The governor's message to the legislature, accompanying the bills, follows:

Many farmers in the state are asking for constructive assistance in the solution of certain problems in the management of their farms and in their business which call for expert scientific research. This assistance must come from those who by training and experience are in a position to deal fundamentally and comprehensively with the specialized technical and scientific problems involved.

I, therefore, recommend the passage of three bills which have been prepared, for investigations, research work and for necessary personal service, and construction work incidental thereto, by the New York State College of Agriculture at Cornell University, the New York State Agricultural Experiment Station at Geneva and the New York State College of Home Economics at Cornell University.

These bills provide for appropriations totaling the sum of $168,530 to be spent on investigations of muck land problems in their soil and pathological aspects, crop adaptation, fertilizing and cultural practice, potato diseases, city markets, regional readjustments and development of cooperative marketing, rural government, animal husbandry, peach moths, codling moths and allied insects, and the question of living costs on the farm.

These expenditures have been recommended to me by the Agricultural Advisory Commission which I appointed last December and represent the minimum of what ought to be done this year to help the farmer to meet his farm problems.

THE "SLOTH PIT" IN NEW MEXICO

THE Peabody Museum of Yale University and the U. S. National Museum at Washington, acting jointly, sent an expedition on March 25 to New Mexico to excavate completely the extinct fumarole in which the fossil of the Yale ground sloth was found. Yale will be represented in the expedition by Fred W. Darby, in charge, and the National Museum by N. H. Boss. Ewing Waterhouse, of El Paso, Texas, one of the discoverers of the sloth, will assist the party. It has been agreed that all bones recovered will be divided between the Peabody Museum and the National Museum, with the understanding that, should another sloth be found, it is to go to the National Museum.

The work is to be done in Dona Ana County, New Mexico, about forty-five miles northwest of El Paso, Texas. This is an extensive volcanic region where lava flows are a characteristic feature. Near the town of Aden lies the low cone of an extinct crater rising about two hundred feet above the surrounding country. Within the crater the floor is flat, about a quarter of a mile across, and is sparsely covered by cacti and other desert plants. On the east side the crater rim is broken by a gap which forms a passage into the interior, with gradually narrowing walls. In the floor of this passage lies a seemingly bottomless pit, the aperture of which is about eight feet in its longest diameter and covers the entire width of the passage. This forms a natural death trap, and it was into this pit that the sloth now at Peabody Museum blundered, possibly when pursued by wolves.

At a vertical depth beneath the surface of about one hundred feet is a cavern full of bat guano, the accumulations of thousands of years, in which the sloth was found. The guano afforded the means of preservation of the entombed fossils. This cavern, which is estimated to contain about ninety tons of bat guano, will be excavated by the expedition. This means sifting the guano with fine-mesh sifters to insure against the loss of any bones, no matter how small, either fossil or recent.

As but little of the guano deposit has been disturbed, it is believed that more specimens will be found contemporaneous with, or older than, the Yale sloth, which may be upward of 500,000 years old. Professor Richard S. Lull, director of the Peabody Museum, has said that while the place could never have been occupied as a den, "it is hardly thinkable that our sloth was the only unfortunate of his day to blunder in."

RESEARCH ON DEAFNESS

GIFTS aggregating $40,475 for research into the cause and cure of deafness were announced at a luncheon held on March 20 in the Hotel Commodore by the laymen's committee which is assisting the American Otological Society's Research Fund Committee in an effort to reach its goal of $500,000 by June 30.

These gifts are to become a part of the $2,500,000 permanent fund which the Otological Society, a branch of the American Medical Association, hopes to collect for a study of diseases and affections of the ear in the hope of discovering methods of dealing with the problem of chronic progressive deafness. The society is particularly concerned over those varieties of deafness, including otosclerosis, for which no cure is known at present.

Dr. Edward B. Dench, New York otologist, who was present at the luncheon representing the board of trustees of the research fund of the society, emphasized the importance of having $500,000 available by the end of June in order that the important research work which has been started in several medical institutions under a grant by the Carnegie Corporation need not be interrupted. Dr. Dench made the statement that one out of every four persons in the United States is suffering from hearing defects of some sort.

The campaign was announced at a dinner given last week at the New York Academy of Medicine to a group of prominent otologists and interested laymen.

