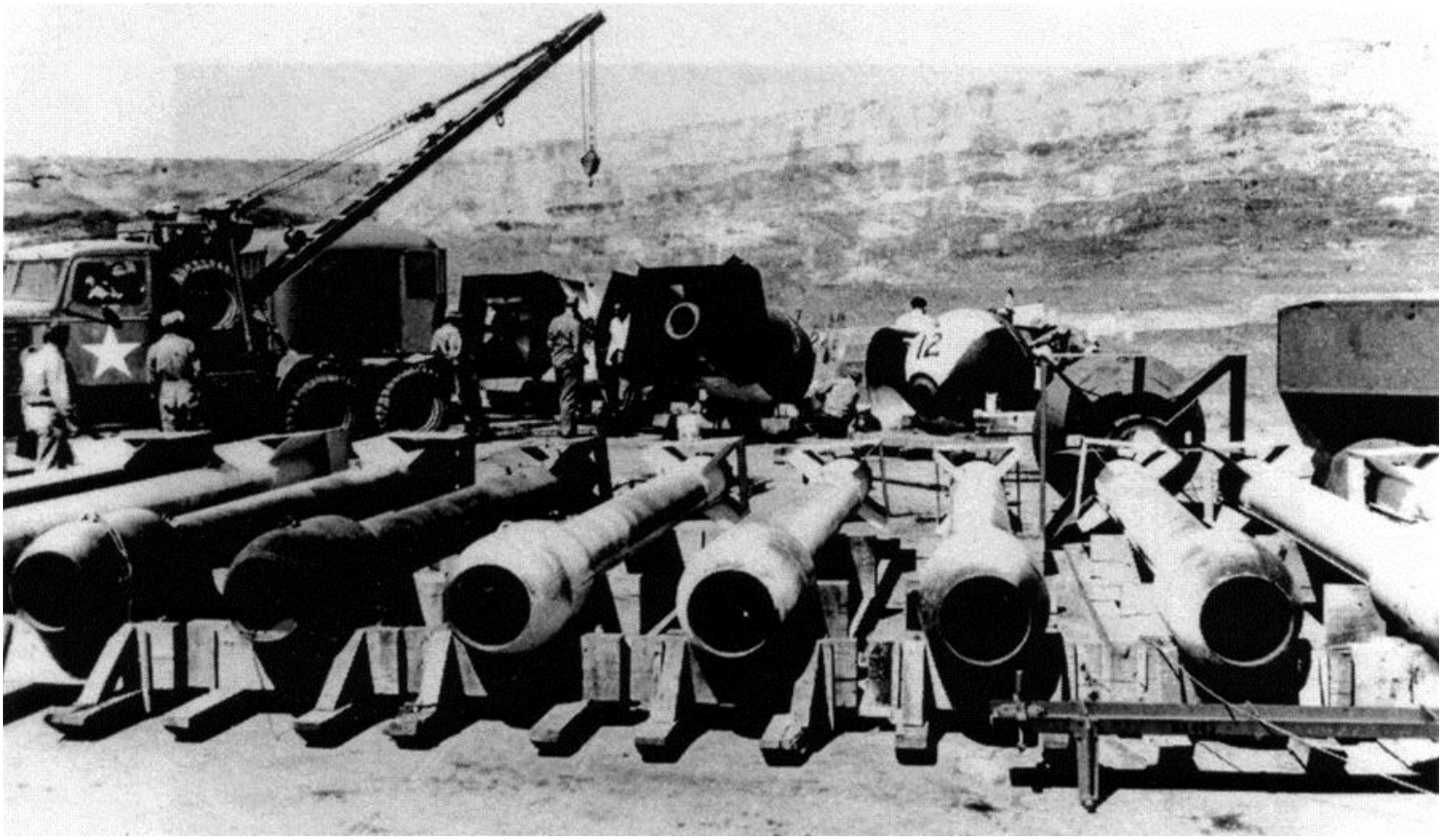
TOP SECRET PHOTOS: PREPARING FOR HIROSHIMA & NAGASAKI

Taking a look at the engineering on the first atomic bombs; the mechanical and logistical work that it took to handle, store, transport, and load them.

NOTE: A large number of these photos were assembled from the RG-77-BT collection in the Still Photo collection of the National Archives II building in College Park, MD.

Bomb Casings

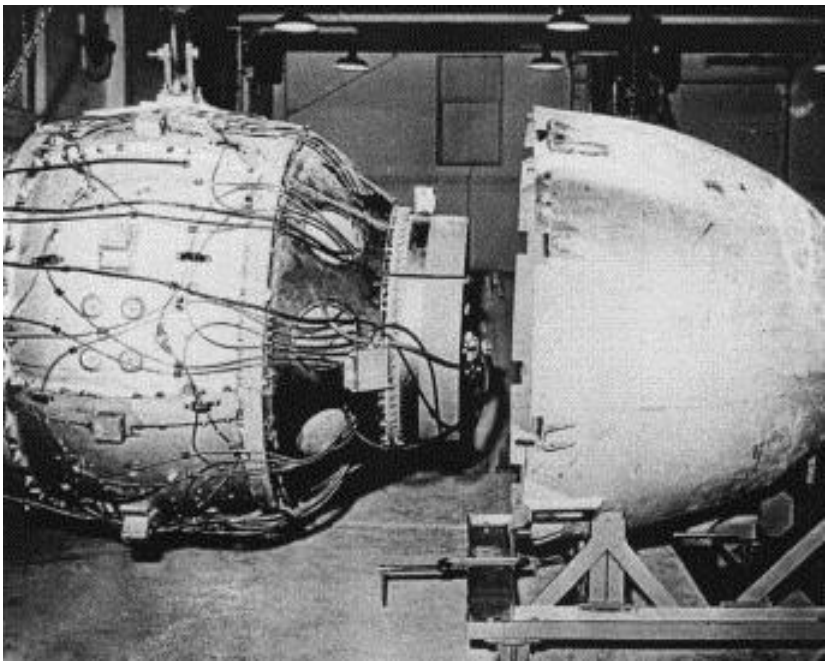


“Thin Man” Plutonium Gun Type Bomb Casings in 1944. In the background you can see “Fat Man” casings. It is unknown whether they are the early Model 1222 “Fat Man” casings, which required 1,200 bolts to assemble, or the later Model 1561 casings which were substantially easier to assemble and which were used for the production versions.

