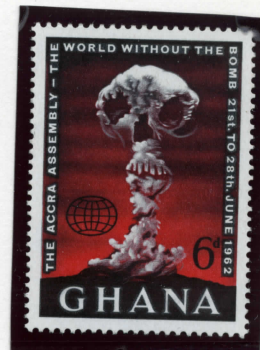




## THE HISTORY OF THE ATOMIC ERA, RADIOLOGY, AND ATOMIC ENERGY IN PHILATELY



If, according to Einstein's theory, mass could be converted into energy, thereby releasing tremendous amounts of explosive force, then mankind was on the brink of developing a new and terrible weapon. The mysteries of the atom were now being laid bare to nuclear scientists, and in 1938 the inevitable occurred: Two German physicists, Otto Hahn (1879-1968) and Fritz Strassmann (1902 - ), first successfully split the uranium atom by bombarding it with neutrons, with resultant release of both energy and further neutrons -- the nuclear chain reaction. This experiment was substantiated by the Joliot-Curie team in Paris within a few months. The famous Danish physicist, Niels Bohr, was perturbed by this news from Germany, since this energy, greater than any heretofore known to man, once unharnessed might ultimately be used to create an atomic bomb. Upon visiting the United States in 1939, Bohr discussed this development with other scientists, including Enrico Fermi (1901-1954), the Italian nuclear physicist who had left Italy in 1938 to settle in America. Albert Einstein then notified President Franklin D. Roosevelt of the imminent danger of world conquest by the Germans, if they developed an atomic bomb. Thus began a nuclear research race which culminated in 1942 in the foundation of the Manhattan Project -- the code name given to the combined efforts of British and American scientists in constructing the atomic bomb.

In Chicago in December 1942, Enrico Fermi devised the first self-sustaining nuclear chain reaction, using rods of uranium, cadmium and graphite blocks. Niels Bohr arrived in the United States in 1943 to help with the atomic project, after being smuggled out of Nazi-occupied Copenhagen. But the chain reaction was not really "controlled", and on July 16, 1945, the first atomic bomb was exploded in the New Mexico desert. A few weeks later, the full fury of atomic fission was released over Japan, devastating Hiroshima on August 6 and Nagasaki on August 9. So did the Second World War come to a fiery end.