

(No Model.)

G. W. MORSTATT.
SASH HOLDER.

No. 460,690.

Patented Oct. 6, 1891.

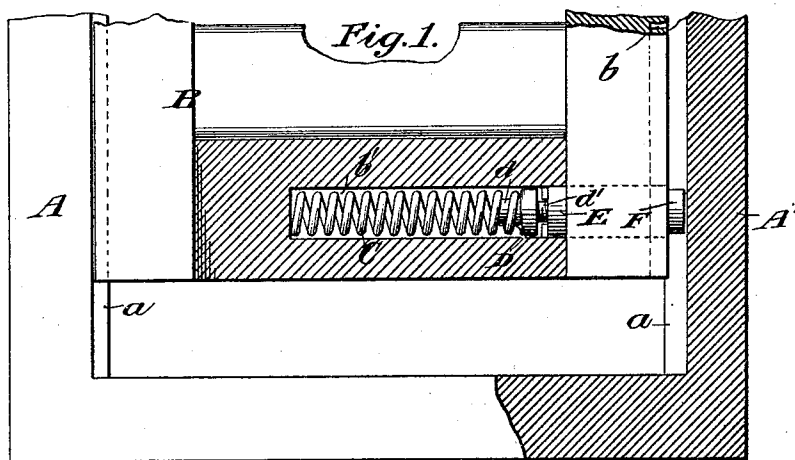


Fig. 2.

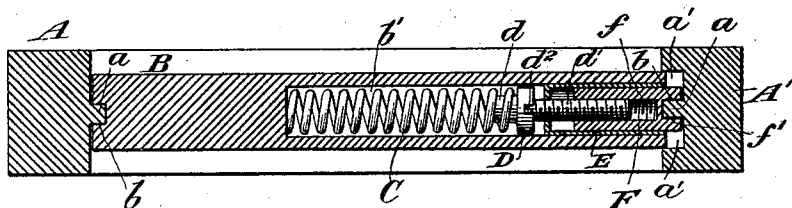


Fig. 3.

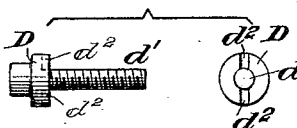


Fig. 4.

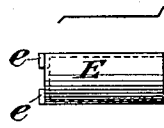


Fig. 5.

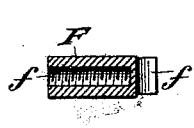
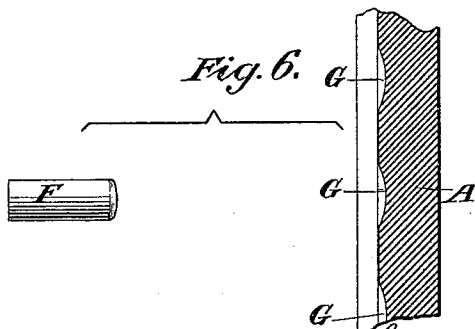


Fig. 6.



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SPECIFICATION forming part of Letters Patent No. 460,690, dated October 6, 1891.

Application filed February 4, 1891. Serial No. 380,206. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WILLIAM MORSTATT, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Retarding Devices for Sliding Shutters, Screens, and Window-Frames, of which the following is a specification.

My invention relates to an improvement in retarding devices for sliding shutters, screens, and the like, in which provision is made for holding the sliding part at a desired height by the friction due to the lateral pressure of the device against the casing in which the part slides.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a view of a portion of a sliding shutter and its casing, partly in section, showing the position of the retarding device therein. Fig. 2 is a transverse section through the shutter frame and casing and longitudinally through the retarding device. Figs. 3, 4, and 5 represent the parts of the retarding device in detail, and Fig. 6 represents a modified form of the device and a portion of the casing adapted to use in connection therewith.

The device as a whole is of such construction that it may be inserted from the outer edge of the frame into a hole which extends through the side frame into the end frame, and when the shutter, screen, &c., with the device located therein, is adjusted in its casing the retarding device is wholly concealed.

In the present instance, A and A' represent the sides of the casing, between which the shutter, screen, &c., is to slide, and I have provided the inner face of said sides with oppositely-placed tongues *a* to form guides for the upward and downward movement of the sliding part. In addition to the tongues *a*, I have provided one of the faces of the sides A', for example, with grooves *a'* upon the opposite sides of the tongue *a*, formed by projecting the edges of the side inwardly, bringing their faces flush with the face of the tongue *a*; or, what amounts to the same thing, I provide the inner face of the side A' with a pair of grooves *a'*, spaced apart, so as to leave a tongue *a* between them.

