Dec. 26, 1961 W. B. NICHOLS 3,014,747

FASTENER FOR SLIDING CABINET DOORS

Filed March 23, 1960

Fig. 1.

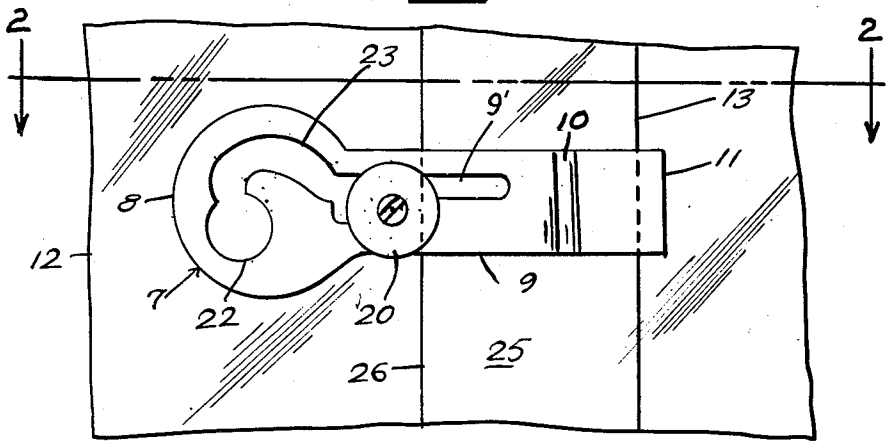


Fig. 2.

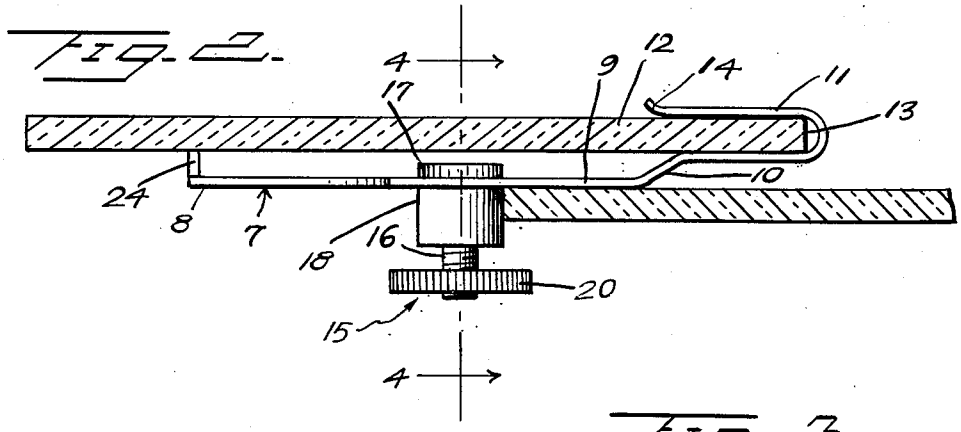


Fig. 3.

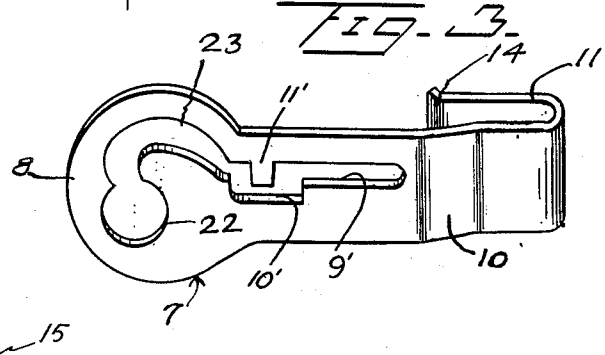
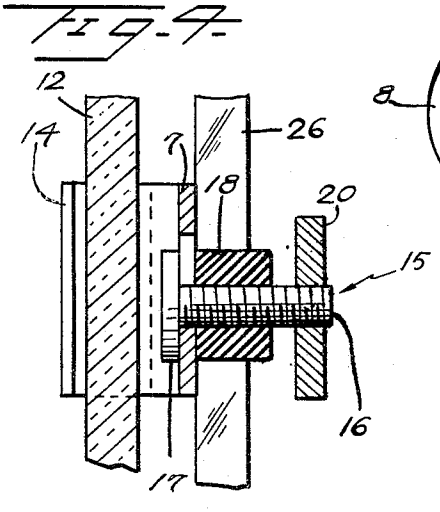


Fig. 4.



W. B. NICHOLS
INVENTOR
BY C. A. Snow & Co.
ATTORNEYS.

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FASTENER FOR SLIDING CABINET DOORS

William B. Nichols, 325 Mill St., Bristol, Pa.

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This invention relates to fasteners, and more particularly to fasteners for sliding panels or doors such as used on glass showcases and the like.

It is well known to those who have occasion to frequently open and close showcases, particularly showcases in jewelry stores where valuable merchandise is often on display, that the showcase door is often left unlocked while waiting on customers, thus offering temptation to thieves.

It is therefore an important object of this invention to provide a fastener for sliding panels on showcases and the the like that effectively locks and unlocks the showcase in a minimum of time and without the necessity of a key.

A further object of this invention is to provide a fastener for sliding panels that can readily be attached to panels constructed of any desired material such as wood, glass, metal or plastic, and of any desired thickness.

Still another object of this invention is to provide a fastener that may readily be adjusted to permit any desired amount of overlap of the sliding panels.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit and intent of the invention as claimed.

Referring to the drawing:

FIGURE 1 is a side view of a sliding door with the fastener in place.

FIG. 2 is a slightly enlarged sectional view taken substantially along the line 2—2 of FIG. 1 as viewed in the direction indicated by the arrows.

