March 30, 1954 M. F. JAKSCH 2,673,754

WINDOW SASH CONTROL

Filed Sept. 18, 1950

FIG. 1

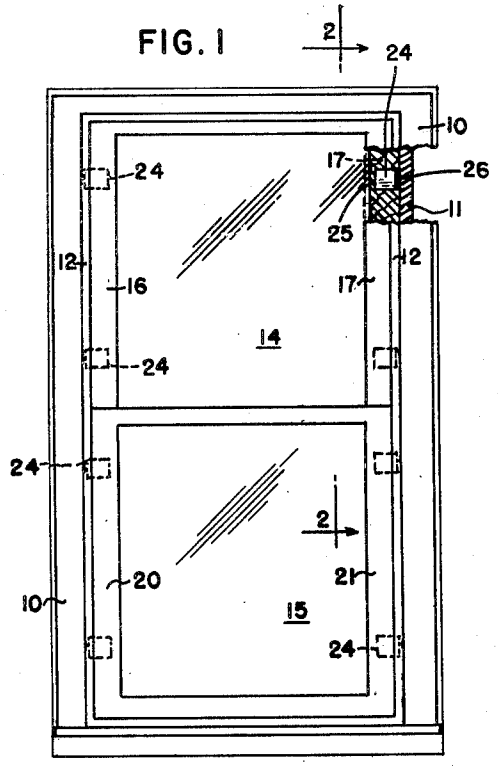


FIG. 2

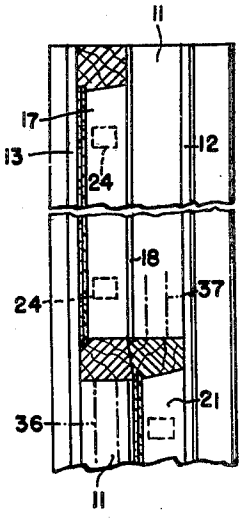


FIG. 4

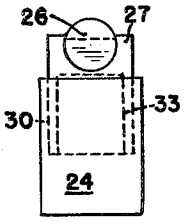


FIG. 3

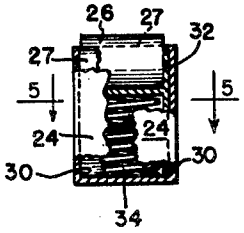
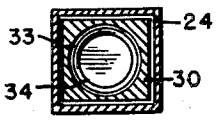


FIG. 5



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WINDOW SASH CONTROL

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1 Claim. (Cl. 292—75)

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This invention relates to window constructions including sash and cooperating fixed frame or casing members therefor, and has particular reference to sash control units, the latter being yieldable for sash adjustment and being then adapted to hold the sash in an improved manner in the selected position.

Accordingly, one of the objects of this invention is to prevent undesirable sash movements, including rattling from any cause, both while the window is in the usual closed position and after the sash has been placed selectively or in a partly open position.

An important general object of the invention is to provide control means in the form of an assembly which, when installed in and carried by the sash, is of relatively small bulk, light of weight, and consists of a minimum number of parts, so as to enable elimination of considerable amounts of structure as heretofore used such, for example, as counterbalance features.

Connected with this, and to secure yet other objects of the invention, said control unit, being of rustproof metal, is in effect a permanent insert for the sash, the latter being provided in each of the otherwise usual vertical members thereof with a recess.

A feature of this invention resides in a spring urged roller, located at the mouth of the recess and revolvably engaging the adjoining surface of the window frame, which is plain and imperforate, said roller being embraced in a novel manner by a holder element of the control unit, said element, of rectangular cross section, also providing a tubular housing for the major portion of the urging spring.

A still further object of the instant organization is to provide a construction of this kind which is adapted to serve indefinitely or during the life of the window, so as to result in economical operation, necessity of repair or renewal of parts being avoided.

The dimensions of said unit, with the strength of its spring, in securing additional objects of the invention, are proportionate to the size and weight of the accompanying sash structures. One pair of control units is sufficient for use with a small window sash. Two pairs of units are suitable for an average or general size sash structure, but more than two pairs may be used when found desirable with windows having larger sashes.

