Sept. 13, 1932. J. S. DEATS 1,877,280

ADJUSTABLE SASH

Filed Feb. 20, 1931

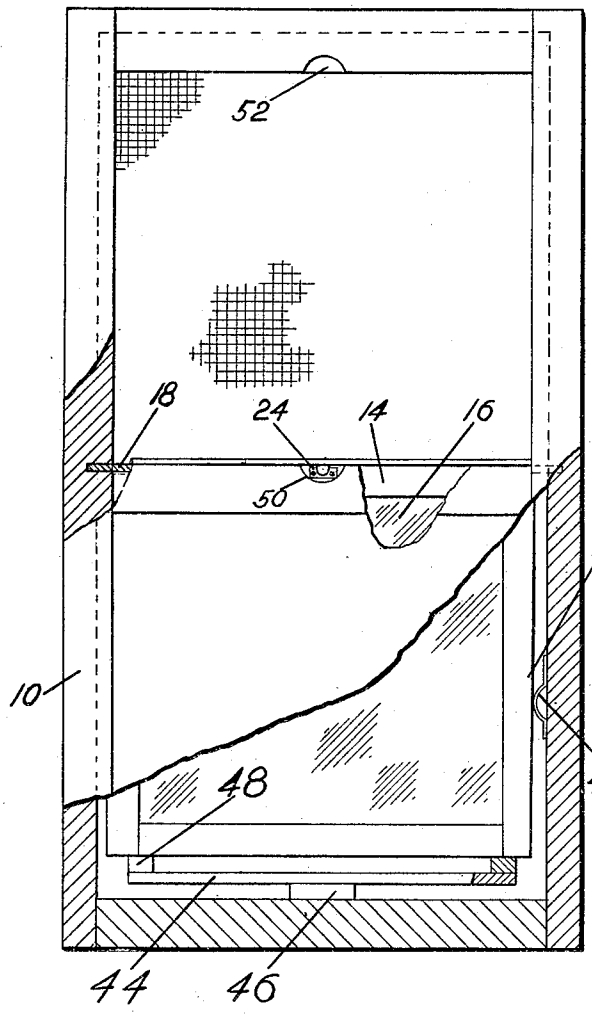


Fig. 1.

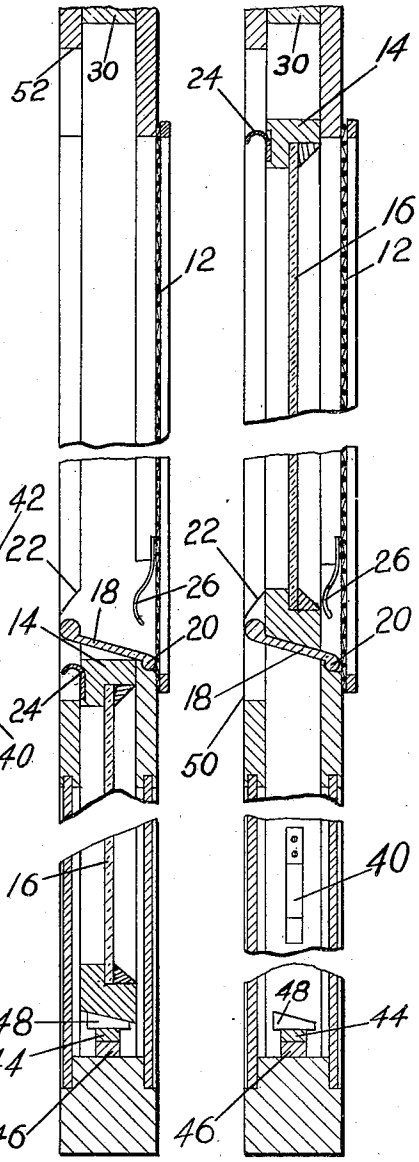


Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE

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ADJUSTABLE SASH

Application filed February 20, 1931. Serial No. 517,260.