Among the persons who have contributed to the fund are Mrs. Helen Hartley Jenkins, of New York City, who gave $25,000 through the Hartley Corporation, and Mrs. Charles H. Stout, of Short Hills, New Jersey, who donated $10,000.

THE TORONTO MEETING OF THE AMERICAN ELECTROCHEMICAL SOCIETY

THE spring meeting of the society is scheduled for May 27, 28 and 29. Many of the members expect to arrive in Toronto on Sunday, in order to give themselves an opportunity to become acquainted with the metropolis of Canada. At Toronto are located 3,600 manufacturing establishments, with an annual output of various products amounting to $60,000,000. North of Toronto are the great mines of Ontario, which are responsible to a large measure for the city's prosperity.

The reduced railroad rates go into effect on May 15, and there will be a large attendance of members and guests residing in the western part of Canada and the United States. The headquarters of the meeting will be at the University of Toronto. The spacious, well-equipped dormitories will be used as sleeping quarters. The university students will have left the week previous, so that the university facilities will be at the disposal of the society. Members and guests are urged to communicate with Professor W. Lash Miller, chairman of the local committee, at the university, and make their reservations for rooms well in advance of the meeting.

Monday afternoon will be devoted to an open discussion, to which guests of members are cordially invited. The topic will be the present status and future developments of the electrochemical industries of Canada, including aluminum, cyanamide, copper, carbide, acetone, etc. There will be a formal paper presented to introduce the topic. The discussion as a whole will not be recorded—pursuing the same policy that has prevailed at the round table discussions. Members will have an opportunity to get the latest reports on the power available for electrochemical industries, raw materials, cost of transportation, markets, new products and their applications, etc.

The main scientific session will be devoted to papers on "Electro-Magnetic Characteristics of Electrochemical Processes." Six papers have been listed for this interesting topic. The papers cover the phenomena experienced not only in solids and solutions, but also in gases. Mr. Floyd T. Taylor, of Matawan, New Jersey, will be in charge of this session.

A session on modern methods of teaching is in charge of Professor Roy L. Dorrance, of Queen's University, Kingston, and promises to be of interest not only to teachers and students, but also to many of the industrial men who strongly favor radical changes in presenting the subject of electrochemistry to the young student. The modern electrochemist must not only be a good chemist, but he must also be an expert in electrical engineering and metallography, and, above all, must have a full appreciation and understanding of engineering materials and costs. Among those who will participate in this discussion are Professors Stansfield, Sheean, Thompson, Parker, Brockman, Furman, Kahlenberg and Kremers.

Professor Harry A. Curtis, of Yale University, will address the society on Tuesday evening, May 28, on "The Nitrogen Fixation Factories of the World." The address will be illustrated.

On Wednesday morning, May 29, there will be a joint session with the American Electroplaters' Society, Toronto branch. On Wednesday afternoon there is also scheduled a joint session with the Canadian Chemical Association.

Plans for visits to industrial plants have been made.

RESEARCH IN AGRICULTURAL CHEMISTRY

As has already been announced, the first award under the Frasch Foundation, established by the will of Elizabeth Blee Frasch for "research in the field of agricultural chemistry," has been made, giving half of the award, $20,000 annually over a period of five years, to the Boyce Thompson Institute for Plant Research in Yonkers, New York; $12,000 annually to the University of Missouri, and to the University of Wisconsin, $8,000. The committee of five who advised the directors of the American Chemical Society as to the award included: R. W. Thatcher, *chairman*, W. D. Bigelow, C. A. Browne, John Johnston and C. R. Moulton. The fund is administered by the United States Trust Company, upon the legal advice from the directors of the American Chemical Society.

It is proposed that the funds be applied mainly to salaries, the institution obtaining the award to supply the equipment and materials for the investigations. In the case of the Boyce Thompson Institute, a large laboratory is being equipped especially for this work, and Dr. F. E. Denny will handle the research on effect of stimulative chemicals on plant growth, while Dr. Frank Wilcoxon will conduct the special insecticide and fungicide investigations.

At Wisconsin the fund will be devoted to the biochemistry of micro-organisms in connection with fermentation studies already under way, while at Missouri the project is entitled "The Efficiency of the Animal Growth Process at Various Ages and under Various Conditions of Management."

Annual progress reports are to be made and probably a series of monographs issued on the completed work.