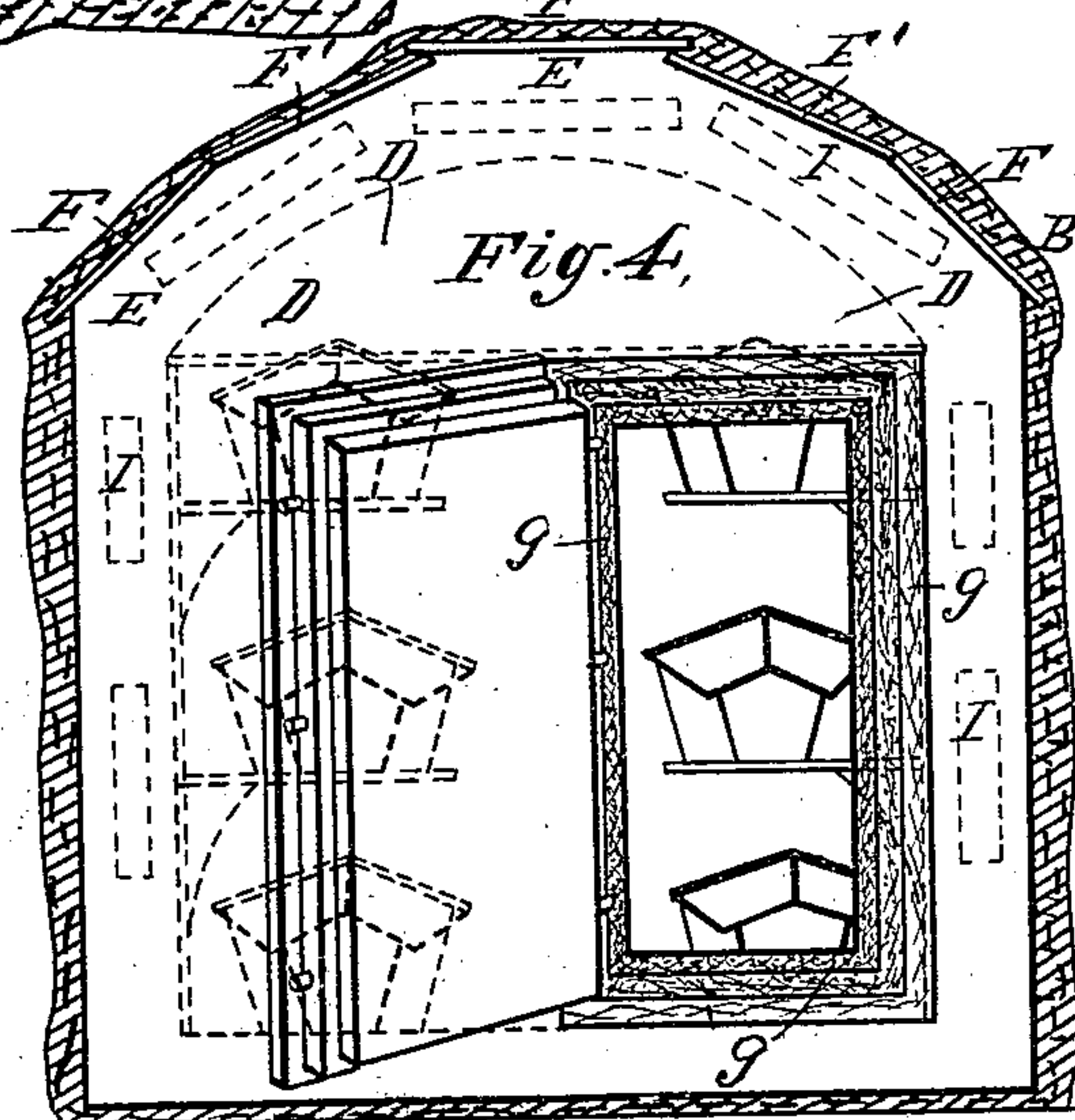
