

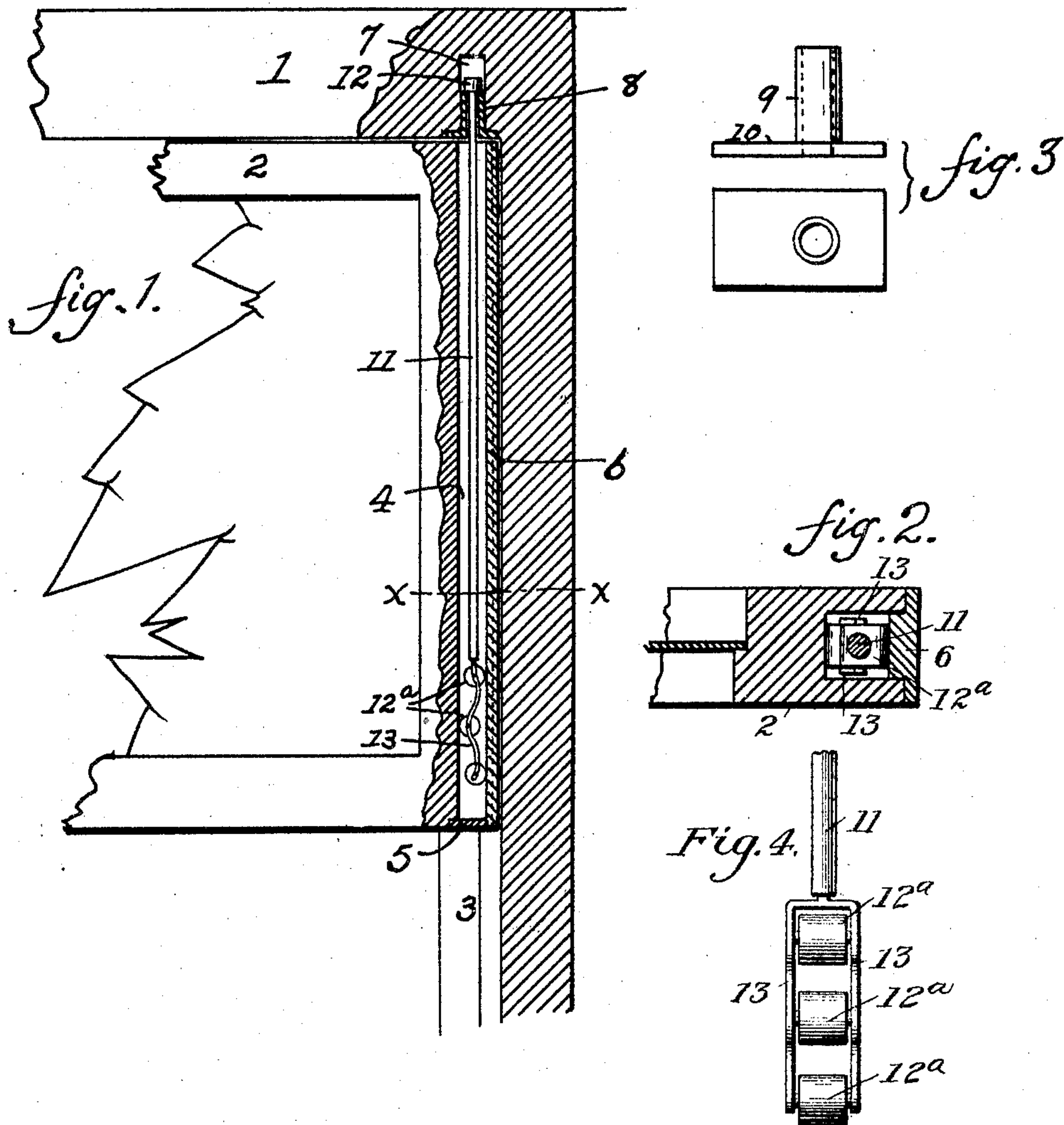
No. 776,477.

PATENTED NOV. 29, 1904.

E. C. LUKS.
WINDOW.

APPLICATION FILED MAR. 7, 1904.

NO MODEL.



Emil C. Lucks,

Witnesses
Florence Kelly
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UNITED STATES PATENT OFFICE.

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WINDOW.

SPECIFICATION forming part of Letters Patent No. 776,477, dated November 29, 1904.

Application filed March 7, 1904. Serial No. 196,893. (No model.)

To all whom it may concern:

Be it known that I, EMIL C. LUKS, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented new and useful Improvements in Windows, of which the following is a specification.

This invention relates to improvements in windows; and the object is to construct a window in which the sash may be easily moved vertically in the frame, one that will be sustained at any point desired and at the same time so snugly held as to prevent rattling.

The invention consists of a vertical rod secured to the frame at either side of the window, carrying a series of friction-rollers on their free ends adapted to contact at two sides of the grooves formed in the edges of the sash.

The invention is more fully described in the following specification and clearly illustrated in the accompanying drawings, in which—

Figure 1 shows a portion of a window, partly in section, showing my invention in position. Fig. 2 is a sectional view taken through line X X of Fig. 1. Fig. 3 is a detailed view of the rod-hanger. Fig. 4 is a front view of the rollers.

The numeral 1 indicates a window-frame, and 2 a window-sash. The sash travels vertically in the usual grooves 3 in the frame. The edges of the sash are formed with longitudinal grooves 4, which grooves are closed at one end by plates 5. A T-shaped strip 6 fits in each groove 4 and closes it its entire length, leaving an approximately square opening 4. In the casing at the top is formed an opening 7 at either side in vertical alinement with the grooves 4, and into each of these openings I place a metal fitting 8. This fitting or hanger comprises a tubular member 9, open at its top and bottom and formed with a plate 10 at its lower end. This tube 9 does not reach to the top of the opening 7. A vertical rod 11 is suspended in said tube by means of a head 12, formed thereon and adapted to

seat on the top of said tube. The body of said rod depends nearly the full length of the groove 4. To the lower end of this rod 11 I secure a series of friction-rollers 12^a, mounted in a suitable spring-casing 13, the tension of which will keep the two end rollers against one side of the groove 4 and the center roller against the opposite side thereof, thus creating sufficient friction to prevent the accidental or involuntary movement of the window-sash.

It will be seen that with my device the window may be easily raised or lowered and that it will remain in any position desired, while the springs may be made with such a tension that it will require considerable effort to move the sash—as, for instance, when it is desired to prevent children raising the window.

The lower sash is made in the same manner as the upper sash shown in the drawings, with the rod 11 reversed and the fitting 8 seated in the lower portion of the frame.

Having thus fully described my invention, what I claim is—

A window comprising a frame having vertical openings at its top and bottom, a fitting comprising a tubular body and a plate adapted to fit into each of said openings, a sash vertically movable in said frame, having a vertical groove formed in either edge in alinement with the openings in the frame, T-shaped strips closing said grooves along their entire length, plates closing said grooves at one end, a headed rod vertically suspended in each of said fittings and extending to nearly the bottom of said grooves, springs carried by said rod and friction-rollers mounted on said springs adapted to contact with the opposite sides or walls of said grooves.

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

EMIL C. LUKS.

Witnesses:

ED. A. KELLY,
GEO. M. MILLER