Sept. 30, 1930. B. M. HOLDEN 1,777,087

SHIELD FOR WINDOW OPENINGS

Filed Jan. 10, 1927 2 Sheets-Sheet 1

Fig. 1.

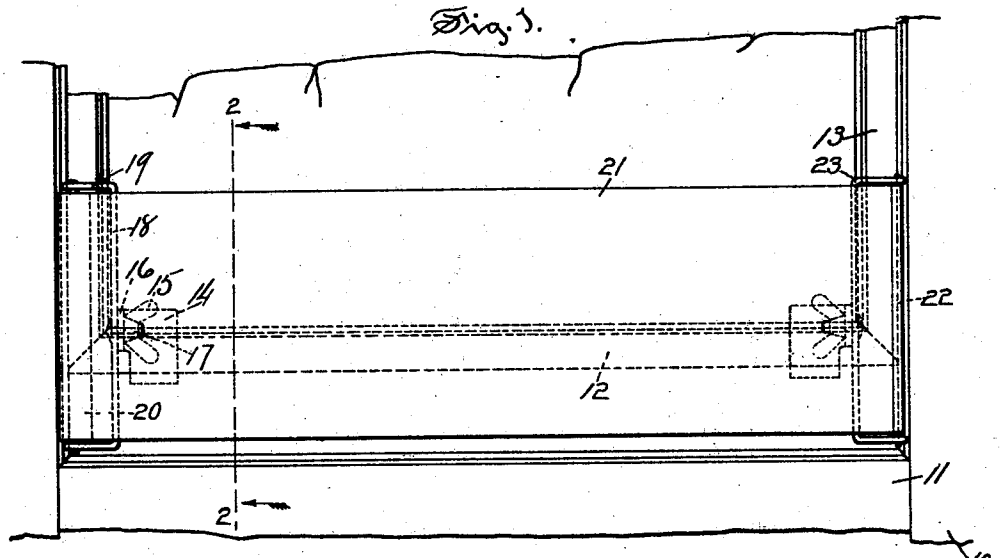


Fig. 2.

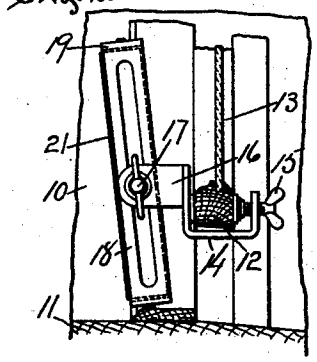


Fig. 8.

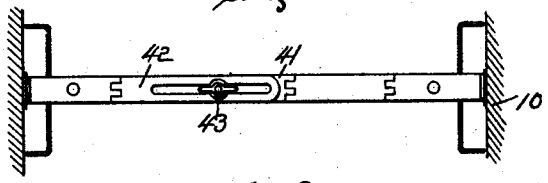


Fig. 9.

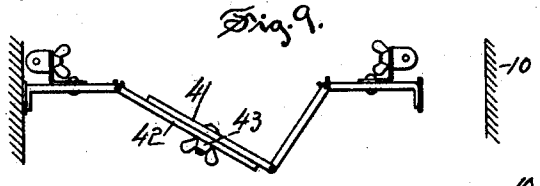
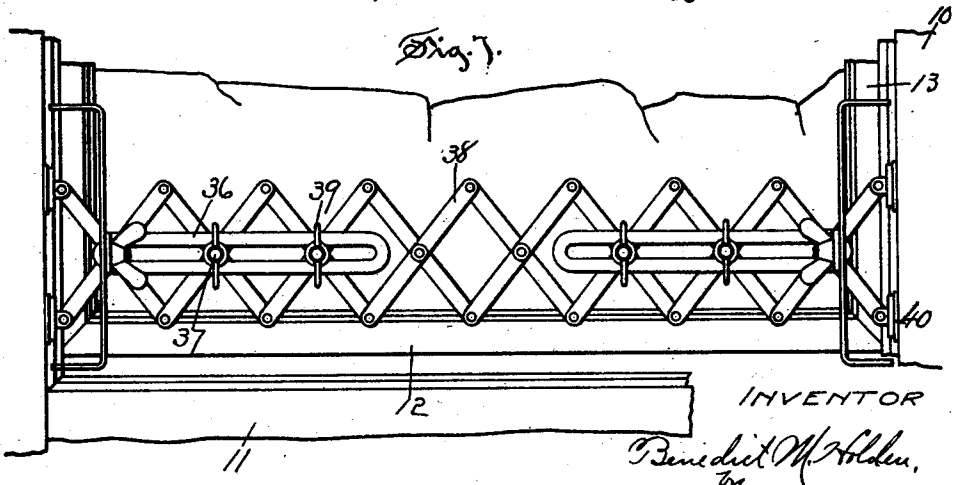


Fig. 7.



