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W. C. MACY

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SASH LATCH

Filed Oct. 7, 1932

Fig. 1.

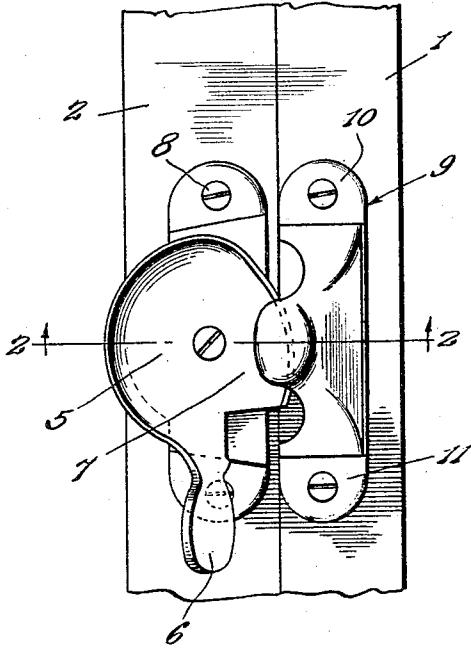


Fig. 2.

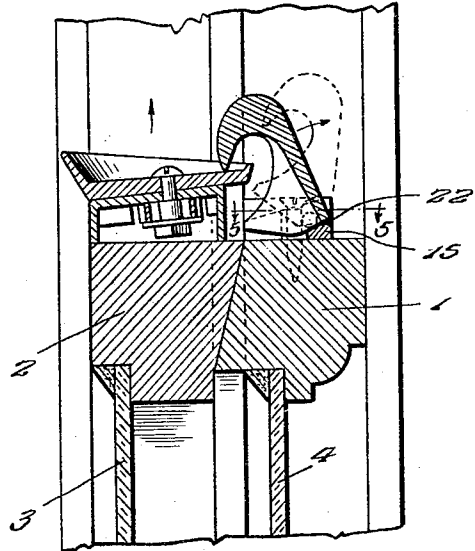


Fig. 3.

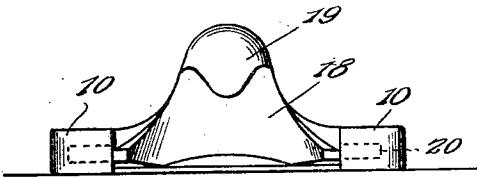


Fig. 5.

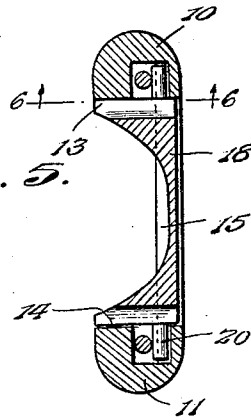


Fig. 4.

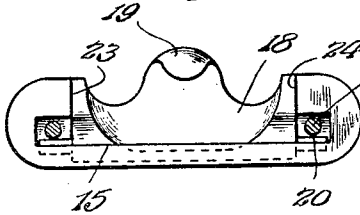
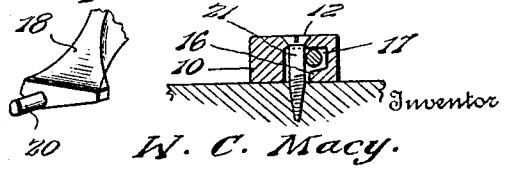


Fig. 7. Fig. 6.



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# UNITED STATES PATENT OFFICE

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## SASH LATCH

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This invention relates to an improved automatic sash latch.

One object of the invention is to provide an automatic sash latch which will serve not only as a latch but which may also be used to lock the sashes to which it is attached.

Another object of the invention it to provide an automatic sash latch embodying a hook which may be removed from its base plate when not attached to a sash but which will be held in position in the plate when attached to a sash by the attaching means.

A further object of the invention is to provide an improved automatic sash latch wherein the hook employed will be so mounted that it will normally rock into latching position but which hook may be easily rocked out of latching position by the sash engaging therewith.

And a still further object of the invention is to provide a device of this character which may be easily installed, which may be manufactured cheaply, and which will be highly efficient in use.

Other objects of the invention, not mentioned in the foregoing, will be apparent during the course of the following description.

In the drawing:

Figure 1 is a top plan view of the device in latching position on a sash,

Figure 2 is a vertical sectional view of the device taken on the line 2—2 of Figure 1 looking in the direction indicated by the arrows,

Figure 3 is a front view of the device,

Figure 4 is a bottom view of the same,

Figure 5 is a longitudinal sectional view of the device taken on the line 5—5 of Figure 2,

Figure 6 is a vertical sectional view taken on the line 6—6 of Figure 5, and

Figure 7 is a fragmentary perspective view showing a portion of the hook employed.

Referring now more particularly to the accompanying drawing wherein like reference numerals represent like parts in the description the numerals 1 and 2 indicate mid-rails of window sashes which may be of

any desired construction. The window sashes are, of course, provided with panes 3 and 4 which need no particular discussion. Mounted on the mid-rail 2 is a pivoted cam fastener 5 which is of usual construction and is provided with a handle 6 and a flat hook-engaging surface 7. The cam fastener is held in position on the mid-rail 2 by means of screws 8.

