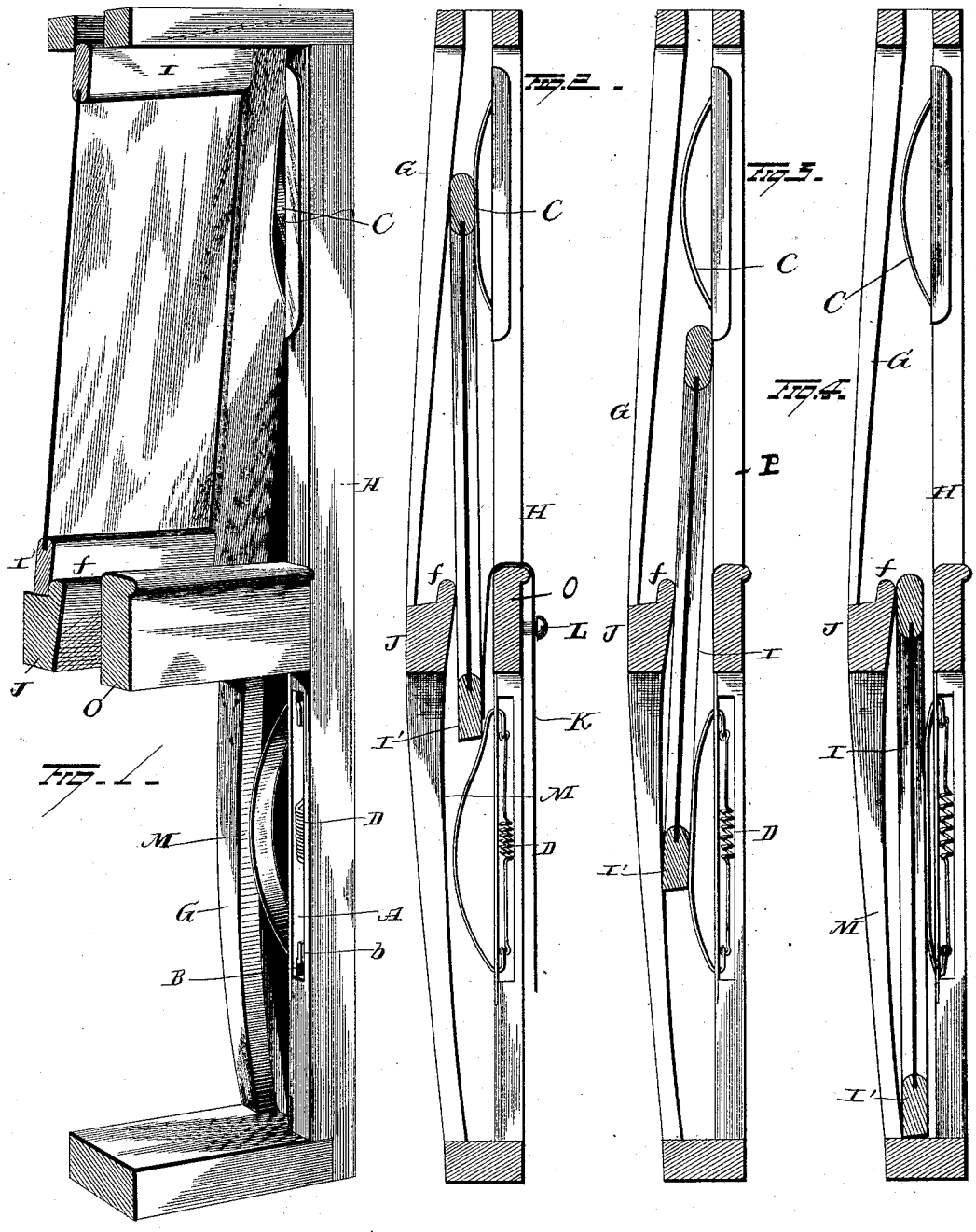
(No Model.) 2 Sheets—Sheet 1.

F. H. JURY.

SASH HOLDER.

No. 374,256. Patented Dec. 6, 1887.



Witnesses
E. Nottingham
G. F. Downing

Inventor
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(No Model.) 2 Sheets—Sheet 2.

