

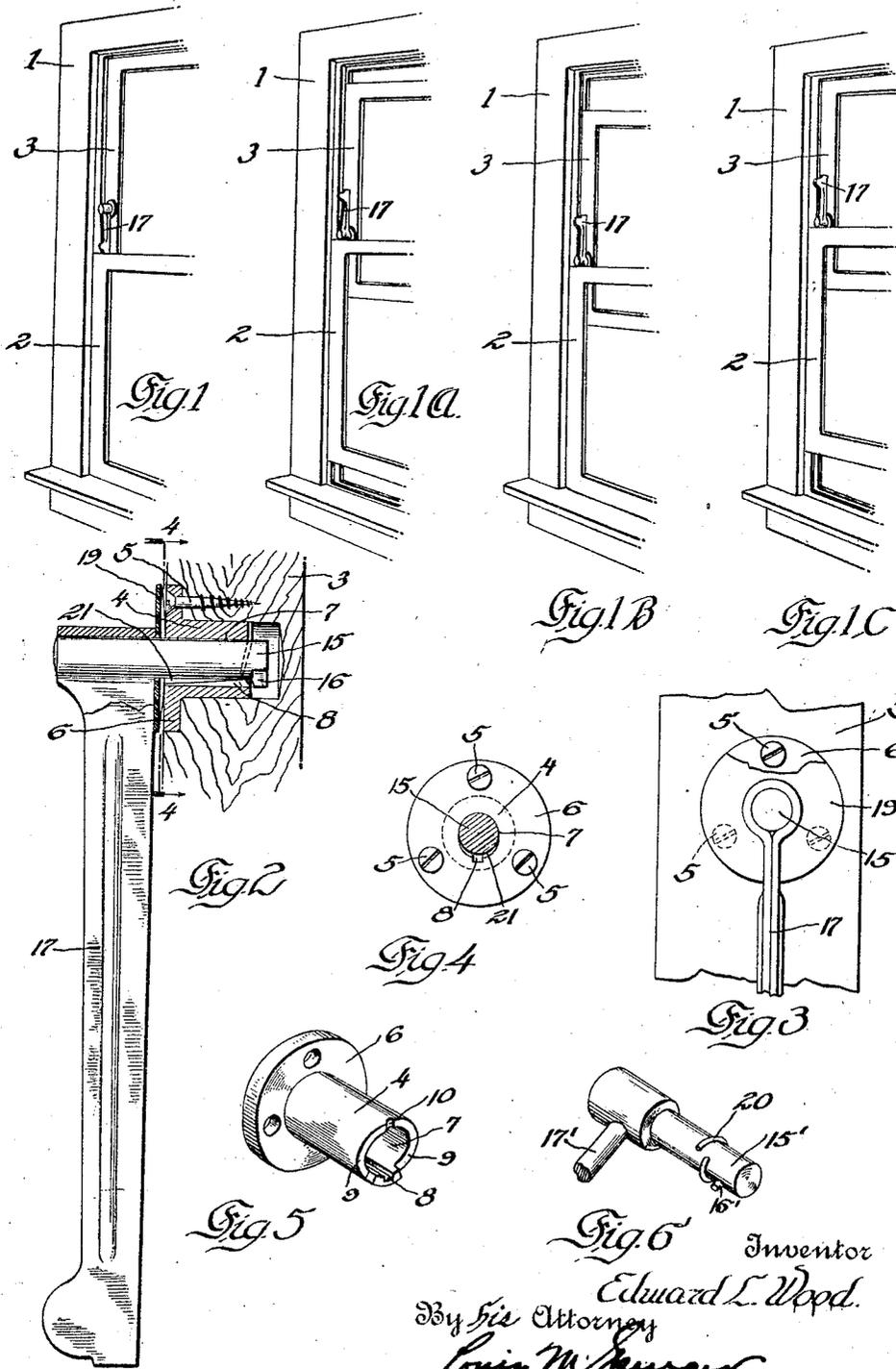
June 2, 1925.

E. L. WOOD

1,540,450

WINDOW STOP

Filed Jan. 12, 1922



Inventor
Edward L. Wood.
By his Attorney
Louis M. Pearson

UNITED STATES PATENT OFFICE.

