(No Model.)

C. C. GILMAN.

FIRE PROOF VAULT.

No. 332,247. Patented Dec. 15, 1885.

Fig. 1.

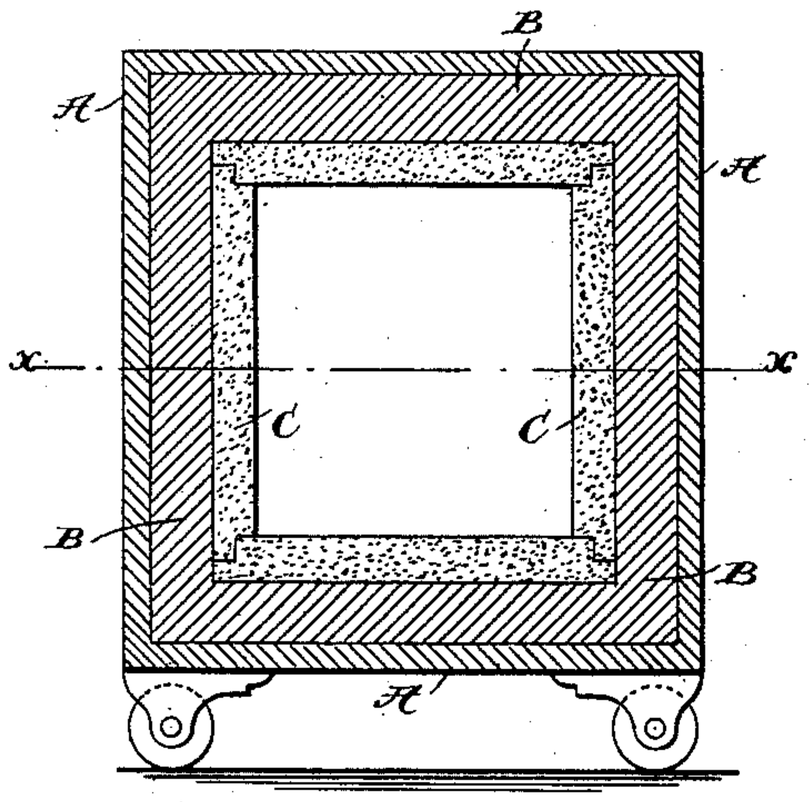


Fig. 2.

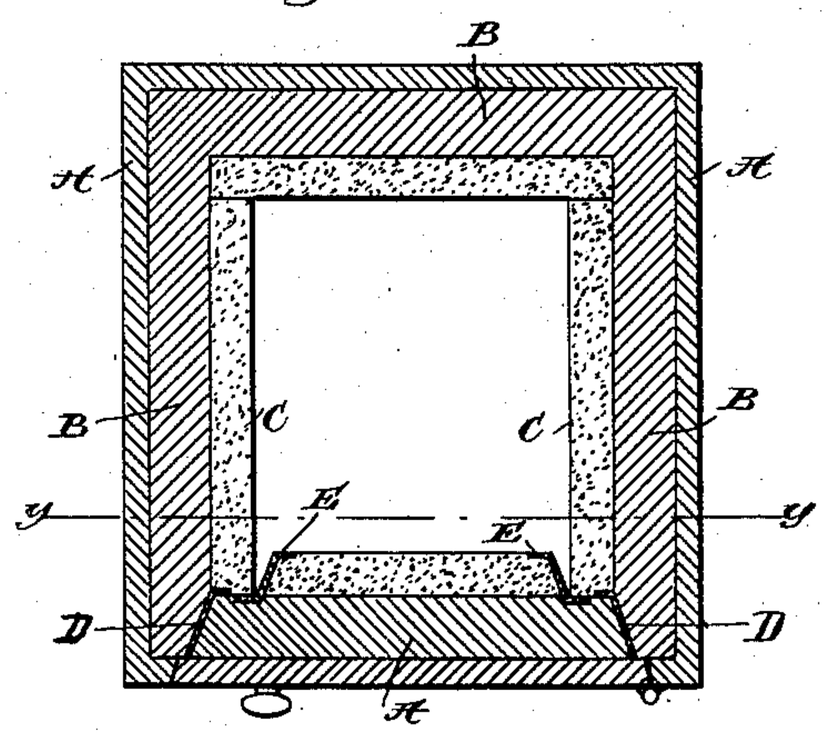


Fig. 3.

