

(No Model.)

2 Sheets—Sheet 1.

J. H. SHULL.
GRIP FOR SASH SUPPORTS.

No. 568,708.

Patented Sept. 29, 1896.

Fig. 1.

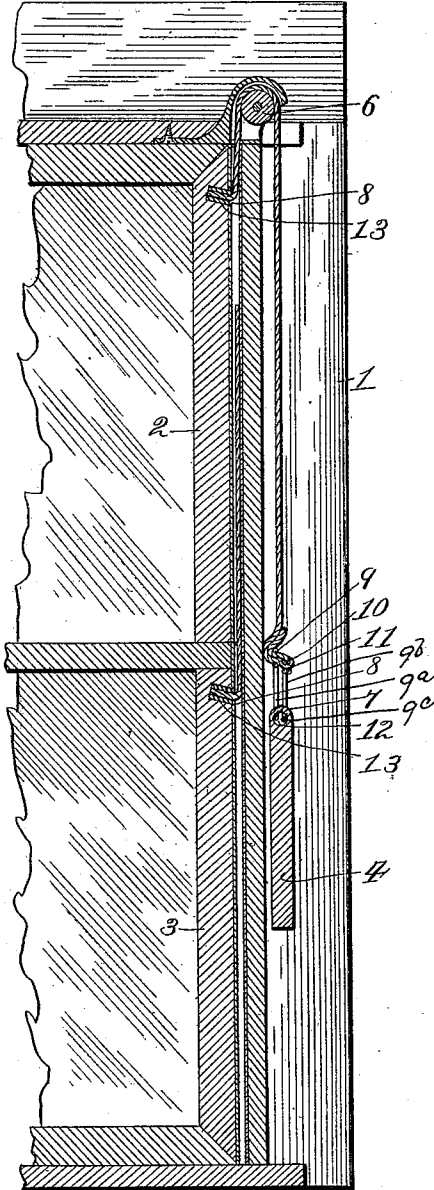
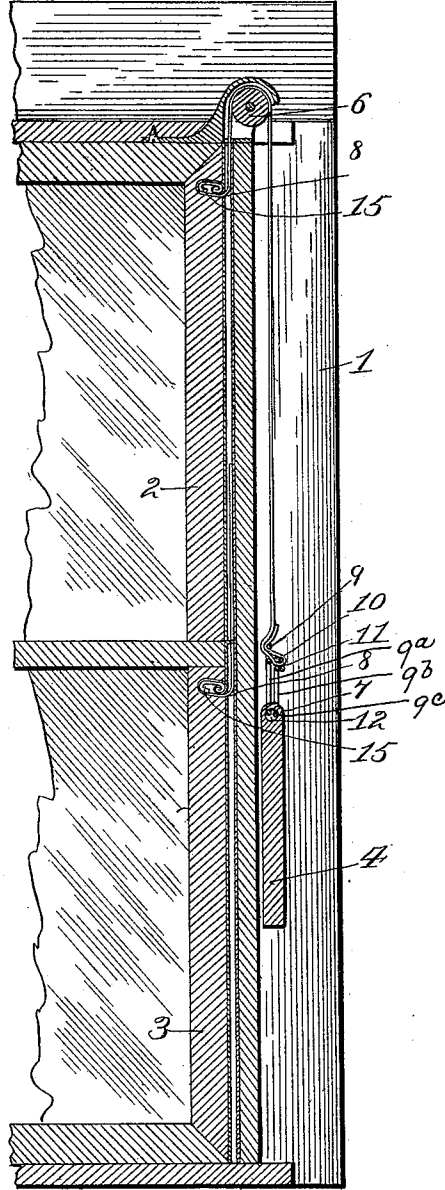


Fig. 2.



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Fig. 3.

