

(No Model.)

T. S. SPIVEY.
FIRE PROOF SAFE.

No. 333,355.

Patented Dec. 29, 1885.

FIG. 1.

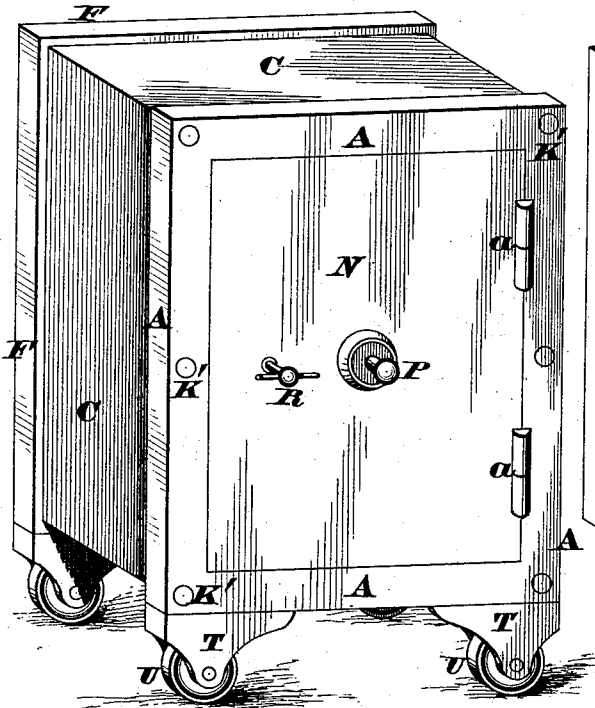


FIG. 4.

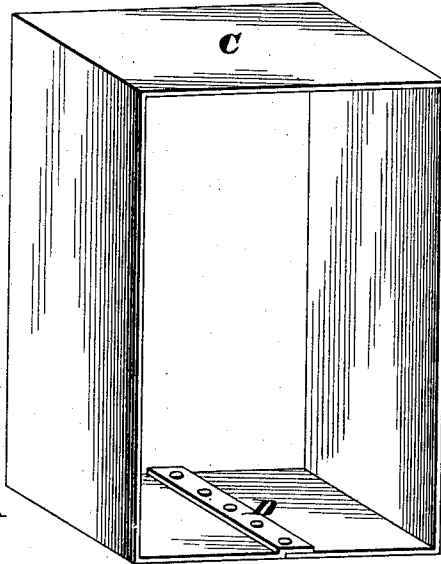


FIG. 5.

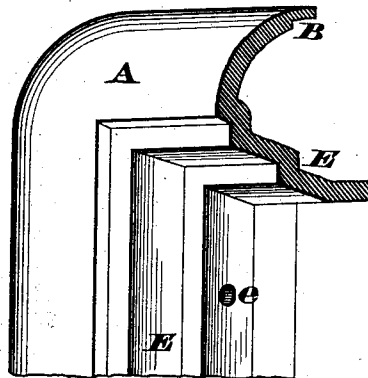


FIG. 2.

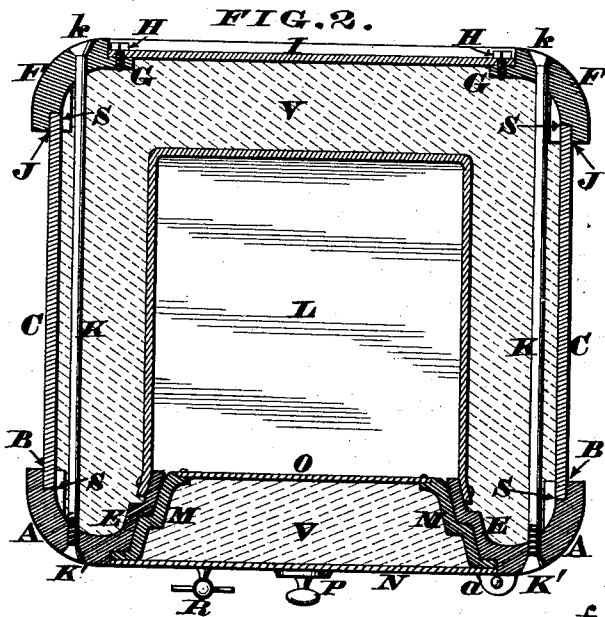


FIG. 6.

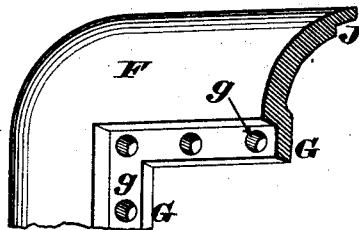
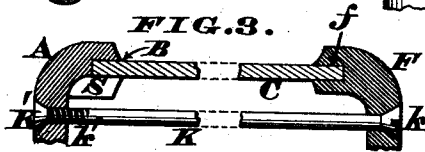


FIG. 3.



Attest.
J. W. Layman,
S. S. Carpenter.

Inventor.
Thomas S. Spivey
by James H. Layman
Att'y.

UNITED STATES PATENT OFFICE.

THOMAS S. SPIVEY, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO GUY WEBBER, OF SAME PLACE.

FIRE-PROOF SAFE.

SPECIFICATION forming part of Letters Patent No. 333,355, dated December 29, 1885.

Application filed September 16, 1885. Serial No. 177,229. (No model.)