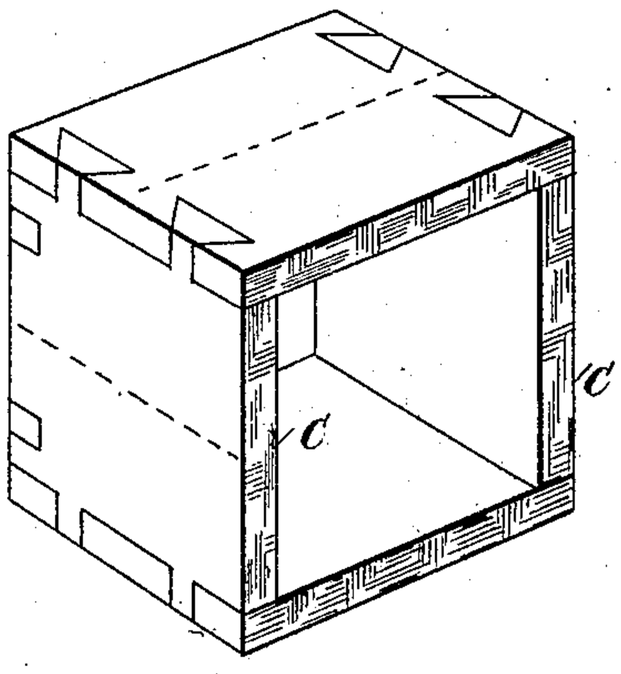
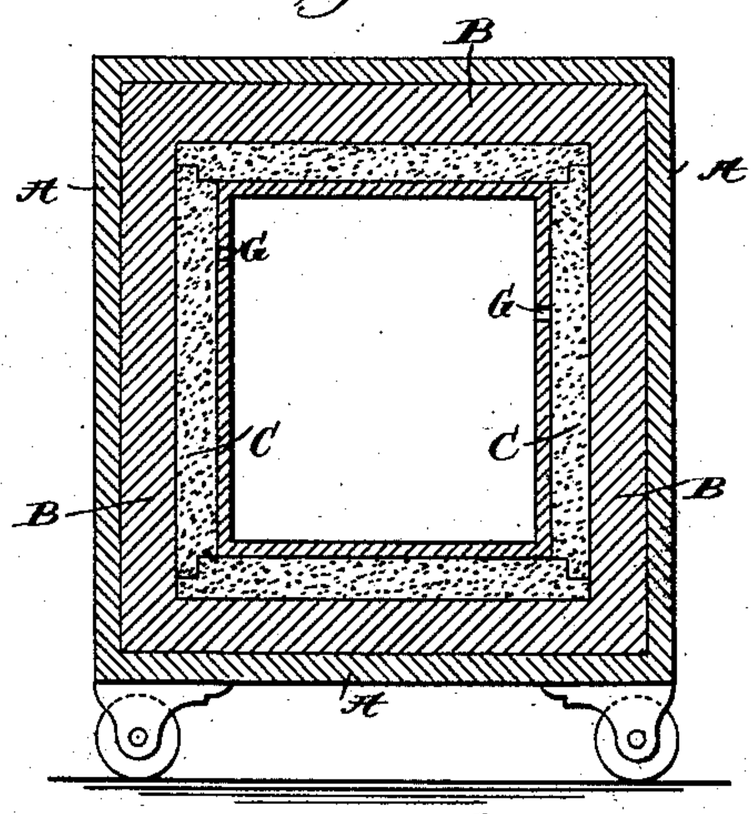


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES CARROLL GILMAN, OF ELDORA, IOWA.