In carrying my invention into effect, I employ a base plate 9 which is preferably formed of brass and is oblong in shape. The base plate is cut away centrally throughout the major portion of its length to define enlarged end portions 10 and 11 which are provided with openings 12 and define shoulders 13 and 14. The end portions 10 and 11 are connected by a rail 15 which is provided with a curved upper surface 16. As best seen in Figure 6 of the drawing, the enlarged end portions 10 and 11 are provided with recesses 17 which extend rearwardly within the end portions.

Associated with the base plate 9 is a hook member 18 which is preferably cast from a solid piece of brass or any other desired metal. The hook member is provided at its upper end with an overhanging hook 19. Formed on the hook member 18 are trunnions 20 which are adapted to engage in the recesses 17 and, as will be seen more clearly in Figures 5 and 7 of the drawing, the trunnions 20 will be locked against displacement from the recesses 17 by means of anchoring screws 21 which are extended through the openings 12 and are sunk into the wood of the mid rail 1. It will be seen, therefore, that the hook member 18 will be locked against removal from the base plate after the device has once been secured to a mid rail. As best seen in Figure 2 of the drawing, the hook member is provided with a curved bottom wall 22 which is adapted to rock on the curved upper surface 16 of the rail 15. The hook member will, therefore, be readily permitted to rock in the base plate 9 and between the shoulders 13 and 14, the portions of the hook member adjacent the trunnions 20 defining shoulders 23 and 24. The upper surfaces of the hook member adjacent the enlarged portions of the base plate

will be flat and will normally lie flush with the upper surface of the enlarged portions 10 and 11.

In use the device is, as before stated, mounted on a mid rail 1 of the window sash and when the window is lowered, the forward portion of the cam fastener 5 will engage the upper surface of the hook 19 and will rock said hook rearwardly to permit the passage of the fastener in its downward travel. After the fastener has passed by the hook 19 the body member will, due to the weight of the hook 19, rock forwardly so that the hook 19 will overlies the flat surface 7 of the fastener 5. The hook 19 will, thereby provide a latch and will prevent raising of the window unless the hook member is rocked rearwardly to clear the hook 19 from the fastener 5. When it is desired to lock the device the cam fastener 5 may be swung upon its pivot in the usual manner and the flange of the cam fastener will engage beneath the hook 19 for firmly locking the mid rails of the sashes.

Attention is directed to the fact that, inasmuch as the trunnions 20 are carried in the recesses 17 behind the screws 21, the hook member will not be permitted to be removed from the base plate unless the entire base plate is removed from the mid rail. This is particularly advantageous for the reason that mutilation and accidental removal from the plate will be prevented.

Attention is further directed to the fact that, inasmuch as the hook member is mounted to rock in the base plate, and as the hook normally overhangs the flat surface of the fastener, the weight of one side of the hook member will be sufficient to cause said hook member normally to overhang the flat surface 7 of the fastener 5. It will be seen that the hook is always in latching position so that the moment the fastener is disposed beneath the hook, said hook will overlies the fastener.

It should be further noted that, as the hook is mounted in the base plate with its upper surfaces flush with the enlarged portions of said plate, the device will present a neat appearance and uneven surfaces will be eliminated.

It is believed that, from a reading of the foregoing, it will be seen that I have provided a simple and highly efficient automatic window sash latch which will be inexpensive to manufacture.

Having thus described my invention, I claim:

1. A device of the class described including a base plate, a hook member mounted in the base plate and provided with a hook adapted to engage a portion of a cam fastener, and means extending through the base plate locking the hook member in the plate and, said means cooperating with the hook

member for locking said plate to the mid rail of the sash.

2. A device of the class described including a base plate cut away at its central portion to define enlarged end portions having recesses, a hook member having trunnions rotatable in said recesses, said hook member being provided with a hook adapted to engage a cam fastener, and means extending through the enlarged portions of the base plate and locking said trunnions within the recesses, said means engaging a mid rail of a sash for locking the device to the mid rail.

3. A device of the class described including a base plate cut away throughout the major portion of its length centrally to define enlarged end portions having recesses, and a rail having a curved upper surface, a hook member associated with the base plate and having a curved bottom surface adapted to rock on the curved surface of the rail, said hook member being provided with a hook to engage a cam fastener and being formed with trunnions rotatably mounted within the recesses, and means extending through the enlarged end portions and locking the trunnions within the recesses, said means locking the device to the mid rail of a sash.

4. A device of the class described including a base plate cut away centrally throughout the major portion of its length to define enlarged end portions having shoulders and recesses, a hook member having trunnions rotatable in the recesses and having shoulders to coact with the first mentioned shoulders, said shoulders cooperating to provide a smooth top surface for the device, and removable means extending through the enlarged end portions and rocking the trunnions in the recesses, said means locking the device to the mid rail of a sash, said trunnions being removable from the recesses when said removable means are removed from the enlarged end portions for permitting removal of the hook member from the base plate.

In testimony whereof I affix my signature.  
WALTER E. MACY. [L. S.]