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1,624,677

CLOSURE SWINGING DEVICE

Filed Dec. 26, 1924

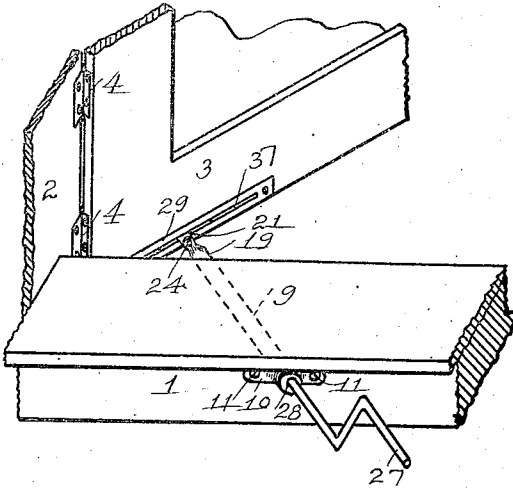


Fig. 1.

Fig. 2.

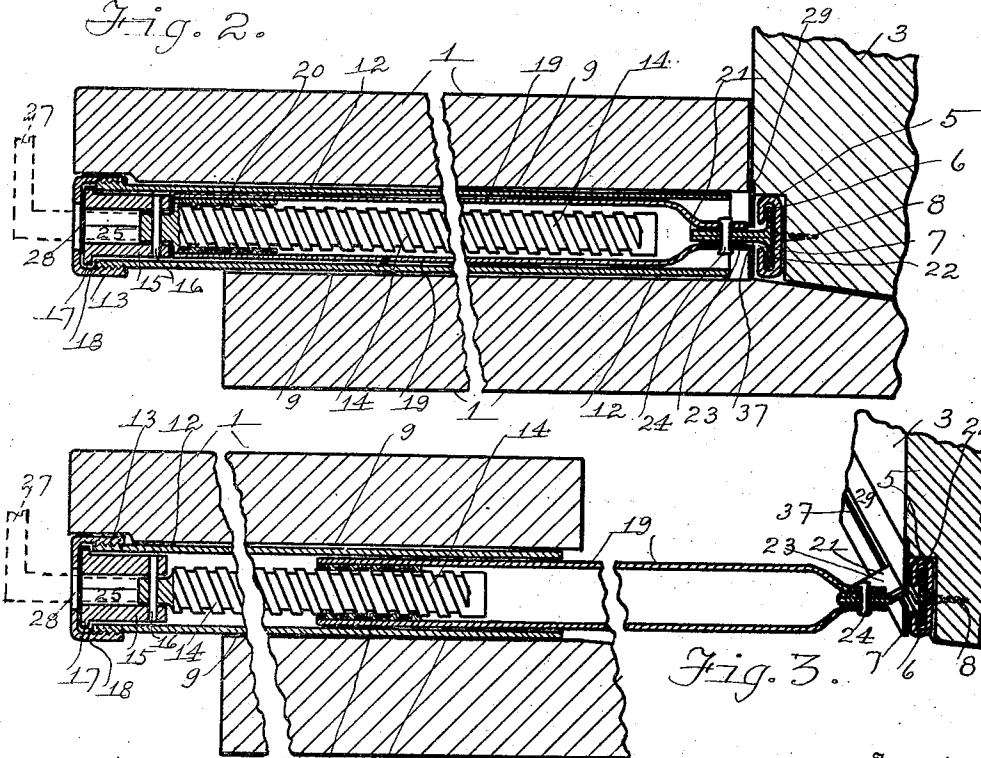


Fig. 3.

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UNITED STATES PATENT OFFICE.

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CLOSURE-SWINGING DEVICE.

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The present invention relates to closure-swinging devices; and its object is to provide an improved device whereby a swingable window or door closure may be readily opened and closed and held in any position to which it may be thus swung.

This and any other and more specific objects hereinafter appearing are attained by, and the invention finds preferable embodiment in, the structure hereinafter particularly described in the body of this specification and illustrated by the accompanying drawings, in which:

Figure 1 is a view in perspective of portions of a window frame and of a closure swingably mounted thereon, and showing our device applied thereto;

Figure 2 is a sectional view of the same taken on the vertical plane in which lies the axis of the screw of the device, and showing the closure in closed position; and

Figure 3 is a like view of the same, but showing the closure in partially open position.