FIRE-PROOF VAULT.

SPECIFICATION forming part of Letters Patent No. 332,247, dated December 15, 1885.

Application filed August 27, 1885. Serial No. 175,433. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CARROLL GILMAN, a citizen of the United States, and a resident of Eldora, Hardin county, Iowa, have invented a new and useful Improvement in Fire-Proof Safes, Vaults, and Storage-Receptacles, of which the following is a specification.

The object of my invention is to improve the fire-proof character of safes, vaults, and similar structures; and it consists in a safe or vault embracing in its construction a porous burned brick material known as "porous terra-cotta" or "terra-cotta lumber."

In the accompanying drawings, which form a part of this specification, Figure 1 represents a vertical transverse section on line *y y*, Fig. 2, of a safe embodying my invention. Fig. 2 is a horizontal cross-section of the same, taken on line *x x* of Fig. 1. Fig. 3 is a perspective view of the lining removed from the safe. Fig. 4 represents the lining shown in Fig. 1 covered by plates of iron or steel.

Referring to the drawings, the body of the safe may be constructed of iron, A, and steel, B, as illustrated, or in any other approved manner that will insure the requisite strength. A lining, C, consisting of terra-cotta lumber or a porous burned brick material is applied to the interior of the safe to protect the contents thereof against fire and heat. Said lining is produced in the following manner: Slabs of porous terra-cotta made in accordance with Reissued Letters Patent Nos. 10,419 and 10,420, and consisting, preferably, of one part clay and two parts sawdust, are pressed or molded into the shape and size desired before firing, or are sawed or trimmed with edged tools subsequently. The slabs are preferably made of a size to form a side, top, or bottom, and the pieces are secured together by nails or other efficient means, but preferably by a dovetail joint, as illustrated in Fig. 3. The slabs, if warped, are planed, and all edges are trimmed, so as to make close-fitting joints.

Instead of each side of the box-shaped lining being made in one piece, it may be made in two or more pieces, as indicated by the dotted lines in Fig. 3. The slabs are made from two to four inches in thickness, preferably not less than two.

In Figs. 1 and 2 I have shown the terra-cotta-lumber lining applied to the inside of the safe, while in Fig. 4 said lining is placed between the layers of iron or steel forming the walls of the safe.

To prevent the box-shaped lining from sliding forward when used, as in Figs. 1 and 2, and in case it should not fit tightly, I screw to the iron of the safe small angle-irons D, which project in front of the lining, and retain the same in place. The door of the safe is also lined with the same material, held in place by angular clamping-plates E, screwed to the metal of the door, and overlapping the said lining, as shown in Fig. 2.

The said material is an excellent non-conductor of heat, is absolutely fire-proof, and will not crack under the action of fire or of water, if the latter is applied thereto while it is red hot. This is due to its porous character, and the said material is therefore admirably adapted for the purposes of this invention.

Ordinary brick or terra-cotta differs essentially from the porous terra-cotta described, for the former is a good conductor of heat, and will readily crack and fall to pieces when subjected while hot to the action of water. The porous terra-cotta possesses the further advantage that it may be sawed, nailed, and worked with edged tools, thus enabling separate parts to be accurately fitted together, so as to insure close and tight joints, and permitting dovetail joints to be used to secure the parts together.

I am aware of the construction described in Letters Patent No. 11,842, to B. Sherwood, which consists in a lining of thin brick or tile inside of the outer shell, and within that a layer of a composition of alum and clay made into the consistence of mortar, the said brick being used to protect the composition; but this I do not claim, as it differs essentially in many respects from my invention.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A fire-proof safe, vault, or similar receptacle provided with a lining consisting of a porous burned brick material, substantially as described.

2. A fire-proof safe, vault, or similar receptacle provided with a lining formed of slabs of a porous burned brick material fastened together, substantially as described.

In testimony whereof I have signed my name in the presence of two witnesses.

CHARLES CARROLL GILMAN.

Witnesses:
G. E. GILMAN,
F. W. GILMAN.