(No Model.)

W. A. HOLBROOK.

SPRING STRIP FOR INSIDE BLINDS.

No. 355,167. Patented Dec. 28, 1886.

Fig. 1.

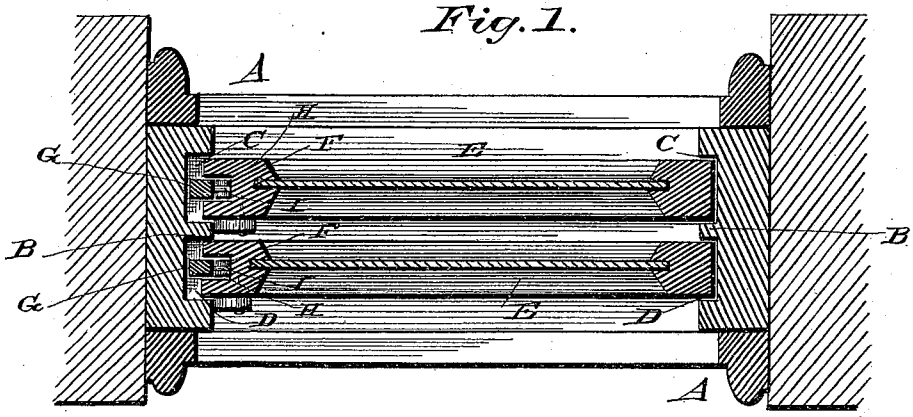


Fig. 2.

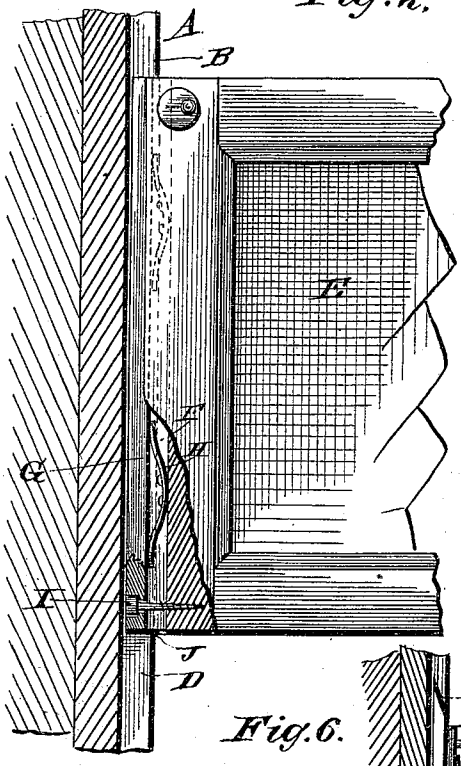


Fig. 3.

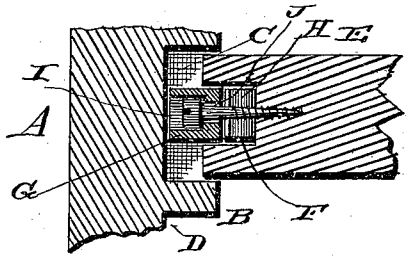


Fig. 4.

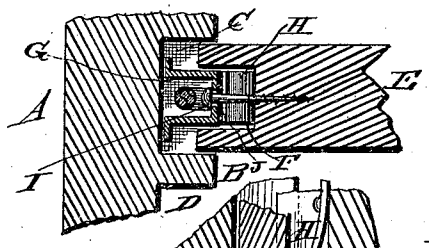


Fig. 5.

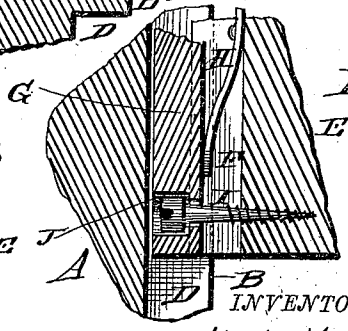
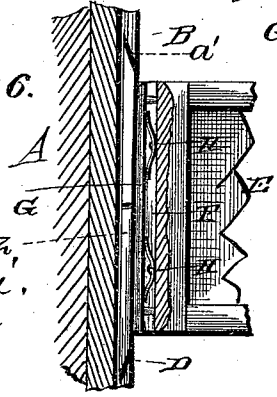


Fig. 6.



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UNITED STATES PATENT OFFICE.

WALTER A. HOLBROOK, OF MILWAUKEE, WISCONSIN.

SPRING-STRIP FOR INSIDE BLINDS.

SPECIFICATION forming part of Letters Patent No. 355,167, dated December 28, 1886.

Application filed December 28, 1885. Serial No. 186,915. (No model.)

To all whom it may concern:

Be it known that I, WALTER A. HOLBROOK, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Spring-Strips for Inside Blinds; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a horizontal section. Fig. 2 is an enlarged vertical section. Fig. 3 is a horizontal section in detail. Fig. 4 is a similar view showing a modification. Figs. 5 and 6 are detail views.

My invention has relation to springs for sliding window blinds or sashes; and it consists in the construction and novel combination of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

Referring by letter to the accompanying drawings, A designates the window-frame, and B the parting-strip between the blind-sections. In this instance the runways C D, for the sections, are made by grooving inner edges of the vertical sides of the jamb-lining or window-frames. The parting-strips are therefore formed integral with the jamb-lining or by pressing spring-strips into grooved edge of blind-sections, as hereinafter described.