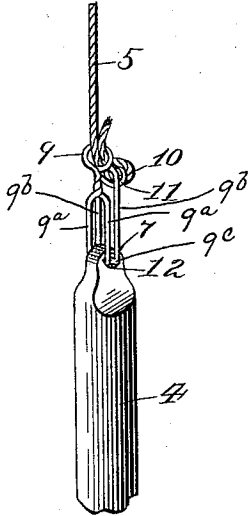


Fig. 4.

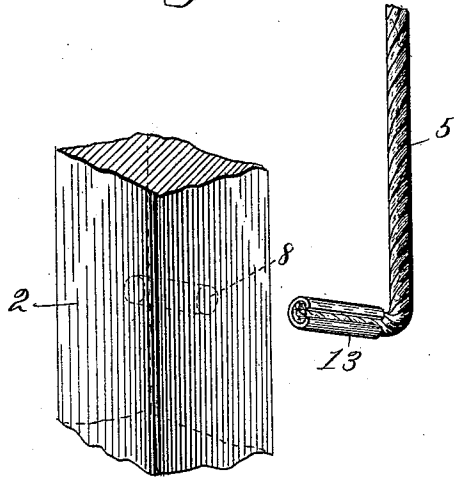


Fig. 5.

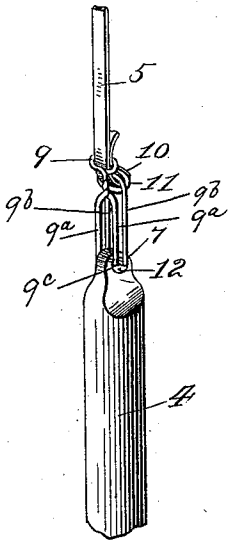


Fig. 6.

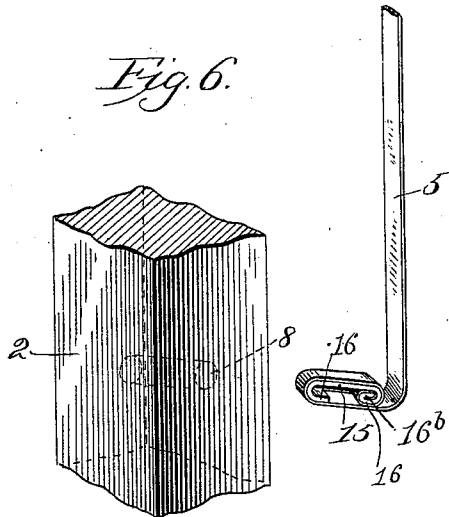
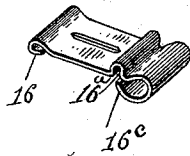


Fig. 7.



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UNITED STATES PATENT OFFICE.

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TO F. W. STEVENS, OF BOSTON, MASSACHUSETTS.

GRIP FOR SASH-SUPPORTS.

SPECIFICATION forming part of Letters Patent No. 568,708, dated September 29, 1896.

Application filed September 25, 1895. Serial No. 563,620. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. SHULL, a citizen of the United States, and a resident of Wellesley, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Grips for Sash-Supports, of which the following is a specification.

My invention is an improvement in means for connecting the supporting cord or tape in windows to the sash and to the weight; and it consists in novel features of construction, as hereinafter described and claimed, whereby either the rope or tape may be conveniently and effectually secured detachably to these parts.

My invention will be fully understood upon reference to the accompanying drawings, in which—

Figure 1 is a vertical sectional view of the side of the window, representing the attachment of cord to the weight and to the sash. Fig. 2 is a similar view showing the application of my invention to metallic ribbon or tape. Figs. 3 and 4 are enlarged detail views showing, respectively, the attachment of the rope to the weight and to the sash. Figs. 5 and 6 are similar views illustrating the attachment of metallic tape to these parts. Fig. 7 shows a modification of attaching-grip for attaching the tape to the sash.

