Jan. 13, 1925. 1,523,232

E. E. MASSIE

SASH OPERATOR

Filed Jan. 11, 1923 2 Sheets-Sheet 1

Fig. 1.

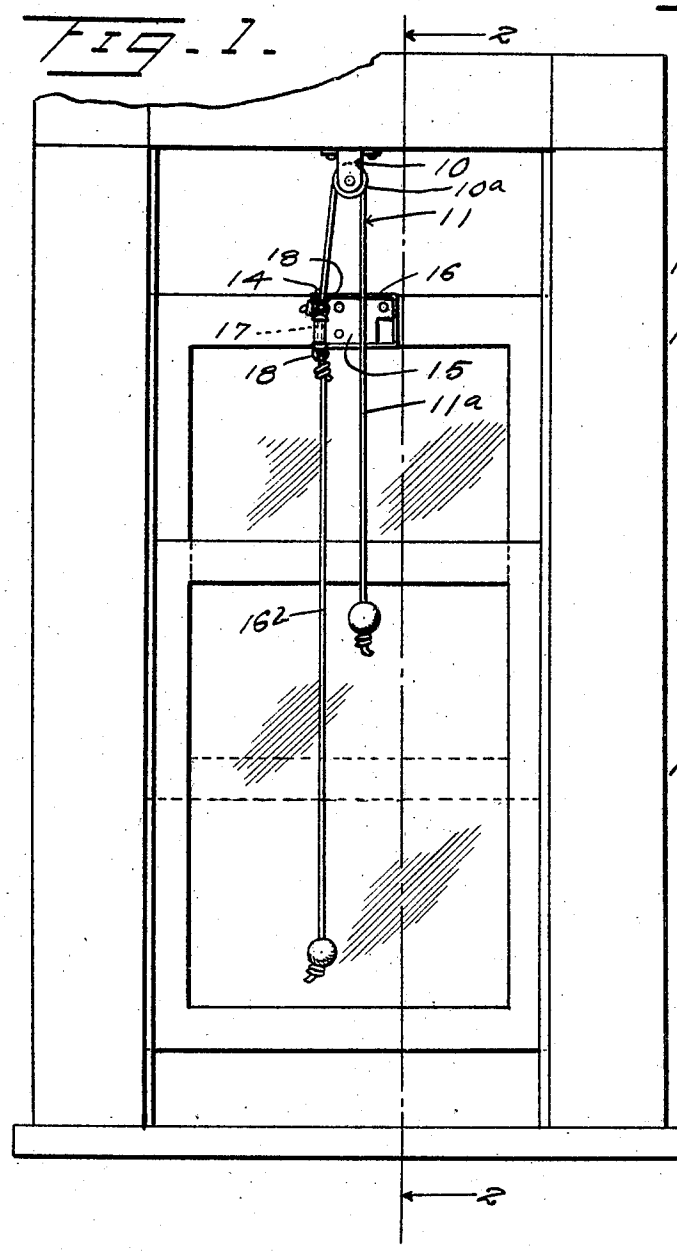
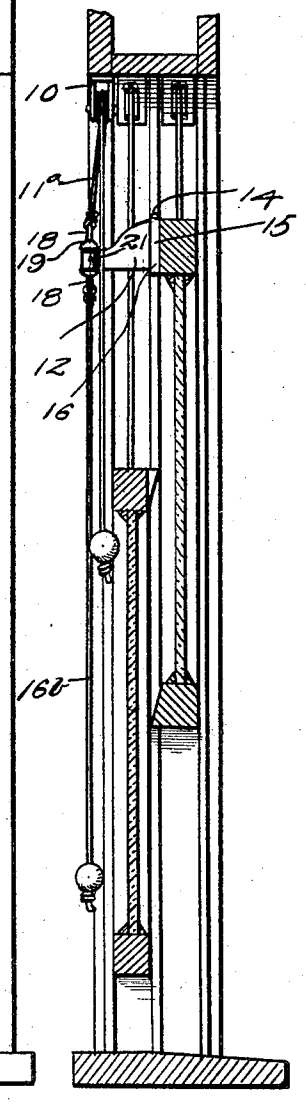


Fig. 2.



Inventor

E. E. Massie

By A. Randolph Jr. Attorney

Jan. 13, 1925. 1,523,232

E. E. MASSIE

SASH OPERATOR

Filed Jan. 11, 1923 2 Sheets-Sheet 2

Fig. 3.

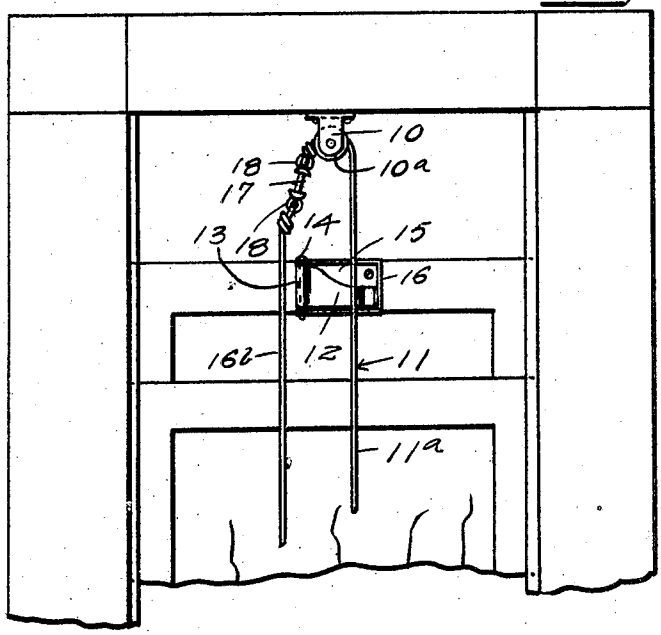


Fig. 5.

