(No Model.)

G. L. DAMON.

FIRE PROOF SHUTTER.

No. 251,528. Patented Dec. 27, 1881.

Fig 1.

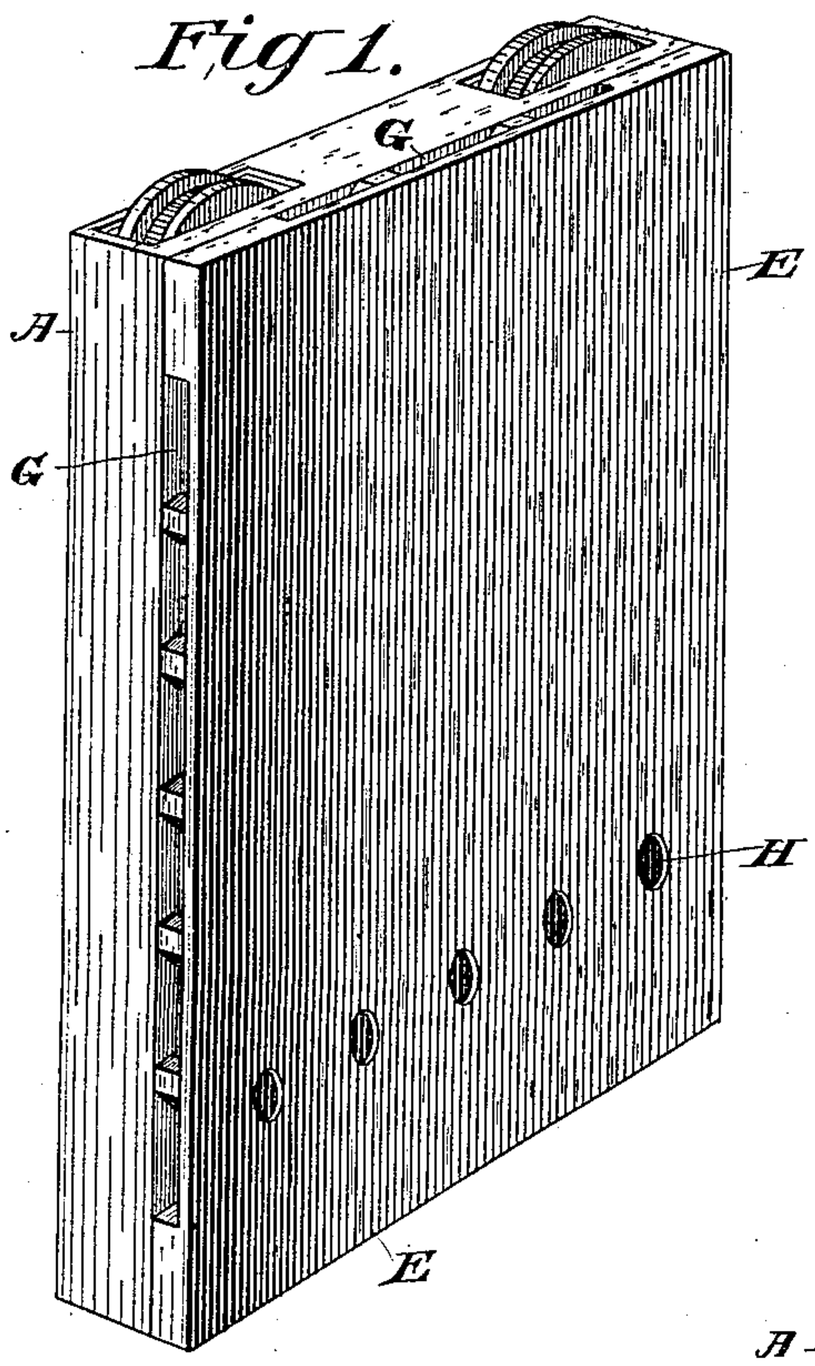


Fig 2.

