June 15, 1947
New York Herald Tribune, European edition, 'Joliot-Curie Rips America for Atomic Energy Report'

Citation:

"New York Herald Tribune, European edition, 'Joliot-Curie Rips America for Atomic Energy Report'", June 15, 1947, Wilson Center Digital Archive, Bibliothèque Nationale de France (BnF), Institut Curie Archives, Paris, Carton F-87, CEA: Relations avec l'Inde (1948-50), Papers of Frédéric Joliot-Curie. Obtained for NPIHP by Jayita Sarkar. https://wilson-center-digital-archive.dvincitest.com/document/117728

Summary:

French High Commissioner for Atomic Energy, Joliot-Curie, criticizes Henry DeWolf Smyth of Princeton University for omitting from his report the "vital contributions of French science to the discoveries leading to the making of atomic bombs."

Credits:

This document was made possible with support from Carnegie Corporation of New York (CCNY)

Original Language:

English

Contents:

New York Herald Tribune - European Edition 15 June 1947
Joliot-Curie Rips America
For Atomic Energy Report

By Vincent Bugeja

Professor Frederic Joliot-Curie, High Commissioner for Atomic Energy, charged in Paris yesterday that Professor Henry D. Smyth of Princeton University has made regrettable omissions in his "Report on atomic Energy for Military Purposes", which have kept scientific and public opinion in the United States in ignorance of the vital contributions of French science to the discoveries leading to the making of atomic bombs.

The young French scientist who was known to feel very keenly about Professor Smyth's oversight, since the "Report" was published nearly two years ago, made his charge in public for the first time at a press conference following the filming of historic scenes in Paris late in 1939 and early 1940, opening the "Battle for Heavy Water", as reconstructed in a Franco-Norwegian film now under production.

Raoul Dautry, Minister of Armament in the early months of the war, who also spoke at the conference, confirmed that as early as November, 1939 before President Roosevelt appointed the Advisory committee on Uranium, he was in touch with Joliot-Curie on the possibilities of making atomic bombs.

After further intensive research on nuclear fission begun by the professor's brilliant team in January, 1939, Joliot-Curie told Dautry in March, 1940, that he was ready for the crucial experiment of a self-sustaining chain reaction pile if he could obtain the world's unique stock of heavy water distilled at the colossal hydro-electric plant of Rjukan, in Norway.

Joliot-Curie had calculated that this amount of heavy water, about 185 liters, was just sufficient to show weather a self-sustaining pile was possible. He knew also that if it fell into the hands of the Germans, German science would probably run ahead of the Allied science in the race for the atomic bomb.

Dautry immediately took all measures to obtain the water for France. The precious liquid was snatched just in time before the Germans overran Norway and arrived safely in Paris in April. Before he could get his crucial experiment going, Joliot-Curie had to think of saving the water from the invading Germans. First it was hidden in the vaults of the Bank of France, therein the vaults of Riom prison, in central France, and finally it was shipped at Bordeaux to England with members of Joliot-Curie's team to carry on their research there or possibly in Canada.

All these historical facts are pictured in the "Battle for Heavy Water" Jean Marin, scenario writer and French promoter of the film, said with all the actual actors in the 1940 drama playing the roles. The rest of the film will picture the heroic battle waged by the Norwegian resistance which was finally won not only by the destruction of all heavy water produced by the Germans, but by the dynamiting of the Rjukan plant itself and the pulverization of all, the apparatus for the fractional distillation of heavy water which is present, in ordinary water, in the proportion of one part in 1500.

Professor Joliot-Curie said he hoped the film will correct the false impression produced by the Professor Smyth in the historic section of his "Report" which merely notes in the introduction that "F. Joliot-Curie in Paris had also published his first results (on uranium fission) on the "Comptes Rendus" of January 30, 1939".

Against this summary reference, the French scientist indicated:

That it was French nuclear physicists working under him who first demonstrated experimentally the fission of the highter [sic] uranium isotope and thorium by flying neutrons, a few days after O.R. Frisch and Lise Meitner had made this suggestion.

That it was this same team in March 1939, who discovered that after fission there was an excess of neutrons which could produce other fissions, thus making a chain reaction possible and yielding exothermic energy.

That it was this team who discovered in April 1939, that neutrons absorbed by the heavier uranium isotope give rise to a new element neptunium, from which plutonium is obtained;

That it was his team that first applied the discovery of J. Zeldovich and Lewska Kharlton, tho [sic] Russian physicists, that a chain reaction could be promoted by the use of heavy water as a moderator to slow down neutrons to the thermal velocities requisite for fission; and finally,

That it was the French team who discovered how to control the chain reaction once started by neutron-absorbing elements like cadmium, boron and lithium.

In a conversation after the conference, Professor Joliot-Curie smiled when it was suggested that France might have produced atomic bombs before everybody if she had continued to enjoy relative peace after June 1940. "We had all the elements for making a self-sustaining chain reaction pile in May 1940; he said, but that is as far as I would go". The first pile was erected and got going by Enrico Fernu, [sic] in Chicago, two and a half years later, using graphite as a moderator instead of the more effective heavy water.

Professor Joliot-Curie, who dislikes publicity, said he consented to pose for the "Battle for Heavy Water" for two reasons: first to vindicate French science against the impression left in Professor Smyth's report, secondly, because as a Resistance man he fully approved of the thesis illustrated in the film that partisans, adequately provided with arms and explosives, could do far more effective work in destroying strategical points of value to the enemy that the air bombardment and its accompanying unnecessary destruction.