With the above indicated objects and advantages in view, as well as others, which will hereinafter appear, the essential features of the present improved constructions are herein clearly

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described and illustrated in the accompanying drawings, in which:

Fig. 1 is a front elevational view, partly sectional, of a window construction embodying the present invention;

Fig. 2 is an enlarged fragmentary sectional view on the line 2—2, Fig. 1;

Fig. 3 is an enlarged vertical elevational view, partly sectional, of a window sash control unit per se;

Fig. 4 is an elevational view of the left hand side of Fig. 3, with some parts in changed positions; and

Fig. 5 is a transverse section taken on the line 5—5 of Fig. 3.

As shown in detail in said drawings, the window construction includes a casing 10 with a frame 11, to which is attached front and rear sash guide rails 12, 13, and a usual medial inset parting strip or flange 18.

The window sashes, having therein glass panels 14, 15, include an upper unit with lateral vertical members 16, 17, and a lower unit having lateral members 20, 21, said members having therewith in each case upper and lower horizontal connecting members, as shown.

Sash control units illustrated herein are alike, each including a casing 24 of one piece construction, having a bottom and an open top, as best seen in Fig. 3. Referring first to the uppermost control unit with its casing 24 in the member 17, where the latter is shown in section, Fig. 1, the sash has therein a recess 25, into which said unit is securely fitted. In the present case the sash 16, 17, owing to its dimensions, has therein an upper pair of units, each identified by its casing 24, and also a lower pair of control units. It is similar in the case of the lower sash 20, 21, where two pairs of control units are likewise used.

As illustrated in Figs. 3–5, each control unit includes a roller 26, consisting of a cylindrical body, revolvable in a bearing, having a pair of jaws 27, both alike. A feature of this bearing is that its jaws are of less distance apart than the diameter of the roller 26. For assembly, the roller is therefore movable endwise into its bearing and, against a stop segment 32 at one end, is revolvably embraced.

The aforesaid bearing, with which said segment is integral, is part of a plunger or piston 30, movable in the casing 24. Said holder at its inner end is tubular, being formed with a bore 33, in which there is a compression spring 34. In Fig. 3, as in each of the operating positions of Fig. 1, said spring is compressed, so as to exert its pres-

sure, between the base portion of the casing 24 and the end boundary, as shown, of the bore 33 of said holder, for revolvably or holdingly urging the roller against the adjoining surface of the frame 11 thereat.

As illustrated in Fig. 4, the holder 30 is extended by the compression spring, the unit of this figure being not in operating position. In Fig. 5, the casing 24 and its holder 30, are shown slightly spaced apart, for clarity.

On installing the instant sash in the window frame, each holder, with its roller, is pressed in, as in Figs. 1, 3, thus to operatively remain, as hereinbefore detailed.

On providing the instant control units for use with particular structures, the latter being of different dimensions and weight, said units are then also designed accordingly, the strength of the spring 34 being an important factor. Said units, as well as being suitable for use with wood sash, may be designed for use with sash of metal construction. The roller 26, referred to hereinbefore as made of metal, has also been found to give satisfactory results when constructed of other material, such as suitable synthetic rubber, the same being sufficiently strong, light of weight and durable.

While I have for the sake of clearness, and in order to disclose my invention so that the same can be readily understood, described in general terms, and illustrated spectific structures and arrangements, I desire it to be understood that this invention is not limited to the specific form disclosed, but may be embodied in other ways, in view of this disclosure, to persons skilled in the art. It is believed that this invention, as set forth

in the claim, is new, and it is the desire to thus claim it, so that all such changes as come within the scope of this claim, the latter being appended hereto, may be considered as part of this invention.

I claim:

A window sash control unit, comprising a hollow substantially rectangular casing having a bottom and an open top, a substantially rectangular piston within said casing and having a bottom portion and a top portion, said bottom portion having a recess formed herein, a coiled spring projecting into said recess and engaging the bottom of said casing, said top portion consisting of a cylindrical bearing having a pair of jaws and open at one end, a stop segment closing the other end of said bearing, and a cylindrical roller revolvable in said bearing, said jaws being less distance apart than the diameter of said roller.

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