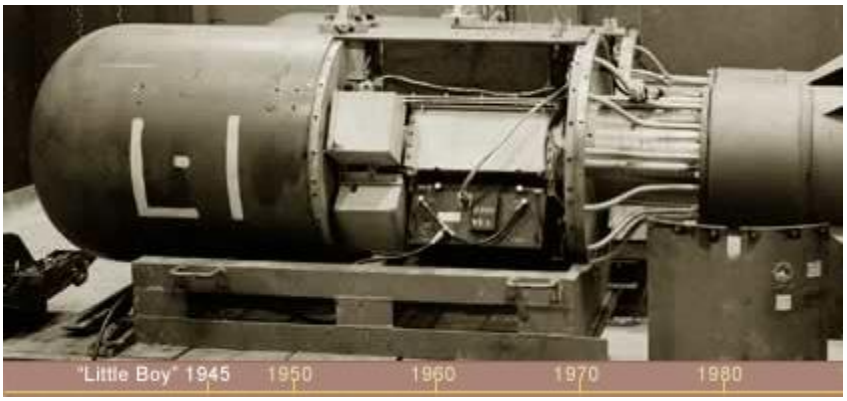
Initial Bomb Assembly and Testing

Photograph of personnel checking a casing. **A significant number of extra casings were shipped to Tinian and used in various tests with "dummy" bombs, which contained all the active components of a working atomic bomb, but no fissile material to test out and prove the assembly procedures for the actual devices themselves.**

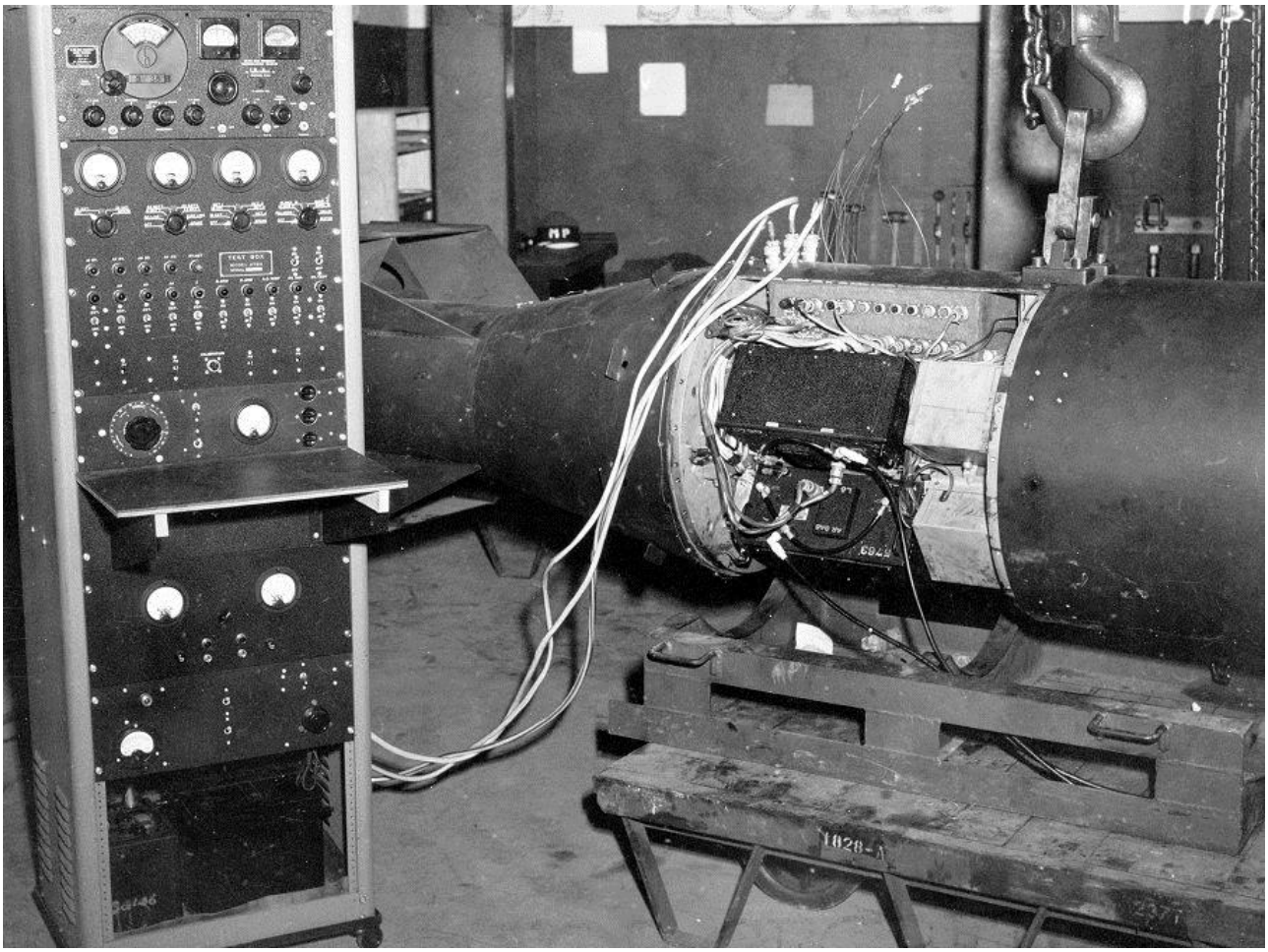
"LITTLE BOY" AND "FAT MAN"