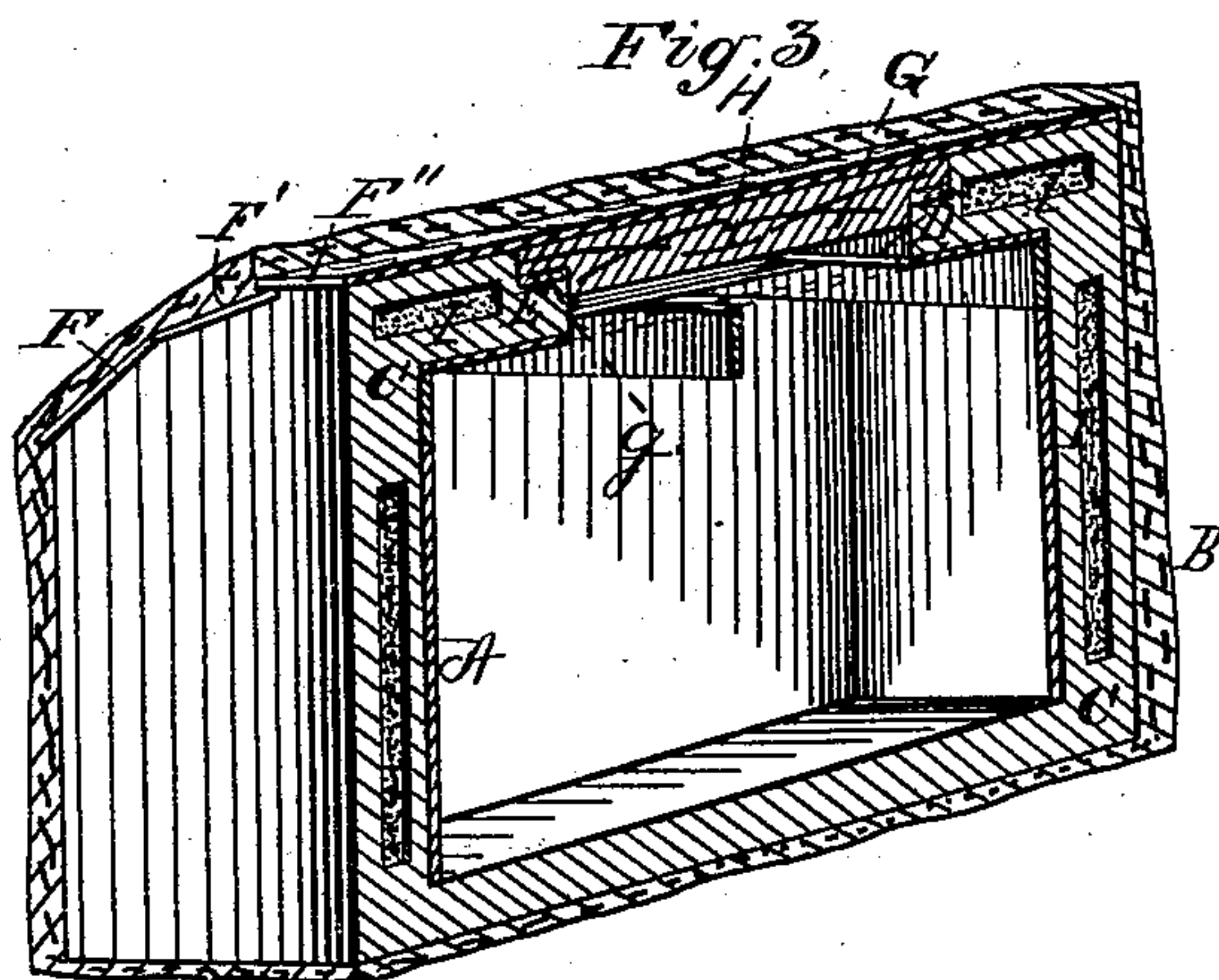
