G. H. COZENS.

SASH FASTENER.

APPLICATION FILED NOV. 1, 1920.

1,399,105. Patented Dec. 6, 1921.

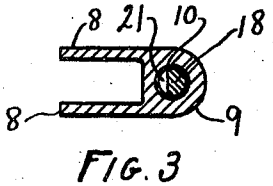


FIG. 3

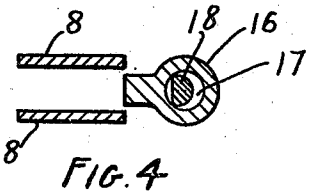


FIG. 4

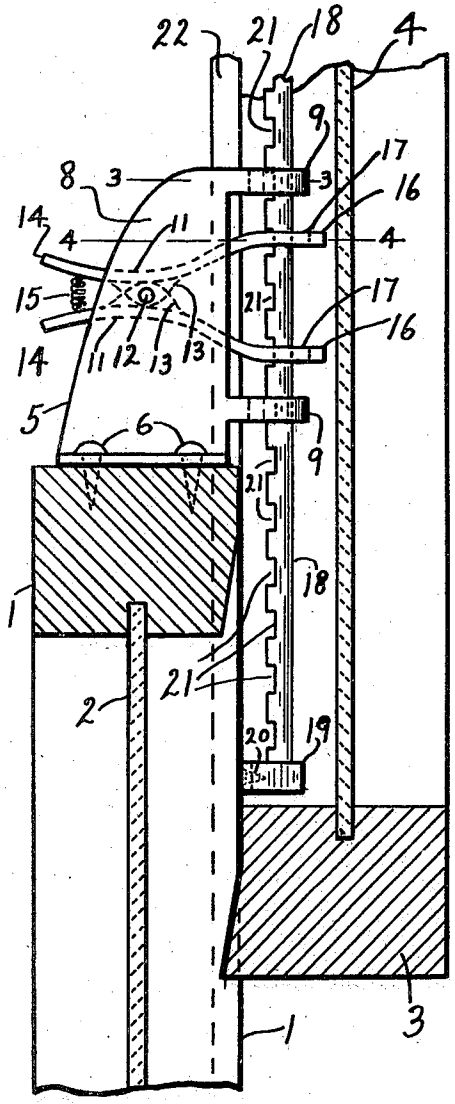


FIG. 1

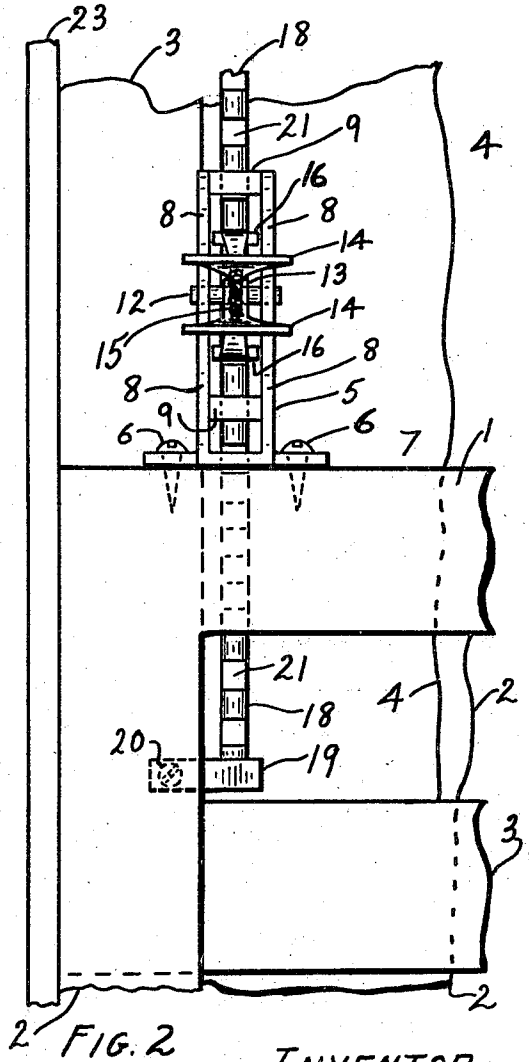


FIG. 2

INVENTOR

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UNITED STATES PATENT OFFICE.

GEORGE HENRY COZENS, OF HAMILTON, ONTARIO, CANADA, ASSIGNOR OF ONE-FOURTH TO JOHN HAGEY, OF BRANTFORD, ONTARIO, CANADA, ONE-FOURTH TO HARRY HANDEL BLYTHE AND ONE-FOURTH TO FRANK HERBERT SECORD, BOTH OF HAMILTON, ONTARIO, CANADA.

SASH-FASTENER.

1,399,105. Specification of Letters Patent. Patented Dec. 6, 1921.

Application filed November 1, 1920. Serial No. 421,082.

To all whom it may concern:

Be it known that I, GEORGE HENRY COZENS, a subject of the King of Great Britain, residing in the city of Hamilton, in the county of Wentworth, in the Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a specification.

