J. D. PIERCE & J. B. SMITH.

Fire-Proof Shutter.

No. 167,270. Patented Aug. 31, 1875.

Fig. 1.

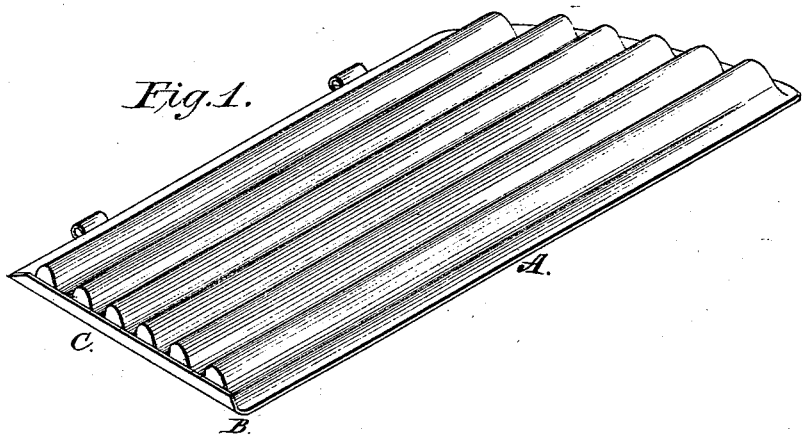


Fig. 2.

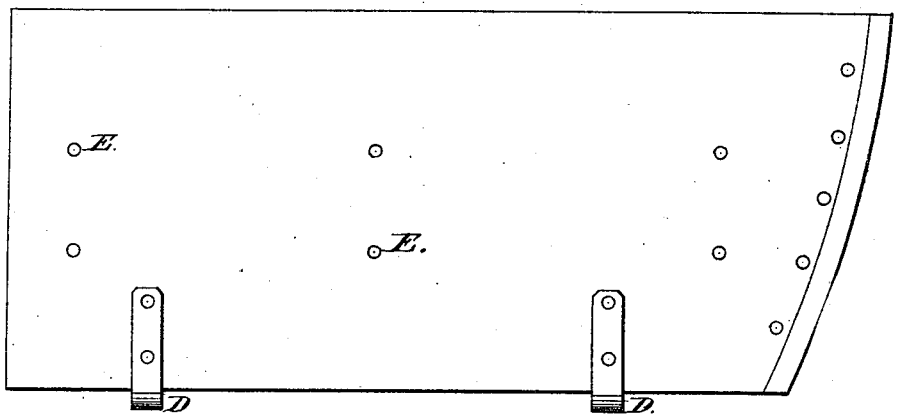
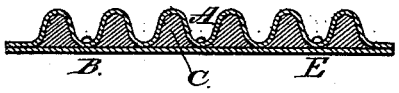


Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES D. PIERCE AND JOHN B. SMITH, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN FIRE-PROOF SHUTTERS.

Specification forming part of Letters Patent No. **167,270**, dated August 31, 1875; application filed October 3, 1874.

To all whom it may concern:

Be it known that we, JAMES D. PIERCE and JOHN B. SMITH, of Milwaukee, in the county of Milwaukee, in the State of Wisconsin, have invented certain Improvements in Fire-Proof Shutters, of which the following is a specification:

Our invention has for its object the securing of buildings from damage by fire; and consists of a shutter made of corrugated iron, with a face-plate of iron, and filled in between the face-plate and the corrugated plate with fire-proof material.

Figure 1 is a view of the corrugated side of the shutter; Fig. 2, a view of the flat side and hinges, and Fig. 3 a sectional view.

A is the side of the shutter, which is made of corrugated iron. B is the flat side, the iron of which is turned over the edge of the corrugated plate. C is the filling of plaster-of-paris or any other fire-proof material, placed between the flat iron and the corrugated plate in the corrugations thereof. D are the hinges on the shutters, and E are the rivets which hold the shutter together. The sheet-iron is made corrugated by a roller made for the purpose, or by a former, or by any other means. It is then laid on a platform just the shape of the corrugations, and the rivets are put into the holes which have been punched in the iron, and, if thought necessary, washers are put on the rivets to keep the face-plate of iron away from the corrugated iron, so as to leave a space for the fire-proof material. The flat piece of iron or face-plate is then placed on the corrugated iron plate, with holes punched in it for the rivets. The rivets are inserted, and the plates are firmly riveted together. The hinges are then riveted on, and the edges are riveted. The shutter is then placed on end, and the fire-proof material, in a soft state, is poured in, so as to fill up the space, when it is allowed to stand until the fire-proof material shall set and harden. The shutter will become practically one solid piece, and fire will not affect it. This shutter may be made, if desired, with the corrugations running crosswise instead of lengthwise.

We claim as our invention—

A fire-proof shutter constructed with corrugated iron A, flat iron B, and fire-proof filling C, and riveted together with rivets E, substantially as set forth.

JAMES D. PIERCE.
JOHN B. SMITH.

Witnesses:
FRED. G. ADAMS,
E. J. SMITH.