(No Model.)

A. P. HEIDT.

WINDOW BLIND.

No. 395,902. Patented Jan. 8, 1889.

Fig. 1.

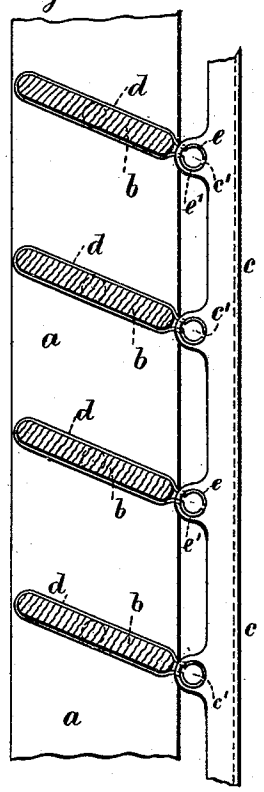


Fig. 3.

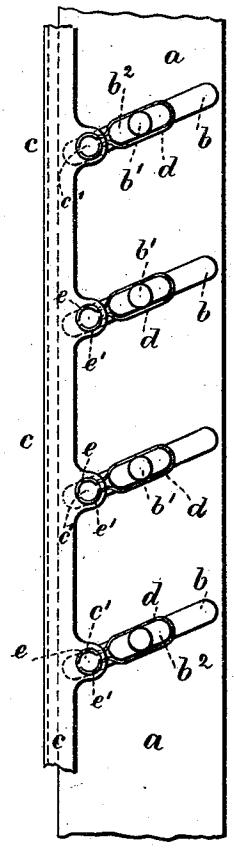


Fig. 2.

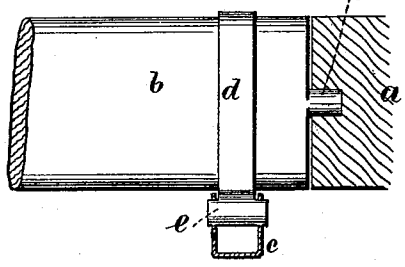


Fig. 4.

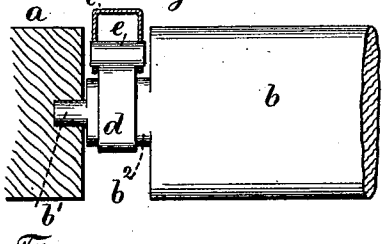
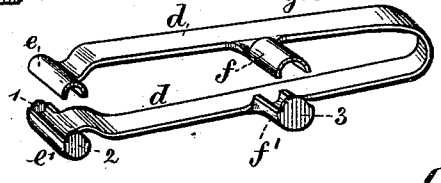


Fig. 5.



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UNITED STATES PATENT OFFICE.

ALLEN P. HEIDT, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND JOSEPH C. DIVINE, OF SAME PLACE.

WINDOW-BLIND.

SPECIFICATION forming part of Letters Patent No. 395,902, dated January 8, 1889.

Application filed August 2, 1888. Serial No. 281,757. (No model.)

To all whom it may concern:

Be it known that I, ALLEN P. HEIDT, of the city, county, and State of New York, have invented an Improvement in Window-Blinds; and the following is declared to be a description of the same.

The slats of window-blinds as heretofore made have usually been connected to a vertical operating-rod by staples, and in some instances a band of metal has passed around the individual slats, the ends of which band have been connected by an eyelet and the vertical rod has been connected by staples to these eyelets. In all of these cases the slats in time become loose and the wind will open and shut the same and leave them in a position that may admit sunlight or too much air at a time when it is desired to have the slats closed.

The object of my invention is to provide a fastening device for the slats and to provide either between the slats and the vertical rod for moving the same or between the slats and the shutter-frame at their pivotal point a friction which shall be sufficient to keep the slats in any desired position; and the object of my invention is, further, to provide a device which shall combine the desirable frictional qualification just named and a further feature of adaptability to the slats of any window-blind, which device shall be capable of moving each set of slats as well as holding them in place at any desired position.

My invention consists in a metal strap that is adapted to pass around the individual slat, and said metal strap is made with pivotal jaw ends, each of which ends is formed with a half-pivot. The two half-pivots when brought together are adapted to be received in pivotal bearings formed in a U-shaped connecting-bar, and said pivotal ends exert a friction in the bearings of said bar, so as to hold the individual slats in place. The strap may be made with pivotal half-bearings at a central point, which bearings are adapted to surround the pivotal end of the slat or to take its place and in the frame of the shutter to produce a friction which shall retain the slat in place.