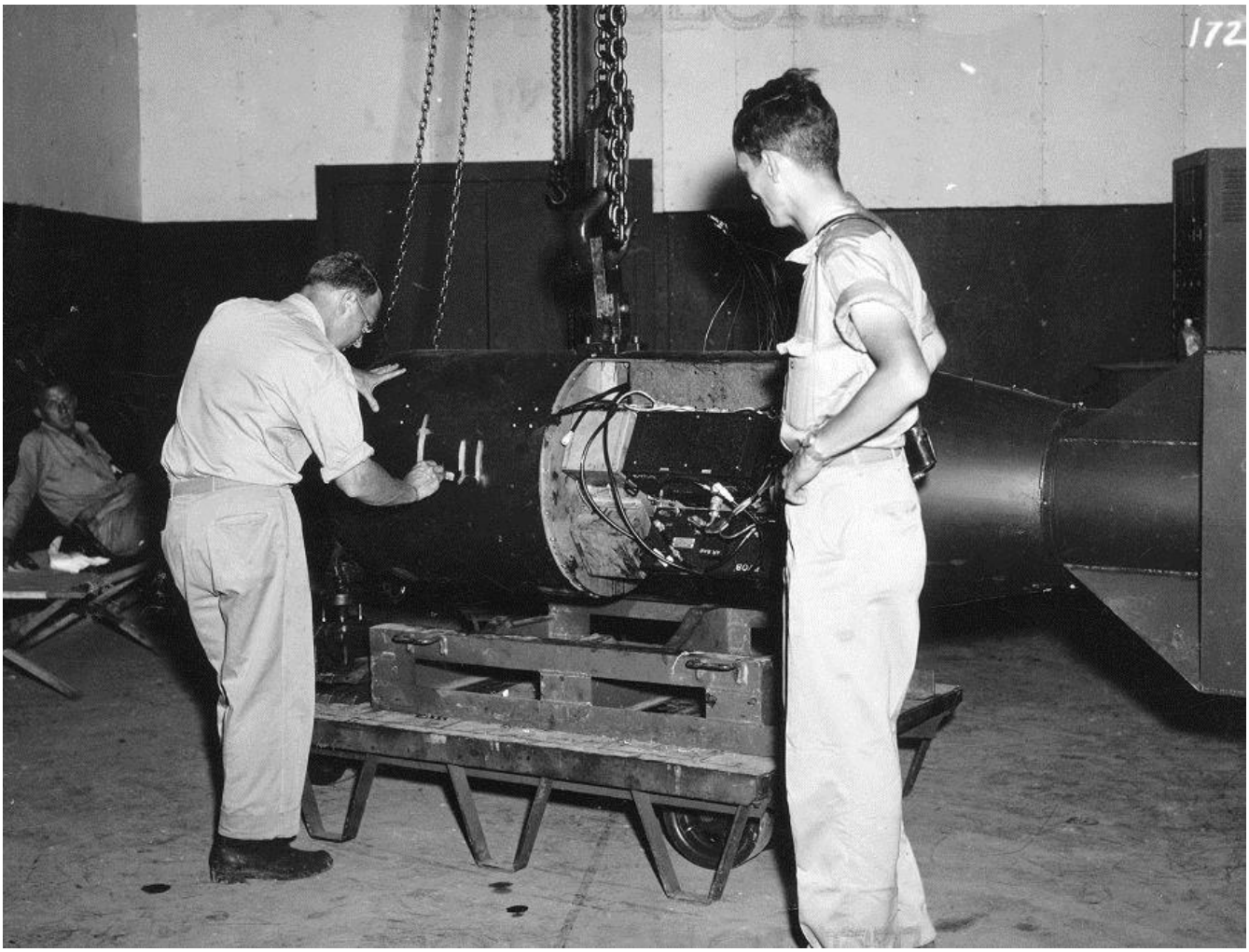
Implosion Sphere for Fat Man nearly assembled and about to be placed inside it's casing.



Photograph from LANL History website showing partially shrouded Little Boy unit designated L-1. This unit was assembled with non-nuclear components and dropped on 23 July 1945. Test was a complete success.



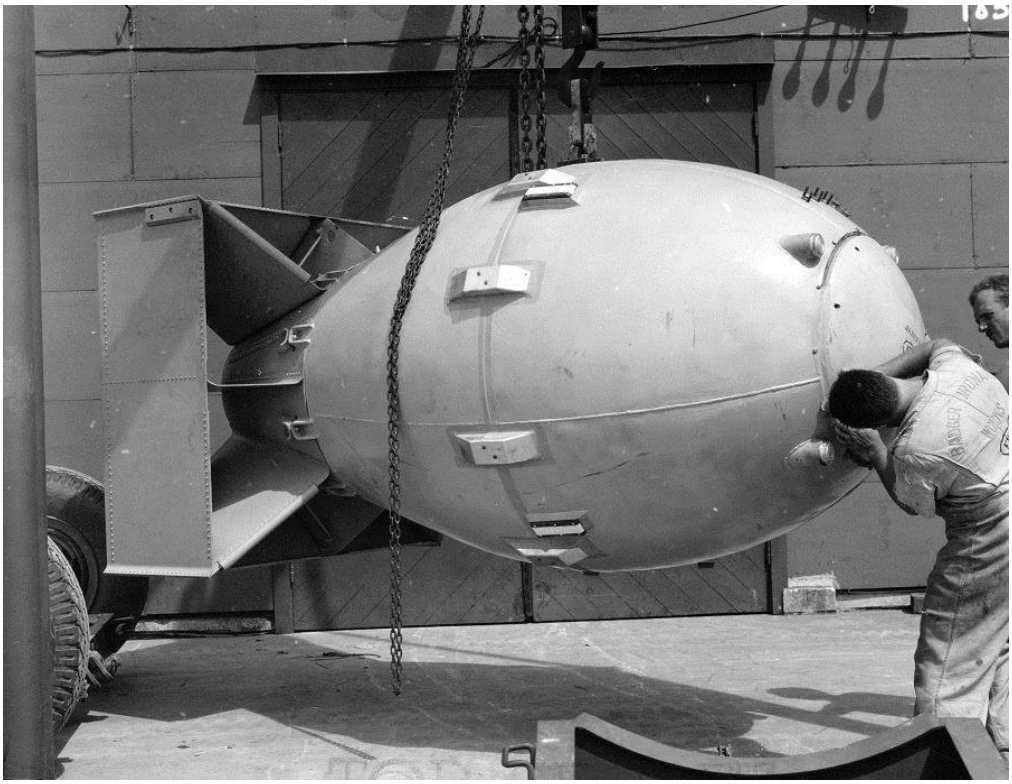
Little Boy unit checked up to a bank of equipment; possibly to test/charge components within the device. Unknown whether this is a test unit or L-11; the unit dropped on Hiroshima.



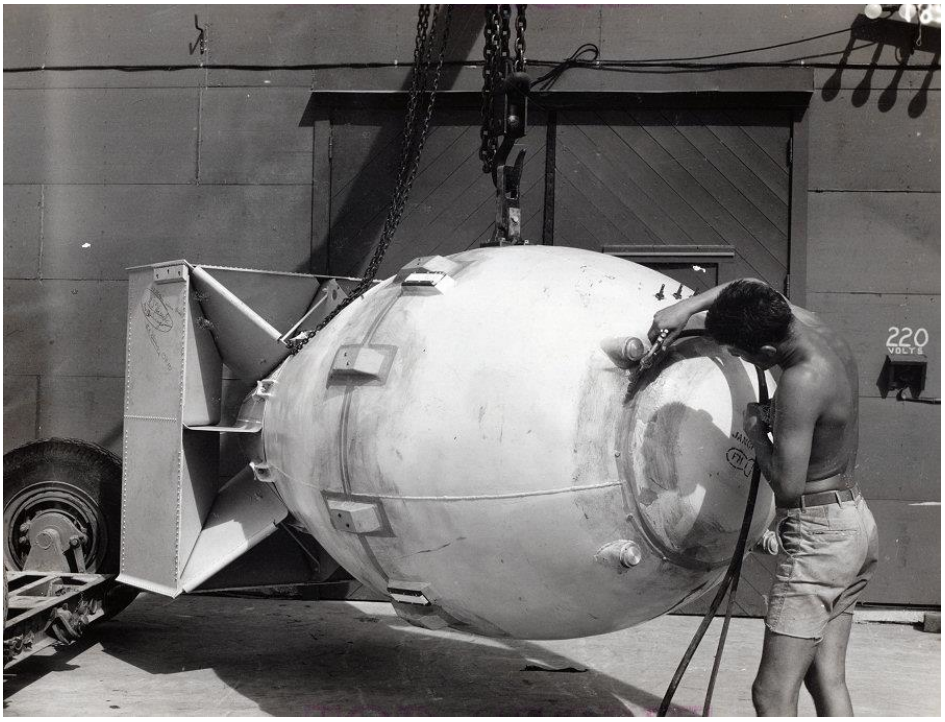
Project A (Alberta) member CDR A. Francis Birch (left) numbers Little Boy Unit L-11 while Norman Ramsey (right) watches. This is the actual unit which was dropped on Nagasaki.

