

E. H. McCLOUD.
FLEXIBLE FIRE RESISTING SHUTTER AND SLAT THEREFOR.
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978,771.

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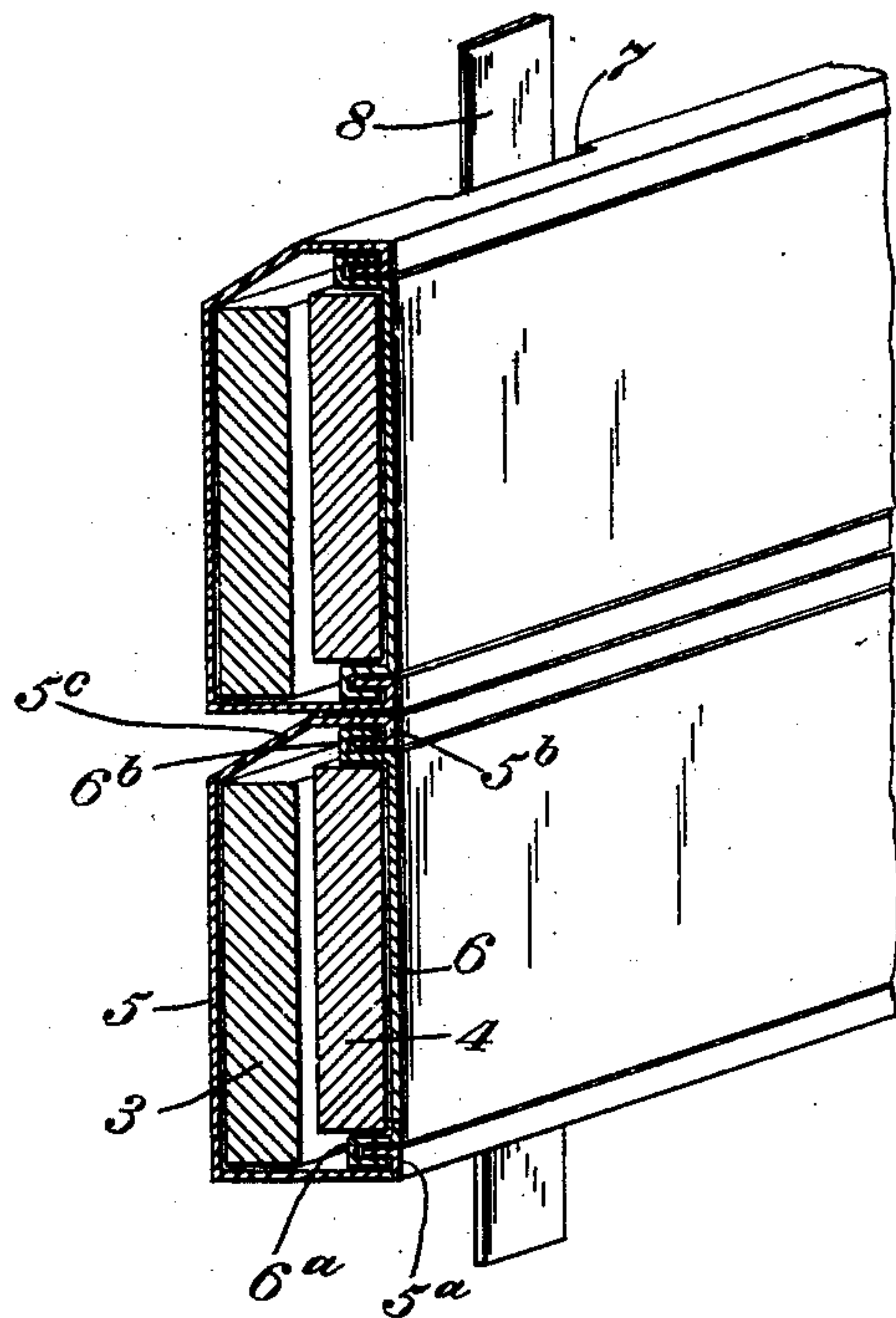


Fig. 1.

