(No Model.)

G. E. SCHMITT.

SASH ROLLER.

No. 599,261. Patented Feb. 15, 1898.

Fig. 1.

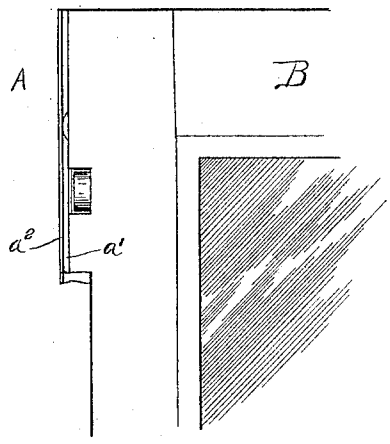


Fig. 2.

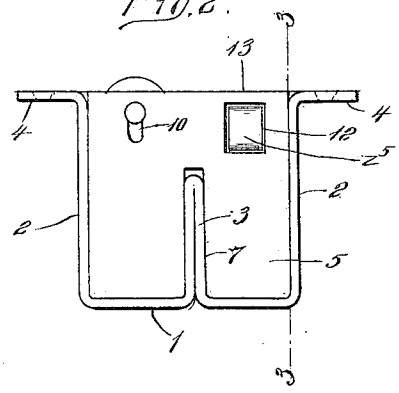


Fig. 3.

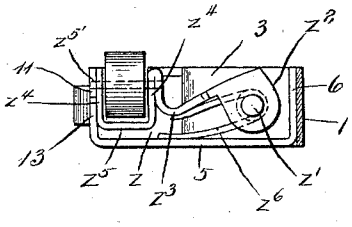


Fig. 4.

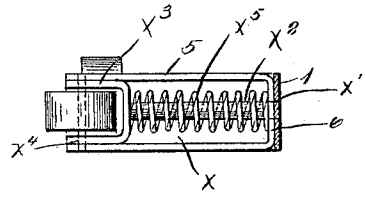


Fig. 5.

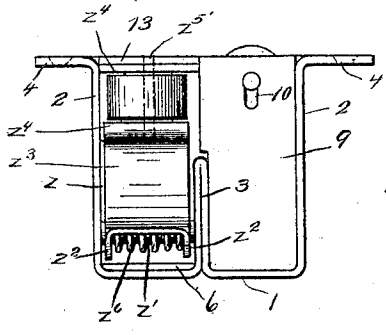


Fig. 6.

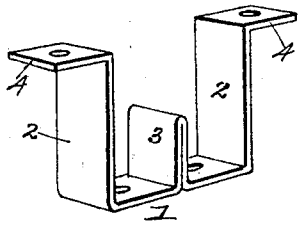
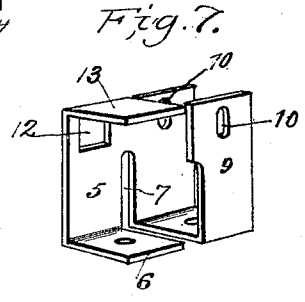


Fig. 7.



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UNITED STATES PATENT OFFICE.

GEORGE EUGENE SCHMITT, OF WELLSBURG, WEST VIRGINIA.

SASH-ROLLER.

SPECIFICATION forming part of Letters Patent No. 599,261, dated February 15, 1898.

Application filed August 3, 1897. Serial No. 646,962. (No model.)

To all whom it may concern:

Be it known that I, GEORGE EUGENE SCHMITT, of Wellsburg, in the county of Brooke and State of West Virginia, have invented certain new and useful Improvements in Sash-Rollers; 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 rollers for window-sashes, whereby said sashes are firmly held in the frames, my object being to provide a compact structure of roller and casing which can be readily operated and will be effective in operation.

To this end the invention consists in the various matters hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a view of a sash provided with the present invention. Fig. 2 is an elevation. Fig. 3 is a side elevation on the line 3 3 of Fig. 2 with the end plate of the casing removed. Fig. 4 is a reverse side elevation, and Fig. 5 is a view reverse to Fig. 2. Figs. 6 and 7 illustrate the frame in detail.

Referring now more particularly to the drawings, A represents a window-frame having the usual beads a, forming the groove a', in which the window-sash B fits. The present roller-casing carrying the rollers is appropriately mortised in the edge of the sash, so that one of the rollers of said casing bears against the side of the groove a', while the other of the rollers bears upon its rear wall. If so desired, the walls of the groove a' can be lined with tin or similar material a^2, as shown, in order to afford a bearing-surface for the rollers.