Final Bomb Assembly

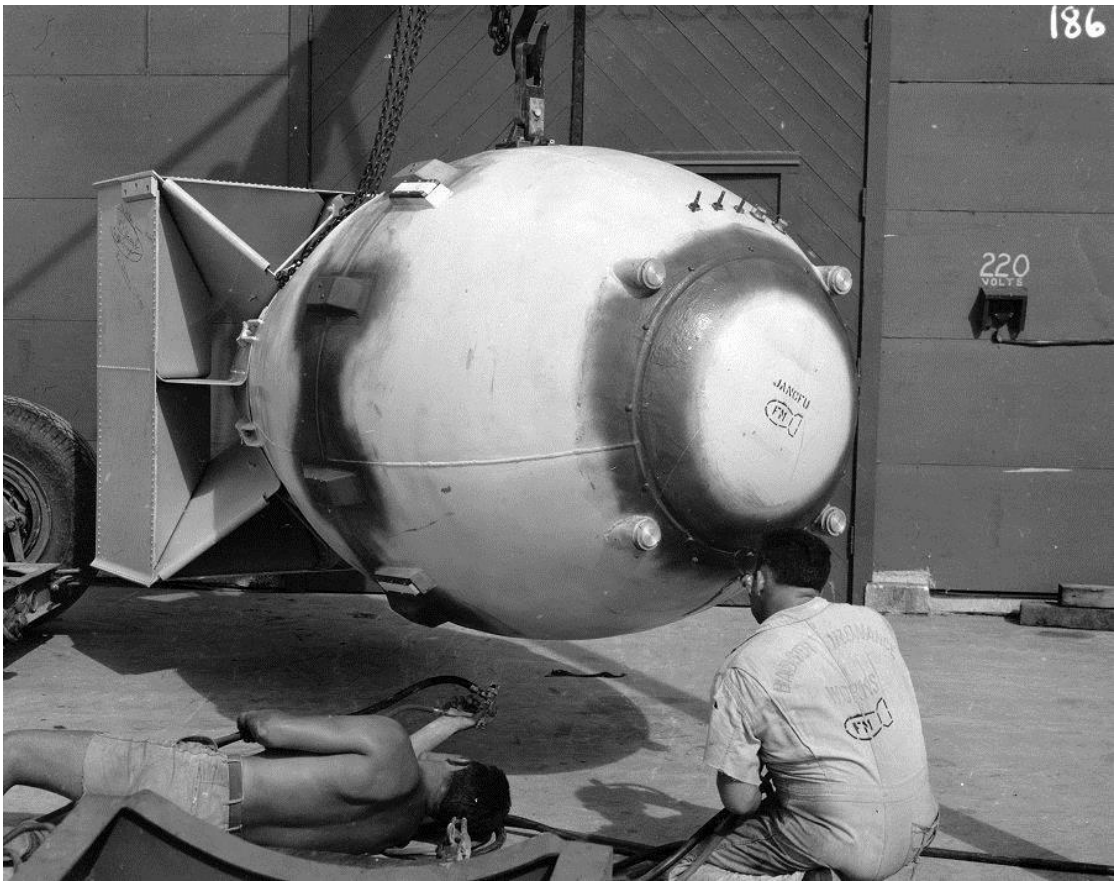
Fat Man **devices after they were assembled, underwent a final procedure outside the Assembly Building, where their crevices were filled with putty, and then oversprayed with sealant to maintain the proper environment within the device during the time it would take to deliver it to the target.**



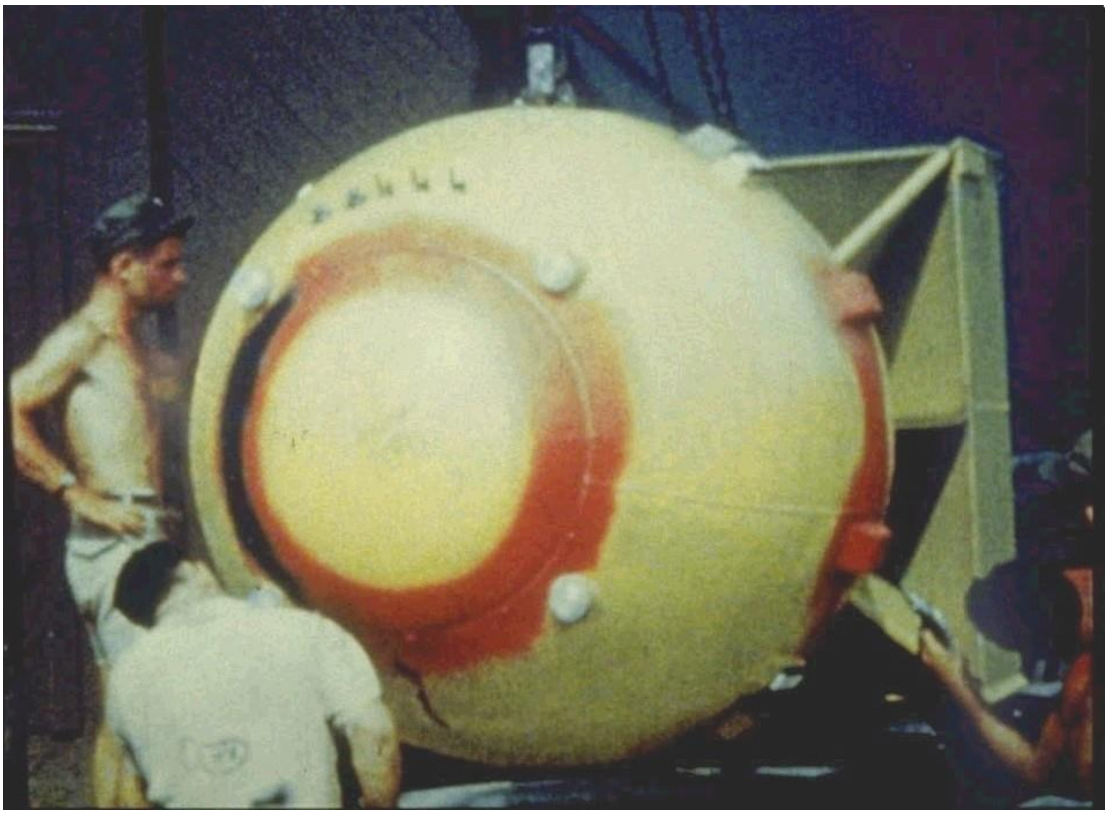
In this photograph, you can see the putty being applied to the forward polar plate.



