Feb. 17, 1959 T. McCAUGHAN 2,873,992

CASEMENT STAYS

Filed Sept. 30, 1954

FIG. 1

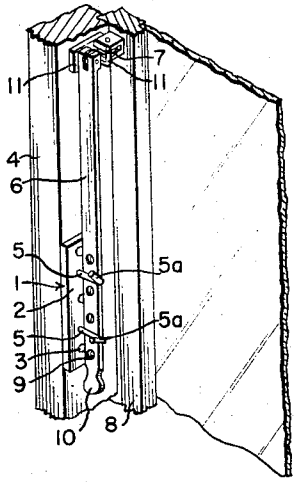


FIG. 3

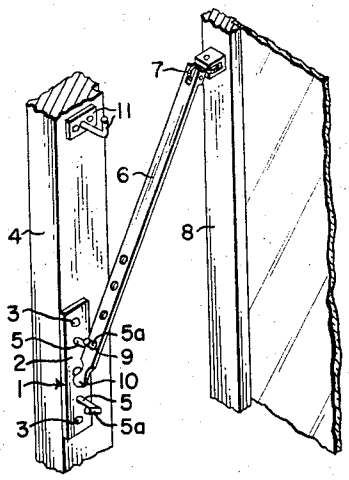


FIG. 5

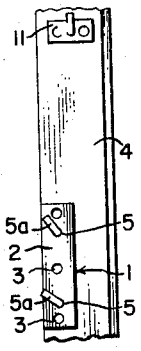


FIG. 6

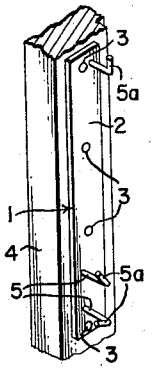


FIG. 2

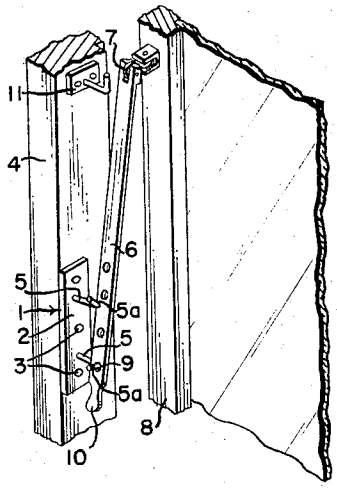


FIG. 4

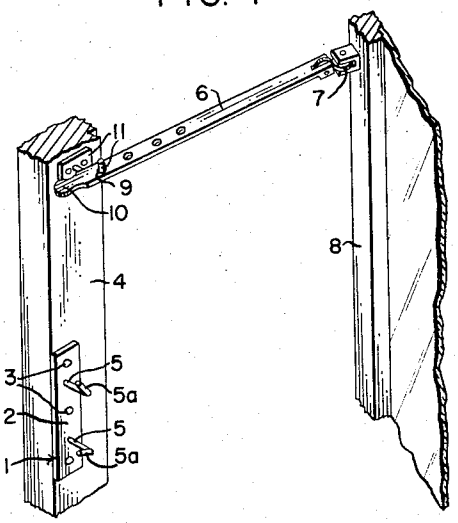
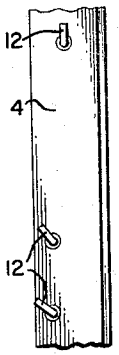


FIG. 7



INVENTOR

THOMAS MC CAUGHAN

BY Glascock Downing & Seebold

ATTORNEYS

United States Patent Office 2,873,992 Patented Feb. 17, 1959

2,873,992

CASEMENT STAYS

Thomas McCaughan, Mount Eden, Auckland, New Zealand

Application September 30, 1954, Serial No. 459,415

Claims priority, application New Zealand October 8, 1953

6 Claims. (Cl. 292—262)

This invention relates to casement stays of the kind in which an arm is pivotally secured to the sash of a casement window and is adapted to be engaged by an attachment secured to the window frame, whereby the sash can be held in a fully opened position or one of several partly opened positions.