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Fig. 4.

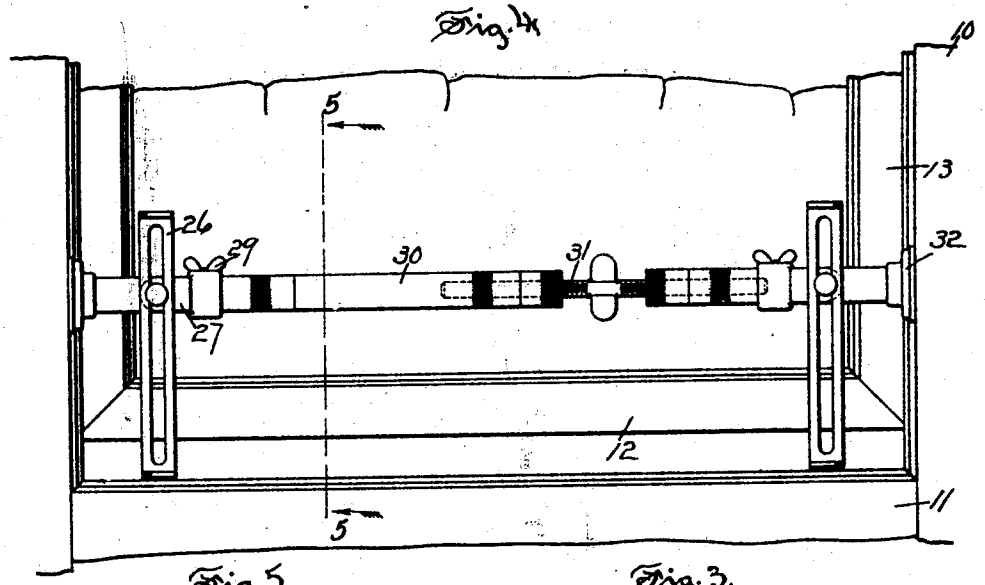


Fig. 5.

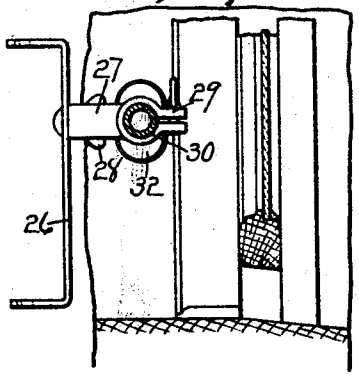


Fig. 3.

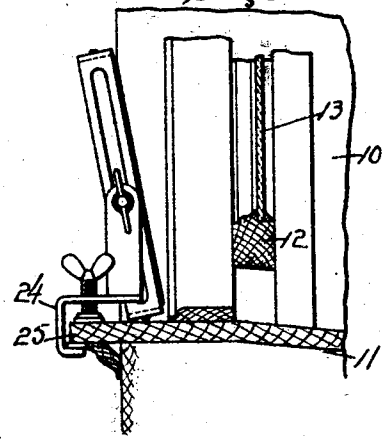
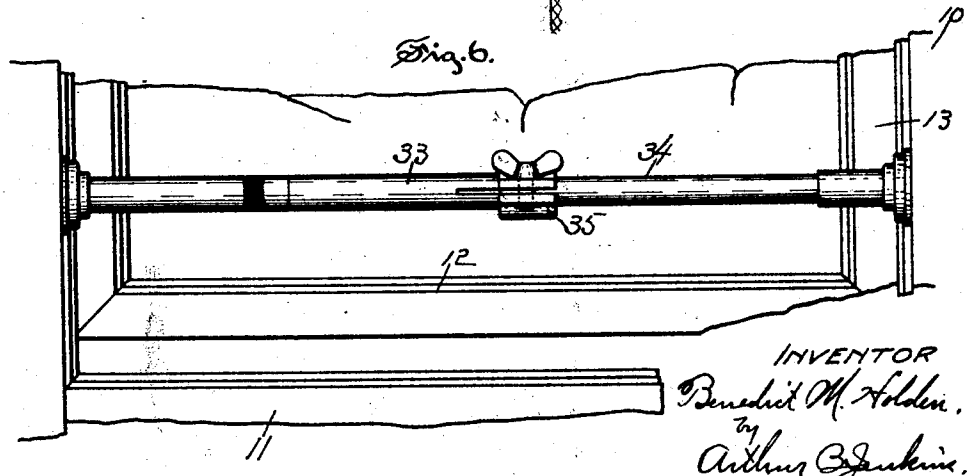


Fig. 6.



