

UNITED STATES PATENT OFFICE.

ANSON O. KITTREDGE, OF SALEM, OHIO, ASSIGNOR TO KITTREDGE CORNICE AND ORNAMENT COMPANY, OF SAME PLACE.

IMPROVEMENT IN SHEET-METAL WINDOW-BLINDS.

Specification forming part of Letters Patent No. 183,939, dated October 31, 1876; application filed April 15, 1876.

To all whom it may concern:

Be it known that I, ANSON O. KITTREDGE, of Salem, in the county of Columbiana and State of Ohio, have invented a certain new and Improved Sheet-Metal Window-Blind; and I do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawings, making part of the same.

Figure 1 is a detached view of one of the slats of the blind. Fig. 2 is a vertical section. Fig. 3 is a side view of a complete blind.

Like letters of reference refer to like parts in the several views.

This invention is a window-blind consisting of sheet metal; and the object sought is the production of a strong, durable, and fire-proof blind.

The construction of the same is as follows: One side of the frame A of the blind consists of a single piece of sheet metal, A', of sufficient width to form the outer and inner edge, and one side of the end of the frame. For this purpose it is bent longitudinally at right angles, forming the width and thickness of the end, as will be seen in Fig. 2. Two edges of the sides *a a'* of the end are of sufficient width to admit of being turned back upon itself, forming a return bend or lock, B, the turn being made on the inner side of the sides *a a'* of the rectangle of the end of the frame, as will be seen in said Fig. 2, in which it will be observed that one piece of metal only is used to make the three sides of one end of the frame; or, in other words, the outer edge and inner edge of the end or ends of the frame consist of one piece of metal.

The inner side of the end of the frame also consists of one piece of metal, as will be seen at C, the edges of which are turned up at right angles, forming flanges along each side. Said flanges are received into the return bend of the sides *a a'*, and thereby locked to said sides *a a'*, and thus making the fourth side of the end of the frame. To strengthen this connection of the two parts is the purpose of the channel-irons *c c'*, which are riveted to the frame. Both ends and

both sides of the frame are constructed alike, and are connected to each other at the corners by lapping the ends of the end pieces of the frame into the ends of the side pieces C, and securing the same by rivets *i*, each end being properly cut to form a miter-joint, as will be seen in the drawings.

The slats H of the blinds are made of strips of metal cut to the proper length to fit into the frame.

To make rigid and firm the slats, the edges thereof are turned to a right angle, as will be seen at *n* in Fig. 2, which represents a detached view of a slat; also shown in Fig. 2.

Each slat is secured in the frame by a rod, I, Fig. 1, the edges of which project through into the sides of the frame, as will be seen in Fig. 3. One corner of the frame is removed, in order to see the inside of the frame.

The rods are secured to the slats thus: Lengthwise in the middle of the slat is struck up on each side ribs J, Fig. 1, forming corresponding grooves on the opposite side equal to half the diameter of the rod, thereby forming a hole, as it were, along the middle of the slat through which the rod is passed, as will be seen in Fig. 1, the rod making a pivoted connection of the slat with the frame. The series of slats are connected to each other by a rod, K, secured to the slats by staples *m* in the ordinary way.

The practical operation of the above-described blind is substantially as those in ordinary use, over which, however, it has the advantages of being stronger, more durable, and fire-proof.

What I claim as my invention, and desire to secure by Letters Patent, is—

The frame A, consisting of sheets of metal so bent as to form three sides of each of the sides and ends of the frame, side C, and channel-irons *c c'*, in combination with the metal slats H, attached to said frame, in the manner substantially as described, and for the purpose set forth.

ANSON O. KITTREDGE.

Witnesses:

J. H. BURRIDGE,
SN. DAVIS.