The vertical edges of one side of the sliding panels E are provided with longitudinal grooves F, which are rectangular in cross-section, and within these grooves F, I provide tongue-strips G, which are provided with lateral holes J, through which headed screws I are passed into the bottoms of the grooves F, and hold the tongue-strips normally in the grooves F.

Within the grooves F curved lateral springs H H are secured, the ends of said springs being adapted to bear outwardly against the tongue-strips G, and force said tongue-strips normally outward or away from the blind-sections or sashes. These tongue-strips G are provided, near their upper and lower ends, with holes J J, having a larger outer diameter and a smaller inner diameter, and through these holes J J the retaining guide-screws I I are passed into the bottom of the groove in the vertical rails of the blind or blind-section, and limit the outward play of the tongue-strips, when out of the guides, more or less, as the screws are more or less embedded in the bottoms of the grooves, and when the screws are adjusted they allow sufficient play to the springs. It is evident that turning screws I I into bottom of grooves F will compress the springs H and shorten the length of the blind section when measured, so as to include projection of tongue-strip, and that turning the screws out will allow an expansion of the springs and a consequent lengthening of the section. This construction gives an adjustable width blind-section, and does away with the necessity of accurate fitting as to length in manufacturing. Blind-sections held up by means of cords, pulleys, and weights, or counterbalanced with cords and pulleys, and having the adjustable tongue-strip, can be readily fitted as to length, so that they will run freely and smoothly; and when used in this way the springs render the blind-section length flexible, so that the frame can be out of square or narrower at one point than another and still the section will slide smoothly, whereas without this flexibility the sashes or sections will stick and jump, rendering them useless.

To permit the blind-sections to be taken out of the runways readily said runways are made on one side of opening a little more than twice as deep as those on the other side of opening, so that by pressing blind-section endwise into the deeper runway spring H permits tongue-strip G to be forced into groove F sufficiently to permit opposite end of section to be pulled past parting-strip and removed, a reverse operation, of course, readily replacing the section in the runways when desired. When the spring-tongue strip is applied to sliding window-sashes, they can be much more easily removed from the runways for washing the glass or for other purpose than if made in the ordinary way.

With this kind of sashes window-frames can be much simplified and cheapened in construction, as the ordinary separate parting-strips

are not required, the window-frame being made of one piece of stuff with the runways grooved in the solid material, and when so made said window-frames will wear better than when constructed in the usual manner. The sashes constructed as hereinbefore described will be provided with buttons on the inside, which when properly turned to place will prevent the sashes from being opened from the outside by burglars or others.

In weight-hung or counterbalanced sliding blinds it is often necessary to attach cords to the lower edges of the sections, in which case the tongue-strips are made of sheet metal with open channels next to the jamb for the cord to lie in when the blinds are closed. (See Fig. 4.) The spring arrangement may be applied to both edges of the sash or blind sections when desired.

The spring tongue-strip holds the sliding blind at any desired point, giving a bearing the whole height of the window-section. The spring-tongue forms an adjustable and flexible length section for the blind-section or sash, running freely and smoothly regardless of swelling or shrinkage. The strips also serve as weather-strips, and exclude wind, dust, rain, and snow. The frictional wear comes upon the springs, and a wearing-surface of wood upon wood is obtained.

When blinds or sash are fitted with springs in both edges of sections to readily put them in and take them out, the runways are made of equal depth each side of opening, and the blinds are fitted approximately to width, allowing the section to go into place if shoved endwise into one groove first.

As a convenient means for removing the sashes from the runway, I employ a strip, Z, the greater portion of which is as thick or slightly thicker than the guide strip or flanges of the runways. This strip Z has one of its ends tapered, as at a', so as to form an upward incline from the base of the runway when placed therein. When it is desirable to remove a sash from the frame, I place this strip in the runway and bring the sash to be removed upon the same, first engaging its taper or inclined portion. It will be seen that when the sash is brought upon the said strip, the spring-tongue will be pressed sufficiently into the sash-groove to clear the guide-flanges of the runways, and the sash may be removed. In some cases it is desirable to use a double or two strips, Z, as shown in Fig. 6 of the drawings.

I am aware that it is not new to provide a window-screen on one of its vertical edges with a spring-pressed strip, the said strip being adjustably held to the sash by means of a screw which passes through the strip and into the sash. I am also aware that window-sashes have been provided with spring-pressed strips to engage the ways of a window-casing, and therefore do not claim such devices broadly.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a window-casing having runways as described, of a window-sash having the vertical grooves F, the curved lateral springs H, secured therein, the tongue-strips engaging the said springs and provided with the sash-cord guides, and the screws passing through the tongue strips and into the sash, whereby the said strips may be adjustably secured thereto, substantially as specified.

2. A wedge piece or pieces, as Z, in combination with vertically-grooved blind-sections or sashes, having spring-actuated tongue-strips in said grooved edges, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER A. HOLBROOK.

Witnesses:

HARRY ELLIS,

ADOLPH BLEYER.