Such casement stays, as usually constructed, have possessed the disadvantage that in any one of the partly opened positions of the sash, the free end of the arm projects for a greater or less distance into the room or the like, where it presents a hazard to persons moving past the window.

The object of this invention is to reduce or eliminate the aforesaid hazard, by the provision of an improved attachment for use in conjunction with, or in replacement of, the usual attachment in casement stays of the above kind whereby the sash of a window can be held in at least one partly-opened position in which the free end of the arm does not project beyond the window frame so as to form a hazard.

According to this invention, the improved attachment for use with casement stays of the kind mentioned consists of a plate adapted to be secured to the frame of a window and provided with holding means adapted and arranged, when the plate is secured in position on the window frame, to engage the free end of the arm of a casement stay pivoted to the sash, and thereby to hold the sash in at least one partly-opened position in which the free end of the arm does not project beyond the window frame sufficiently to form a hazard.

The improved attachment may be mounted on an upright of the window frame, such as on a jamb or mullion of the frame, and the holding means on the attachment may consist of one or more than one pin or hook adapted to engage in a corresponding hole formed in the arm of the stay near the free end of the arm.

The attachment may also have holding means for engaging the free end of the arm to hold the sash in its fully-opened position, and in such instance the improved attachment can be used in replacement of the usual single attachment in casement stays of the kind mentioned.

In a modification of the invention, the attachment is replaced by separate holding members secured directly to the frame of the window in an arrangement corresponding to the arrangement of the holding means on the plate of the improved attachment described herein.

Various embodiments of the invention will now be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of one form of the invention mounted on a portion of a casement window the sash being shown in its closed position,

Figure 2 is a perspective view of the window and form of the invention illustrated in Figure 1, and showing the sash held in a partly-opened position,

Figure 3 is a perspective view of the window and form of the invention illustrated in Figure 1, and showing the sash held in another partly-opened position,

Figure 4 is a perspective view of the window and form of the invention illustrated in Figure 1, showing the sash held in its fully-opened position,

Figure 5 is an elevation of the form of the invention illustrated in Figure 1, showing the said form of the invention in position on an upright of a window frame,

Figure 6 is a perspective view of another form of the invention mounted on an upright of a window frame and without the arm of the stay, and

Figure 7 is an elevation of a modification of the invention without the arm of the stay.

In the two forms of the invention which are shown in Figures 1 to 6 of the drawings, the invention consists of an improved attachment generally indicated at **1**, and includes a plate **2** with holding means **5**. The plate **2** is secured by screws **3** to an upright **4** of the frame of a casement window, and the holding means **5** consist of hooks (also indicated by **5**) secured to the plate **2**. An arm **6** of the casement stay is pivotally secured by links **7** to the sash **8** of the window, and is formed with holes along its length, of which one hole **9** near the free end **10** of the arm **6** is adapted to be engaged by any one of the hooks **5**, for the purposes of this invention.

The hooks **5** are preferably right-angled hooks and have turned-up end portions **5a** which are arranged at various angles on the plate **2** so that each end portion **5a** engages the arm **6** at right angles thereto.

In the first form of the invention, as shown in Figures 1 to 5, the attachment **1** is adapted to be used in conjunction with the usual attachment **11** of a casement stay of the kind mentioned. The plate **2** of the attachment bears two hooks **5** comprising an upper and a lower hook, and is secured to the upright **4** below and forwardly of the attachment **11**, as is shown particularly in Figure 5.

The lower one of hooks **5** is arranged to engage the hole **9** in the free end **10** of the arm **6** to hold the sash **8** in one partly-opened position, as shown in Figure 2, while the upper hook **5** is arranged to similarly engage the arm **6** to hold the sash **8** in another partly-opened position, as shown in Figure 3. In the fully-opened position of the sash, as shown in Figure 4, the hole **9** in the arm **6** is engaged in the usual way by the attachment **11**.