In the drawings, Figure 1 is a vertical section through a number of slats, showing the metal strap surrounding the entire slat. Fig. 2 is a sectional plan of the same. Fig. 3 is an elevation endwise of a number of slats, showing the metal strap as surrounding the reduced portion of the slats at one end; and Fig. 4 is a sectional plan of the same. Fig. 5 is a perspective view of a modified form of metal strap.

a represents the shutter-frame at one side, and *b* the wooden slats, *b'* their pivotal ends, and b^2, Figs. 3 and 4, a reduced portion at one end of the slats. The vertical bar *c*, I prefer to make of metal and to bend the same into a U-shaped form and to form bearings or openings at *c'* at regular intervals along the edges of said bar.

d represents the metal strap, which, according to Figs. 1 and 2, is adapted to surround the full width of the slat *b*, and said metal strap may be of any desired width, and its surface may be ornamented or plated in any desired manner. These metal straps are preferably stamped up out of one piece of sheet metal, the strap *d* being formed with half-pivots or pivotal jaw ends *e e'*, which ends are sectionally nearly a half-circle and are longer from end to end than the width of the strap. These half-pivots or jaw ends *e e'* are adapted to be received in the openings *c'* of the vertical bar *c*, in which a bearing is formed, these ends being made large, so that, as shown in Figs. 2 and 4, the ends of the bearings *c'* may come close in toward the slats *b*.

It will be seen from reference to Figs. 1 and 3 that the edges of these pivotal jaw ends *e e'* do not quite touch, it being a fact that the spring of the metal strap *d* acts to a greater or less extent to separate these pivotal jaw ends, and this spring action causes a friction in the bearings *c'* between them and the ends *e e'*, so that in whatever position the slats *b* may be placed this frictional action acts to keep the slats steady and secure.

The straps *d* shown in Figs. 3 and 4 are of shorter length than those shown in Figs. 1 and 2, and the same are adapted to surround the reduced end b^2 of the slats *b;* but these straps are connected to the vertical bar *c* the same as heretofore described, the special object of

this construction being to provide a groove, as it were, along the edge of the slats, into which the vertical bar *c* is adapted to be received, where it will be more or less out of the way. The special advantage of this construction (shown in Figs. 1 and 2) is that the straps and vertical bar may be placed at any desired position in the length of the slats, either in the center or nearer either end, according to the fancy of the party using them.

A modified form of metal strap *d* (shown in Fig. 5) is provided with half-pivots or pivotal jaw ends *e e'*, similar to those heretofore described, the lower jaw end, *e'*, having upturned ends 1 2, over which the half-pivot or jaw *e* fits and laterally across the surface of which a certain amount of movement is possible without liability of the parts separating, and this strap *d* is also made with pivotal bearings *f f'*, projecting from one edge of said strap at the center, *f* being a half-pivot and *f'* a half-pivot with an upturned end, 3, and it will be seen from Fig. 5, which represents the strap as disengaged from the slat, that the strap possesses a springy quality, which keeps the bearings *f f'*, as well as the ends *e e'*, apart. This strap, Fig. 5, is adapted to be placed on the end of the slat, the bearings *f f'* passing around the ends *b'* of the slat, and the spring action of said bearings *f f'* will produce in the shutter-frame *a* a friction which will act as well to keep the slats in place as the friction of the ends *e e'* in connection with the vertical bar *c*, and it is possible to use the strap *d*, Fig. 5, upon a slat whose end *b'* may have been broken off, the bearings *f f'* forming one pivotal end for the slat as well alone as when surrounding the end *b'*.

I claim as my invention—

1. A fastening device for slats, consisting of a metal strap, *d*, adapted to pass around the slat, laterally-projecting pivotol ends *e e'*, formed with said strap *d*, and a vertical bar, *c*, having openings for receiving the ends *e e'*, substantially as and for the purposes set forth.

2. A fastening device for slats, consisting of a metal strap, *d*, adapted to pass around the slat, half-round pivotal jaw ends *e e'* upon the ends of said strap, which ends are of greater length than the width of the strap, and a vertical U-shaped bar, *c*, having bearings *c'* adapted to receive the ends *e e'*, substantially as and for the purposes set forth.

3. The combination, with the shutter-frame *a*, slats *b*, and vertical bar *c*, of the metal strap *d*, adapted to surround the slat and having pivotal bearings *f f'* to pass into holes in the frame and cause a friction between the respective parts, so as to hold the slats in any desired position, substantially as set forth.

4. A friction device for blind-slats, consisting of a metal strap, *d*, to pass around the slat, pivotal jaw ends *e e'*, and pivotal bearings *f f'*, substantially as and for the purposes set forth.

5. The combination, with the blind-slat *b* and the bar *c*, of the metal strap *d*, to be passed around the slat and having pivotal ends to be brought together to form a connection with the vertical bar, whereby a friction is caused at the pivot from the spring of the ends of the strap, substantially as specified.

6. The combination, with the blind-slat and the metal strap passing around the same and having pivotal ends, of a U-shaped vertical metallic bar having holes for the reception of the pivotal ends of the strap, substantially as specified.

Signed by me this 30th day of July, 1888.

ALLEN P. HEIDT.

Witnesses:
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HAROLD SERRELL.