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ca. Spring 1939

Soon after Hahn's discovery of the splitting of uranium, a few of us, working in different laboratories, realized that if neutrons are emitted in this process a chain reaction might be maintained in a sufficiently large quantity of uranium.

As it seemed for various reasons that this question should be cleared up quickly, I approached some personal friends, and we collected some funds among ourselves. We set up a tax-free association under the name of "Association for Scientific Collaboration" to be used in connection with receiving and spending funds for the purpose of experiments.

Early in February I arranged to use these funds for renting about 1 gram of radium to be used as a source of photo-neutrons in connection with ^a ~~the~~ block of ~~uranium~~ beryllium which was sent to me for this purpose from Oxford, England, in February. Having received the permission of starting some experiments in ~~connection~~ collaboration with Dr. Zinn at Columbia University, we started some experiments on March 1, and a few days later Dr. Zinn and I observed that about one or two neutrons are emitted from every splitting uranium atom. At the same day Professor Fermi, also at Columbia University, working independently and using a different method, made an observation with substantially the same results. Later we learned that about the same time Joliot and his colleagues, who had started work along these lines independently and at the same time, arrived at similar conclusions.

I have raised the question whether it is advisable to

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publish papers on the subject of the chain reaction in the first days of February, and correspondence on this subject by letter and cable among those concerned was continued until April 8th. Pending the outcome of this discussion, Professor Fermi and his collaborators on the one hand, and Dr. Zinn and I on the other delayed the publication of our note which was sent to Physical Review on March 16th. For reasons which are set out in the enclosed copy of a letter from Joliot the co-operation of the French laboratories for refraining from publication could not be secured. Accordingly, the two notes: "....." were released for publication.

At present the two groups which started out independently from each other at Columbia University are closely co-operating in exploring various aspects of the chain reaction. Another group, headed by Joliot, is working independently along similar lines. Lately a number of notes on this subject appeared from various laboratories, but little useful information, if any, can be derived from those.

Apart from following up questions such as the maintenance of chain reactions leading to a source of power and large quantities of radioactive material, questions of stabilizing such chain reactions so as to avoid the danger of overheating, questions related to national defense are receiving close attention.

At present, using the private funds mentioned before, we have 2.35 grams of radium on rent and we are working with

560 pounds of uranium oxide. Using the same funds we paid a sum to Dr. Zinn, sufficient to enable him to take a leave of absence partly paid from the City College of New York, and we are also paying from these funds a graduate chemist who is doing full time work as a technician.

It is clear that we shall need financial support in order to meet future expenses and to be able to refund past expenses to those private persons who helped us in the past by loans.