This invention relates to an improved adjustable sash, and has for one of its principal objects the provision of a sash for windows, doors, or the like which can be used in conjunction with a screen or the like whereby the opening normally covered by the screen can be definitely closed by the sash whenever desired.

One of the important objects of this invention is to provide an adjustable sash for carrying glass or a screen, or a solid panel, and which is utilizable in a door or which can be built into surrounding framework as a window. There is provided in conjunction with the sash a laterally extended member which serves as a sash support when the same is in raised position, and as a water-table cover for the opened recess, which would be otherwise partially exposed when the sash is raised. This member also acts as a protecting cover, sill, and water-table when the sash is lowered into its retracted position.

Another important object of the invention resides in the provision of novel braking and shock absorbing elements, which operate in conjunction with the sash when the same is dropped or lowered.

Another and still further important object of the invention is the provision of cut-out openings in the frame for the sash, and also a corresponding opening in the center rail of the window frame or door, whereby it becomes possible to conveniently reach the finger hold on the top rail of the sash when the same is in recessed position, and also making it possible to raise the sash sufficiently to allow its lower edge to clear the combination cover and support.

Other and further important objects of the invention will be apparent from the disclosures in the accompanying drawing and following specification.

The invention, in a preferred form, is illustrated in the drawing and hereinafter more fully described.

In the drawing:

Figure 1 is a front elevation, parts being broken away, and parts being shown in section, of the improved adjustable sash of this invention, illustrating the salient features thereof.

Figure 2 is a sectional view of the construction, parts being broken away, and showing the sash in lowered position.

Figure 3 is a view similar to Figure 2, but showing the sash in raised position.

As shown in the drawing:

The reference numeral 10 indicates generally the frame wherein the adjustable sash of this invention is mounted, and which frame can comprise a portion of a door, window, or other opening. In the embodiment of the invention shown, the frame has an opening in its upper portion, this being shown as closed by a screen or the like 12. Obviously, the screen may be omitted if a complete opening is desired or the slidable sash 14 may be equipped with a screen instead of the pane of glass shown at 16.

It will be noted that the frame 10 is double, and that the sash 14 is adapted to be dropped into the lower portion thereof when not in use.

A combination protecting cover, sill and water-table is provided in the form of a laterally extending hinge *d* element or plate 18 which is pivotally mounted in the frame at points corresponding to its longitudinal forward axis 20 and which is of such dimensions that its free edge will contact with the face of the frame when riding in a cut-away portion 22.

When the sash is raised from the position shown in Figure 2 to the position shown in Figure 3 by means of the hand hold 24, the plate 18 is moved about its pivot point 20 and while the sash is being slid upwardly, this plate will bear against a leaf spring or the like 26, and after the sash has been moved to a point where its lower edge clears the upper edge of the plate 18, the action of the spring 26 together with gravity will force the plate downwardly around the pivot point 20 to the position shown in Figure 3 when the sash 14 may then be dropped onto it whereby the sash is definitely supported, and furthermore, an adequate cover is provided for the recess in the frame in which the sash was positioned as in Figure 2.

In order to lower the sash, it is only neces-

sary that the same be again raised by means of the finger hold 24 to a point adjacent the top element 30 of the frame 10 whereupon the water-table or cover can be forced against the spring 26 and the sash allowed to drop past it.

In order to eliminate any damage to the glass when the descending sash is dropped into recessed position and also to provide a shock absorbing means against noise or the like, a brake is provided in the form of a leaf spring or the like 40 which is shaped as best shown in Figure 1, and which acts against the lateral face of the sash, this being slightly bevelled as illustrated at 42, whereby an increasing pressure is exerted against the descending sash during approximately one-half its contact area with the spring. There is additionally provided another shock absorber in the nature of a bow spring or the like 44 which is preferably wooden and which is mounted on a block 46 affixed to the bottom of the frame 10, the bow spring extending transversely across the lower portion of the frame, and having upwardly extending lugs or the like 48 adapted to contact the lower edge of the sash and shaped to conform thereto.