EDWARD L. WOOD, OF DETROIT, MICHIGAN.

WINDOW STOP.

Application filed January 12, 1922. Serial No. 528,771.

To all whom it may concern:

Be it known that I, EDWARD L. WOOD, a citizen of the United States, and a resident of Detroit, county of Wayne, and State of Michigan, have invented certain new and useful Improvements in Window Stops, of which the following is a full, clear, concise, and exact description, such as will enable others skilled in the art to which the invention relates to make and use the same, reference being made therein to the accompanying drawings, which form a part of this specification.

The present invention relates to window stops, the primary object being to provide a simple, inexpensive device whereby ample protection is insured against entrance by unauthorized persons and whereby ventilation is at the same time freely permitted. The invention also aims to provide a device of the class set forth which may be easily installed either as initial equipment or as an accessory and regardless of whether or not any of the usual types of fasteners are present or retained.

As will be understood as the description progresses, the invention is applicable not only to the ordinary window wherein both upper and lower sliding sashes are present, but also to windows including but a single sliding sash and to slidable closures generally whether glazed or not.

In the drawings, Fig. 1 shows a window equipped with a preferred embodiment of my invention, the sashes being closed; Figs. 1^A, 1^B and 1^C are like views, the sashes being in different positions; Fig. 2 is a central vertical section through the socket showing the parts in assembled relation; Fig. 3 is a view looking from the left in Fig. 2, parts being broken away; Fig. 4 is a section on line 4-4 of Fig. 2; Fig. 5 is a perspective view of the socket member; and Fig. 6 is a fragmentary perspective view showing a modification.

The usual window frame appears at 1, the lower sash at 2, the upper sash at 3 and one of the side rails of the latter is bored out or otherwise formed to receive a socket member 4 which may be attached thereto by screws 5 passing through an annular out-turned flange 6 of the socket and into the wood of the side rail. It is obvious that any suitable means of attachment of the socket may be used, such, for example, as by rivet-

ing in the event the sash is of the metal type. The socket may be formed as by die-casting or in any other suitable manner, and has a central bore or opening 7 of substantially cylindrical configuration provided with a longitudinal groove 8. The inner or rear end face of the socket is arranged to form cam surfaces 9 inclined away from the flange 6 from points a small angular distance from the outlet of the groove 8 to a point approximately 180° therefrom where they terminate in a depression 10.

Arranged to be detachably received in the socket is a cylindrical pintle 15 having its end portion provided with a projection 16 adapted to pass through the groove 8 and to seat against the various surfaces which go to make up the end face of the socket. The pintle is provided with a suitable handle or arm 17, that shown being admirably suited for the purpose and being formed of stamped ribbed metal bent double about the pintle and spot-welded together at intervals in its length and to the pintle as indicated at 18, or one such as shown at 17' in Fig. 6 may be employed. A suitable resilient element, such as the thin warped disk 19, is interposed between the handle 17 and the flange 6 and preferably overlies the heads of the screws 5, or a helical spring 20, Fig. 6, may be used.

It will be noted from Figs. 2 and 4 that the outer end portion of the bore 7 of the socket member is preferably, although not necessarily, somewhat enlarged or flared outwardly and downwardly along the lower wall as at 21.

The socket is preferably assembled on the sash with the groove 8 substantially lowermost; and the pintle is inserted and sufficient pressure applied to compress the disk or spring to allow the projection 16 to clear the end wall of the socket. Upon the handle then being turned angularly the spring snaps the projection outwardly behind the abutment at the base of the corresponding cam surface 9. In this connection it will be understood that it is desirable from a commercial standpoint that there be two sets of these surfaces, as shown, in order that the device may be mounted on either the right or the left side rail of the sash as desired, but one of the surfaces may obviously be omitted. In any event, it will

be seen that the pintle cannot again be removed from the socket until the spring is compressed to permit the projection to clear the abutment at the base of the cam and then only in the event the handle is swung to hang substantially directly downward to bring the projection in line with the groove.