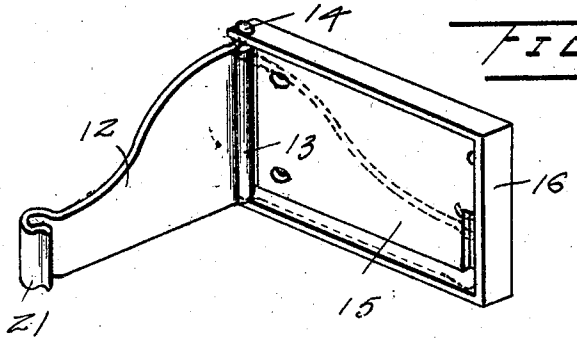
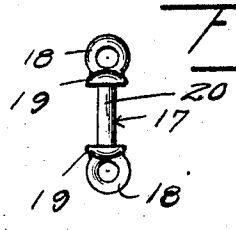


Fig. 4.



Inventor
E. E. Massie.

By J. Randolph, Jr. Attorney

Patented Jan. 13, 1925. 1,523,232

UNITED STATES PATENT OFFICE.

ELIHU E. MASSIE, OF PORTSMOUTH, OHIO.

SASH OPERATOR.

Application filed January 11, 1923. Serial No. 612,028.

To all whom it may concern:

Be it known that I, ELIHU E. MASSIE, a citizen of the United States, residing at Portsmouth, in the county of Scioto and State of Ohio, have invented certain new and useful Improvements in a Sash Operator; 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.

The object of the invention is to provide a simple and efficient means for operating a window sash, and particularly an upper sash, from the floor, or without climbing or reaching, under conditions permitting of lowering the upper sash into coextensive relation with the normal position of the lower sash for ventilating, washing, or other purposes, and with this object in view the invention consists in a construction, applicable as an attachment or fixture to a conventional window sash, of which an illustrative embodiment is shown in the accompanying drawing, wherein:

Figure 1 is an elevation of the device applied to a window,

Figure 2 is a side view of the same, showing the window in section,

Figure 3 is a view showing the operating cord disengaged from the bracket and the latter folded to pass the lower sash,

Figure 4 is a detail view of the coupling pin,

Figure 5 is a perspective view of the bracket and supporting plate, with the latter shown in dotted lines in its folded position,

The device consists essentially of an overhead running guide 10, such as the pulley bracket illustrated, through which extends an operating cord 11, and a bracket arm 12 attached to the top rail of the upper sash for connection with the operating cord at an intermediate point, so that by pulling upon one or the other of the ends of the cord the sash may be raised or lowered by a person standing on the floor.

The bracket arm is pivotally mounted so as to be extended perpendicular to the plane of the sash when in use and to be folded parallel therewith when not in use, to the end that the lower sash may pass the top rail of the upper sash when it is desired to lower the latter to permit of washing and the like. As illustrated the bracket arm is provided with a long hinge sleeve 13 engaged by a hinge pin 14 on an attaching plate 15 secured to the sash and provided with an outwardly directed flange 16 serving to nest or house the arm when folded.

The operating cord carries a coupling pin 17 having terminal eyes 18 for the attachment of the cord members 11^a and 16^b, of which the former only passes over the pulley 10^a and is limited in movement by the attached end of the coupling pin, and the latter is provided with collars or shoulders 19 spaced to bound a neck portion 20 for reception by a sleeve 21 at the free end of the bracket arm, as shown in Figures 1 and 2. This sleeve being split permits of engagement and disengagement at will of the neck portion of the coupling pin, while being proof against accidental displacement. The upper sash may thus be lowered until the bracket arm is within convenient reach from the floor to enable the coupling pin to be disengaged from the coupling sleeve, should it be desired to raise the lower sash to expose the upper sash to the occupant of the room.

Having thus described the invention, what I claim as new is:—

1. A sash operator having an overhead guide bracket, an operating cord extending through the bracket and a coupling having members carried respectively by said cord and a sash, for connecting the latter to the former, the sash carried coupling member being supported by a foldable bracket arm.

2. A sash operator having an overhead guide bracket, an operating cord extending through the bracket and a coupling having members carried respectively by said cord and a sash, for connecting the latter to the former, the sash carried coupling member being supported by a foldable bracket arm, and an attaching plate to which the arm is hinged.

3. A sash operator having an overhead guide bracket, an operating cord extending through the bracket and a coupling having members carried respectively by said cord and a sash, for connecting the latter to the former, and consisting of a coupling pin and a sleeve to receive the same, the pin having spaced shoulders to limit movement thereof in the sleeve, and said pin designed to be uncoupled from the sleeve by movement in a lateral direction.

4. A sash operator having an overhead

guide bracket, an operating cord extending through the bracket and a coupling having members carried respectively by said cord and a sash for connecting the latter to the former, the sash carried coupling member comprising a sleeve supported by a foldable bracket arm, an attaching plate to which the bracket arm is hinged, and the cord carried coupling member comprising a pin detachably engageable in said sleeve.

In testimony whereof I affix my signature in presence of two witnesses.

ELIHU E. MASSIE.

Witnesses:

THOMAS C. BEATTY,

WALTER F. KOEGELE.