The sealant is now being applied via spray gun.

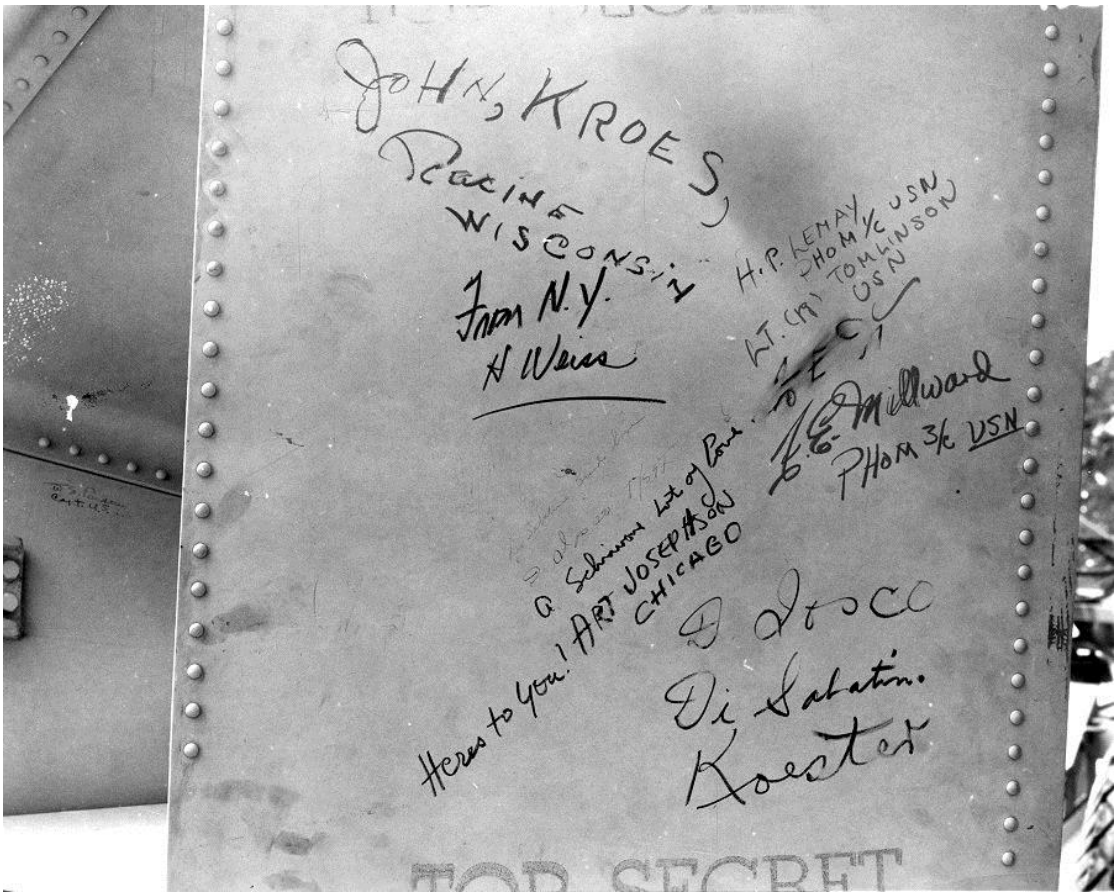


Workers have substantially completed application of the sealant. Note the writing on the tail fin assembly and the logo on the bomb's polar plate and on the worker's coveralls.



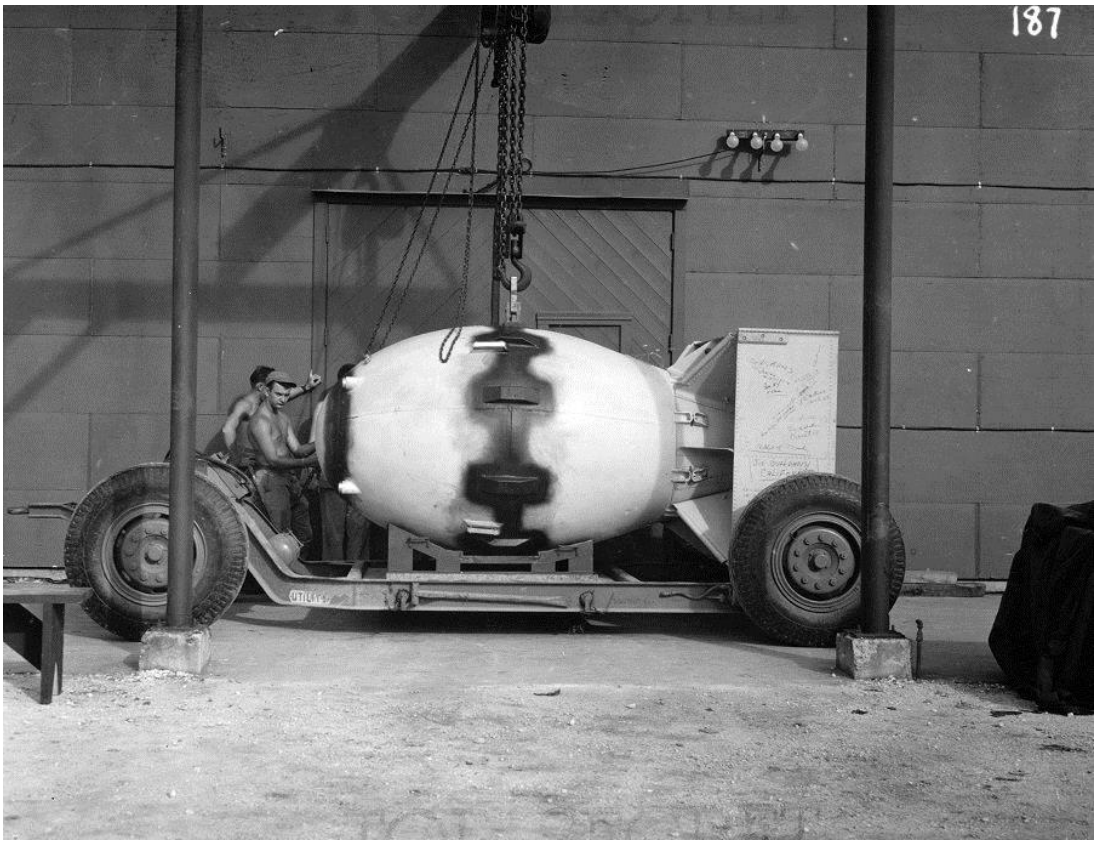
This is a frame taken from a color movie taken of the sealant application, showing the color of the device and sealant/putty.