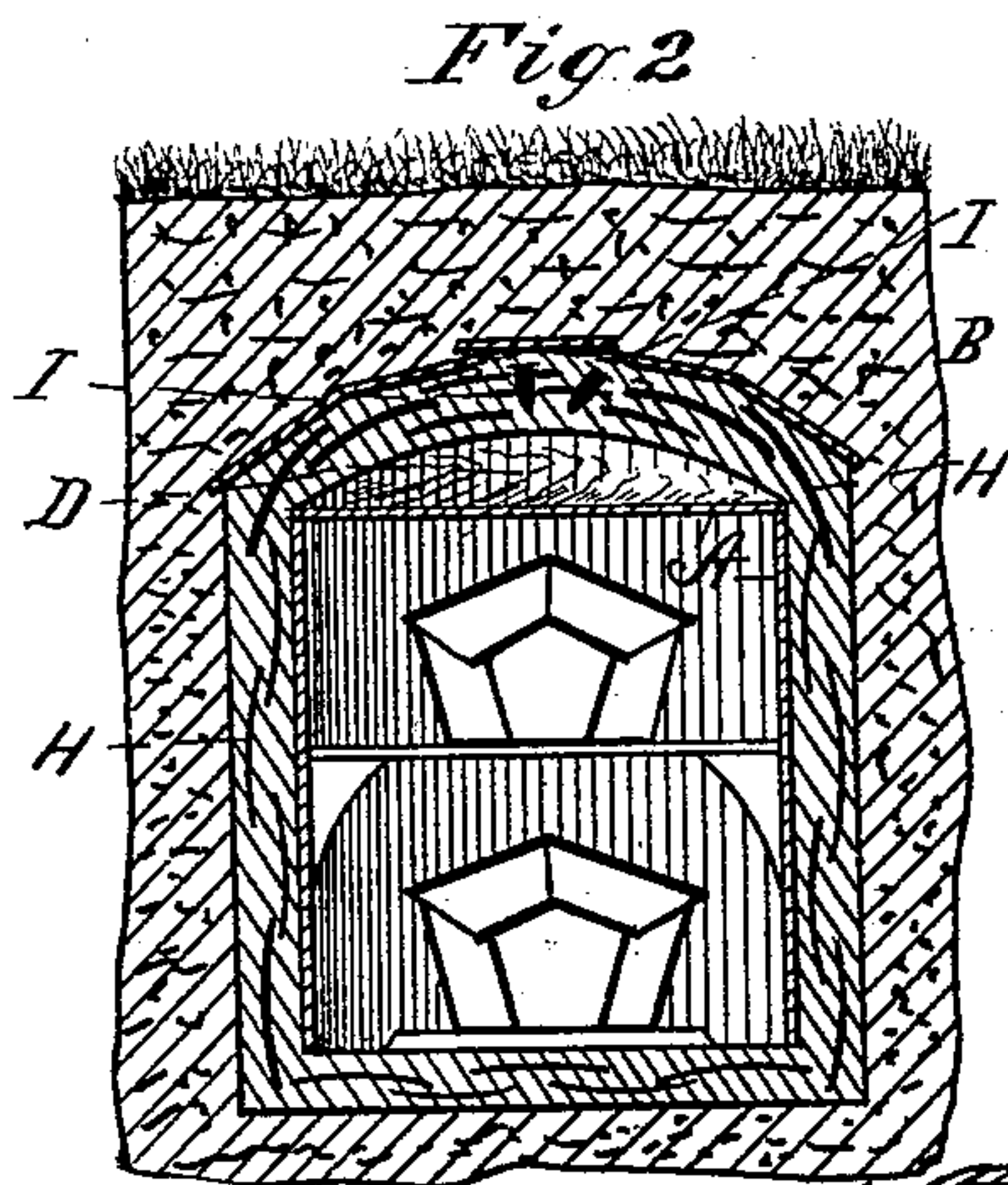
