

# How the Allies Won World War II



**TOP SECRET**

Austin P. Torney

*I have recently come across  
Some new revelations  
And have derived more of the secret...*

## **HOW THE ALLIES WON WORLD WAR II**

Warner Heisenberg, the head of  
The German Nuclear Weapons Effort,  
Was full of the uncertainty  
That he had discovered in physics.

Heisenberg was entangled with his old mentor,  
The Danish physicist Neils Bohr,  
They being old friends, like father and son.

They were also supposed to be enemies,  
For Germany occupied Denmark.

Together they had created a physics  
Of deep truth and beauty,  
For beauty was the expression of truth.

They also made possible the physics  
To destroy large cities, even the entire world.

In 1941, Heisenberg went to see Bohr,  
The 'father of quantum mechanics',  
In Copenhagen, Denmark;  
But we don't know what they discussed;  
Yet, Germany failed to complete its work  
To build an atomic bomb.

Did Heisenberg deliberately withhold  
Information from the Nazis?

Did this consummate mathematician  
Neglect to perform  
An obvious calculation?

Did he, with Bohr,  
Form a complimentary pair,  
Joining their views  
Of the political position  
Versus its velocity  
To form a complete picture of reality?

*Did a man's heart turn the tide of War?*

(So we shall see...)



(Correspondence and Complementarity)

## THE DRAWING

On September 9th, 1943, Neils Bohr  
Walked to a meeting place near the water  
And crawled in complete darkness to a beach,  
For the gestapo in Copenhagen  
Were about to arrest him.

He secretly crossed the Oresund to Sweden  
And remained there until October 6th,  
Wherefrom the British flew him to Scotland.

That evening,  
Sir John Anderson gave Bohr  
A briefing on just how far  
The Anglo-American atomic bomb  
Program had progressed.

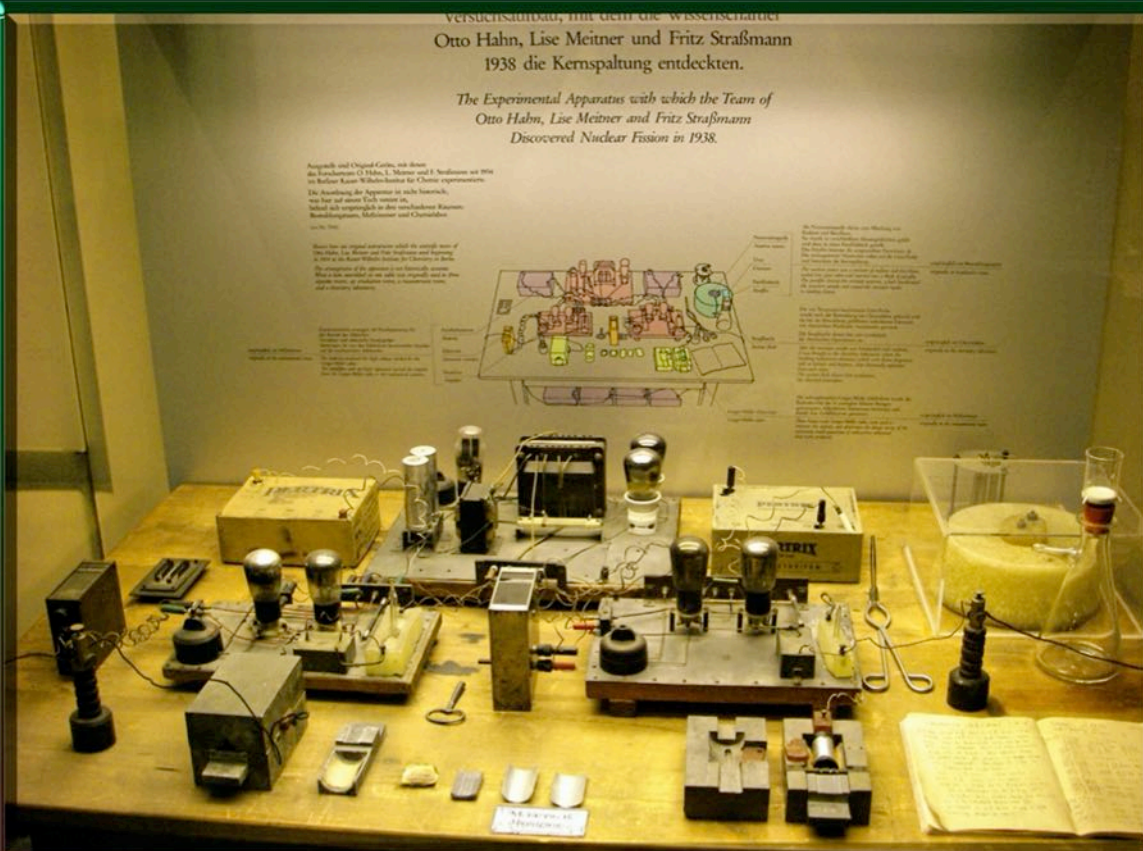
Fermi's reactor had begun operating  
On December 2, 1942.

