Mullett & Oertly.

Shutter.

No. 92,205. Patented July 6, 1869

Fig 1

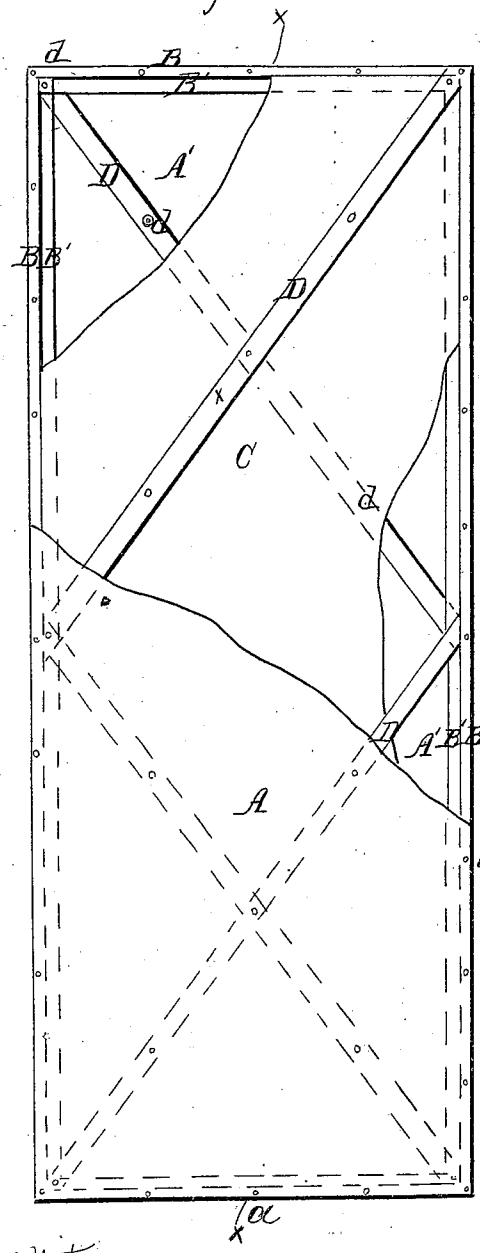


Fig 2

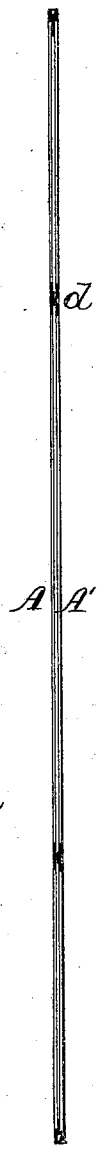


Fig 3

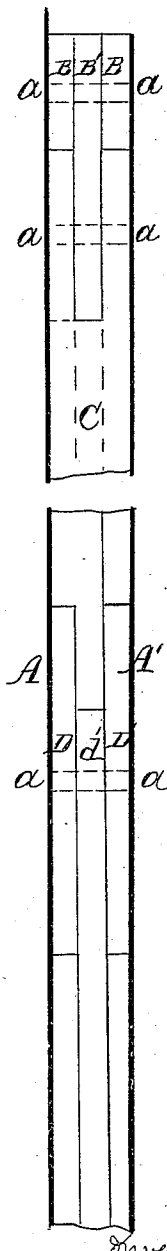
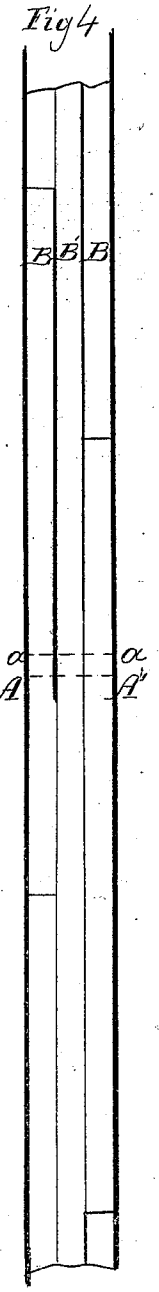


Fig 4



Witnesses
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ALFRED B. MULLETT AND BARTHOLOMEW OERTLY, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 92,205, *dated July* 6, 1869; *antedated June* 30, 1869.

IMPROVED METALLIC DOOR OR SHUTTER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, ALFRED B. MULLETT and BARTHOLOMEW OERTLY, both of the city of Washington, in the District of Columbia, have invented a certain new and useful Improvement in "Fire-Proof Shutters and Doors;" and we do hereby declare that the following is a sufficiently full, clear, and exact description thereof to enable one skilled in the art to which our said invention appertains, to make and carry it into effect, reference being had to the accompanying drawings, which are made a part of this specification.

Our invention consists in an improved manner of constructing fire-proof metallic doors and shutters, by framing and bracing them together in such a manner as to dispense with welding the frame, and thereby reduce the cost of manufacture, and facilitate the introduction of fire-proof material.

In the drawings—

Figure 1 is a front view of one of our improved doors or shutters, certain parts being removed, in order to expose parts in rear thereof, as hereinafter explained.

Figure 2 represents a longitudinal section at *x x*, fig. 1.

Figure 3 represents, on a larger scale, a partial section in the same plane as fig. 2.

Figure 4 is a longitudinal sectional view of the edge frames hereinafter described.

Similar letters of reference indicate corresponding parts in all the figures.

A A′ represent metallic sheets, secured at their edges to straight rigid bars B B′, by means of rivets or bolts *a a*, which may extend completely through from one face to the other of the shutter.

Crossed diagonal braces, D, are employed to afford additional strength and rigidity to the structure.

To afford convenient means of securing the ends of these braces the edge frames B B′ may be made each in three parts, the central one, B′, of which being of greater width than the others, projects between the ends of the braces which are riveted to it, leaving their faces flush with the frame, and permitting the sheet-metal to be placed evenly over the whole.

C represents a body of plaster of Paris, or other non-conductor of heat, which is poured in through an open end of the door or shutter, while one end piece of the frame B is out.

In fig. 1, the upper part of the front metallic sheet A is omitted, to expose the braces D and fire-proof filling, and portions of the fire-proof filling C are also omitted, showing the rear brace and sheet-metal shell or casing A′.

Where the parts to be riveted together do not come in contact, metallic tubes or washers are inserted, as shown at *d* in fig. 1, and *d* in fig. 2, so as to afford a firm and rigid bearing.

If preferred, the edges of the door or shutter may be formed by bending either the front or the rear shell over and around the rigid frames.

We produce, at a less cost than the usual sheet-iron shutter, riveted to a welded frame, a strictly fire-proof shutter, offering double the resistance to burglars, and are enabled to furnish it as so low a price as to enable their use on warehouses or any other buildings, where protection from fire and burglars is essential.

Our divided frame also affords great facility for pouring in the fire-proof material.

Any suitable moulding may be formed upon the bent edges of the sheet-metal shells.

The necessary rebates may be produced by setting the stiles or frame-pieces a little forward or back from the edge of the door or shutter.

We claim as new, and desire to secure by Letters Patent—

A metallic door or shutter, made by riveting or bolting two sheets of metal to rigid bars B and braces D, laid between them without welding, all substantially as and for the purposes herein specified.

A. B. MULLETT.
B. OERTLY.

Witnesses:
GEO. G. LYON,
GORDON MACLEOD.