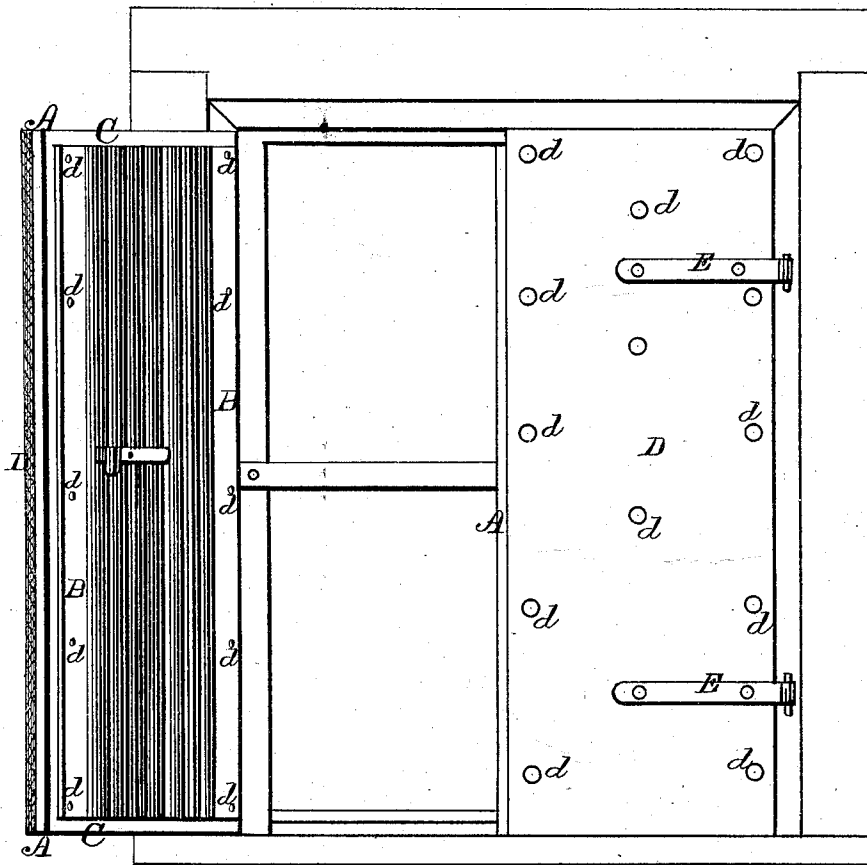


T. HYATT.
Fire-Proof Shutters.

No. 143,157.

Patented September 23, 1873.

Fig. I.



WITNESSES:

Gas. E. Hutchinson
John R. Young

INVENTOR.

Theodore Hyatt, by
Prindle and Co., his Attys.

T. HYATT.
Fire-Proof Shutters.

No. 143,157.

Patented September 23, 1873.

Fig. 2.

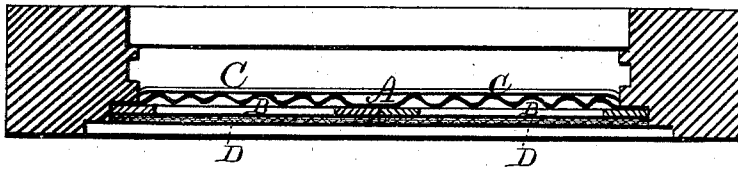
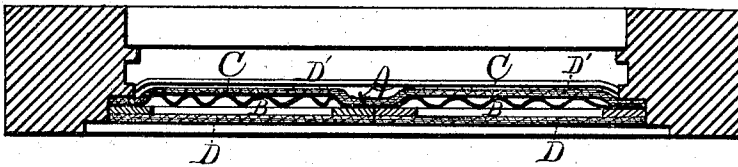


Fig. 3.



WITNESSES:

Gas. E. Hutchinson
John R. Young

INVENTOR.

Theodore Hyatt, by
Orindle and Co. his Attys

UNITED STATES PATENT OFFICE.

THEODORE HYATT, OF NEW YORK, N. Y.

IMPROVEMENT IN FIRE-PROOF SHUTTERS.

Specification forming part of Letters Patent No. **143,157**, dated September 23, 1873; application filed September 3, 1873.

To all whom it may concern:

Be it known that I, THEODORE HYATT, of New York city, in the county of New York and in the State of New York, have invented certain new and useful Improvements in Fire-Proof Shutters; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a perspective view of a window-opening provided with my improved shutters. Fig. 2 is a horizontal section of a shutter protected upon its outer side with non-conducting material, and Fig. 3 is a like view of a shutter having both of its sides protected.

Letters of like name and kind refer to like parts in each of the figures.

As ordinarily constructed, metal shutters, when exposed to the action of heat, are warped and their form so changed as to render them useless for the prevention of injury to the interior of a building during a fire. Many attempts have been made to protect the metal from such injurious action by the application of felt, paper-pulp, calcined gypsum, steatite powder, &c., to its outer surface, but in each instance the nature of the material employed and the means required for securing it in position have substantially defeated the object sought to be accomplished, and have largely increased the cost of the shutter without corresponding increase in its value.

To remedy these defects and produce a shutter that shall be capable of withstanding successfully the action of fire is the design of my invention, which consists in a metal shutter having one or both of its sides covered with sheets or boards of asbestos combined with earthy material, or its equivalent, in the manner and for the purpose substantially as is hereinafter specified.

In the annexed drawings, A represents a shutter constructed of or from two sheets of metal, B and C, the inner of which sheets, C, is preferably corrugated, so as to increase the rigidity of said shutter. Upon the outer side of the plate B is placed a sheet or board, D, composed of asbestos combined with earthy matter, or its equivalent, which board is se-

cured in place by means of bolts or rivets *d*, that pass horizontally through the same and through the metal portions of the shutter at suitable points around its edge, and, if desired, within its central portion.

The hinges E may be secured upon the outer side of the shutter, as seen in Fig. 1; or, if desired, they may be attached to or upon its inner face, so as to be removed from the action of fire.

The heat-resisting qualities of the asbestos covering effectually protects it from injury or change by the action of fire, while its low heat-transmitting power renders impossible the inward passage of a sufficient quantity of heat to warp or injure the metal portion of the shutter.

In case the shutter is used for inclosing an opening in a partition-wall, or if it is desired to protect adjoining buildings from a possible fire within the building having the shutters, the inner sides of the latter may be covered with asbestos board, as seen in Fig. 3.

Any desired finish may be given to the exterior of the shutter by painting, lacquering, marbling, or in any ordinary manner covering the same.

The shutter thus described possesses the advantage of absolute safety from injury by external heat, is a perfect protection to the building from the same, and can possess all the burglar-resisting qualities required, without in any manner lessening its value as a safeguard against fire.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

A metal shutter having one or both of its sides covered with sheets or boards of asbestos combined with earthy material, or its equivalent, substantially as and for the purpose specified.

In testimony that I claim the foregoing, I have hereunto set my hand this 1st day of September, 1873.

THEODORE HYATT.

Witnesses:

E. P. STARR,
WILLIAM ACKERMAN.