May 15, 1923. 1,455,464

L. WELKER, JR

WINDOW OPERATING DEVICE

Filed June 6, 1921

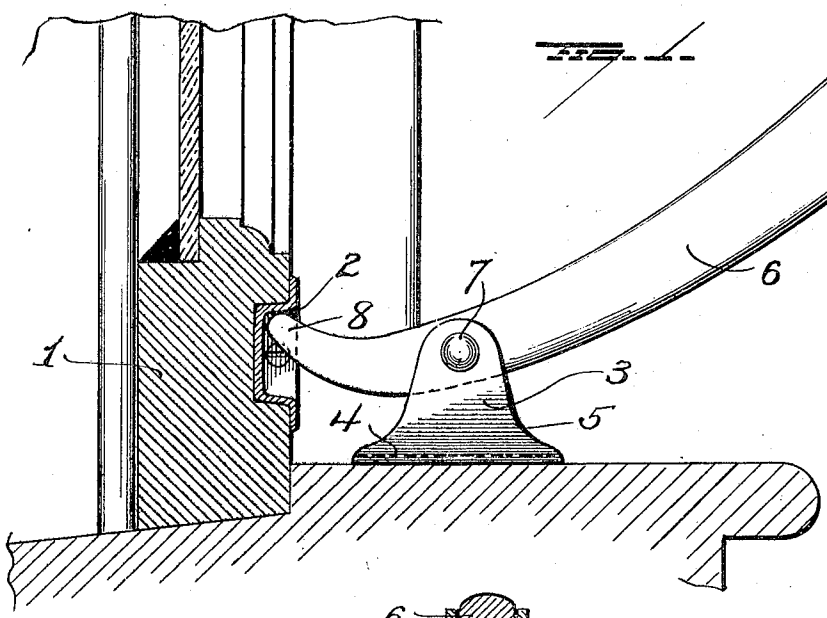


FIG. 1.

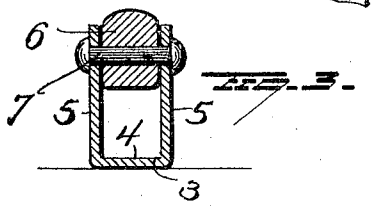


FIG. 3.

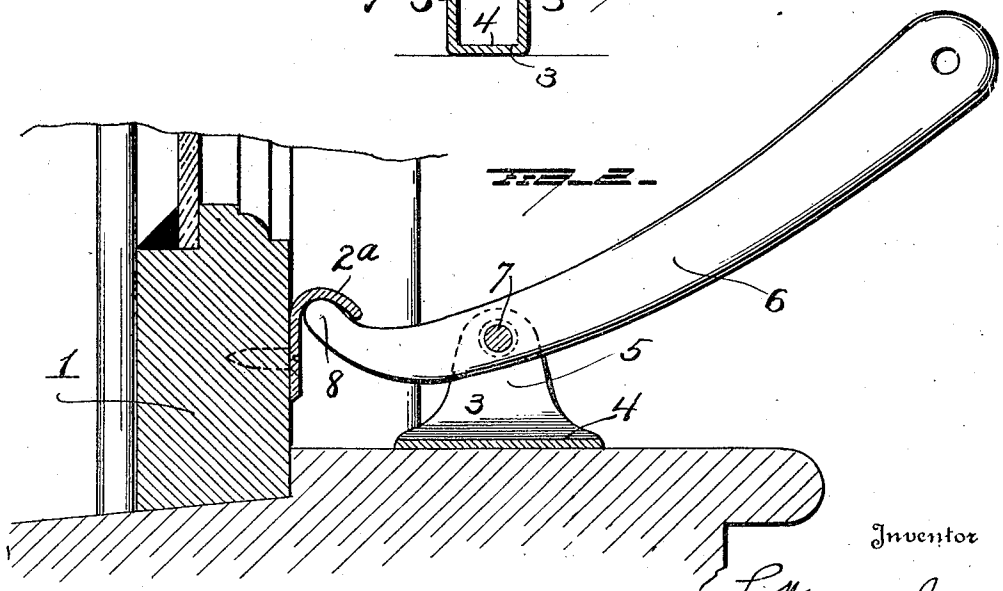


FIG. 2.