FIG. 3 is a perspective view of a detail of the fastener.

FIG. 4 is a sectional view taken substantially along the line 4—4 of FIG. 2 as viewed in the direction indicated by the arrows.

Having reference now to the drawing in detail, and in particular to FIGS. 1 and 2, there is generally indicated by the reference character 7 a clamp of sheet metal, or the like, embodying a nearly circular head member 8, merging into a horizontally disposed rectangular member 9, having an offset 10 near the U-shaped end 11, on the end portion 13 of the aforesaid door 12. This offset, together with the spacer 24, holds the clamp 7 away from the door, so that the flat head 17 can slide freely, and without contact to the door. The edge 14 of the U-shaped end 11 of clamp 7 is flared as a convenience when mounting to the door, as clearly shown in FIG. 2 of the drawing.

An elongated opening 9' is disposed longitudinally of said member 9, one edge of said opening having an offset portion 10', into which a lug 11' extending from the other edge of said elongated opening extends, providing a stop for contact with a threaded shank of a sliding fastener 15, restricting right line movement of the doors with which the fastener is used.

A panel fastener 15 comprising a threaded stem 16 having a flat round disc 17, and a tubular sleeve 18 of fiber or rubber or the like, is slidably placed on the stem 16, together with an enlarged round knurled nut 20, which, when tightly screwed against the slidable sleeve tightens the fastener in place, with clamp 7, between flat head 8 and sleeve 18, at any desired place along the slot 23. The aforesaid clamp 7 has a nearly circular opening 22, and has a contour approximately U-shaped, in that portion of

the rectangular member 9 where the head 8 merges into the stated member.

The opening 22 is a horizontal one from its stated U-shaped portion of its termination just short of the offset 10. A spacer 24 is secured to the inside of the head 8 of the clamp 7, for the better holding of the clamp 7 slightly away from the door 12 on which it is mounted, so that the flat head 17 of the fastener may slide freely and without coming in contact with the door, as can be seen in FIG. 2 of the drawing, which is the best installation view of this fastener, a term applied to the entire invention, which of course includes the already described detail 15 referred to as a panel fastener, and the clamp 7.

The clamp 7, when clipped in place to the sliding door 12, may remain there permanently. To operate the fastener it is only necessary to shut the doors and insert the flat head 17 through the nearly circular opening 22 of the head 8 of the clamp 7, moving the fastener along the slot 23 to the desired position, the edge 26 of the overlapping door 25 resting against the tubular sleeve 18, thereby locking both doors by tightening the knurled nut 20.

It is understood of course that the panel fastener 15 can be placed in any desired position in relation to the clamp portion 7 of the device, by reason of movement of the stem 16 in the slot 23. This feature makes it possible to securely fasten the doors 12 and 25 of short or long overlaps, the clamp 11 holding the under door 12, and the tubular sleeve 18 holding the over door 25.

Another feature of this invention is that should a careless clerk slide-slam the door with much force, no harm would be done, as a resistable slide of the sleeve 18 against which rests the edge of the door 25 would take place, preventing any chipping or cracking of the glass door. At the end of the short resistable slide of the sleeve 18, said sleeve would come to an abrupt stop at the lug 11' in slot 23, thereby calling attention to the lock.

While any authorized person acquainted with this fastener may operate it with ease and speed, it is obvious that anyone not having experience with it would be unable to open the doors quickly and without considerable fumbling and delay, which would call the attention of clerks or others in the store or other place where the protected case may be to the fact that an illegal attempt at shoplifting was being made. The operation of the fastener through the slot 23, and the removal of the flat head through the opening 22, in addition to the loosening of the knurled nut 20, together with any unknown further probable difficulty, would be sufficient reason to deter any prospective shoplifter from making an attempt at theft.

It is obvious that while this device affords as sure and complete protection as with any key lock, it offers many other advantages not possible with key locks, as hereinbefore mentioned.

From the foregoing it will now be seen that there is herein provided an improved fastener for securing sliding glass doors or the like which accomplishes all of the objects of this invention, and others, including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinbefore shown and described, it will be understood that all matter herein is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

1. A fastener for adjacent sliding inner and outer overlapping cabinet doors comprising a generally rectangular body having one end defining an offset U-shaped clip adapted to be secured to one edge of the inner door, the other end of said body terminating in an enlarged head member, said head member having a spacer at right

angles thereto to maintain said body in spaced parallel relation to said inner door, portions of said body defining an elongated opening therein, one edge of the body adjacent the opening having an offset portion, a lug extending from the opposite edge of the body adjacent the opening into said offset portion, said enlarged head member having portions defining an arcuate slot therein having one end thereof aligned with the opening in said body and the other end terminating in an enlarged generally circular opening, a panel fastener movably secured in the elongated opening in said body and normally in abutting engagement with one edge of the outer door to prevent relative movement between the same and said inner door.

2. A fastener for adjacent sliding inner and outer overlapping cabinet doors as defined in claim 1 wherein said panel fastener includes a threaded shank having an enlarged end portion, said end portion disposed in the space defined by the inner door and said rectangular body and in engagement with said body, a generally cylindrical sleeve on said threaded shank in engagement with said body on the opposite side from said enlarged end portion,

a nut on said threaded shank to movably secure said panel fastener in the elongated opening in said body, said panel fastener movable in said opening in response to movement of the outer door to cause engagement of said threaded shank with said lug whereby further movement of the outer door is prevented.

3. A fastener for adjacent sliding inner and outer overlapping cabinet doors as defined in claim 2 wherein the enlarged end portion of said threaded shank has a dimension less than the dimension of the generally circular opening in the enlarged end of said body and through which said panel fastener can be removed.

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