Bohr was shocked,  
For he knew that only  
The very rare isotope uranium 235  
Had fissioned in the  
German Hahn-Strassman experiments.

This was fully two years after Bohr  
Had met with Heisenberg  
In occupied Denmark.

*What had the Germans done during this time?*

No wonder Bohr was alarmed.



And, yet, Bohr, somehow, had a drawing  
 Of the German nuclear reactor,  
 Which at first he thought  
 Might be the weapon itself.

All knew that plutonium,  
 Which does not exist naturally,  
 Could be chemically separated  
 From its uranium matrix  
 After bombarding a reactor's  
 Uranium fuel rods with neutrons.

The critical mass was not in tons  
 But in pounds, prompting the Allied effort,  
 Not so much Einstein's letter to Roosevelt.

Bohr went to work at Los Alamos  
Where Oppenheimer was orchestrating  
The impossible from 1943-1945.

On New Year's eve of 1943,  
Scientists looked at Bohr's drawing  
Of Heisenberg's nuclear reactor  
In Oppenheimer's office.

Within two days, General Groves,  
The military commander of the project,  
Received a document beginning with

“The proposed pile [reactor]  
Consists of uranium sheets  
Immersed into heavy water.”

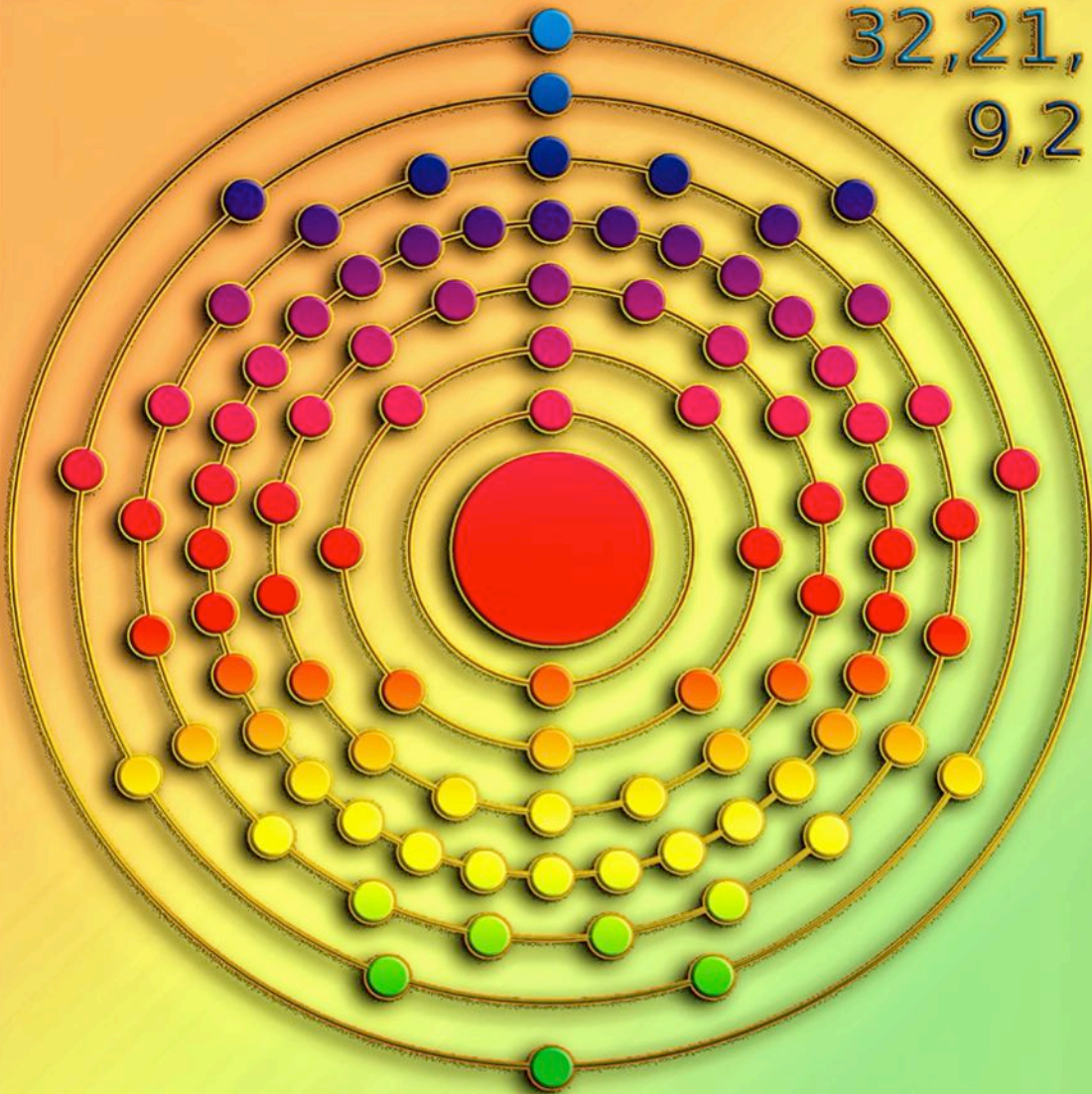
And ended with

“The arrangement [the drawing]  
Suggested to you by Bohr  
Would be a quite useless military weapon.”