The present roller-casing is provided with two compartments, one for the reception of each of the above-mentioned rollers, and said casing is composed of but two plates. One of these plates is a strip having substantially parallel top and bottom members 1, said members having rear members 2, extending inwardly at substantially right angles to the top and bottom members, the plate from the inner ends of the rear members being extended forwardly and bent to form the partition 3 between the top and bottom members 1, said partition extending only a portion of the length of the top and bottom members. From the outer ends of the top and bottom members the plate ends extend outwardly to form ears 4, said ears being provided with openings by which the casing is secured upon the window-sash. The second plate of the casing comprises a side member 5, having upon its inner end an inner member 6, extending at an angle to the side member 5, said plate being cut away to form a slot 7 in the side member 5 and an opening 8 between the upper and lower portions of the inner member 6. Thus the side plate is fitted between the first-mentioned plate, the partition 3 extending between the upper and lower portions of the inner member 6 and into the slot in the side member 5. The lower portion of the inner member is discontinued at the side of the inner member 2 opposite the side member 5, while a second side member 9 extends from the end of the upper portion of the inner member 6, said second side member lying substantially parallel with the side 5. At the lower portion of the side 5 a front member 13 extends at an angle to said side substantially parallel with the inner member 2. It will thus be seen that there is formed a casing having an upper chamber x, open at its outer end, and a lower chamber z, open upon one side of the same. The roller which bears against the inner wall of the groove in the window-frame is seated in the upper chamber, while the roll which bears against the side wall of said groove is seated in the lower chamber. The inner wall of the upper chamber is provided with an opening x', through which projects a stem x^2, having side forks x^3 upon its outer end. A pintle x^4 passes through the side forks and serves to journal a roller between the same, said pintle also extending through slots 10, formed in the sides 5 and 9 of the casing. A coiled spring x^5 surrounds the stem x^2, said spring bearing at one end against the inner wall of the chamber and at its other end against the shoulder formed by the side forks. Thus the upper roller is normally pressed outwardly, but is capable of being forced into its chamber. Across the lower chamber is a pin z', upon which is pivoted, by means of ears z^2, a shank z^3, having upon its outer end a bearing for the lower roller.

This bearing is composed of side plates z^4, connected by a strap z^5, and between said plates the lower roller is journaled upon a pintle z', which extends forwardly through a slot 11 through the member 13 upon the side plate 5. A suitable spring z^6 surrounds the pin z', said spring bearing upon the side plate 5 and the shank in a well-known manner to force the shank outwardly. It is thus apparent that the lower roller projects from the casing, but is capable of being forced inwardly. In order to economize space, the side plate 5 is provided with an opening 12, adapted to receive the strap connecting the side plates, between which the lower roller is journaled, so that in backward movement of said roller the strap can project through the opening 12. As will thus be seen, there is provided a set of rollers readily attached to a window-sash, the casing for said rollers being produced in a simple and efficient manner and the rollers being set in a manner to give them all the necessary functions, but to economize space and material.

It is evident that the sash-roller hereinbefore described can be applied to blinds or shutters—such, for instance, as are generally employed on railway-cars. I may sometimes employ a roller with a groove in it, this form being intended for a sash where a cord is employed.

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

1. A roller-casing having top and bottom members 1, inner members 2 extending from said top and bottom members, and a partition 3 extending in the direction of the top and bottom members from the inner members 2, said top and bottom members, inner members and partition being composed of a single strip of material, side plates connected with said strip whereby two compartments are formed and rollers seated in said compartments; substantially as described.

2. A roller-casing having top and bottom members 1, inner members 2 extending from said top and bottom members, and a partition 3 extending in the direction of the top and bottom members from the inner members 2, said top and bottom members, inner members and partition being composed of a single strip of material, a side plate 5 fitting between the top and bottom members, an inner member upon said side plate lying upon the inner members 2, and a side member extending from said inner member substantially parallel with the side plate 5, the said side plates and inner member connected with the same being also formed of a single piece of material, and rollers supported in the compartments formed by the before-mentioned members; substantially as described.

3. A roller-casing having top and bottom members 1, inner members 2 extending from said top and bottom members, and a partition 3 extending in the direction of the top and bottom members from the inner members 2, said top and bottom members, inner members and partition being composed of a single strip of material, a side plate 5 fitting between the top and bottom members, an inner member upon said side plate lying upon the inner members 2, a second side member upon the inner member, said second side member lying substantially parallel with the side member 5, an outer member extending from the lower portion of the side member 5 substantially parallel with the inner member, said side members, outer member and inner member connecting the side members being formed of a single piece of material, a roller in the upper compartment formed by this casing projecting outwardly between the side members, and a second roller in the lower compartment formed by the above-mentioned construction, said second roller projecting laterally; substantially as described.

4. A sash-holder roller-bearing comprising the casing formed of two members one being a strip of metal bent to provide the central partition and the other being a plate of metal slotted to receive said partition and the rollers supported in said casing and arranged to bear against walls at right angles to each other substantially as described.

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

GEORGE EUGENE SCHMITT.

Witnesses:
J. B. McNALLEY,
JOS. C. REED.