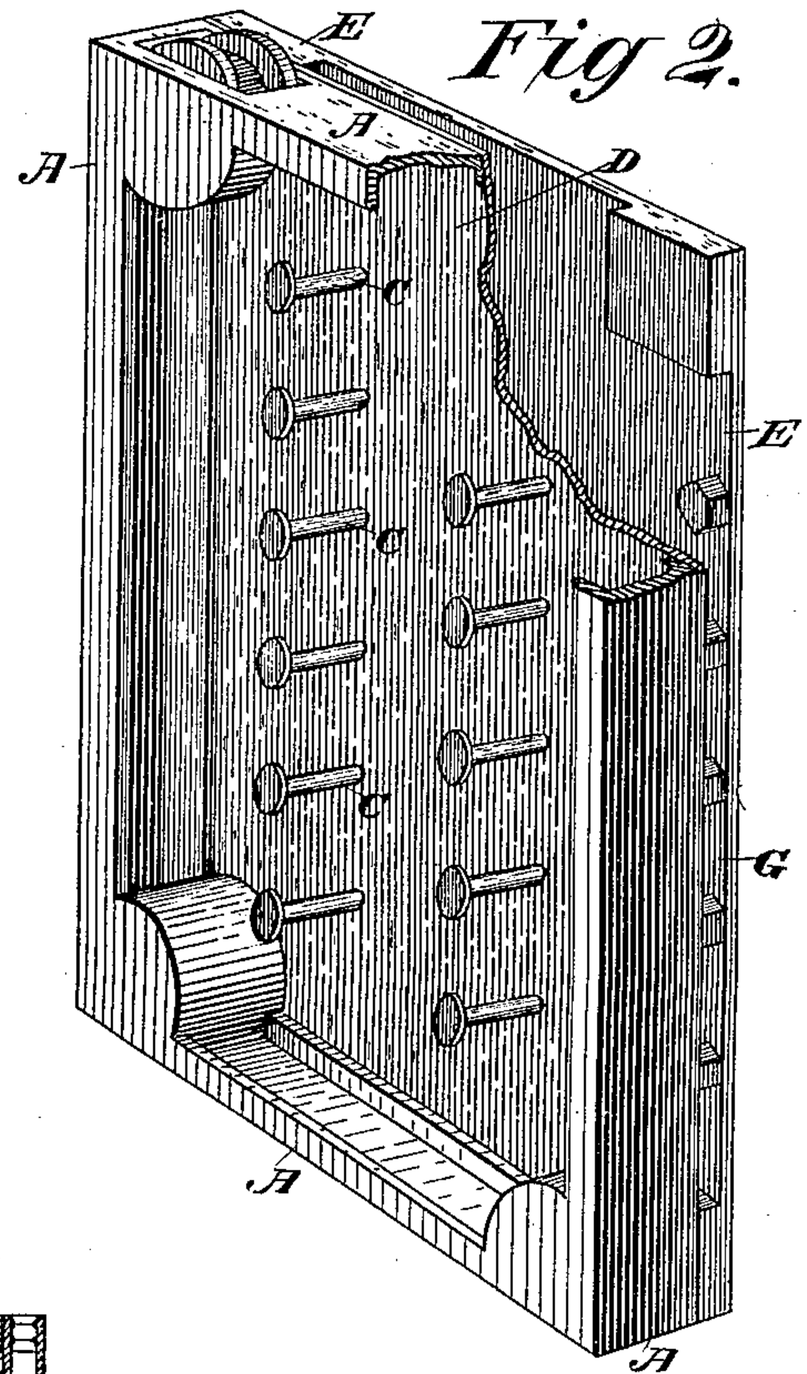
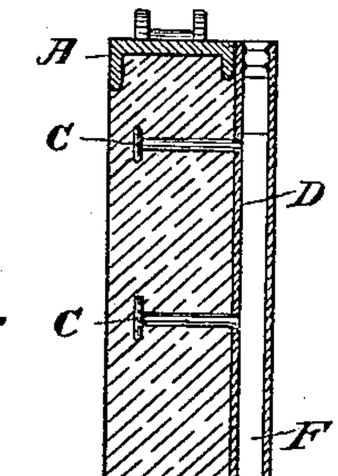


Fig 3.



Attest:

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UNITED STATES PATENT OFFICE.

GEORGE L. DAMON, OF BOSTON, MASSACHUSETTS.

FIRE-PROOF SHUTTER.

SPECIFICATION forming part of Letters Patent No. 251,528, dated December 27, 1881.

Application filed August 25, 1881. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. DAMON, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented Improvements in Fire-Proof Shutters, of which the following is a specification.

The invention relates to that class of fire-proof shutters in which a metallic frame or casing is employed to contain asbestus and plaster or other suitable fire-proof material or composition, leaving the smallest possible surface of metal exposed on the outside.

My improved shutter is made with a false back and a space between this and the true back, through which space free circulation of air is permitted and will be caused by heat, as hereinafter described.

In the accompanying drawings, Figure 1 is a rear perspective view of my improved shutter. Fig. 2 is a front perspective view of the metallic shell or frame thereof, partly in section. Fig. 3 is a vertical section of the complete shutter.

The top, bottom, and sides A may be made of either cast or sheet metal, flanged to retain the fire-proof filling B, which is further supported and secured therein by anchoring-studs C. These parts may be constructed and arranged as in fire-proof shutters already in use. Instead, however, of applying the fire-proof filling B directly in contact with the true back of the shutter, I employ a false back, D, which forms the rear wall of the composition-chamber, and to which the anchoring-studs C are fixed.

Between the false back D and the true back E of the shutter is a space, F, the free passage and circulation of air through which prevent the overheating of the parts or the communication of an injurious degree of heat to the shutter-back E. Air is admitted freely to and from the space F by openings G G around the edges of the shutter or openings H in the back E, or preferably both.

In the event of a conflagration the heating of the outside of the shutter will cause an active current of air through the space F, cool air from within the building being admitted through the openings H in the lower part of the shutter-back, to supply the place of the warm air which passes out above through the openings G.

I am aware that it is not broadly new to protect metallic shutters with fire-proof material.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination of the shell A D, fire-proof filling B, back E, and air-space F, substantially as and for the purpose set forth.

2. In a fire-proof shutter having an external filling, B, of incombustible and non-conducting material, the air-space F and suitable apertures, H G, for admitting air at the lower part from the interior of the building and discharging it above, substantially as set forth.

GEO. L. DAMON.

Witnesses:

WILMON W. BLACKMAR,

URIAH A. POLLARD.