To all whom it may concern:

Be it known that I, THOMAS S. SPIVEY, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Fire-Proof Safes, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of my invention is to afford a fire-proof safe that can be constructed in the most economical manner, the body proper of the same being composed of but four members or pieces—to wit, a front frame, a back frame or plate, an outer casing or shell, and an inner shell or box, said frames being of cast metal, while the outer shell is of ordinary sheet metal, and the inner shell is either of sheet metal or wood. This inner shell or casing is fastened to the front frame, and the margins of the outer shell are fitted within suitable grooves or rabbets made in the opposing faces of said frames, after which act the latter are permanently united together by a system of tie-rods. The annular space between these two shells or casings is charged with any suitable non-conducting filling, and the safe is at once ready for use when a door is hung upon the front frame of the same, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a perspective view of my safe in its closed condition. Fig. 2 is a horizontal section of the same. Fig. 3 is an enlarged section through the frames or angle-pieces and a portion of the outer shell or casing, the non-conducting filling being omitted. Fig. 4 is a perspective view of said outer casing. Fig. 5 is an enlarged sectionized perspective view of one corner of the front frame of the safe. Fig. 6 is a similar view of one corner of the rear frame or angle-piece.

Referring to Fig. 1, A represents the front frame or angle-piece, which may be made of any suitable cast metal, although iron is preferred, both on account of its cheapness and the facility with which it can be brought to the desired shape. This angle-piece constitutes the top, bottom, and both sides of the safe-front, and is either grooved or rabbeted on its rear

edge, as at B, to admit the front margin of the outer shell, casing, or jacket, C, the latter being usually made of a single plate of sheet-iron, united at bottom by a lap-joint, D, as seen in Fig. 4. Furthermore, this front frame has cast with it an inwardly-projecting flange, E, that constitutes the door-jamb, said jamb being “stepped” in the customary manner.

The rear frame, F, is practically the same as the front frame, A, with the exception that it has no door-jamb, but is provided with a flange, G, pierced at *g*, to receive bolts, rivets, or screws H, wherewith the back plate, I, is secured to said frame. J is a groove or rabbet in the front edge of this frame, to receive the rear margin of the outer shell or casing, C.

K K represent tie-rods that clamp the two frames A F around the margins of said casing, said rods having picked heads *k* at their rear ends, as more clearly seen in Fig. 3, while the opposite ends thereof are screw-threaded at *k'* to engage with internally-threaded holes of the front frame or angle-piece, A. K' are heads formed on the extreme front ends of these tie-rods.

L represents the inner shell or casing, which is made either of wood or sheet metal, and is fastened to the angle-piece A, being preferably riveted to the door-jamb E, within which jamb fits quite snugly a cast frame, M, having attached to it an outer plate, N, and an inner plate or board, O. These members M N O constitute the safe-door, which is hung upon hinges *a a* of the front angle-piece, A.

P is the dial of a combination-lock, and R the knob that operates the bolt-work of the door, said bolts being adapted to enter holes in the jamb E, one of these holes being seen at *e* in Fig. 5.

S S are lugs that retain the outer shell, C, within the rabbets B J.

T are feet, within which are journaled the wheels U. These feet may be cast with the front and back angle-pieces, but it is preferred to bolt them to said frames, so as to be readily replaced in case they are broken.

V is any approved non-conducting filling. In constructing my safe, the holes that admit the tie-rods K are either cast or drilled in

the angle-pieces A F, and the inner shell or box, L, is preferably attached to the door-jamb E, as seen in Fig. 2. The outer shell, C, is then fitted within the rabbets B J, after
 5 which act the tie-rods K K are inserted from the rear and screwed home in the front frame, A, thereby clamping said shell firmly between the outer and inner frames. The extreme
 10 front ends of these rods are then headed up at K', and the non-conducting filling V is poured in at the rear and is retained in place by bolting the back plate, I, onto the flange G of frame F. The door N being now hung upon the hinges *a a* and a coat of paint applied to the frames and casing, the safe is at
 15 once ready for use, and, although not burglar-proof, it will be able to resist fire as effectually as the most expensive structures of a similar character.

20 In Fig. 1 the frames A F are shown with sharp square corners, but in the remaining illustrations these corners are rounded off, thereby indicating that said frames may be shaped or finished to suit the demands of
 25 trade or the fancy of the purchaser.

30 In Fig. 3 the lugs S S are omitted from the rear frame, F, and the latter is shown provided with a groove, *f*, to receive the edge of the outer shell, C. Finally, it is evident that the limited number of parts used in constructing my safe enables it to be shipped in a "knockdown" condition, and then set up on arriving at its destination, and without being

compelled to employ skilled artisans for the purpose.

I claim as my invention—

1. A fire-proof safe consisting of cast front and rear frames or angle-pieces, an inner receptacle secured to said front frame, an outer sheet-metal casing between said frames, and a system of tie-rods that unites said frames and casing, substantially as herein described. 40

2. A fire-proof safe consisting of cast front and rear frame or angle-pieces, an inner receptacle secured to said front frame, a system of tie-rods that unites said frames and clamps an outer sheet-metal casing between them, and a detachable back-plate, the removal of which latter permits the introduction of the non-conducting filling, as herein described. 45

3. An improved fire-proof safe, consisting of the cast frames or angle-pieces A B E F G J, detachable sheet-metal back-plate I, outer sheet-metal casing, C, inner sheet-metal casing, L, non-conducting filling V, and a system of tie-rods, K, for the purpose specified. 50

4. The cast front frame, A, of a safe, having a rabbet B, lugs S, stepped door-jamb E, and bolt-holes *e*, for the purpose specified.

In testimony whereof I affix my signature 60 in presence of two witnesses.

THOMAS S. SPIVEY.

Witnesses:

JAMES H. LAYMAN,
 SAM'L. S. CARPENTER.