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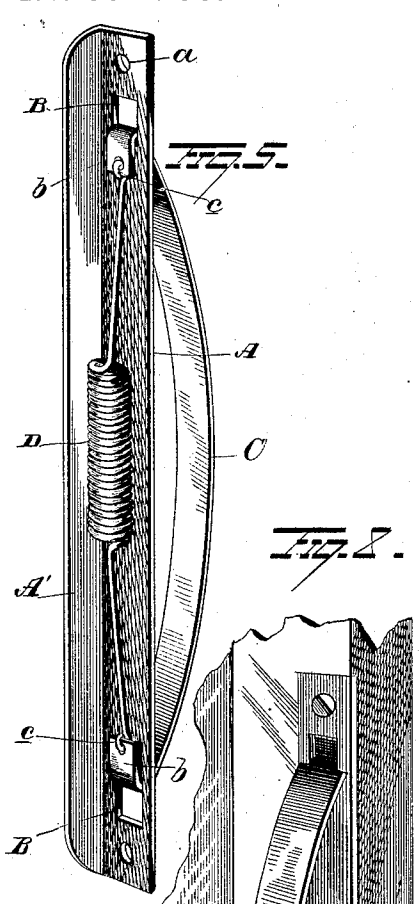


Fig. 5.

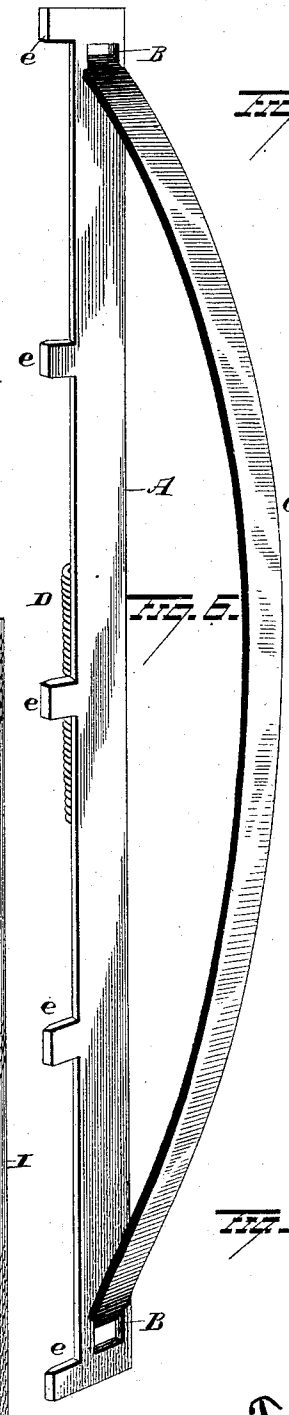


Fig. 6.

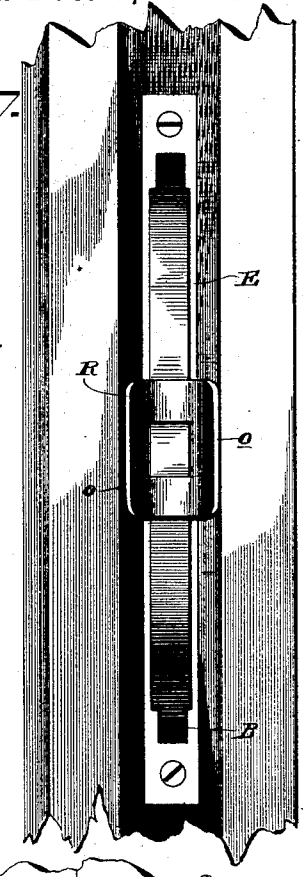


Fig. 7.

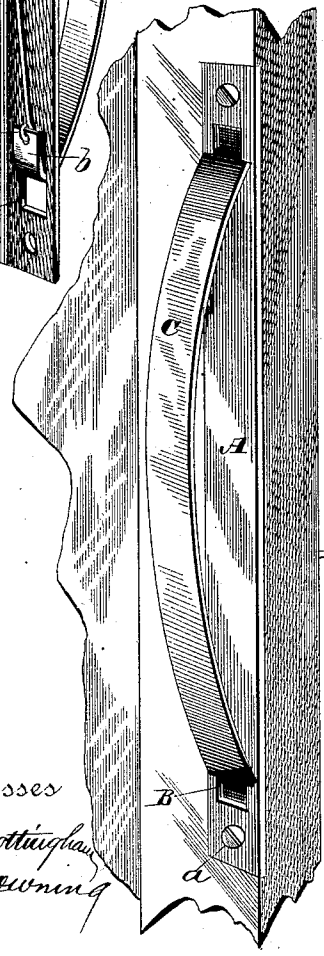


Fig. 8.

