No. 652,558. Patented June 26, 1900.

H. A. HICKOK.

SHUTTER.

(Application filed Apr. 3, 1900.)

(No Model.)

Fig. 1

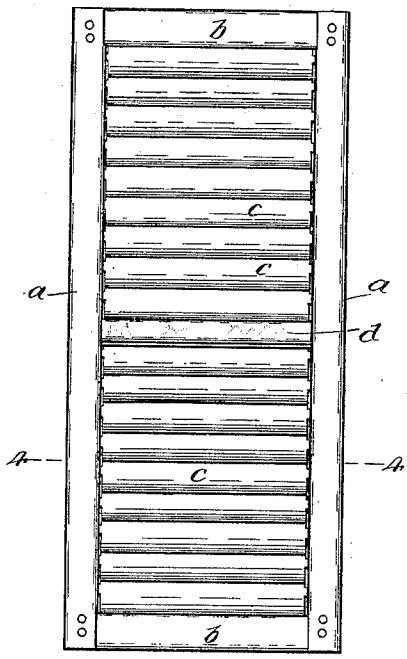
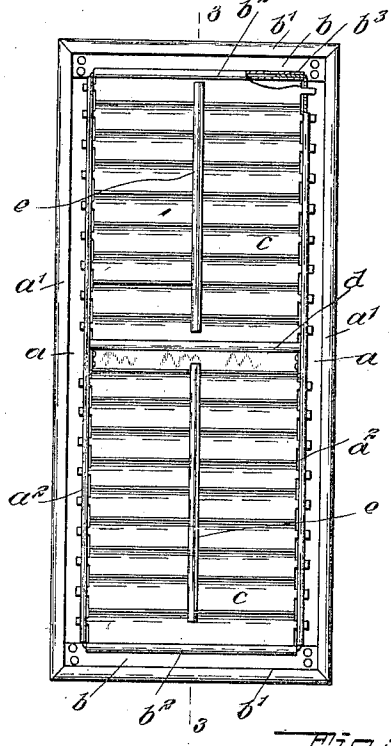


Fig. 2



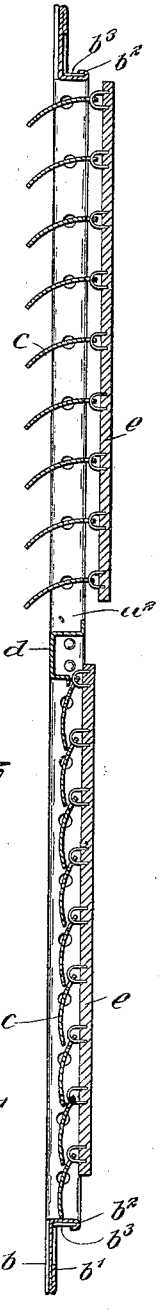
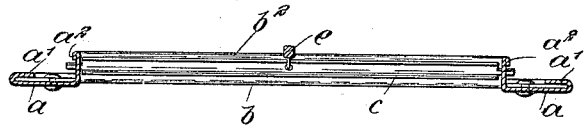


Fig. 3

Fig. 4



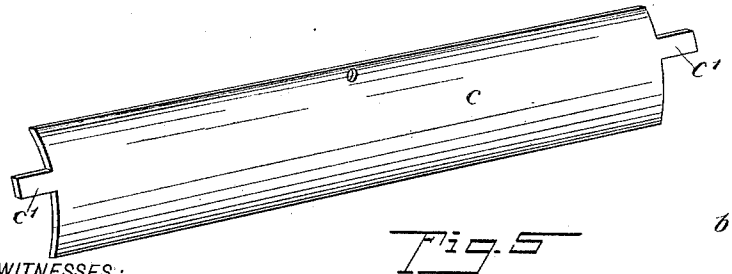


Fig. 5

WITNESSES:

J. A. Brophy

I. R. Owens.

INVENTOR

H. A. Hickok

BY

Munn & Co.

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HEZEKIAH A. HICKOK, OF STAMFORD, NEW YORK.

SHUTTER.

SPECIFICATION forming part of Letters Patent No. 652,558, dated June 26, 1900.

Application filed April 3, 1900. Serial No. 11,346. (No model.)

To all whom it may concern:

Be it known that I, HEZEKIAH A. HICKOK, a citizen of the United States, and a resident of Stamford, in the county of Delaware and State of New York, have invented a new and Improved Shutter, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide a shutter which may be used to prevent the passage of fire through windows, or, in other words, a fireproof-shutter, the invention consisting in certain peculiar features of construction, which provide for an entirely practicable and serviceable arrangement.

This specification is the disclosure of one form of the invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front view of the shutter. Fig. 2 is a rear view thereof with parts broken away. Fig. 3 is an enlarged section on the line 3 3 of Fig. 2. Fig. 4 is an enlarged section on the line 4 4 of Fig. 1, and Fig. 5 is an enlarged perspective view of one of the slats of the shutter.

All of the parts of the shutter are constructed of non-combustible material, preferably sheet metal, and the shutter comprises side rails a and end rails b, these four parts forming the main framing of the shutter. The meeting ends of the side and end rails a and b are riveted together, as shown, and the outer edges of these parts are rolled or turned over, as indicated at b' and a', respectively, thus preventing sharp edges on the shutter. The inner edges of the side and end rails a and b are turned inwardly to form side flanges a^2 and end flanges b^2, the ends of such flanges meeting each other and being joined together by tongues b^3, (see Figs. 2 and 3,) which are interposed between the main portions of the flanges b^2 and the returned edges thereof.

The slats c are constructed of sheet metal with the concavo-convex form shown, and are provided at their ends with journals c', which are mounted to rock in openings formed in the side flanges a^2. Extending between the side rails a and dividing the shutter into two parts is a middle rail d, which is constructed of sheet metal in the form of a channel-iron and is riveted or otherwise fastened to the side flanges a^2. The slats c of the two divisions of the shutter are connected together by bars e, pivoted thereto in the usual manner and causing them to move in unison. In Fig. 3 I have shown the lower division of the shutter closed and the upper division open.

This shutter may be constructed even lighter than the ordinary wooden shutter and at the same time will be entirely fireproof. By joining the several parts of the framing as described a rigid and serviceable construction is provided.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A shutter, having side and end rails formed of sheet metal, the meeting ends of which are rigidly joined and said rails having flanges formed on their inner edges, means for rigidly joining the adjacent ends of the flanges to each other, and slats having journals mounted in the flanges, the slats extending between said side flanges.

2. A shutter, having side and end rails formed of sheet metal, the ends of such rails being rigidly connected together, the side and end bars having their inner edges turned inward to form flanges, certain of such flanges being provided with tongues which are engaged by parts of the contiguous flanges bent down over the tongues to fasten the side and end flanges together, and slats mounted in and extending between the side flanges.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HEZEKIAH A. HICKOK.

Witnesses:
M. H. WHITE,
J. M. SHERK.