Once the device was virtually complete, workers began to sign their names and various exhortations onto the device.



Close up of names on tail assembly of Fat Man.

“A Second Kiss for Hirohito!” signed by Rear Admiral W.R. Purnell, USN on the side of Fat Man.



The completed Fat Man device is being lowered/checked over on it's transport dolly for the trip to the airfield.

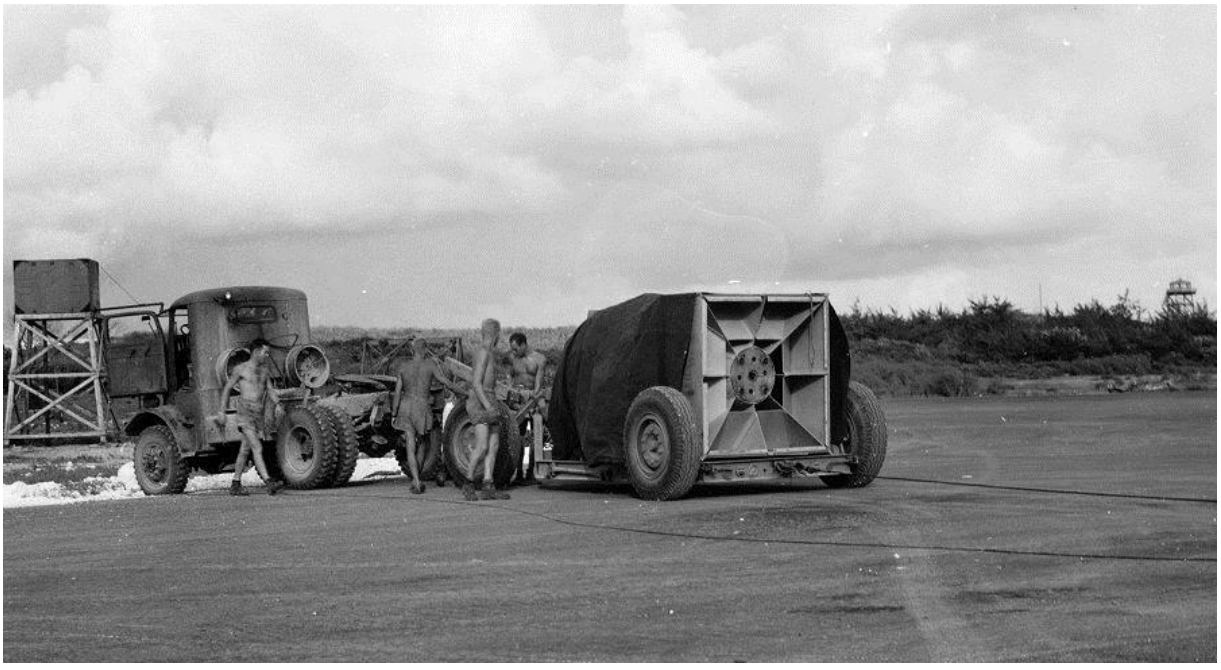
Bomb Loading

The completed bomb was then towed towards the airfield under cover with an escort.

Its destination? One of two bomb pits constructed on Tinian.

Pit Number One Today. This pit was used to load Little Boy onto the *Enola Gay*. Identification was accomplished by historians from studying photographs of the bomb loading sequences and comparing the bolt holes in the photographs to the pits today.

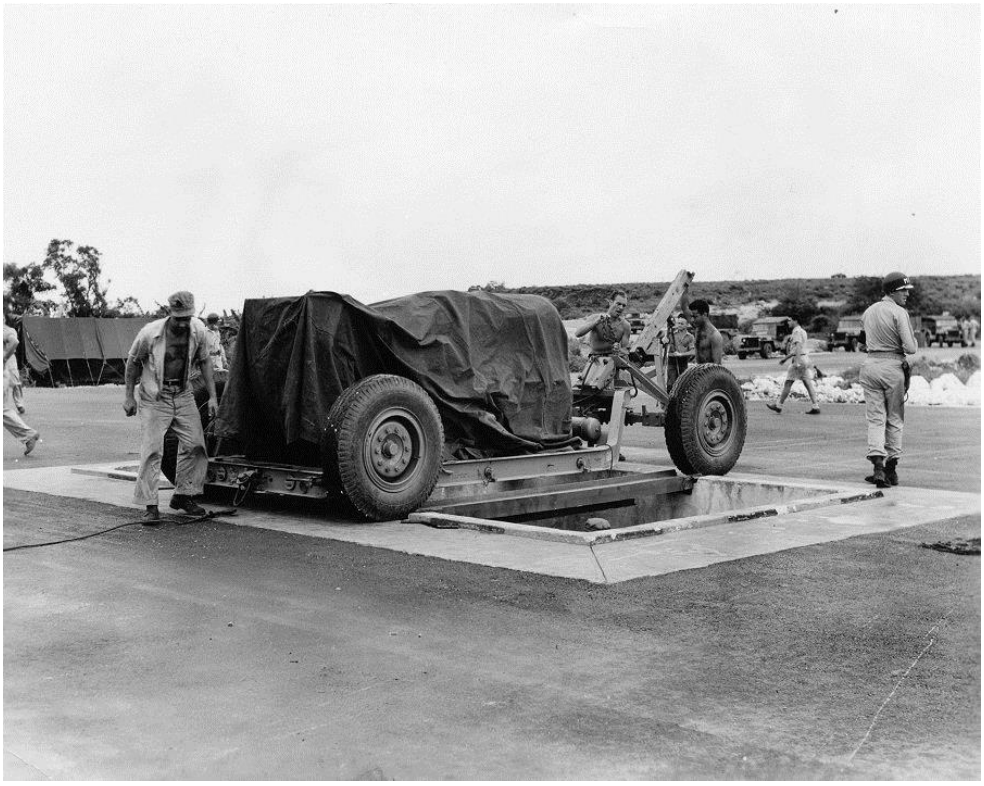
Pit Number Two today. It was used to load Fat Man onto *Bocks' Car*.



Preliminary pit alignment was proceeded with.

