W. Morehouse,

Sash Holder.

No. 33,750. Patented Nov. 19, 1861.

Fig: 4.

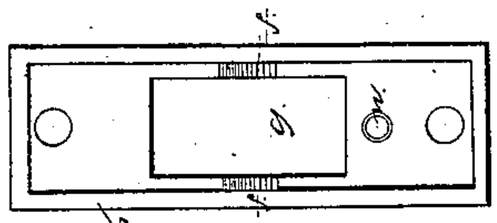


Fig: 5.

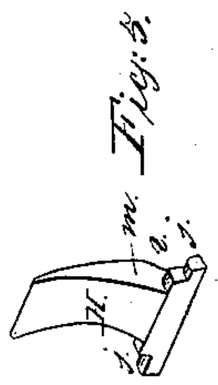


Fig: 3.

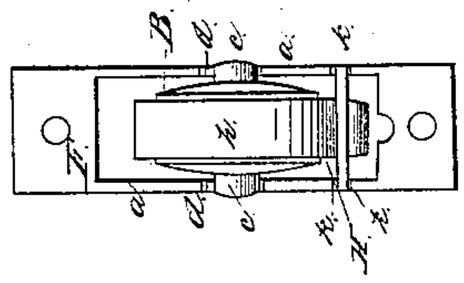


Fig: 2.

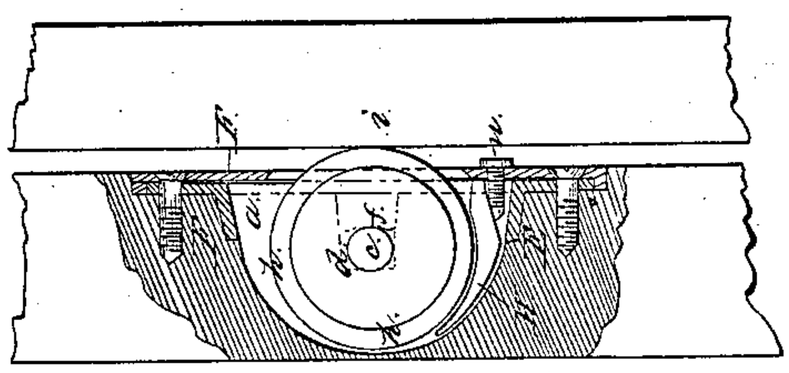
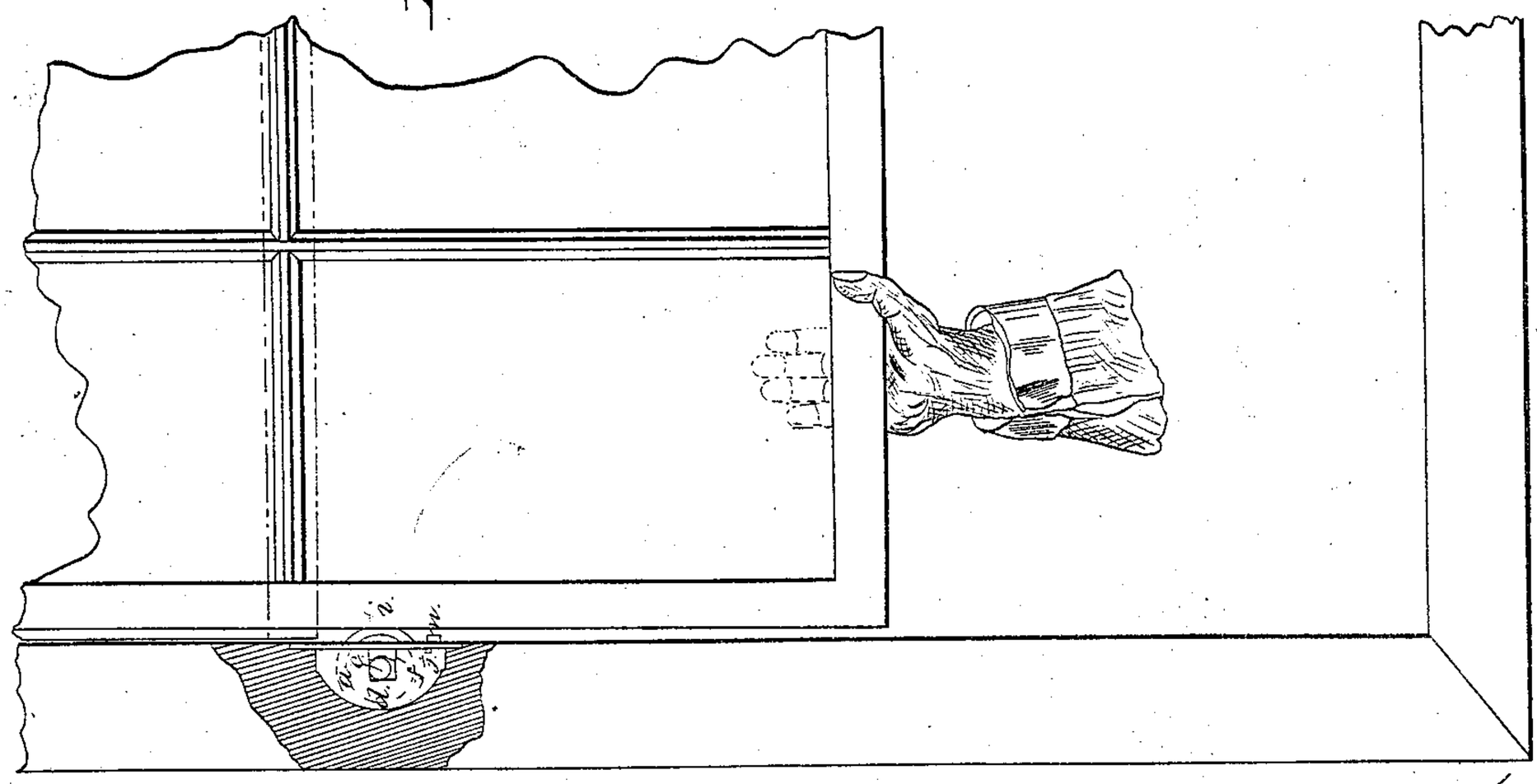


