases of rubber-trees. This side of the work was in charge of Dr. J. R. Weir, pathologist of the Bureau of Plant Industry at Washington.

(5) An intensive study of conditions and methods of production in the Acre district on the Upper Amazon, where the best rubber is grown.

The results of the expedition will be published in Dr. LaRue's official report to the Department of Agriculture, now in preparation. The general results of the expedition were in all respects satisfactory.

PRIZES OF THE NEW YORK ACADEMY OF SCIENCES

THE New York Academy of Sciences announces two prizes of \$200 and \$100, respectively, offered by Mr. A. Cressy Morrison, fellow of the academy, to be known as the A. Cressy Morrison Prizes for 1924 and to be awarded at the annual meeting in December, 1924. The conditions are:

(1) Eligibility: Membership in good standing of the New York Academy of Sciences or one of the affiliated societies, prior to submission of the manuscript.

(2) Date: Papers are to be submitted on or prior to November 1, 1924, to the secretary of the New York Academy of Sciences at the American Museum of Natural History.

(3) Papers: The prize of \$200 is offered for the paper adjudged to be the most meritorious in a field of science covered by the academy or an affiliated society, which paper embodies the results of original research not previously published. The prize of \$100 is offered for the thesis adjudged to be most meritorious on the subject "What may be proved from our present knowledge as to the possibility or impossibility of released intra-atomic energy constituting an important source of solar and stellar energy."

(4) Awards: The awards shall be made by the council of the New York Academy of Sciences. At the discretion of the council, the prizes may be divided between papers adjudged to be of equal merit or both prizes may be awarded to a thesis presented for the \$100 prize.

(5) Publication: The academy will consider publication of the successful paper or papers, but publication by the academy shall not be binding on either party.

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

THE final program for the meeting of the International Union of Pure and Applied Chemistry to be held at Copenhagen, from June 26 to July 1, is definitely announced as follows:

Thursday, June 26.

3:30 p. m. Reception to delegates at the City Hall by the municipal authorities.

Friday, June 27.

9:00 a. m. Meeting of the council.

11:00 a. m. General assembly.

2:00 p. m. Meeting of committees.

8:30 p. m. Reception.

Saturday, June 28.

9:00 a. m. Meeting of committees.

1:30 p. m. Meeting of committees.

4:00 p. m. General lectures (to be announced later).

Sunday, June 29.

10:00 a. m. Excursions in neighborhood of Copenhagen and luncheon to delegates by the reception committee.

Monday, June 30.

9:00 a. m. Meeting of committees.

2:30 p. m. Visit to the Carlsberg Breweries, general lectures (to be announced later).

Tuesday, July 1.

9:00 a. m. Meeting of committees.

2:00 p. m. Meeting of council.

4:00 p. m. General assembly.

8:00 p. m. Banquet to the delegates by the reception committee.

During the course the delegates will be invited to a special lecture to be delivered by Professor Niels Bohr and will visit his laboratories in the Institute of Theoretical Physics of the University of Copenhagen.

The American delegation is composed as follows: Delegates to the Council: W. D. Bancroft, *Chairman*; J. E. Zanetti, *Secretary*; W. A. Noyes, W. T. Taggart. *Delegates to the Assembly*: E. J. Atkisson, F. E. Breithut, H. C. Fuller, H. C. Loudonbeck, R. A. Millikan and Atherton Seidell.

American chemists who expect to be abroad and who would like to attend the meetings are requested to communicate with Dr. J. E. Zanetti, chairman of the Division of Chemistry and Chemical Technology, National Research Council, Washington, D. C. Credentials from the National Research Council are necessary to attend these meetings.

THE SECTION OF MATHEMATICAL AND PHYSICAL SCIENCES OF THE BRITISH ASSOCIATION

OVERSEA members of the British Association for the Advancement of Science coming to the Toronto