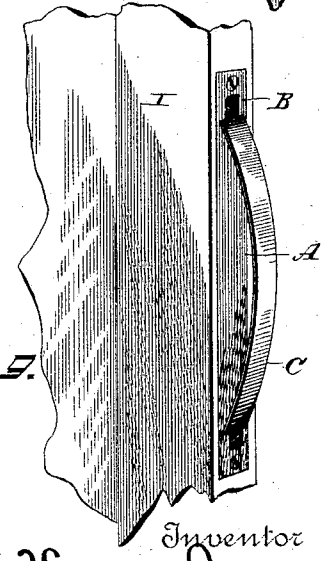


Fig. 9.

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UNITED STATES PATENT OFFICE.

F. HERMAN JURY, OF NEW YORK, N. Y.

SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 374,256, dated December 6, 1887.

Application filed June 18, 1887. Serial No. 241,723. (No model.)

To all whom it may concern:

Be it known that I, F. HERMAN JURY, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Sash-Holders for Carriages and other Purposes; and I do hereby 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.

My invention relates to an improvement in sash-holders for vehicles, and more particularly for carriages, broughams, landaus, omnibuses, railway-cars, and other similar vehicles having sliding glazed sashes.

The object of my present invention is to provide a cheap and simple device for the purpose indicated, which will effectually accomplish the ends in view, and one which will be equally applicable to window-sashes of dwellings, to prevent all rattling of the same in their frames.

With the indicated purposes in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a transverse vertical section of a carriage-window sash and sash-frame, in which my improved holding device is shown in position with the window closed. Fig. 2 is a transverse vertical section with the window-sash lowered one-fourth its length. Fig. 3 is a similar view showing the window-sash lowered one-half its vertical height. Fig. 4 is a similar view showing the sash completely lowered, the spring-strip in position to prevent rattling of the sash. Fig. 5 is a view in perspective of the preferred holding device employed in connection with the upper portion of the sash-frame. Fig. 6 shows the style of base-plate employed when the spring-strips are placed in the boxed frame, which extend downwardly into the carriage-body. Fig. 7 is a front view of the upper portion of the window-frame of a coach, showing a modified form of holding device adapted to give support to a wide sash and prevent its rattling. Fig. 8 is a view of a section of one side or vertical portion of a window-sash with a holding device thereon having a modified form of base-plate. Fig. 9 exhibits the form and position of holding device shown in Fig. 8 as applied to sashes of dwellings.

In United States Patent No. 343,997, granted to me June 22, 1886, I show an elongated flat spring-strip of thin metal, which is so mounted upon a base plate or strip of metal that the elastic spring-strip will be bowed sufficiently to produce a sash-holder which operates to take up all the lateral play in the grooves of the frame, by reason of the tension of the yielding spring-strips which are secured to the base-plate; and the base-plate is secured in place by V-shaped ears formed on the edge of the base-plate of the holding device, these ears being driven into the bottom surface of the vertical groove of the frame in which the sash is made to slide, and thus being held in position to permit the spring-strips to engage the side surface of the window-sash and hold the same in place to prevent rattling. From the V-shaped construction of these securing-ears that retain the holding device in position difficulty has arisen in inserting the device properly, and it is found liable to become displaced on account of the wedge shape. In my present invention I have made provision to obviate this defect. It has been further found in practice that the tension of the spring-strip is variable and to a certain extent unreliable when employed unaided to support a window-sash of a coach or landau. In order to overcome these defects and produce a perfectly reliable window-sash-holding device, I have devised my present improvement, which I will proceed to describe.

A (see Fig. 5) represents the base-plate of the holding device, preferably made of brass or other metal of proper gage, enameled, bronzed, or plated to give a finish and suit the fancy. This base-plate is provided with a flange, A′, projecting at right angles thereto and adapted to rest in contact with the exposed edge of the sash-frame, covering a mortise formed to receive a portion of the holding device. At or near each end the base-plate A is provided with slots B and screw-holes *a a*. A yielding spring-strip, C, has its ends formed in the shape of hooks *b b*, and the length of

said spring-strip between the hooks *b b* is so related to the distance between slots B that the bight of the spring takes the shape of a bow, somewhat removed from the center of the base-plate. On the side of the base-plate A, opposite the spring-strip C and back of the flange A′, is located a spiral spring, D, the ends of which are extended in opposite directions for a sufficient distance to hold in their loops *c* the ends of hooks *b b*, and normally draw the ends of spring-strip C against the inner edges of slots B, thus giving the spring-strip the bend or bow curvature shown, which presents a yielding abutment for the sash to prevent its rattling in its frame or to hold it in place. This constitutes my improved holding device, and two of them are employed in the upper portion of the frame, a mortise being formed in the sash-frame to receive each spiral spring D, while screws or similar devices inserted through holes *a a* fix the holding device in position, the flange A′ always covering the mortise.