In the second form of the invention, as shown in Figure 6, the plate **2** is extended in length and bears three hooks **5**, comprising two lower hooks, and an upper hook. The two lower hooks are arranged to engage the hole **9** in the free end of the arm **6** to hold the sash **8** in its partly-opened positions, in the same manner as the upper and lower hooks in the first described form of the invention, while the upper hook **5** is arranged to take the place of the usual attachment **11** shown in Figures 1 to 5, which attachment **11** may thus be dispensed with.

As shown in Figure 6 the lower hooks **5** are arranged on the plate **2** in relation to the upper hook **5** in the same way as the hooks **5** are arranged in relation to the attachment **11** in the first-described form of the invention.

In the modification of the invention shown in Figure 7, the attachment **1** shown in Figures 1 to 6 is replaced by three holding members **12**, consisting of right-angled hooks similar to the hooks **5** of the two forms of the invention already described. The holding members **12** are screwed directly into the upright **4**, and are arranged thereon in relation to each other in the same way as the three hooks **5** of the second form of the invention are arranged on the plate **2**.

The invention, in all its embodiments described above, enables the arm **6** of the casement stay to be engaged to hold the sash **8** in two partly-opened positions, in addition to its fully opened position, and in such partly-

opened positions the free end **10** of the arm **6** will not project beyond the upright **4** for a sufficient distance to cause a hazard to persons moving past the window within the room or the like.

The invention is not limited to the embodiments described above, but includes such other forms and modifications as lie within the scope of the appended claims. In particular, it is foreseen that the number of the hooks **5** or holding members **12** may be varied to vary the number of partly-opened positions in which the sash **8** can be held, without departing from the scope of the invention.

What I do claim and desire to obtain by Letters Patent of the United States of America is:

1. In a casement window having side jambs and a sash pivotally connected to one of the jambs for movement between open and closed positions, means to hold the sash selectively in one of a plurality of positions from a fully closed position to a fully open position, such holding means comprising at least three vertically disposed hooks with turned up end portions secured to the other side jamb with the lower and intermediate hooks being located at a point rearwardly of the upper hook respecting the sash, and an arm pivotally connected to the sash on a plane corresponding to that of the upper hook, the arm having an aperture engageable selectively with one of said hooks to hold the sash in the desired position with the free end of the arm being located within the confines of the side jambs.

2. An assembly as defined in claim 1 wherein the said hooks are disposed at different angles on the side jamb so that each turned up end portion will engage the aperture in the arm at right angles thereto.

3. An assembly as defined in claim 2 wherein a plate is secured to the side jamb and the lower and intermediate hooks are secured to such plate.

4. An assembly as defined in claim 1 wherein a plate is secured to the side jamb and each of the hooks is attached to the plate with the hooks being disposed at different angles whereby each turned up end portion will engage the aperture in the arm at right angles thereto.

5. An assembly as defined in claim 1 wherein each of the hooks is directly connected to the side jamb with the hooks being disposed at different angles whereby each turned up end portion will engage the aperture in the arm at right angles thereto.

6. In a casement window having side jambs and a sash pivotally connected to one side jamb for movement between open and closed positions, a device for holding the sash selectively in one of a plurality of positions from a fully closed position to a fully open position, such device comprising at least three vertically spaced apart projections carried by the other side jamb with the lower and the intermediate projections being located at a point rearwardly of the upper projection respecting the sash, an arm pivotally connected to the sash on the same plane as the upper projection and projection engaging means adjacent the free end of the arm engageable selectively with one of said projections to hold the sash in the desired position with the free end of the arm being located within the confines of the side jambs.

References Cited in the file of this patent

UNITED STATES PATENTS

112,840	Pabst	Mar. 21, 1871
127,941	Van Wagoner	June 11, 1872

FOREIGN PATENTS

2,217/26	Australia	June 8, 1926