The frame of the shutter, screen, &c., is

represented by B, and its sides are provided with grooves *b*, which correspond to the tongues *a* on the casing. It is intended that the groove *b* in one side of the frame B shall be sufficiently deep to allow the parts of the frame upon the opposite sides of the groove to enter into the grooves *a'* in the casing far enough to allow the opposite edge of the frame B to swing clear of the tongue *a* upon the opposite side of the casing for the purpose of adjusting the shutter in its casing or removing it therefrom.

The frame B is provided with a hole or socket *b'*, extending from its edge inwardly through its side frame and to such a distance within its end frame as will admit of the insertion of a spring of such length as to admit of an extended adjustment of the device to suit different weights to be held.

C represents the spring, which is preferably such size as to be received with an easy fit within the bore, and may be two inches (more or less) and as stiff as the particular application of it may require. A plunger having a bearing for the end of the spring consists of a disk D, adapted to fit easily within the bore and having a reduced portion *d* projecting inwardly from its face, adapted to enter within the end of the coil-spring C. Centrally from the outer face of the disk D a threaded stem *d'* projects to a point near the bottom of the groove *b* in the frame. A socket-piece E, provided with projections *e* on its inner end, has an opening through its end for the reception of the threaded stem *d'*, and is of such size as to admit of being forced into the end of the hole in the frame and to fit so snugly as to be retained in position by its frictional contact with the wall of the hole. The projections *e* on the inner end of the socket-piece E are adapted to engage recesses *d²* in the face of the disk D and prevent the latter from rotating when an adjustment of the bearing or pressure-head upon the stem is taking place.

The bearing or pressure head F consists of a cylindrical piece provided with a threaded perforation *f*, extending longitudinally therein and adapted to receive the threaded stem *d'*. The head is adapted to fit easily within the socket-piece E, and is provided on its outer end with a groove *f'*, adapted to receive the tongue *a* at the side of the casing.

When engaged with the outer end of the threaded stem d' , it will project nearly its entire length outwardly beyond the bottom of the groove b , and in order to insert the frame of the shutter or screen in position within the casing it is necessary to force the bearing or pressure head inwardly against the tension of the spring C, the latter, when the frame is adjusted, exerting its tension against the tongue a to hold the shutter from sliding. Various degrees of tension may be obtained by screwing the bearing or pressure head toward the bottom of the socket-piece and thereby causing various different degrees of compression of the spring C. By locating the spring within the hole or socket b' inwardly of the plunger I am enabled to use a spring of sufficient length to give the required resiliency and pressure, so that the screen or shutter may be readily adjusted or removed and at the same time will be held in the desired sliding adjustment. It will, furthermore, be observed that by putting the pressure upon the tongue instead of against the side of the casing I am enabled to secure a closer grip, and hence obtain a greater holding effect for a given tension of spring. The groove in the end of the head also prevents the latter from rotating and thereby changing its adjustment as the shutter is slid back and forth. I may, however, where it is desirable that there should be no tongue a , utilize a flat head bearing or a bearing with a rounded head, as shown in Fig. 6, and in such case the face of

the casing may be either left flat or may be provided with slight depressions G at short intervals to more securely sustain the sliding part and at the same time admit of its being forced up and down at pleasure.

What I claim is—

1. A retaining device for shutters, screens, &c., comprising a socket-piece adapted to be inserted in the frame, a plunger located at the inner end of the socket-piece and having a screw-threaded stem which projects through the inner end of the socket-piece within the socket-piece, a spring having a bearing at one end against the plunger, the socket-piece and the plunger being provided the one with a projection and the other with an abutment adapted to engage the projection and prevent the plunger from turning, and a pressure-head engaged with the threaded stem of the plunger, substantially as set forth.

2. The retaining device comprising the socket-piece, the plunger located at the inner end of the socket-piece and provided with a stem extending through the inner end of the socket-piece, the spring engaged with the plunger on the side opposite that on which the socket-piece is located, and a pressure-head having a groove therein adapted to engage a tongue on the casing, substantially as set forth.

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