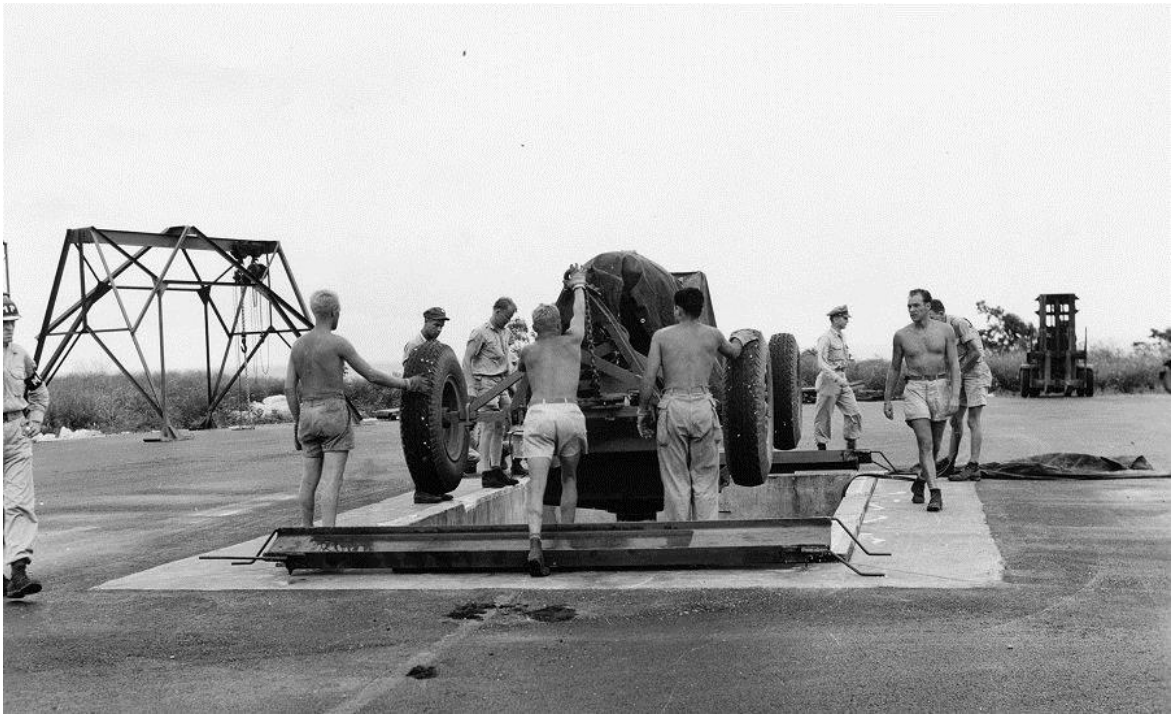
The Bomb and it's dolly were then manually pushed towards the pit.

The device's alignment was checked over by eye and hand.

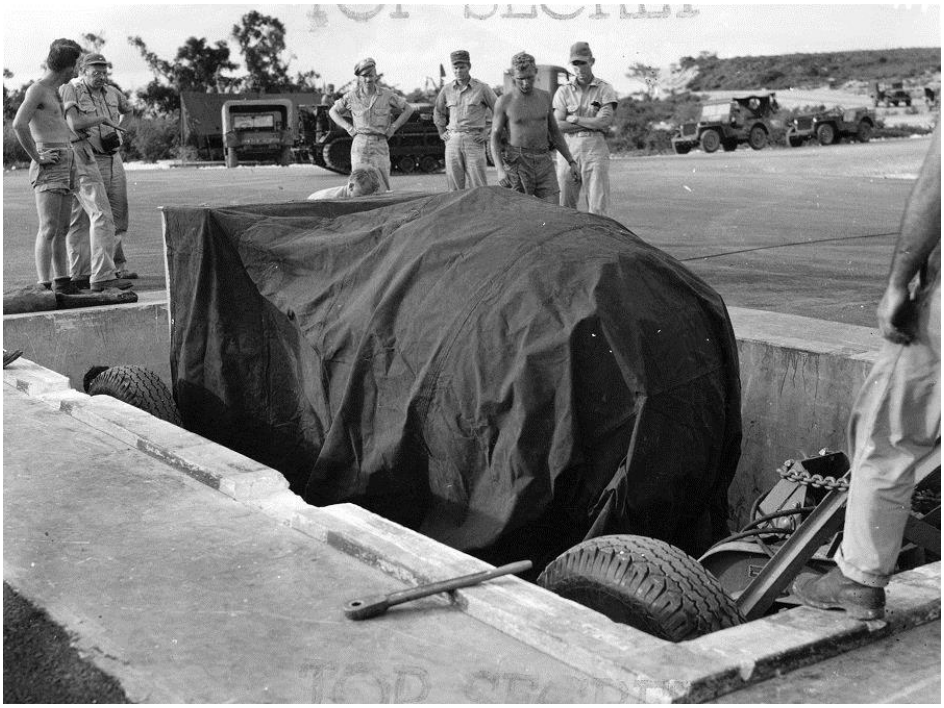


The towing cable was then disconnected from the dolly as MPs kept watch.

The device was then raised up on a hydraulic lift and the metal gutters, which guided it over the pit, were removed.



Once it was aligned with the pit, the device was then lowered down.



Device almost lowered to the bottom of the pit.

Device now fully seated in the pit. Still covered with tarp for security reasons.