Fig: 1.



Witnesses:

Gustavus Sittnich

R. L. Cobb.

Inventor:

William Morehouse

by DeWitt C. Lawrence & Robt. W. Dennick

his attys

UNITED STATES PATENT OFFICE.

WILLIAM MOREHOUSE, OF BUFFALO, NEW YORK.

IMPROVEMENT IN SASH-SUPPORTERS.

Specification forming part of Letters Patent No. **33,750**, dated November 19, 1861.

To all whom it may concern:

Be it known that I, WILLIAM MOREHOUSE, of Buffalo, in the county of Erie and State of New York, have invented a new and useful Sash-Retainer; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, forming a part of this my specification, and in which like letters indicate the same parts in the several figures, and in which—

Figure 1 is a view of a window in the act of being raised, the sash-retainer being duly in place in the window-frame with a portion of the frame broken away. Fig. 2 is a sectional view of the same parts shown in Fig. 1 with the window-sash in the act of being drawn down. Fig. 3 is a plan view of the box which receives the roller and the brake, the front plate, which covers the box, being removed. Fig. 4 is an under or bottom view of the front or top plate, which covers and protects the box and holds the roller and brake in place.

The nature of my invention consists in the construction of a sash-retainer which, while it retains or holds a window-sash at any given desired height, also prevents the "rattling" of the sash by the wind, and thus prevents annoyance to the occupants of the room in which the sash is situated.

Fig. 2 shows one of the sides *a* of a box E with a central opening, as represented in Fig. 3, which box or shell receives the roller B, as shown in the several figures, the axle *c* of said roller resting upon plane-faced bearings *d* of the box or shell E, the sides *a* of said shell being cut away to receive the axle of the roller, and so cut away as to leave the openings for the reception of the ends of the axle of a greater width than the diameter of the axle at all points. The difference between the width of the openings or "gains" in the sides of the box or shell which receives the roller and the diameter of the axle of the roller may be one-sixteenth of an inch at the base of said gains, thus allowing a "play" or movement of the axle within said gains of one-sixteenth of an inch in the act of raising or lowering the window-sash, supposing the sash-retainer to be duly in place and in use.