By late 1943, nearly everyone in  
The German nuclear program,  
With the exception of Heisenberg,  
Had become convinced that  
Uranium plates were inferior  
To a design using rods or cubes,  
For the most efficient design  
Involves separated lumps of uranium  
Embedded in a lattice within the “moderator”;  
But the worst possible solution  
Is placing uranium in sheets or layers.

92: Uranium

2,8,18,  
32,21,  
9,2



The role of the “moderator”  
Is to slow down the fissioned neutrons,  
With only heavy water or carbon  
Seemingly being feasible.

The Germans had chosen heavy water,  
Its separation from ordinary water

An expensive and difficult process,  
Since carbon graphite is  
Rendered useless by an impurity  
Of as little as one part boron in 500,000.

At Los Alamos, Leo Szilard  
Was a fanatic about  
The purity of the graphite,  
And, since it was readily available  
They decided to use it for carbon.

The Dragon's breath was unleashed.



Replica of The Fat Man Atomic Bomb at  
the U.S. Air Force National Museum.  
Photograph credit: [www.signalalpha.com](http://www.signalalpha.com)

("Fat Man")



None of the German reactors  
Ever even operated.

*Where did Bohr's drawing come from,  
For it had "Made in Germany"  
Written all over it?*

...

It could have only come from Heisenberg.



(Bohr and Heisenberg)

## **THE FURTHER WHIMS OF FATE**

In 1935, Fermi had almost discovered fission  
Three years earlier than Hahn-Strassman;  
But, in order to shield the detectors  
From unwanted radiation  
From the slow-neutron process  
He had covered the uranium target  
With aluminum foil.

This prevented Him  
From seeing the very energetic pulses  
From the uranium fission that was taking place.

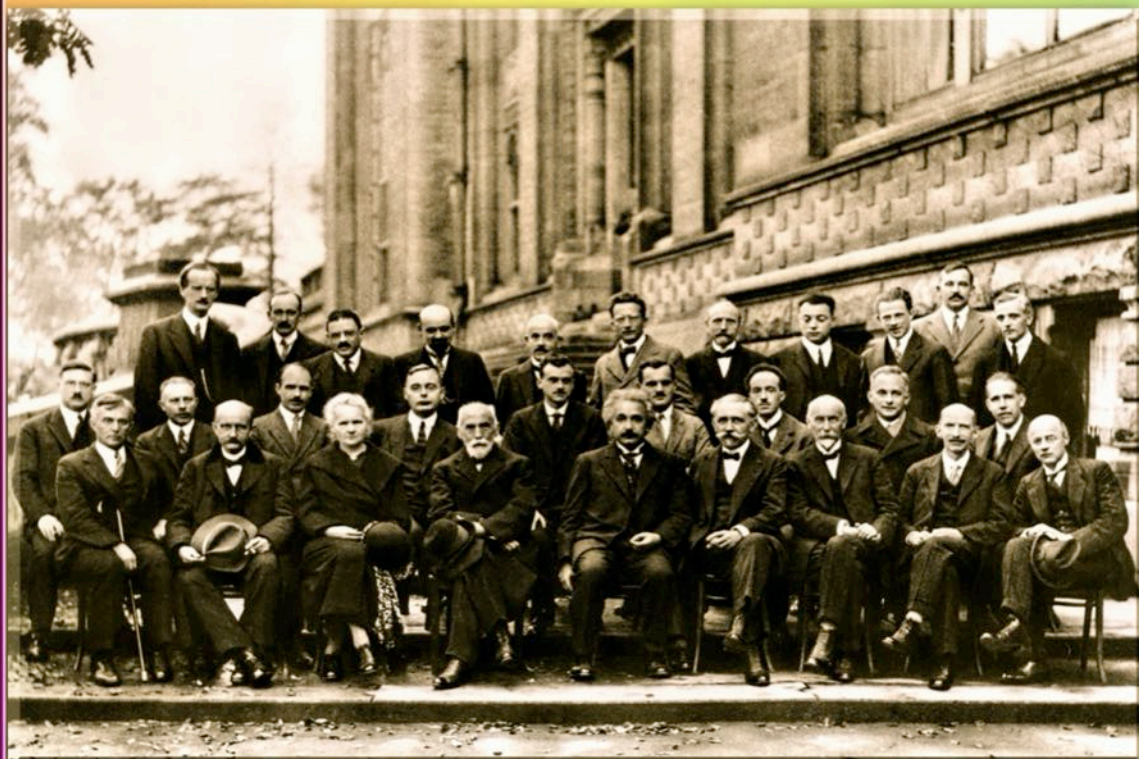
Thus, the race to build an atomic bomb  
Might well have started in 1935 rather than 1939.



If so, World War II  
Could have been nuclear from the beginning  
Or even have become a Cold War—  
All of this not happening  
Because of some aluminum foil!



(The Enola Gay)



(The Solvay Conference, 1927)