1 represents the window-frame, in which are supported the sashes 2 and 3 by weights 4, secured to the sashes through the medium of supports 5, which pass over pulleys 6. The supports 5 may be of either cord or metallic tape, and they are secured to the weights at 7 and to the sashes at 8. The means for securing the support to the weight is the same in either case. It consists of a wire formed at its middle with a loop 9, through which is passed a loop 10, formed on the support, while the two ends of the wire are bent and passed through the eye 12 in the sash-weight, and then bent up and passed through the loop 10, formed on the support. A U-shaped connection is thus formed, having inner arms 9^a located beneath the wire loop 9, lateral portions 9^b, extending through the eye of the weight and outer arms 9^b, approximately parallel with the inner arms and located beneath

the support-loop 10. By this means, when weight is applied to the support, the tendency of its loop 10 to be withdrawn from the wire loop 9 is opposed. The extreme ends 11 of the wire may be passed through the loop 10 of the support in any suitable way, but it is preferred to pass them through in opposite directions and then bend them around the outside of the loop, as shown.

To detachably secure the support to the sash, I employ a metallic elongated stiffening-piece constructed to grip the support and stiffen it, and then insert the end of the support thus stiffened into a socket bored into the sash at an angle either transversely to the direction of pull or slightly upward, so that weight applied to the support has a tendency to hold the stiffened end in the socket rather than withdraw it, but permits the same to be withdrawn at any time when the side of the sash is taken out of its bearings.

For rope the stiffening-piece consists of a metallic elongated sleeve 13, adapted to be closed around the end of the rope or cord and having inturned tongues or points to cause a gripping of the same, as shown in Fig. 4.

The sash attachment for the tape consists of an elongated strip of metal 15, having its ends turned in at 16 16^b in such a manner that when the end of the tape bent correspondingly is passed under the tape, then passed around the outside of the stiffening-piece 15, the tape will be prevented from slipping from the same. In either form of this stiffening-piece the end of the support to which it is applied may readily be inserted into or withdrawn from the socket formed in the sash.

In Fig. 7 is shown a modified form having a groove 16^a beneath the inturned end 16^c, as shown, into which the tape may be crimped to cause the gripping.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A sash-support and weight-fastener comprising a support formed with a loop, at the weight end thereof, a weight formed with an eye at the upper end thereof, and a wire formed with a loop embracing the loop of the support, with inner arms located beneath the wire loop, with lateral portions passed

through the eye of the weight and with outer arms approximately parallel with the inner arms and located beneath the support-hook having their extreme ends passed through the
5 loop of the support and embracing the latter; substantially as described.

2. A sash support and fastener comprising a sash having a support-groove and an elongated lateral socket bored in the body of the
10 sash at the inner side of the support-groove, and a support having the sash end thereof bent laterally to the body portion thereof and provided with an elongated plain metallic stiffening-piece compressed upon the sash end
15 whereby it is inserted detachably in the elongated lateral socket and prevented from being withdrawn therefrom by the vertical pull of the support; substantially as described.

3. A sash support and fastener comprising
20 a sash having a cord-groove and an elongated lateral socket bored in the body of the sash at the inner side of the cord-groove and a cord having the sash end thereof bent laterally to the body portion thereof and provided
25 with an elongated plain cylindrical metallic

stiffening-sleeve compressed upon the sash end having inturned tongues or points by which the sash end is gripped, and whereby the end is inserted detachably in the elongated lateral socket, and prevented from being
30 withdrawn therefrom by the vertical pull of the cord; substantially as described.

4. A sash support and fastener comprising a sash having a support-groove and an elongated lateral socket bored slightly upwardly
35 in the body of the sash at the inner side of the support-groove, and a support having the sash end thereof bent laterally to the body portion thereof and provided with an elongated plain metallic stiffening-piece compressed
40 upon the sash end whereby it is inserted detachably in the elongated lateral socket and prevented from being withdrawn therefrom by the vertical pull of the support; substantially as described.

JOHN H. SHULL.

Witnesses:

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GEORGE W. JACKSON.