

The Development of the Atomic Bomb

The following narrative was related to me by a physicist now dead. The narrative has been posted on my website www.jmkingsleyiii.info since 2011. It presents an interesting historiography that he stated was true. The I in the following does not refer to me, James M. Kingsley III.

On July 16, 1945, the United States detonated the world's first, large yield, atomic device at the trinity site near Alamogordo, New Mexico. With a yield of ~200Mev per atom, the bomb changed forever man's view of warfare and opened the possibility of destroying any city or markedly altering any physical feature on the earth's surface with one bomb. The threat of nuclear proliferation and with it the increased possibility that a small band of terrorists could obtain and use such weapons, threaten all civilized men to this day.

It is therefore with a profound sense of the gravity of the situation that I have written down the following account of the creation of the first atomic device as related to me by a Dr. W. I cannot judge as to the factual accuracy of his statement and consider it to be highly unusual, but plausible. The I in the following refers to Dr. W.

The Narrative

"I believe as physicists you may be concerned that the following narrative on the history of the development of the atomic bomb will expose atomic secrets. The process by which a bomb is constructed and detonated is known to every defense department in the world today and the energy released has nothing to do with $E=mc^2$. The last country to know of the details, Uganda, was informed by Dr. Zbigniew Brzezinski, (National Security to President Jimmy Carter 1977-1981), in 1972.

Experimentally the measured speed of 1.7m radar waves is $(1.2)10^8(\text{cm}/\text{sec})$ while the speed of visible light is $(3)10^{10}(\text{cm}/\text{sec})$. I was a member of a radar crew on the White Cliffs of Dover, England in September and October, 1944. We bounced radar waves off the moon and measured the down and back time and directly calculated the speed of the radar waves. This experiment had been done before and many times after September-October 1944. The non equality of the speed of radar and light waves means that the 2nd postulate is false and in so far as the derivation of $E=mc^2$ depends on the validity of both the 1st and 2nd postulates of special relativity, we had proved that E did not equal mc^2

The history of atomic energy really begins at M.I.T., (At what would later become the Francis Bitter National Magnet Laboratory) in 1921 when it was discovered that irradiating Fe with high intensity microwave radiation and thermal photons from liquid He, caused the Fe atoms to collapse forming a condensed solid and further, that the condensed solid stored the incoming microwave energy as nuclear, INTERNAL, kinetic energy+potential energy. It turned out that any atom could be shrunk and that any atom could therefore store large amounts of energy.

Because of the large amounts of energy stored in a small mass with small volume, the creation of an atomic bomb became a possibility. However from 1921 on, no one until December of 1944, conceived of the right approach, as to how to cause the energy enriched condensed material to explode. The Manhattan Project begun in December 1941 brought together a large number of Physicists dedicated to that end. Dr. James B. Conant, President of Harvard University and a Chemist saw the need to develop a cover story for the project and thus was born the cover that Uranium 235 a rare and thus hard to obtain element (And later Plutonium) was necessary for the creation of the bomb. This led to the creation of Oak Ridge and the gaseous diffusion plant using the electric energy generated by the T.V.A.

At Hanford Reservation, (A part of the Manhattan Project), in southern Washington State, Emilio Segre was creating energy enriched condensed material using Fe and the electric energy created by the Grand Coulee Dam on the Columbia River. His group was dedicated to finding a way to cause the condensed material to explode.

By December 1944, Segre's group had not conducted a test. John Robert Oppenheimer's group at the trinity site in New Mexico had conducted numerous tests using Uranium, all of which failed.

At that time, I was a very young medical student at Oxford known around the world and in particular by Winston Churchill, Franklin D. Roosevelt and Joseph Stalin. Churchill, sensing that I might be of some help to Segre's group suggested I fly to the Hanford Site. I acclimatized myself to the lab for 2 days and on the 3rd day took a thin film bomb material sample of the bomb material and some unexposed camera film out side on what was an unusually cold day for southern Washington (I remember a good deal of snow on the ground) and at night exposed the camera film to the thin film bomb material sample. I flew back to Stuttgart Germany, (I was the holder of a Blue Pass), and developed the camera film. What I had discovered, now known as the "Cold Effect", was an increase in photon emission as the temperature decreased. After viewing the exposed film, I felt that by decreasing the temperature of the bomb material using liquid Helium, I could induce the material to explode. In May of 1945, I flew to Los Alamos and with J.C. constructed the world's first atomic bomb in a cajeta box, a box small enough to hold in your hand, normally used to contain a Mexican caramelized goat's milk candy. On May 17, Segre and I drove to Alamogordo, New Mexico to an abandoned house. Segre took a moving picture as I took the cajeta box, the dewar flask of liquid helium and the electric wires used in detonating the device, into the house. In the house I found two unconscious people strapped to back-to-back chairs. I placed the device under the chairs, connected the electric wires and backed out of the house. I detonated the device and blew up the house and its occupants. The device had a yield of about 50 lbs of TNT.