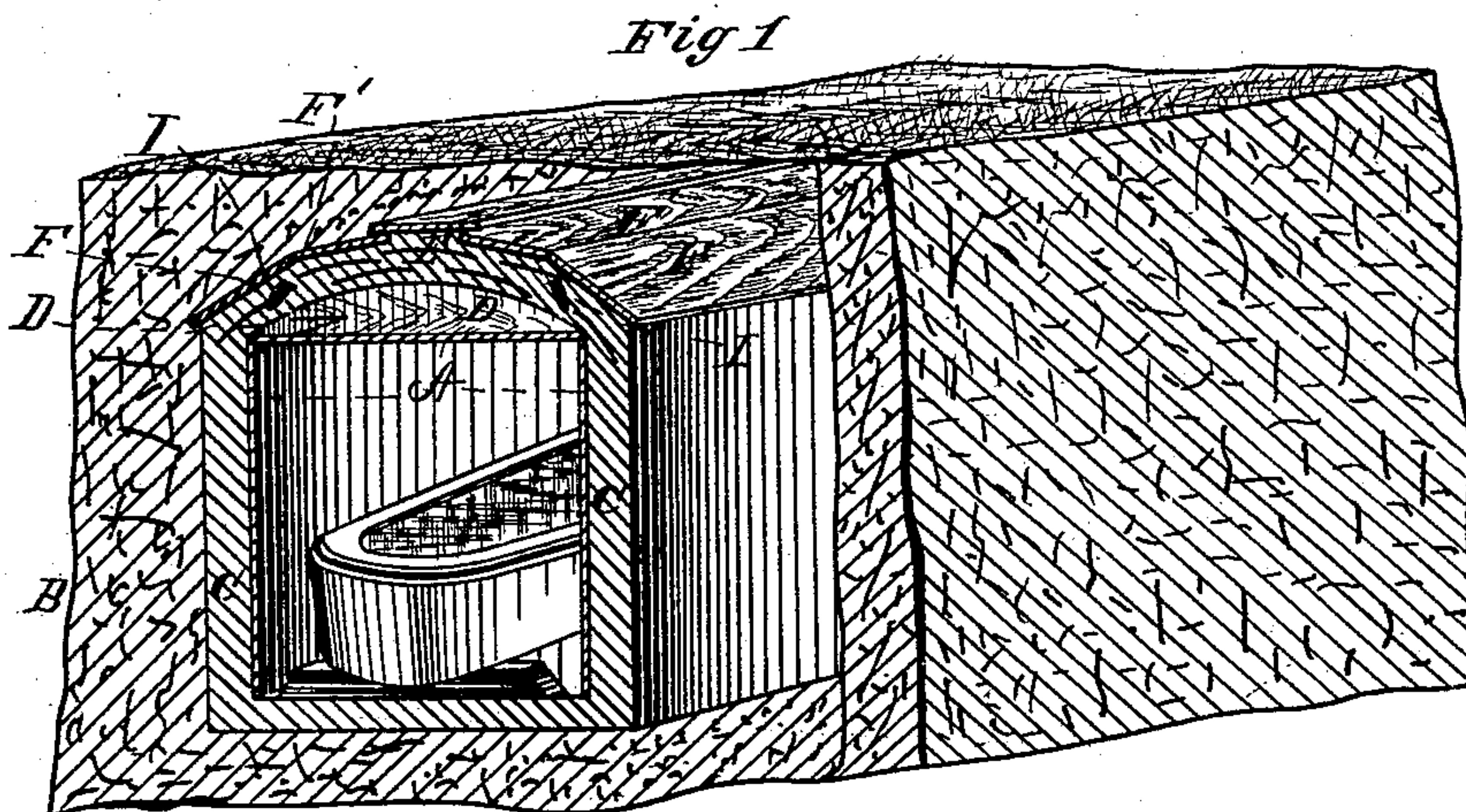