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UNITED STATES PATENT OFFICE.

LOUIS WELKER, JR., OF WILLIAMSPORT, PENNSYLVANIA.

WINDOW-OPERATING DEVICE.

Application filed June 6, 1921. Serial No. 475,298.

To all whom it may concern:

Be it known that I, LOUIS WELKER, Jr., a citizen of the United States, and a resident of Williamsport, in the County of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Window-Operating Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in window operating devices and more particularly to that which may be termed a sash jack,—one object of the invention being to provide a simple, portable device which shall be operable in co-operation with sash lifts of different types to start the upward movement of a sash which may have become stuck from any cause, and thus avoid such injury to the sash or the pane-holding means as is liable to occur when attempt is made to forcibly raise a sash which has become stuck by applying upward force to the top rail thereof, or by hammering the sash to loosen the same.

With this object in view, the invention consists in certain novel features of construction as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view illustrating an application of my invention to a window sash having one type of sash lift. Figure 2 is a similar view showing the use of my improvement with another type of sash lift, and Figure 3 is a sectional view on the line 3—3 of Figure 1.

A portion of a sash 1 is illustrated in Figure 1 of the drawings as being provided in its bottom rail with a sash lift 2 of the countersunk type, and in Figure 2 the sash is shown as having a sash lift 2^a of the projecting lip type secured thereto.

My improved sash jack comprises a saddle or support 3 which may be constructed of a single piece of metal bent in such manner as to provide a base 4 and parallel standards 5—5, and a lever 6 pivotally mounted a comparatively short distance from its forward end between the upper portions of the standards of said saddle or support, by means of a pivot pin 7. The long arm of the lever provides a handle and its short arm provides engaging means for a sash lift. In the embodiment of my invention shown in the drawings, the sash lift engaging means constitutes an integral part of the short arm of said lever and consists of an upwardly curved portion 8.

When the device is used to start a sash provided with a sash lift 2 of the countersunk type, the engaging portion 8 at the forward end of the short arm of the lever will be inserted into the countersink of said lift and made to engage the upper wall thereof, so that downward pressure on the handle portion of the lever will cause the sash to be raised a sufficient distance to release it. When the device is employed to start a sash having a lift 2^a, the engaging member 8 of the lever will be placed under the lip of said lift so as to engage the same in proximity to the body portion of said lip. It will be observed that the engaging member of the device, by contacting with the lip behind the free curved end thereof, said engaging member is not liable to slip off the lip and the latter is not liable to be bent when pressure is applied to raise the sash.

It will be readily noted that the lever follows a curve from end to end with sash-lift-engaging terminal more sharply curved. As a result of this formation, a powerful leverage may be exerted upon the sash so that it will be quickly and easily loosened. The sharply turned terminal may be very easily engaged in the sash lift and will apply the power in an upward direction and substantially longitudinally of the lifting arm of the lever instead of across the end of the same as is the case with devices heretofore suggested for the same purpose, so that the sash-lift-engaging point is not so apt to be broken off under the lifting strain. The saddle is of very inexpensive construction but is strong and durable, provides a flat base so that it will remain firmly seated while in use, and is of such a form that the lever may be very easily assembled therewith.

Having fully described by invention what I claim as new and desire to secure by Letters-Patent, is:

A sash-lifting jack comprising a support to rest upon a window sill and a lever pivoted near one end to said support, the shorter arm of said lever being curved upwardly and having its free end portion shaped to engage and conform approximately to the

under face of the projecting lip of a sash lift and to also firmly engage the upper wall of a recessed sash lift, whereby force applied upwardly by the engaging end of the lever will be imparted to the sash lift close to the vertical plane of the inner face of the sash.

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

LOUIS WELKER, JR.

Witnesses:
BEATRICE M. BURNS,
OLIVER J. DECKER.