The people turned out to be Klaus Fuchs, (The original Klaus Fuchs), and the wife of Richard Feynman. As we later pieced the story together, unbeknownst to us, Feynman on the morning we were driving down to Alamogordo had taken his wife and Fuchs to the house with the intent of placing dynamite under their chairs and blowing them up. Fuchs had been transmitting information about bomb design to the

Russians and Feynman's wife had been transmitting information to the Germans. He (Feynman) had however forgotten the dynamite caps and drove back to the trinity site to retrieve them. We neither saw him as we drove to the house or when we drove back to Los Alamos. I imagine he must have been somewhat surprised on coming back to the house and finding a crater instead.

Segre took the cajeta box design and scaled it up to produce a bomb with a yield of 20,000 tons of TNT, detonated on July 16, 1945. On that fateful morning, Oppenheimer had scheduled the 47th Uranium test while Segre was scheduled to conduct his first condensed iron material test some two weeks later from a tower some 20 miles distant from Oppenheimer's. We assembled on a knoll some 10 miles equidistance from both towers. I bet Feynman the device would work for unbeknownst to all but Segre and his coworkers, Segre planned to set off his device at the same time that Oppenheimer planned to set off his. At the appointed hour, all heads were bowed toward Oppenheimer's tower when Segre's bomb went off some ten miles behind their backs. Feynman looked at me and asked, "What was that?" and I replied "That was the bomb". Feynman then paid me my due.

The condensed material for the bombing of Hiroshima and Nagasaki were transported by B-29 across the Atlantic to Egypt and thence to a U.S. airbase at Hang Chow China. (The city no longer uses this name and is not to be confused with HangZhou China). A cover story was created that the bomb material was transported by the Cruiser Indianapolis to the Island of Tinian. The 494th Composite Group on Tinian had been holding practice runs for months flying out in a small group of 6 B-29's to selected target cities on the Japanese home islands.

On August 6, 1945 2 groups set out for Japan. My group with me as pilot, (I was an enfant terrible de guerre and child prodigy almost 5 years old) and a crew of infant girls set off from Hang Chow. My co-pilot was a Japanese girl, and three of my crew were my cousins P.B., J.B., and C.K.

The 494th set off from Tinian led by Col. Tibbetts in the Enola Gay. Unbeknownst to them or any of the flying crew of the 494th, the Uranium bomb on board was a dud. My group arrived over the secondary target Hiroshima, and as automatons, bombed the target. The bomb detonated at about 2000 ft over the target at 8:15 in the morning local time.

As the 494th approached the target, they realized the city had already been bombed. They were ordered back to Tinian and on the approach back to Tinian were ordered to drop the dud bomb into the sea. Tibbetts repeatedly refused and finally P-51 fighters were sent up to intercept and shoot down the Enola Gay unless Tibbetts dropped the bomb. After warning shots were fired over his port wing, Tibbetts dropped the dud bomb into the sea completing the cover story.

The threat of nuclear proliferation is of course profound. The U.S. is currently concerned about the ability of North Korea and Iran to construct atomic weapons. All the world's defense departments have the know how as to how to construct atomic

weapons but not all nations have the technical manpower, the infrastructure or the power plants to generate the necessary electrical power to create condensed matter bomb material. The U.S. can destroy electrical generating plants and nuclear facilities (Facilities where the energy enriched condensed matter bomb material is manufactured) using extremely accurate cruise missiles and is reputed to have done so in Iran and North Korea.”

The End

This is the end of the physicists’ narrative.

I, (J.M. Kingsley III) am currently finishing a physics text concerned with a new physical mathematical model for a solid mass atom within the context of the Galilean Transform to replace the quantum mechanical model of the atom.

As far as the bomb is concerned, I have created a mathematical model of how the solid mass atom can be shrunk and a mathematical model as to how the solid mass atom is induced to explode liberating energy. It will in no way negate the United States ability to, “Destroy electrical generating plants and nuclear facilities (Facilities where the energy enriched condensed matter bomb material is manufactured) using extremely accurate cruise missiles”.

It is a waste of time, energy and our national treasure to teach physics students that $E=mc^2$. Physics students are now in a position to mathematically, rigorously, prove to their professors that E does not equal mc^2 .

When discussing my work with physics students I say that if one views physics as a house and furniture on a foundation, then the house and foundation are thoroughly rotten and the furniture is coming apart, BUT in order not to have federal, state and private funding cut off, it is best to act as if a mild dusting of a vase is going on inside a firm house and solid foundations. Stated somewhat facetiously; first $E=(1/2)mc^2$ and later on, $E=(1/2)mc^2+F$. F =Potential Energy.