E. H. McCLOUD.

FLEXIBLE FIRE RESISTING SHUTTER AND SLAT THEREFOR.

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978,770. Patented Dec. 13, 1910.

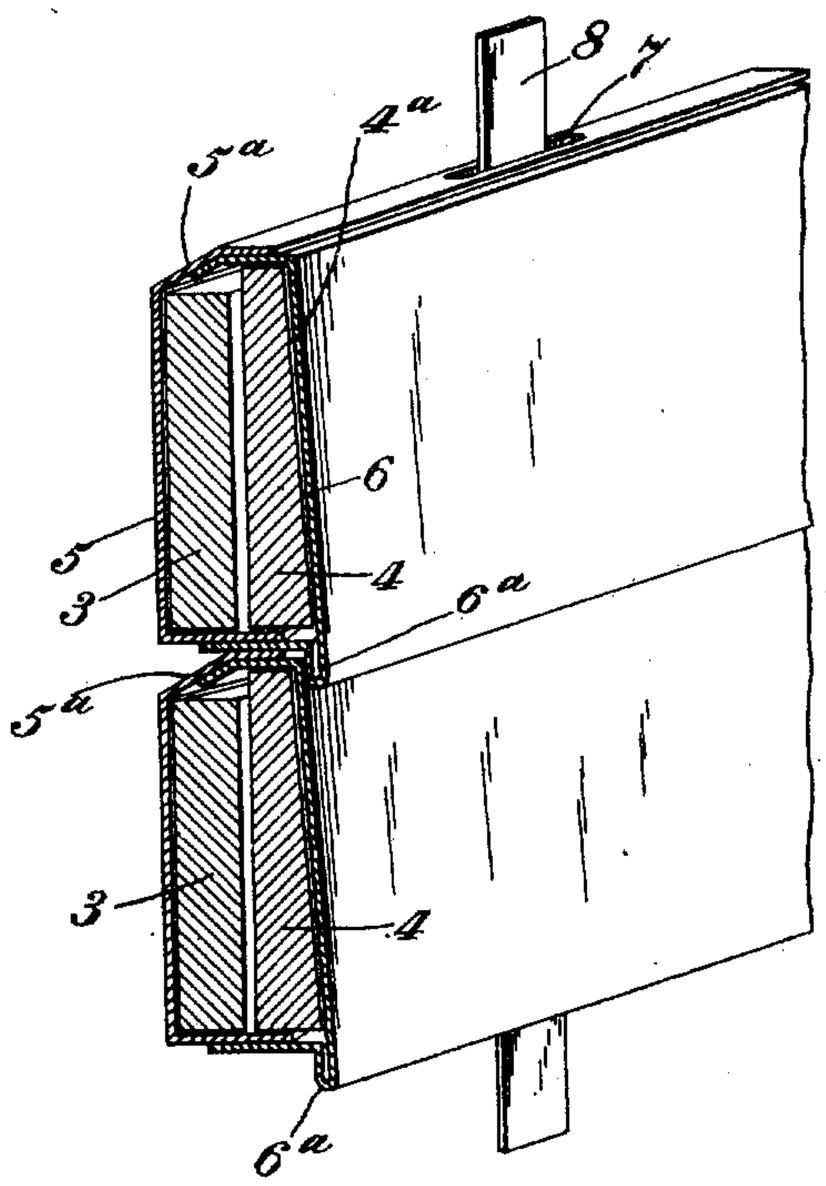

Fig. 1.

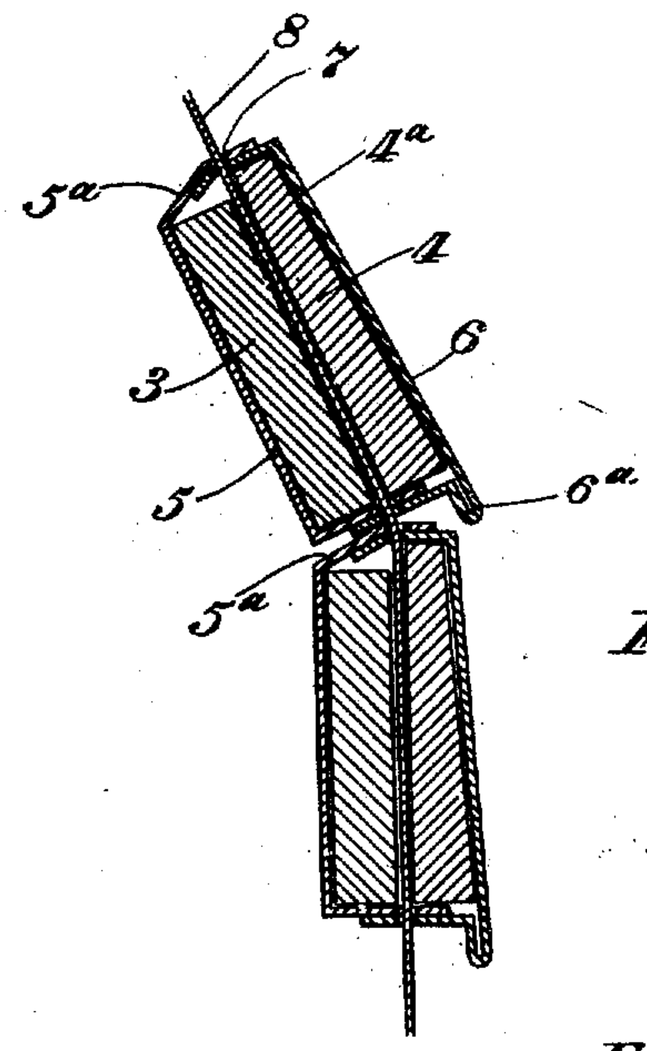

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

EDWARD H. McCLOUD, OF COLUMBUS, OHIO.