W. F. GROVES.
Burial Vault or Tomb.

No. 226,743.

Patented April 20, 1880.



Witnesses
J. B. Robertson
W. R. Edelen.

Inventor
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UNITED STATES PATENT OFFICE.

WILLIAM F. GROVES, OF OIL CITY, PENNSYLVANIA.

BURIAL-VAULT OR TOMB.

SPECIFICATION forming part of Letters Patent No. 226,743, dated April 20, 1880.

Application filed March 21, 1879.

To all whom it may concern:

Be it known that I, WILLIAM F. GROVES, of Oil City, in the county of Venango and State of Pennsylvania, have invented certain new and useful Improvements in Burial-Vaults or Tombs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is perspective view of a single tomb hermetically sealed, with the end in cross-section, composed of hydraulic cement and placed under-ground. Fig. 2 is a cross-section of a double tomb under-ground. Fig. 3 is a vertical longitudinal sectional perspective view, exhibiting the door in the top provided with packing, also the metallic obstructions and explosives for protecting the tomb. Fig. 4 is an end elevation of a large tomb (under-ground) provided with a burglar-proof door which has packing and also explosives. (Shown in dotted lines.)

The object of my invention is to construct a tomb that will be impervious to moisture, and also burglar-proof, as far as it is possible to make such a structure.

In constructing a tomb, I use hydraulic cement and sand mixed with scrap metal. I first make a box, A, provided with a number of braces, to support the box until the cement sets, and place it in the hole made in the earth B. I then mix hydraulic cement and sand, and place it around the box, forming a wall, C, which I build nearly to the top of the box, and which remains incomplete until the coffin is put in the tomb, when I place a wooden arch, D, on the top of the box the entire length of the tomb, and finish the wall, and on the top of which I commence the arch E. When beginning the building of the arch I place as much cement mixed with sand and scrap metal on the top of the wall and slope of the arch as may be desired. I then lay a board, F, on each side, and pack on top of said board sufficient earth to hold the cement in place until it sets. I immediately place cement mixed with sand, scrap metal, and explosives on top of the arch-

mold, and cover it with boards F', and finish the tomb with a top board, F'', and then fill in the hole with earth, the same as an ordinary grave. I thus make a hermetically-sealed tomb which is impervious to water.

After the walls are formed, and before placing the coffin in the tomb, I remove the braces which were placed there to hold the frame in position until the cement had set.

When building a tomb with a cement door, G, on the top, as shown at Fig. 3, I place a frame the size of the door on top of the arch, and then complete the arch, as heretofore described. In making the door G, I form it in a separate mold, which is made to fit closely in the doorway, and made air-tight by means of suitable packing material g, and secured to the top of the tomb by a bar or lock, or any suitable fastening.

When building a family tomb under-ground a burglar-proof door is made in the end, as shown at Fig. 4, in the same manner as an ordinary bank-vault door, the rabbets being provided with packing material g, to prevent moisture or water from entering the tomb. Sufficient room may be left in front of the tomb to allow the door to open, and also for a flight of stairs; so the earth need not be removed whenever the tomb is to be opened.

When the tomb is in the course of construction I place a quantity of scrap metal, H, promiscuously throughout the walls, to retard the efforts of burglars when trying to force an entrance. I also place, in suitable openings throughout the wall, explosive materials, I, with fulminate or compounds of nitro-glycerine, so arranged that burglars, when producing any undue concussion on the door or upon any part of the tomb, will cause it to explode and destroy them in their unlawful efforts; or a quantity of the ordinary loaded metallic pistol or rifle cartridges are mixed with the cement, either in the single grave or tomb, and if any attempts are made to violate the tenement of the dead by working through the hardened stone, sufficiently loud explosions would be caused to alarm the depredators and call assistance, even if the bullets of the cartridges did not seriously wound them.

Having described my invention, I claim the following:

1. A tomb formed under-ground of cement mixed with sand and explosives, and provided with a door or trap packed with suitable material for excluding moisture or water, as shown
5 and described.

2. A concrete-cement tomb provided with embedded scrap-metal obstructions and embedded explosives, as loaded metallic cartridges, for retarding the operations of burglars, substantially as shown and described.
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In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WILLIAM F. GROVES.

Witnesses:

JAMES C. BOYCE,
W. R. EDELEN.