If it is desired to secure ventilation, the handle is swung to the position indicated in Figs 1^A, 1^B and 1^C, that is, it is swung substantially 180° from the position in which the projection registers with the groove, during which movement the projection 16 rides the cam 9 until it is finally received in the depression 10 to thereby retain the handle in what might be termed the ventilating position. The distance from the axis of the socket to the adjacent upper surface of the top rail of the lower sash when the window is closed is preferably, but not necessarily, nearly equal to the length of the handle 17, say six or eight inches, therefore it will be seen that, in the instance first stated, the upper sash may be lowered substantially six inches (Fig. 1^B), or the lower sash may be raised substantially six inches (Fig. 1^C), or the total opening may be apportioned between the top and bottom as desired (Fig. 1^A).

Likewise it will be evident that the opening is insufficient to permit the entrance of an intruder, nor will it be possible for him to insert an arm to manipulate the handle sufficiently to withdraw it from the socket, for the reason that the sash must be nearly closed before the handle can be swung to bring the projection 16 into registration with the groove 8.

Also, in the event a tool is inserted to pry the handle inwardly the end portion of the pintle nearest the handle will be pressed down into the enlargement 21 of the bore with a resulting tendency to jam the parts. The bore might of course be made of cylindrical cross-section throughout.

When it is desired to release the device, the handle is swung around nearly into the position indicated in Fig. 1, whereupon a person in the inside of the room, by pressing inwardly to overcome the spring and by a further slight angular turn to align the projection 16 with the groove 8, may readily remove the handle.

It will be clear that the device may be changed within considerable limits without departing from the spirit of the invention.

I claim:

1. In combination with a frame having an opening and a slidable closure therefor, a socket member carried by the closure, a pintle cooperating therewith and swingable about an axis at right angles to the plane thereof and removable therefrom when the closure is substantially closed, and means

for preventing the stop from being removed from the closure when the latter is open to an appreciable extent.

2. In combination with a frame and a sash structure slidable therein, said sash structure forming a socket, a stop received in said socket and movable into either of two positions relative to the sash to prevent the sash from being opened more than a predetermined amount when in one position and to permit the removal of the stop from the sash when in the other position.

3. A window construction or the like comprising a slidable sash having a side rail, a socket received therein, a stop rotatably mounted in said socket and arranged when in one position to prevent the sash from being opened more than a predetermined amount and when in another position to permit the stop to be removed from the sash.

4. A window construction or the like comprising a slidable sash and a stop rotatably mounted thereon and including a handle arranged to swing from a position in which it points substantially downward to a position substantially 180° therefrom, said stop serving when the handle is in the last named position, to prevent the sash from being opened a distance substantially greater than the length of said handle.

5. In combination with a slidable sash construction or the like, a socket carried thereby and provided with a bore having a groove extending lengthwise thereof, a pintle having a projection received in said bore and adapted to travel said groove, the socket having its end face forming an abutment adjacent the end of said groove behind which said projection may be received, resilient means tending to force the pintle out of said bore, said resilient means when compressed permitting the pintle to be turned angularly to bring the projection into registration with the groove, and a handle for said pintle serving when the latter is in one position to prevent the sash from being opened more than a predetermined amount.

6. In combination with a slidable sash, a stop construction therefor embodying a socket carried thereby and a pintle member also carried by said sash and received in said socket, a spring tending to force the pintle member out of the socket, said socket and pintle member being constructed and arranged to prevent the latter from being removed from the socket except when in a predetermined angular position in respect thereto, and an arm carried by said pintle member.

7. In combination, a window frame, a pair of slidable sashes therein, a stop member carried by one of the sashes and mounted for angular movement in respect thereto, said member being arranged to engage the

other sash when in one position to hold the sashes substantially closed and also being arranged to engage said other sash when in another position to thereby limit the distance the window may be opened.

5 8. As an article of manufacture, a window stop embodying a socket adapted to be attached to a sash, a second member including a pintle and an arm, said pintle
10 arranged to be received in and supported by

said socket and said second member being adapted for angular movement about the axis of said pintle, and means for preventing the second member from being disengaged from said socket except when said arm is in a predetermined angular relation in respect thereto. 15

In testimony whereof I affix my signature.

EDWARD L. WOOD.