In the embodiment of the invention illustrated by these drawings, a window frame is shown having a sill portion 1 and jamb portion 2 on which the closure 3 is swingably mounted by the hinges 4. The closure has, adjacent its lower edge and seated in a recess 5 in its inner side, a guide-bearing 6 extending in a direction transverse to the axis of the closure's swinging movement, i. e., the pintles of the hinges 4. This guide-bearing is desirably formed by bending a sheet of metal into the cross-sectional shape shown in Figures 2 and 3, thus forming a channel with a gap 7 in its outer side, the guide-bearing thus formed being secured in said recess as by screws 8.

A bore 9 is made diagonally through the sill portion of the frame, and a cap fixture 10 is secured adjacent the bore's inner end to the vertical portion of the sill, as by screws 11. A sleeve 12 is threaded at 13 in this cap and is contained in the bore. A screw 14 has a head 15, pinned thereto at 16 and extends into the sleeve, the head's flange 17 being positioned between the cap and the end 18 of the sleeve in order to journal the screw in the frame and hold the same against axial movement. A hollow cylinder 19 extending within the bore 9 surrounds the screw, and carries adjacent its

inner end the nut 20 of the screw and adjacent its outer end a member 21 whose body portion 22 is confined in the guide-bearing 6 slidably therealong, and whose arm 23 extends through the gap 7 and is connected to the outer end of the cylinder 19 by a vertical pivot pin 24, so that the body portion 22 of said member may swing on said pivot pin as required in any swung position of the closure. The head 15 of the screw has a squared socket 25, into which a key or handle 27 may be inserted through an opening 28 in the cap, for turning the screw.

It will be seen that the turning of the screw swings the closure to open or closed or partially closed positions, and that the closure is held by the screw in any position to which it may be swung thereby.

A finishing plate 29 may be secured to the closure, having a slot 37 through which the arm 23 of the member 21 extends.

The invention being intended to be pointed out in the claims, is not to be limited to or by details of construction of the particular embodiment thereof illustrated by the drawings or hereinbefore described.

We claim:

1. In a device of the character described: a frame having a bore extending there-through; a cap mounted on the frame adjacent the bore's inner end; a sleeve in the bore threaded in the cap; a screw having a head between the cap and an end of the sleeve for holding the screw against axial movement; a closure swingably mounted on the frame and having a guide-bearing extending transversely to the closure's axis of swinging; a nut on the screw carrying a member slidable in the guide-bearing; the cap having an opening for the insertion of means for turning the screw.

2. In a device of the character described: a frame having a bore extending there-through; a cap mounted on the frame adjacent the bore's inner end; a sleeve in the bore threaded in the cap; a screw having a head between the cap and an end of the sleeve for holding the screw against axial movement; a closure swingably mounted on the frame and having a guide-bearing extending transversely to the closure's axis of swinging; a hollow cylinder in the bore carrying adjacent one end a member slidable in the guide-bearing and adjacent its other

end a nut on the screw; the cap having an opening for the insertion of means for turning the screw.

3. In a device of the character described:
5 a frame having a bore extending there-
through; a cap mounted on the frame adja-
cent the bore's inner end; a sleeve in the
bore threaded in the cap; a screw having a
head between the cap and an end of the
10 sleeve for holding the screw against axial
movement; a closure swingably mounted on
the frame and having a guide-bearing ex-
tending transversely to the closure's axis of
swinging; a hollow cylinder in the bore car-
15 rying adjacent one end a member pivotally
connected thereto and slidable in the guide-
bearing and adjacent its other end a nut
on the screw; the cap having an opening for
the insertion of means for turning the screw.
20 4. In a device of the character described:
a frame having a bore extending there-
through; a cap mounted on the frame adja-
cent the bore's inner end; a sleeve in the

bore threaded in the cap; a screw having a
head between the cap and an end of the 25
sleeve for holding the screw against axial
movement; a closure swingably mounted on
the frame and having a guide-bearing ex-
tending transversely to the closure's axis of
swinging; a nut on the screw carrying a 30
member slidable in the guide-bearing.

5. In a device of the character described:
a frame having a bore therethrough; a
sleeve fixed in the bore; a rotatable screw
held against axial movement by the sleeve; 35
a closure swingably mounted on the frame
and having a guide-bearing extending trans-
versely to the closure's axis of swinging; a
nut on the screw carrying a member slidable
in the guide-bearing. 40

In testimony whereof we have hereunto
set our hands at Grand Rapids, Michigan,
this 26th day of November, 1924.

JOHN W. SEALOCK.
MARTIN DE GRAAF.