My invention relates to improvements in Sash Fasteners and the object of the invention is to provide a device of this nature which may be conveniently fitted to windows of the sliding type and which will enable them to be positively locked in any desired positions; and a further object is to make such a device in a cheap and simple form.

My invention consists of a bracket secured to the top of the lower sash and having locking fingers pivotally mounted therein, a notched rod carried by the upper sash and passing through bearing orifices in the bracket and inner ends of the locking fingers, said inner ends of the locking fingers adapted to engage the notches in the rod and a spring co-acting with the fingers tending normally to separate their outer ends, all as hereinafter more particularly described and illustrated in the accompanying drawings in which,

Figure 1 is a side elevation showing my invention mounted upon a window, the sashes being shown in the partly open position and in cross-section.

Fig. 2 is a front view of Fig. 1 looking from the left.

Fig. 3 is a section of the device on the line 3, 3 of Fig. 1 omitting the sashes.

Fig. 4 is a section of the device on the line 4, 4 of Fig. 1 omitting the sashes.

Like characters of reference indicate corresponding parts in the different views.

1 is the lower sash and 2 the glass thereof.

3 is the upper sash and 4 the glass thereof.

5 is a bracket secured to the top of the lower sash by the screws 6 and having the base 7 and the two upright side walls 8.

The bracket 5 is provided with the two bearing lugs 9 each having an orifice 10 therein, for a purpose as will appear hereinafter.

11 are two locking fingers which are pivotally mounted in the bracket 5 by means of the pin 12 which extends through registering orifices in the walls 8 of the bracket and orifices in the lugs 13 of the fingers. The outer ends 14 of the fingers are normally held apart by the spring 15. The outer ends 14 are formed into enlarged handle portions.

The inner ends 16 of the fingers are each provided with an orifice 17 for a purpose as will appear hereinafter.

18 is an upright rod which is secured to the upper sash by the brackets 19 and screws 20. These brackets and screws are countersunk into the sash so as to be flush with the inner face thereof so that the lower sash will not be damaged as the two sashes slide past each other.

The rod 18 extends through the orifices 10 in the lugs 9 of the bracket 5 and also through the orifices 17 in the inner ends 16 of the fingers 11 and is provided along one side thereof with a series of horizontally disposed spaced notches 21.

22 is the parting strip between the lower and upper sashes and 23 is a portion of the frame of the window.

The method of mounting my device is as follows;—

The notched rod 18 is passed through the orifices 10 and 17 and the bracket 5 is then secured to the lower sash.

The rod 18 is then secured in place by means of the end brackets 19 and screws 20.

The operation of the device is as follows;—

It will be apparent that the spring 15 will normally separate the ends 14 of the fingers 11 and close the ends 16 together. In this way the fingers will normally be forced into engagement with the notches 21 whenever they are in the registering position.

When the fingers are in engagement with the notches the sashes are positively locked in their corresponding positions and before they can be moved up or down the fingers must be disengaged from the notches.

This can only be done by pinching the ends 14 together against the pressure of the spring 15. This separates the ends 16 and withdraws the fingers from engagement with the notches.

While the ends 14 are held pinched together the sashes may be moved to any desired positions and immediately upon release of the fingers, engagement is again made with the notches and the sashes are again locked.

It will of course be apparent that by providing a series of notches along the entire length of the rod 18 that the sashes may be locked in practically any desired positions ranging from fully closed to fully open.

I am aware that sash fasteners somewhat similar in operation to my invention have been devised but in these former devices the locking fingers carried by the lower sash simply had end engagement with a notched member carried by the upper sash, and no provision was made for preventing relative lateral displacement.

Such devices do not provide a positive lock since the side play of the sashes permits sufficient movement of the sashes away from each other to cause disengagement of the fingers from the notches with the result that the window falls into the closed position.

This is entirely overcome in my invention since by having the rod 18 extending through the bearing lugs 9 of the bracket 5 and also having the rod extending through orifices in the locking fingers instead of having end engagement only therewith, all relative side movement of the locking fingers and rod is rendered impossible so that disengagement of the fingers from the notches is rendered impossible except by pinching the ends 14 together.

Also the type of notched rod used in my fastener and the method of mounting same is novel.

My device is equally suitable for use on windows fitted with weights or otherwise.

From the foregoing it will be seen that I have devised a sash fastener for use on windows of the type described which will be positive in operation and will also be cheap to make and attach.

What I claim as my invention is:

In a window, the combination with the upper and lower sashes thereof, of an upright notched rod carried by the upper sash and located within the plane of said sash, a bracket mounted upon the top edge of the lower sash, lugs formed integrally with the bracket and extending inwardly toward the upper sash, said lugs having bearing orifices through which the upright rod extends, a pair of locking fingers pivotally mounted intermediately of their length in the bracket and provided with orifices through which the upright rod extends, a spring normally separating the outer ends of the fingers, said fingers adapted to engage the notches in the rod for locking the two sashes in any desired partially open positions, the engagement between the lugs formed on the bracket and the upright rod adapted to prevent relative lateral displacement of the upper and lower sashes.

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Witnesses:
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