Dec. 28, 1937. H. H. KISTNER 2,103,987

SASH LOCK SECURING DEVICE

Filed Feb. 23, 1937

Fig. 1.

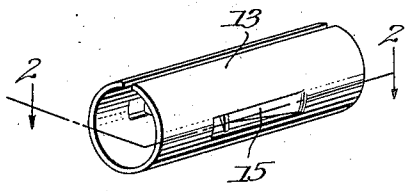


Fig. 2.

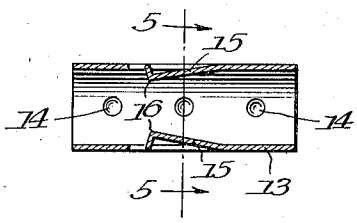


Fig. 3.

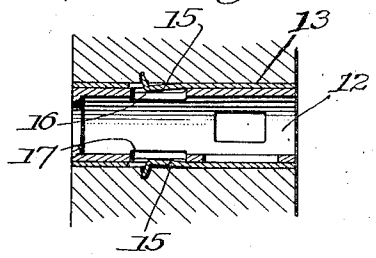


Fig. 4.

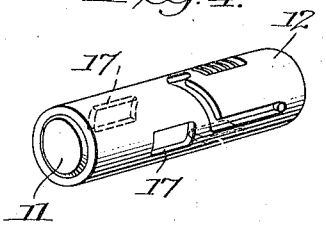
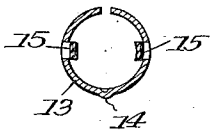


Fig. 5.



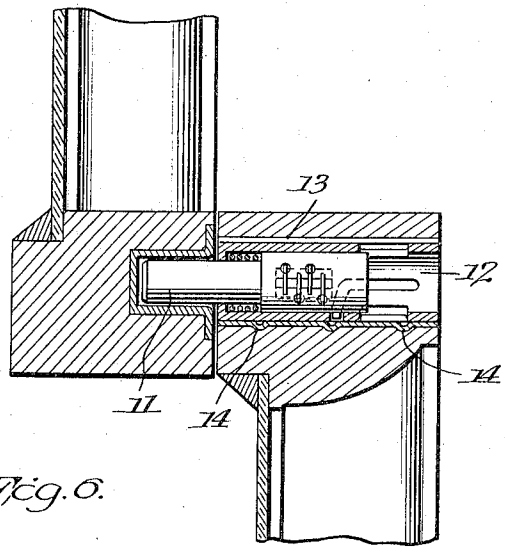


Fig. 6.

Inventor

Herman H. Kistner.

By Emery Booth, Holcombe & Miller

Attorneys

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UNITED STATES PATENT OFFICE

2,103,987

SASH LOCK SECURING DEVICE

Herman H. Kistner, Baltimore, Md., assignor to Kistner Lock & Appliance Company, a corporation of Maryland

Application February 23, 1937, Serial No. 127,225

3 Claims. (Cl. 70—451)

This invention relates to locks of the mortise type intended to be secured in one of the meeting rails of double hung window sashes, illustrated in my pending application Ser. No. 605,729, for example, and aims to provide a simple and effective means for securing the bolt carrying barrel or shell in the cylindrical bore in the sash.

The invention comprises a split sleeve or bushing made of steel, brass or other spring metal which can be readily stamped and formed to the desired shape and which will retain its shape normally but give somewhat under unusual stress. This sleeve is adapted to be placed in the bore of the sash and have the lock barrel or shell forced into it to secure both members in the sash.

Further objects and details of the invention will appear in connection with the following description of the illustrative embodiment shown in the accompanying drawing, wherein

Fig. 1 is a perspective view of a preferred form of split sleeve;

Fig. 2 is an axial section thereof on the line 2—2 in Fig. 1;

Fig. 3 is a similar view showing the sleeve after expanding it into a window sash ready to receive the bolt assembly, the shell only of the bolt assembly being shown in place;

Fig. 4 is a perspective view of a lock bolt assembled in its shell;

Fig. 5 is a transverse section of the sleeve on the line 5—5 in Fig. 2; and

Fig. 6 is a cross-section through the meeting rail of a double hung window, showing the invention assembled in place with a lock barrel and plunger of the type which is adapted to be secured thereby.

Referring to the drawing, the bolt lock shown in Figs. 4 and 6 comprises a slidable bolt 11 housed in a cylindrical barrel or shell 12, which is pressed into the bore of the inner sash and pinned, or may be secured merely by friction between the outer surface of the lock barrel and the wall of the bore in the wood. The bolt may be operated by means of a key (not shown) which enters the open inner end of the barrel to engage the bolt, as illustrated in my pending applications Ser. Nos. 605,729 and 41,115, for example.

In the present invention, a suitably shaped split sleeve 13, is placed in the bore in the sash between the shell or barrel 12 and the wood to snugly engage both. This sleeve is preferably provided with protuberances 14 which are forced into the wood by expansion of the sleeve when the bolt barrel is inserted, as shown in Fig. 6.

The split sleeve 13 is also provided with spring prongs 15 on opposite sides of its side walls, which are adapted to flex outwards to permit the lock barrel to pass between them. The tips of these spring prongs are bent outwards to engage and sink into the wood when forced apart. Near the tips of the spring prongs are points 16, facing inwards, which are adapted to spring back sufficiently to engage in notches 17 in the opposite sides of the lock barrel in the assembled position of the parts.

The dimensions of the split sleeve and lock barrel are made to correspond with the size of the bore in the sash, so that when the parts are assembled in place they will fit tightly, and the protuberances 14 and prongs 15 will hold the sleeve securely in place regardless of slight shrinking and swelling of the wood due to changes in weather and temperature conditions.

The shape of the points 16 and notches 17 is such as to prevent the barrel 12 from being forced back out of the sash by driving in the end of the bolt when locked in bolting position without shearing off the prongs, and this would require more force than can be exerted without breaking the sash. The lock barrel and sleeve has no flanges or other projecting portions which might offer a means of prying them out of the sash.

The bolt barrel may readily be removed from the sleeve 13 when the lower sash is raised to expose the end of the bolt by driving it through from the inside, as the points 16 do not interfere with movement of the bolt barrel toward the outside of the sash. Upon removal of the bolt barrel, the split sleeve 13 may be collapsed sufficiently to permit it to be driven out also.

What I claim and desire to secure by Letters Patent is as follows:

1. A sash lock securing device comprising a split sleeve conformable to a bore in the sash and adapted to receive a bolt barrel, said sleeve having a portion adapted to engage a recess in said barrel to retain it in position when assembled therein, a portion of said sleeve also engaging the side wall of the bore to secure the sleeve and barrel in place.

2. A sash lock securing device comprising a longitudinally split cylindrical sleeve conformable to a bore in the sash and adapted to receive a bolt barrel, said sleeve having a flexible side wall portion adapted to engage a recess in said barrel and to engage the side wall of the bore to bite into the side wall of the bore to retain it in position when expanded by the insertion of the barrel.

3. A sash lock for double hung windows comprising a cylindrical barrel having a shoulder and a sliding bolt mounted therein, a split sleeve of flexible metal for encompassing said barrel and adapted to fit snugly in a bore in the window sash, and means on said sleeve adapted to be expanded by the barrel for engaging said bore and said shoulder to secure the lock in place when assembled in operative position.

HERMAN H. KISTNER.