FLEXIBLE FIRE-RESISTING SHUTTER AND SLAT THEREFOR.

978,770. Specification of Letters Patent. **Patented Dec. 13, 1910.**

Application filed January 31, 1908. Serial No. 413,517.

To all whom it may concern:

Be it known that I, EDWARD H. McCLOUD, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Flexible Fire-Resisting Shutters and Slats Therefor, of which the following is a specification.

The object of this invention is to provide a simple and economical form of metal-clad or sheathed slat adapted more especially for the construction of flexible fire-resisting curtains.

The invention is embodied in the construction herein shown and described and then pointed out in the appended claims, the invention not being confined to precisely the details shown.

In the accompanying drawings—Figure 1 is a perspective view showing fractions of two slats from a shutter or curtain, said slats being strung on a portion of a connecting tape; Fig. 2 is a vertical section transversely of the slats and longitudinally of the tape and illustrating how the curtain is flexed for rolling upon a roller.

In the views 3 and 4 designate the parts of a duplex core or filling consisting of two strips of wood or other material preferably of light weight and adapted to retard radiation and conduction of heat. The strip 3 is shown to be rectangular in cross section and the strip 4 is of trapezoidal form or it has an inclined or beveled outer side as seen at 4ª. The two strips extend parallelly side by side and are inclosed by two sheet-metal strips 5 and 6. These metal strips embrace the opposite sides of the core and are bent over the edges of the core strips and across the space between them, the bent edges of the strip 5 lapping upon the bent edges of the strip 6. Where the sheet metal extends over the upper edge of the core strip 3 it stands in an inclined position or so as to present at that corner of the slat a bevel effect as seen at 5ª. The metal strip 6 is preferably first bent or folded to form a lip 6ª diagonally from the corner 5ª that projects below the upper adjacent corner of the slat next below or so as to form a water-shedding edge. As before stated, the bent edges of both strips are shown to cross the plane of the space between the core pieces 3 and 4, and both said bent edges at each edge of the slat are provided with slots like that indicated at 7 alining vertically with each other and with the space between said strips 3 and 4.

The character 8 designates the tape, of which there are preferably two or more and upon which the slats are strung to make the shutter or curtain. The tape is passed through the slots 7 and between the strips 3 and 4 and said slots are preferably of a length greater than the width or diameter of the tape or stringing device, or so that the metal sheathing can, independently of the tape, expand and contract when subjected to variations in heat.

The inclined edge 5ª permits the tilting of one slat with reference to the adjacent slat and the flexing of the connecting tape 8, thereby permitting the shutter or curtain to be wound up on a roller.

The exposed or weather side of the shutter or curtain is, of course, ordinarily that containing the metal-sheathing strip 6, because of the water-shedding character of that side.

The slanting or beveled character of the side 4ª provides room for the downward projection of the lip 6ª and the proper vertical position of the slats in the curtain or shutter.

In another application pending concurrently herewith I show and claim a modification of this species of slat.

What I claim and desire to secure by Letters Patent is:

1. A flexible shutter or curtain made up chiefly of slats each comprising a core of wood or other heat-retarding material of reduced thickness along its upper edge, a metal sheathing for said core fitting its faces closely and provided at one of its lower corners with a water-shedding lip and having its diagonally-opposite corner inclined, and a flexible member for stringing said slats passed substantially midway through them.

2. A flexible shutter or curtain made up chiefly of slats each comprising a core of wood or other heat-retarding material, a metal sheathing fitting around said core and provided at its lower corner at one side of the slat with a water shedding lip consisting of the metal of the structure folded upon itself, and said slat also having one of its corners at the opposite side of the slat beveled or inclined, said slat being narrower along its upper edge than along its lower edge, and a flexible member for stringing said slats passed through them substantially midway between the sides thereof.

3. A flexible shutter or curtain made up chiefly of slats each including an inclosing sheet metal structure provided at its lower corner at one side of the slats with a water shedding lip consisting of the sheet metal of the structure folded upon itself, and said slat also having one of its corners at the opposite side of the slat beveled or inclined, said slat being narrower along its upper edge than along its lower edge, and a flexible member for stringing said slats passed through them substantially midway between the sides thereof.

4. A flexible shutter or curtain made up chiefly of slats each including an inclosing sheet metal structure provided at its lower corner at one side of the slat with a water shedding lip consisting of the sheet metal of the structure folded upon itself and a flexible member for stringing said slats passed through them substantially midway between the sides thereof.

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