The face-plate F, Fig. 4, has central projecting shoulders *f* on either side of an opening *g*, through which the rubber clothing *h* of the wheel or roller B projects and presses against the edge of the rail *i* of the window-sash in the act of raising and lowering the sash. These shoulders *f* extend downward from the under side of said plate, and are so properly formed as to fit in the gains cut in the sides *a* of the shell which receives the roller, and terminate in circular-formed bearings to correspond with the axle of the roller, as shown in the drawings, but do not at all points touch or bear upon the ends of the axle, a sufficient space—say the thirty-second part of an inch—being left between them and the axle of the roller to permit of the upward and downward movement of the axle along on or against the plane-faced bearings *d* during the act of raising and lowering the window, all of which is clearly shown in Figs. 1 and 2.

The wheel or roller B has a clothing of india-rubber *h*, the roller being formed with a circular groove, into which a rubber ring is sprung, the thickness of the latter being such at all points around the roller as to properly form an elastic bearing or cushion against the rail of the window-sash when in use.

A loose clamp or brake H is shown at Fig. 5, having shoulders *j* formed upon it to properly fit into slots *k* of shell E, and so be held in position when the face-plate F is secured upon the shell, as seen in longitudinal section in Fig. 2. This clamp upon its front face is so formed as to properly clasp or embrace the rubber clothing of the roller, and is seen in position in Figs. 2 and 3. Its rear face is beveled, as at *l*, so as to form an obtuse angle, as at *m*, in order that a set-screw *n*, having a tapering end, as seen in Fig. 2, when "set down" or screwed out or in, as the case may be, will adjust the clamp against the rubber to the desired amount of pressure, according to the weight of the window-sash to be held at any given point of elevation.

To use my "sash-retainer," the operator secures it to the window-frame, as shown in Figs. 1 and 2—say midway of the length of one of the side rails of the sash to be operated upon. The play or space left between the lower ends of the lugs or shoulders *f* and the axle of the roller allows of the adjustment of the roller more or less against the rail of the sash. The width of the openings in the sides *a*, which re-

ceive the axle of the roller, and the length of the plane-faced bearings *d*, being greater than the diameter of the axle, allow the rubber face of the roller to free itself from contact with the brake or clamp when the sash is raised. The operator thus has only to overcome the weight of the sash in the act of its elevation, the axle of the roller traveling on the plane-faced bearings *d* upward and away from the "brake" during such act, as shown in Fig. 1, and so relieving the face of the roller from contact with the brake. The height being attained at which the sash is desired to be raised, the operator withdraws his hand, whereupon the roller, with its axle, is drawn down from its position shown in Fig. 1 to that shown in Fig. 2 and the rubber face of the roller brought in contact with the brake. The roller is thus arrested from turning, and the pressure of its rubber face upon the sash-rail prevents the descent of the sash.

Of course it is evident that by means of the set-screw *n* the pressure of the roller against the sash-rail may be so adjusted with reference to the weight of the sash that a slight downward pull upon the latter will cause its descent from any given point at which it may have been raised, and that the elastic action of the rubber ring, constantly compensating for the wear which occurs upon the ordinary metal rollers, as well as the sash-rail itself, will prevent the rattling of the sash by the wind.

I claim—

1. A sash-retainer constructed and operating in the manner and for the purpose set forth.

2. Constructing the bearings *d* of the box E plane-surfaced and of a length greater than the diameter of the axle of the wheel B, in the manner and for the purpose set forth.

3. Regulating the pressure of the roller B upon the sash-rail *i* by means of the inclined shouldered brake H and tapered set-screw *n*, in the manner and for the purpose specified.

Witness my hand and seal this 15th day of October, A. D. 1861, in the matter of my application for a patent for a sash-retainer.

WM. MOREHOUSE. [L. S.]

Witnesses:

HUGH ROSE,

GEO. B. WALBRIDGE.