Germany, and Nagoaka, in Japan, believe they have converted mercury into gold by the use of large currents in a mercury arc lamp. If this is true it has probably resulted from the shooting of an electron into the nucleus of a mercury atom, which would convert it into an atom of gold provided the electron should remain in the nucleus. It must be said that the velocities given to electrons in a mercury arc lamp are much smaller than those which may be imparted in other ways, and that present atomic theories seem to indicate that it is exceedingly improbable that such slow electrons could get at the nucleus. However, the success of the work of Miethe and of Nagoaka can be tested only by experiment, and if they are proved successful, the theories must be changed to account for their success. Such experiments will need to be extremely careful and convincing.

Work has been begun in this laboratory on the method by means of which electrons with thousands of times higher velocities are shot into mercury in order to see if they attach themselves to the mercury nuclei and thus produce gold. It is the opinion of those who have begun this work that even these greater concentrations of energy will be insufficient, and that still more powerful and expensive sources of energy may need to be applied. That gold happens to be the element which might be produced by such a process is of no scientific, and probably of no practical importance, since if any other element could be prepared in the same way it would be of the same interest to science, and any gold produced would be enormously more expensive than the commercial value. The choice of these elements for the scientific work is entirely due to the fact that mercury is easily separated from gold, and gold in extremely small amounts may be detected.

THE ROYAL PHOTOGRAPHIC SOCIETY

THE Royal Photographic Society of Great Britain is holding its seventieth annual exhibition in September and October of this year. This is the most representative exhibition of photographic work in the world, and the section sent by American scientific men heretofore has sufficiently demonstrated the place held by this country in applied photography. It is very desirable that American scientific photography should be equally well represented in 1925, and, in order to enable this to be done with as little difficulty as possible, I have arranged to collect and forward American work intended for the scientific section.

This work should consist of prints showing the use of photography for scientific purposes and its application to spectroscopy, astronomy, radiography, biology, etc. Photographs should reach me not later than Saturday, June 14. They should be mounted but not framed. There are no fees.

I should be glad if any worker who is able to send photographs will communicate with me as soon as possible so that I may arrange for the receiving and entry of the exhibit. Address

EASTMAN KODAK COMPANY, A. J. NEWTON
ROCHESTER, N. Y.

THE EASTERN NEW YORK SECTION OF THE AMERICAN CHEMICAL SOCIETY

IN accordance with its new policy of distributing its regular meetings among the towns in its territory, the eastern New York Section of the American Chemical Society held its one hundred and twenty-fifth regular meeting in Troy in cooperation with the Rensselaer Polytechnic Institute, on March 31. Dr. Zay Jeffries, of the Aluminum Company of America, addressed the meeting on "Aluminum."

About 300 engineering students of the institute attended the meeting. Dr. Jeffries showed rare ability in selecting his topics, so that his address appealed to the engineers and to the scientific men alike. A large number of the local members of the Association of Steel Treaters also attended the meeting from Watervliet and Schenectady.

Dr. Palmer C. Ricketts, director of the institute, presided. Before the meeting, the members of the section from Schenectady, Albany and the other towns around Troy were entertained by Dr. and Mrs. Ricketts at their home with a buffet luncheon.

At the conclusion of the meeting, a party was organized for a tour through the engineering laboratories of the institute. The Troy division of the section certainly managed the affair in fine shape, and a hearty vote of thanks was extended them at the close of the address of the evening.

Dr. Charles A. Kraus, head of the department of chemistry of Brown University, addressed the one hundredth and twenty-sixth regular meeting of the section in the Research Laboratory of the General Electric Company, on the morning of April 4, on "The amphoteric nature of the elements."

His lecture was concerned with his own research work on liquid ammonia solutions, a field in which Dr. Kraus is the acknowledged authority to-day. By applying the accepted theory for atomic structure, he showed that all elements should be either electropositive or electronegative, depending only on circumstances. Until Dr. Kraus started his investigations on ammonia solutions, most of the elements were electropositive, and very few could be made to show any other set of properties, for the reason that in any other state these elements, and their resulting compounds, were extremely reactive, especially to moisture.

Such compounds have now been prepared and worked with. Particular emphasis was placed on the uncommon properties so revealed by such a common element as lead. In many cases, Dr. Kraus was able to foretell his experimental results with surprising accuracy, showing his theory to be correct.

Dr. Kraus emphasized his belief that some such