In Fig. 6 is shown the form of holding device which I prefer to employ in connection with the lower portion of the window-frame. This construction, it will be observed, is substantially the same as the one described, with the exception that I dispense altogether with the screw-holes *a a*, shown in the former construction, and I also omit the flange A′, previously described, and in lieu of these provide the base-plate with a number of chisel-shaped projecting tangs, *c e e*. A suitable number of these tangs is formed to give a firm support by their insertion into the wood of the sash-frame. This holding device operates precisely like the former construction described.

As shown in Figs. 1, 2, 3, and 4, one holding device is located just below the upper transverse piece of the sash or window-frame, while the lower holding device is located just below the lower cross-bar of the frame, both being placed with the spring-strip C adjacent to the slide-groove of the frame. In operation, when the window is closed (see Fig. 1) the spring C of the upper holding device alone will abut against the sash, the spring having sufficient elasticity to force the sash in close contact with the inner inclined surface of the outside frame-strip, G, thus pressing the lower portion, I′, of the sash also outward to enter the groove formed between the strip G and bead *f*, thereby forming a tight joint, the spring-strip C preventing rattling.

Supposing, now, the sash is to be partly or entirely lowered, as shown in Figs. 2, 3, and 4, respectively. The lower edge of the sash I is lifted over bead *f* and drawn inward by means of strap K, which is attached to lower edge, I′, of the sash. The sash is then lowered as far as desired, or until it strikes the spring-strip C of the lower holding device, which spring forces the lower edge of the sash in the same direction that the upper spring-strips, C, forces the upper portion of the sash, thereby making the sash bear between these points (the top and bottom) against the rail J of the frame, which wedged adjustment prevents any rattling of the sash. The height or position of the sash in its frame may be still further regulated by buttoning the strap K over a pin or stud, L, in the accustomed manner, several button-holes being provided to suit the different heights to which the window is to be raised or lowered. In each instance, while the sash is in contact with a spring-strip, C, as said strip is compressed from its normal shape, the spiral spring D expands to permit the ends of the spring-strip C to spread apart in slots B. Immediately on being released the tension of the spiral spring D again draws the ends of the spring-strip C toward each other, thus making the parts again assume their normal positions and relations. When the window is half-open, as shown in Fig. 3, the sash bears in the middle on rail J and at the ends on the opposite inner edges, P and M, and when the window is entirely open, as shown in Fig. 4, it is wedged between the rail J, inner edge, M, of the frame, and the spring-strip C.

In Fig. 7 is illustrated a construction differing slightly from those previously described. In this construction the base-plate of the holding device is secured in the back of the frame-groove which receives the sash. The spring-strip C in this case is provided near its center with a clip-plate, R. This plate is provided with flanges *o*, which are intended to bear closely upon the edges of the sash when elevated to close the window. The flanges *o* might be formed integral with the sides of spring-strip C, if desired. The advantages of this construction are twofold—namely, to hold the window perfectly stayed in any position when in contact with the spring-strip, and also avoids the injurious abrasion of the faces of the finely painted and varnished sash, which would be liable to result with the spring-strip abutting against the sash.

In Fig. 8 the holding device is attached to the side of the sash itself.

In Fig. 9 a form of holding device is shown which is adapted to be attached to the side edge of the sash, and particularly designed for use in dwelling-houses to support as well as prevent the window from rattling. In this form of holding device employed the mortise formed in the sash is covered by the base-plate, no flange or other means being necessary. Otherwise the only difference in this figure is that the location of the holding device is changed.

Slight changes might be resorted to in the constructive details of the device herein shown without departure from the spirit and scope of my invention; hence I do not wish to limit myself to the precise construction herein set forth; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a sash-holding device, the combination, with a slotted base-plate, of a spring-strip, the ends of which enter the slots in the plate, and a retracting-spring attached to the ends of the spring-strip, substantially as set forth.

2. In a sash-holding device, the combination, with a slotted base-plate and a flange on one edge of said plate, of an elastic spring-strip having hooks on its ends which enter the slots in the base-plate and a retractile spring secured to the hooked ends of the spring-strip to facilitate the operation of the latter, substantially as set forth.

3. In a sash-holding device, the combination, with a base-plate having two oblong slots and holes to permit the attachment of the sash-holder to a window-frame, of a spring-strip, a clip placed or formed on this spring-strip, and a spiral spring which acts to hold the spring-strip curved, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

F. HERMAN JURY.

Witnesses:
OTTO PULLICH,
RICHARD O. JURY.