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SHIELD FOR WINDOW OPENINGS

Application filed January 10, 1927. Serial No. 160,021.

My invention relates to the class of devices employed for regulating the admission of air through open windows, and an object of my invention, among others, is the provision of a device of this class that is portable, that may be readily affixed to and detached from a window casing or frame, and especially one that may be placed in compact form for carrying purposes.

One form of a shield embodying my invention and in the construction and use of which the objects herein set out, as well as others, may be attained, is illustrated in the accompanying drawings, in which—

Figure 1 is a view of a portion of a window frame showing my improved shield attached thereto.

Figure 2 is a view in section on a plane denoted by the dotted line 2—2 of Figure 1.

Figure 3 (Sheet II) is a view of a device similar to that shown in Figure 1, but having a little different form of means of attachment to the window frame.

Figure 4 is a view illustrating a modified form of the invention.

Figure 5 is a view in section on a plane denoted by the dotted line 5—5 of Figure 4.

Figure 6 is a view of a device similar to that shown in Figure 4 but having a little different form of means for attachment to the window frame.

Figure 7 (Sheet I) is a view illustrating another modified form of the invention.

Figure 8 (Sheet I) is a view illustrating still another modified form of the device.

Figure 9 (Sheet I) is a view of the device shown in Figure 8 illustrating its method of attachment to a window frame.

Although it is desirable to have open windows in sleeping rooms an objection is often present, especially in the case of persons traveling, in opening the windows in the rooms of hotels and similar places, for the reason that draughts are created and no means are readily at hand to prevent such draughts, and it is a purpose of my present invention to provide means whereby windows may be open and whereby draughts through such openings may be prevented, my improved device being so constructed that it may be readily placed in compact form for carrying purposes.

Such a device is illustrated in the accompanying drawings in which the numeral 10 indicates the side parts of a window frame, and 11 a window sill in which a sash comprising a bottom rail 12 and side rails 13 is mounted for vertical sliding movement. My improved shield, in that form of the devices shown in Figures 1 and 2 comprises a bracket including a U-shaped frame 14 that is adapted to receive between its branches the bottom rail 12 of a window sash, a clamp screw 15 in one of said branches being adapted for clamping the frame to said rail, and as shown in Figure 2. An arm 16 is also included in the bracket structure, this arm having a roller frame clamp 17 comprising a threaded stud and a thumb nut by means of which a roller frame 18 may be adjustably supported on said arm.

Said roller frame has roller supporting arms 19 in which a roller 20 is rotatably mounted, and a flexible shield 21, preferably of canvas or similar material is wound upon the roll and is adapted to be extended therefrom or to be wound thereon when the roll is rotated. This roller may be a spring roller if desired, that is a roller having a spring that will automatically rotate it to wind up the shield if desired.

The ends of the roller may be removably placed in slots extending inwardly from the ends of the arms 19 in a manner common to curtain fixtures.

The free end of the shield 21 is provided with catches for the purpose of securing the shield in an extended condition across the window frame, in a satisfactory construction this catch being in the form of a stiffener 22 located in a sheath formed in the end of the shield, the projecting ends of the stiffener comprising the catches that are engaged within slots extending inwardly from the ends of the arms of a retaining bracket 23 substantially a duplicate of the bracket or frame 18.

The operation will be readily understood, the window being raised to the desired extent and the frames 14 being secured to the

bottom rail 12 of the sash with the frame 18 in position and which may be placed at any desired angle by means of the clamp 17. The shield 21 is then extended to the opposite side of the window frame and the catches are engaged with the bracket 23, thus effectually preventing air currents directly into the room through the open window, such currents being deflected upwardly by the shield 21, which, as hereinbefore stated, may be placed at any angle desired.