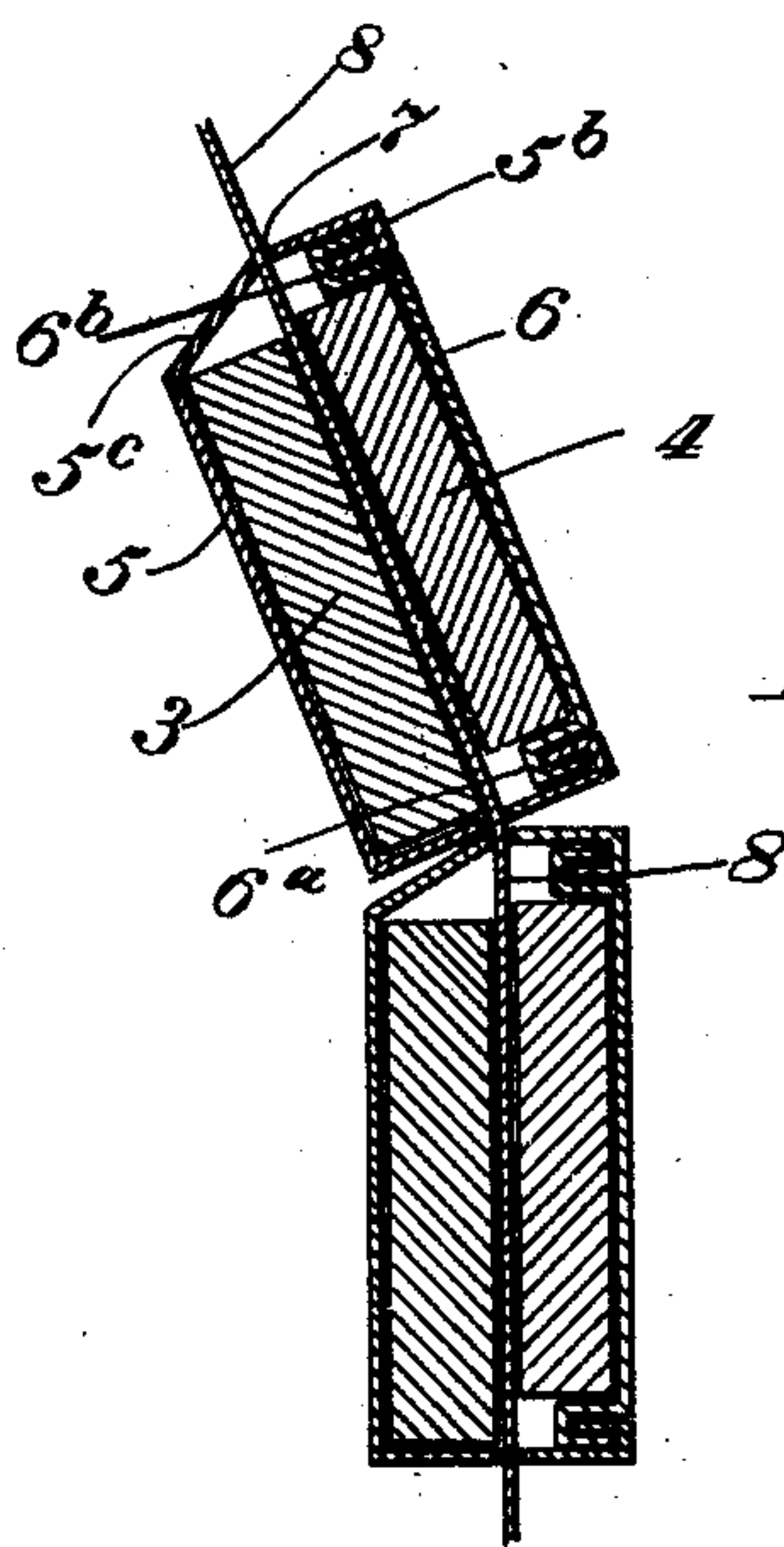


Fig. 2.

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UNITED STATES PATENT OFFICE.

EDWARD H. McCLOUD, OF COLUMBUS, OHIO.

FLEXIBLE FIRE-RESISTING SHUTTER AND SLAT THEREFOR.

978,771.

Specification of Letters Patent.

Patented Dec. 13, 1910.

Application filed February 10, 1908. Serial No. 415,114.

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 claim, 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 or band; Fig. 2 is a vertical section transversely of two such slats and longitudinally of the tape, and also 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 said strips are shown to be rectangular in cross section, but they are not necessarily so, and they extend parallelly side by side. The core strips are inclosed by two sheet-metal strips 5 and 6. These metal strips embrace the opposite sides of the core but the strip 5 is bent to extend substantially entirely across the opposite edges of the core. In other words the strip 5 is a trough like member in which in manufacture the core is most conveniently assembled, and through the upstanding edges of which the tapes can be conveniently preliminarily passed prior to securing the strip 6 in place. That portion of the strip 5 which is bent across the lower edge of the core has its edge bent upward and then folded backward to form a hook; as seen at 5^a, and that portion of the same strip which extends across the upper edge of the core has its edge bent downward and backward to form a hook as seen at 5^b. The metal strip 6 has its lower edge bent inward, downward and outward to form a hook 6^a, and the upper edge of

said strip has its edge bent inward, upward and outward to form a hook 6^b. The hooks 5^a and 6^a are engaged with each other, and the hooks 5^b and 6^b are similarly engaged with each other, each pair to form a joint or seam at the opposite corners of the same end of the slat, as shown, thus effectually inclosing the core around its sides and edges. Where the metal strip 5 extends across the upper outer corner of the core strip 3 it is inclined so as to present at that corner a beveled effect, as seen at 5^c. It will be observed that the bent edges of the strip 5 cross the space between the two core strips, and said bent edges are provided with slots like that indicated at 7 alining vertically with each other and with the space between the core strips.

The character 8 designates the tape, of which there will preferably be two or more, and upon which the slats are strung to form the web of 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 flexible member, or so that the metal sheathing can, independently of the tape, expand and contract on the core longitudinally when subjected to variations in heat.

The inclined edges 5^c will preferably occur in the curtain or shutter on that side toward which the curtain is flexed and said inclined portions are more especially for the purpose of permitting the slats to lie close together at their edges and at the same time permit the curtain to be flexed as stated and as clearly depicted in Fig. 2. It is hardly necessary to add that in the curtain the flexible member or members can be permanently attached to the lowermost slat and that the tapes at their upper ends can be attached to a roller or other operating device in any suitable manner and as is now the common and well-known practice in constructing and suspending curtains composed of slats strung on flexible cord-like members.

In another application for patent of the United States pending concurrently herewith, filed January 31, 1908, S. No. 413,518, I have shown a construction somewhat like that herein particularly described except that it is provided with a water-shedding lip. While the curtain shown in my former application is better adapted for closing exposed openings, the slat herein shown is

perhaps in many instances equally well adapted for interior openings.

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

5 A slat for the construction of a flexible curtain or shutter comprising a duplex core of a poor conductor of heat, and a metal sheathing for said core composed of two parts one of which is bent across one side of
10 said core and across the space between the parts of the core, and is also formed with an inclined portion 5°, the two parts of said

sheathing being seamed together at opposite corners of the same side of the slat, and openings in that portion of the sheathing 15 where it extends across the space between the core parts for the passage of a flexible connecting and suspending member or members.

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