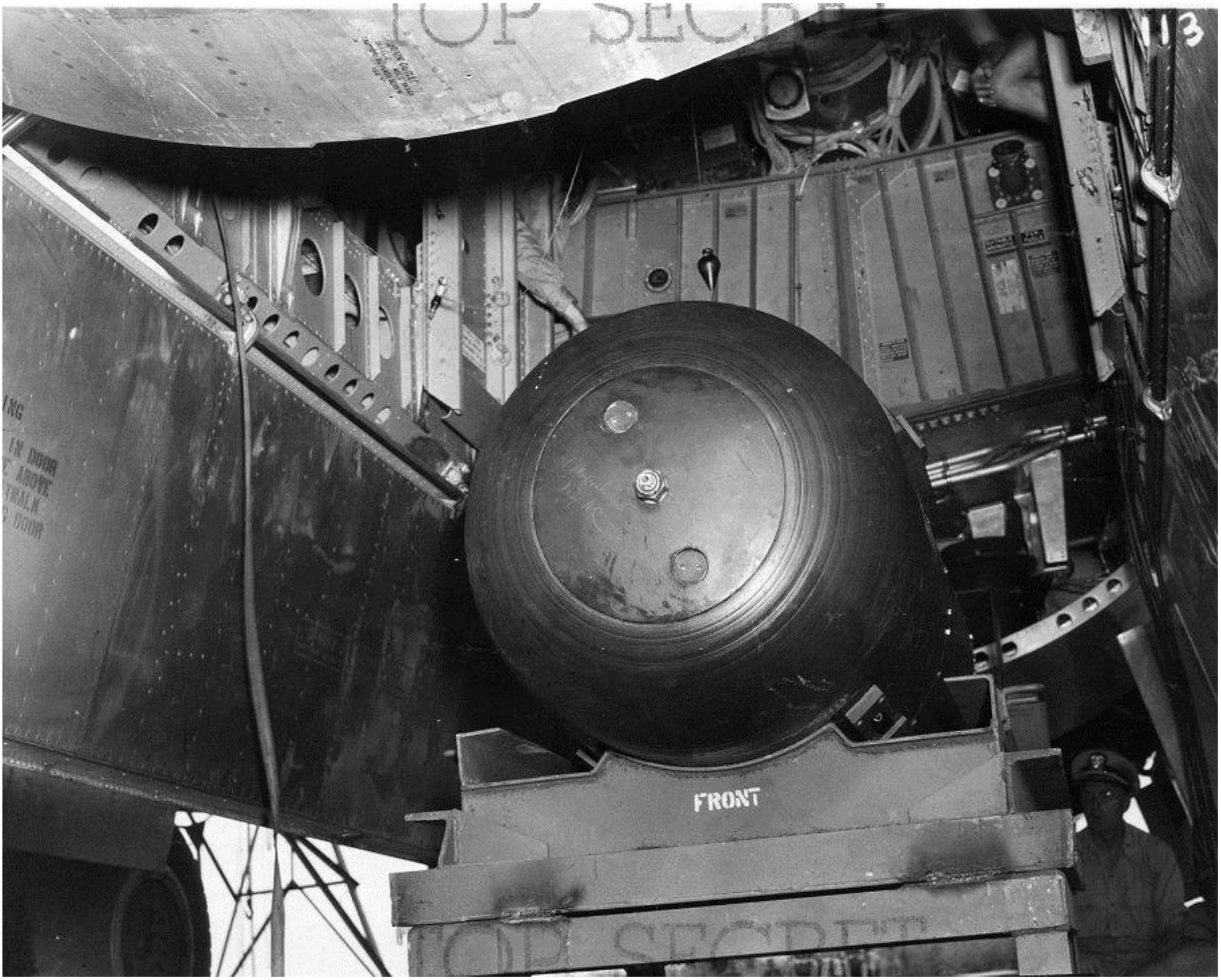
The aircraft that will carry the device is then backed up slowly over the pit.

Alignment of the device with the aircraft's bomb bay proceeded with a lot of 'hands on' from fairly high ranking personnel.

Once the device was aligned up, the security/protective shroud was removed in anticipation of loading.

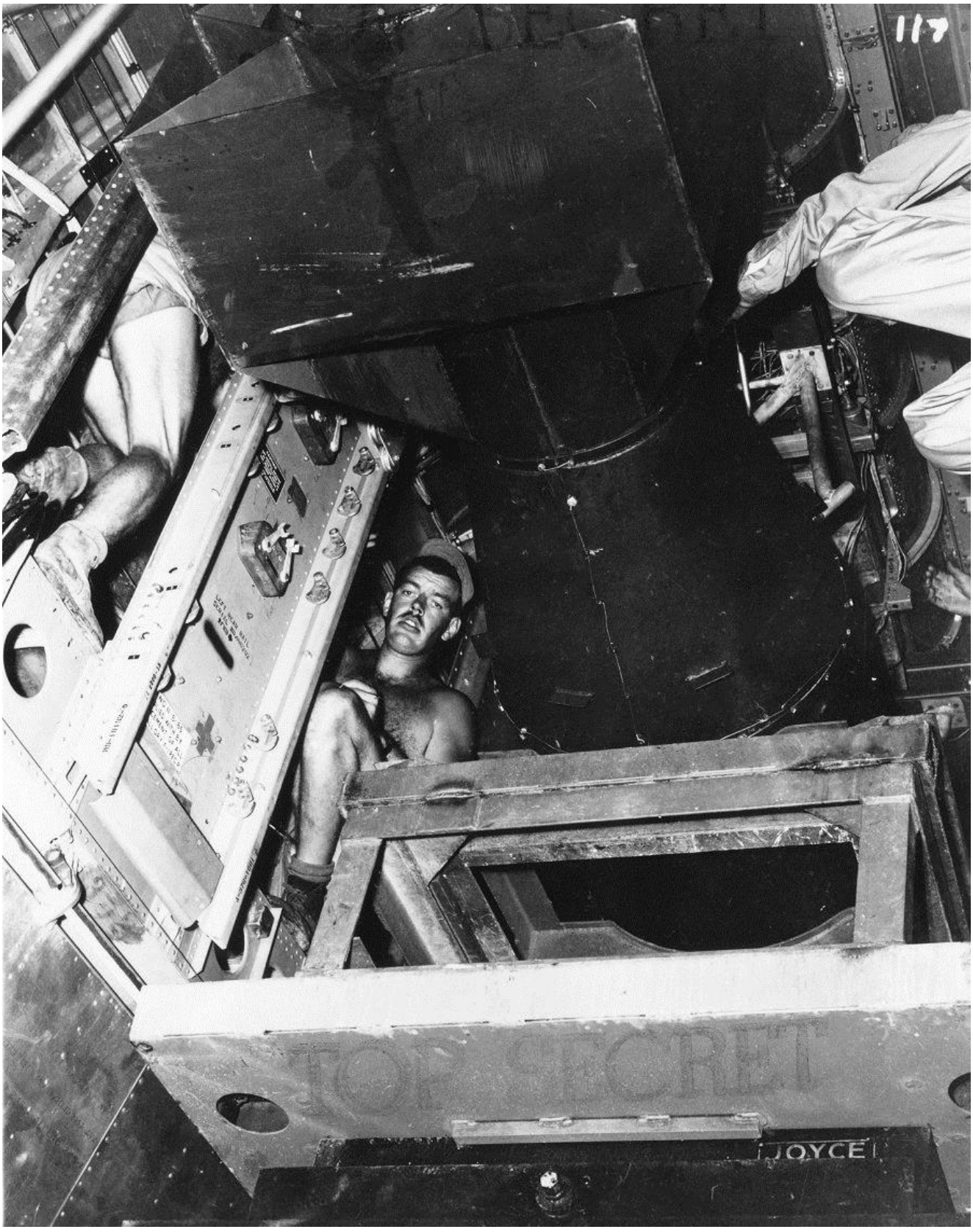
This is Unit L-11; the actual "Little Boy" bomb being (or about to be) loaded into the Enola Gay.

Hydraulic lift has raised the device about halfway into the bomb bay.



The device is nearly there...

View from within the pit showing the dolley frame and the fully extended hydraulic lift.



The device is now in the bomb bay and is in the process of being attached to the sway brackets that will secure it to the aircraft.

A different view of the device in the bay.