In the structure shown in Figure 3 the parts are all the same as hereinabove described, with the exception of the frame for securing the device in place. This frame 24 is so formed that it may be engaged with the projecting edge 25 of the window sill, instead of with the window sash, this applying to the frame at each end of the shield.

In the structure shown in Figures 4 and 5 the roller supporting members are the same as in the structures hereinbefore described with the exception that each roller supporting frame 26 has an arm 27 to which the frame is clamped as by a thumb nut 28. The arm 27 has a clamp 29 for securing it to a supporting rod 30 comprising two members joined by a threaded stud 31 engaged with said members by threads extending in opposite directions whereby the members of the rod may be forced apart to press the bases 32 thereof into contact with the inner surface of the sides 10 of the window frame.

The structure shown in Figure 6 is very similar to that shown in Figures 4 and 5, the roller supporting frames being omitted as not necessary to an understanding of this part of the device. In this structure the supporting rod comprises two members 33—34 that are telescoped one within the other, the member 33 having its end provided with a slot to form a clamp 35 for securing the two members together in any position of lengthwise adjustment.

In the structure shown in Figure 7 the roller supporting brackets are the same as hereinbefore described, but with the exception that supporting arms 36 are provided with slots for the reception of studs 37 projecting from pivots of a lazytong structure 38 of old and well known construction and which is clamped to hold it in any position by means of the studs 37 and thumb nuts 39 thereon.

It will be noted that this structure may be extended to press the bases 40 into close contact with the sides 10 of the window frame and thereby support the structure as a whole.

In that form of the device shown in Figures 8 and 9 the roller supporting brackets are the same as hereinbefore described, but the supports therefor comprise a system of toggle levers pivotally united, two members 41—42 of such structure being provided with slots and a clamp stud and clamp nut 43 for securing the parts together.

In the use of this device the members 41 and 42 are adjusted so that the lever structure will be slightly longer than the space between the sides 10 of the window frame. This will enable the structure to be swung from the position shown in Figure 9 to the position shown in Figure 8 and thereby secure the device firmly in place and in a manner that will be readily understood.

In accordance with the provisions of the patent statutes I have described the principles of operation of my invention, together with the device which I now consider to represent the best embodiment thereof; but I desire to have it understood that the device shown is only illustrative and that the invention may be carried out by other means and applied to uses other than those above set out.

I claim—

1. A portable window shield comprising a support extending across the window frame from side to side, means for extensibly adjusting said support to attach it to a window frame, a bracket slotted for longitudinal adjustment with respect to a clamp carried by said support, a roller mounted in said bracket, and a shield extensibly mounted on said roller and having means for attachment of its end to a window frame.

2. A window shield comprising a bracket, means for detachably clamping said bracket at a window opening, a slotted roll supporting frame, a clamp cooperating with said slot for attaching said frame to said bracket to permit angular adjustment of the frame, and a flexible shield extensibly supported on said frame.

3. A portable window shield comprising an extensible and flexible shield unit, collapsible means for detachably clamping said unit in place at a window opening, and means for angularly adjustably holding it in said window opening.

4. A portable window shield comprising an extensible and flexible shield unit, collapsible means for detachably clamping said unit in place at a window opening, and means for angularly adjustably attaching said shield unit to different sized window openings without defacing any part of said opening.

5. A portable window shield comprising a collapsible device including a support detachably clamped to opposite side portions of a window frame, an extensible and flexible shield unit and means for pivotally mounting the unit at points intermediate its longitudinal edges.

6. A portable window shield comprising a collapsible support detachably clamped to opposite side portions of a window frame,

and an extensible and flexible shield unit detachably mounted on said support.

7. A portable window shield comprising a collapsible support detachably secured to opposite side portions of a window frame, means for varying the length of said support to accommodate it to different sized window frames, an extensible and flexible shield unit, and means for pivotally and slidably adjustably mounting the unit on said support.

8. A portable window shield comprising a collapsible support detachably clamped to opposite side portions of a window frame, and an extensible and flexible shield unit angularly adjustably mounted on said support.

9. A portable window shield comprising a shield supporting device including relatively adjustable parts, the adjustment of said parts acting to detachably mount the device by a clamping action on a portion of a window structure, a flexible shield supported on said device at one side of said window structure and extensible independently of the device, and means entirely independent of said device for securing the free end of the shield at the opposite side of said window structure.

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