In this manner, any damage to the sash or glass is positively eliminated no matter how carelessly the same be dropped or forced downwardly and any resultant noise is avoided.

It will be noted that the face of the frame is cut-away as at 50 to provide suitable access to the finger hold 24 when the sash is in lowered position and is also cut-away at 52 to allow of a suitable lifting of the sash beyond its forward upper position whereby the water-table or cover is allowed to be shifted into desired position.

I am aware that many changes may be made and numerous details of construction varied throughout a wide range without departing from the principles of this invention, and I, therefore, do not purpose limiting the patent granted hereon otherwise than as necessitated by the prior art.

I claim as my invention:

1. An adjustable sash mounting, including a frame, a recess in the frame for receiving a sash in lowered position, and a water-table cover for the recess, together with means for automatically forcing the water-table cover into position.

2. An adjustable sash mounting, including a frame, a recess in the frame for receiving a sash in lowered position, and a water-table cover for the recess, said water-table cover also comprising a support for the sash when the same is in raised position, together with means for automatically forcing the cover into position for alternately supporting the sash and covering the recess.

3. An adjustable sash mounting, including a frame, a recess in the frame for receiving a sash in lowered position, and a water-table cover for the recess, said water-table cover comprising a plate extending transversely across the recess, together with means for automatically forcing the cover into position for alternately supporting the sash and covering the recess, said means comprising a leaf spring adapted to act against the water-table cover when in open position.

4. An adjustable sash mounting, including a frame, a recess in the frame for receiving a sash in lowered position, and a water-table cover for the recess, said water-table cover also comprising a support for the sash when the same is in raised position, said water-table cover comprising a plate extending transversely across the recess.

5. An adjustable sash mounting, including a frame, a recess in the frame for receiving a sash in lowered position, and a water-table cover for the recess, said water-table cover comprising a plate extending transversely across the recess, and pivotal mountings at the side of one edge of the plate, together with means for automatically moving the plate about said pivotal mountings and tending to shift it into normal position when the sash is shifted.

6. An adjustable sash mounting, including a frame, a recess in the frame for receiving a sash in lowered position, and a water-table cover for the recess, said water-table cover comprising a plate extending transversely across the recess, and pivotal mountings at the side of one edge of the plate, together with means for moving the plate about said pivotal mountings when the sash is shifted, said means including a leaf spring acting against the face of the plate.

7. In an adjustable sash mounting, a frame, a recess in the frame, and means for braking the descent of the sash when dropped into the recess, said braking means including a spring acting against the side of the sash together with a pivoted spring impelled water-table cover for the recess.

8. In an adjustable sash mounting, a frame, a recess in the frame, and means for braking the descent of the sash when dropped into the recess, said braking means including a spring acting against the side of the sash, said side being bevelled to provide an increasing braking action in descent.

9. In an adjustable sash mounting, a sash slidable in the frame, a finger hold on the sash for manipulating the same, the frame having cut-away portions to allow of ready access to the finger hold when the sash is in lowered position and to allow of upward extra motion of the sash beyond its normal raised position, together with a water-table cover in the frame, said water-table cover positioned over and protecting the upper edge of the

sash when the same is in lowered position, and mounted below, and supporting the lower edge of the sash when the same is in raised position, together with spring means for automatically shifting the water-table cover into sash supporting and recess covering position when the sash is raised, and means for braking the descent of the sash when dropped into the recess, said means including springs acting against the sides of the sash, said sides being beveled to provide an increasing braking action in descent and further means for absorbing the shock of the fall of the sash upon reaching the bottom of the recess, said further means comprising a bow spring mounted beneath the sash and parallel to its lower edge.

In testimony whereof I affix my signature.

JOHN S. DEATS.