

July 29, 1952

J. C. EMERSON

2,605,125

SASH LOCK

Filed Jan. 17, 1950

Fig. 1.

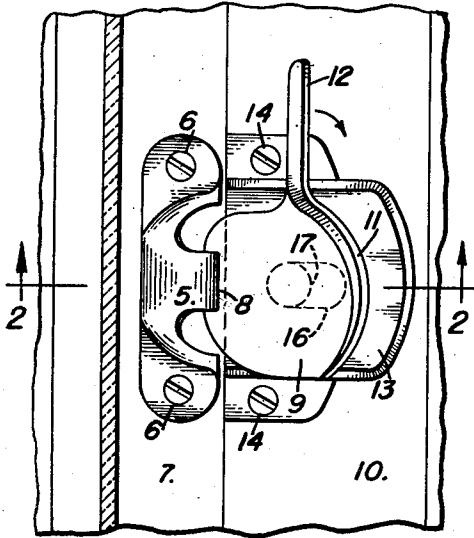


Fig. 2.

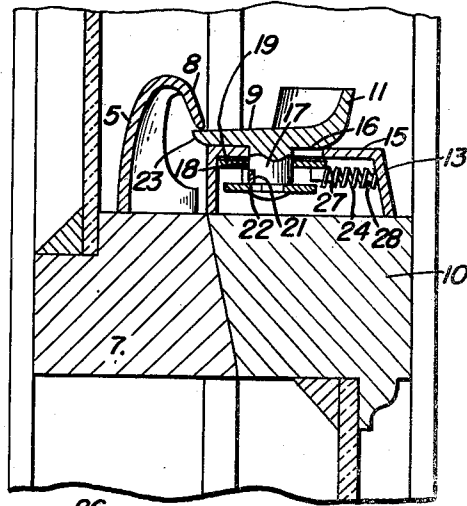


Fig. 3.

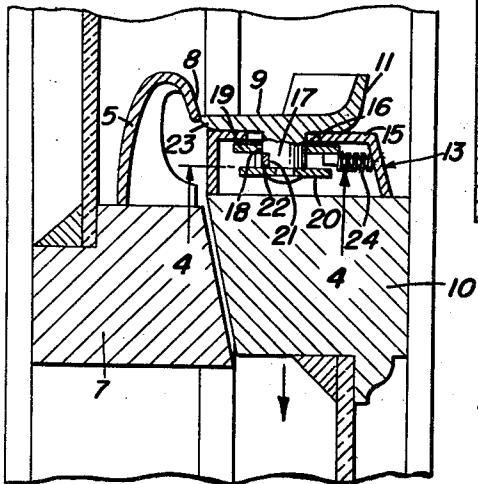


Fig. 4.

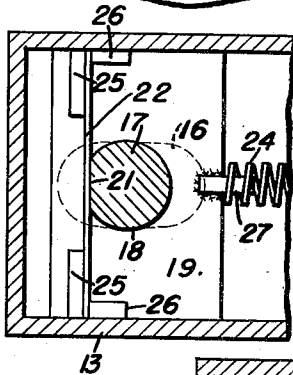
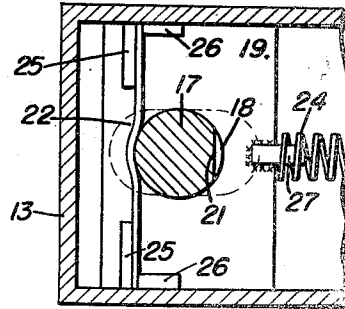


Fig. 5.



John C. Emerson
INVENTOR.

BY *Alvanor A. Nelson*
and *Harvey B. Jackson*
Attorneys

UNITED STATES PATENT OFFICE

2,605,125

SASH LOCK

John C. Emerson, Hull, Mass.

Application January 17, 1950, Serial No. 138,987

4 Claims. (Cl. 292-241)

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This invention relates to an improved sash lock of the type wherein a rotatable cam plate mounted on the top rail of the lower sash is engageable with and disengageable from a hook member mounted on the lower rail of the upper sash.

The primary object of the present invention is to provide a sash lock of the above kind wherein the cam plate is slidably mounted for movement toward and from the hook member and spring-pressed toward the latter, whereby the cam plate will pass and engage beneath the hook member to automatically lock the sashes closed when the lower sash is lowered with the cam plate rotatably adjusted to the position wherein its cam flange is inoperatively disposed.

Another object is to provide non-positive means to prevent accidental turning of the cam plate when turned to the position wherein its cam flange is inoperatively disposed.

A further object is to provide a lock of the above kind which is simple in construction and efficient in operation.

The exact nature of the present invention will be apparent from the following description when considered with the accompanying drawing, in which:

Figure 1 is a view showing the present lock in top plan and applied to the sashes of a window, the sashes being locked in closed position.

Figure 2 is a vertical section taken on the line 2-2 of Figure 1.

Figure 3 is a view somewhat similar to Figure 2 with the lower sash unlocked and slightly raised.

Figure 4 is an enlarged fragmentary horizontal section taken on the line 4-4 of Figure 3.

Figure 5 is a view somewhat similar to Figure 4 showing the position of the cam plate pintle when the cam plate is operatively disposed with its cam flange engaged with the hook member.

Referring in detail to the drawing, 5 indicates the conventional hook member secured by screws 6 on the lower rail 7 of the upper sash and having an overhanging hook 8 adapted to coact with a rotatable cam plate 9 mounted on the upper rail 10 of the lower sash to lock the sashes in closed position. The cam plate 9 has the usual cam flange 11 at one side which is engageable with the hook 8, when the cam plate is rotated in the direction of the arrow (Figure 1), to draw the rails 7 and 10 together and prevent them from rattling. An extension 12 is provided on one end of flange 11 and forms a handle for use in rotating the cam plate.

In accordance with the illustrated embodiment

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of the present invention, a hollow base 13 is provided which is secured by screws 14 on the rail 10 and has a top wall 15 provided with an elongated slot 16 that extends transversely of the planes of the sashes. Fixed to the cam plate 9 is a depending pintle 17 that extends through the slot 16 and is rotatable and laterally slidable therein. The pintle 17 also extends through and is rotatable in an opening 18 of a slide or plate 19 slidably disposed within and against the under side of the top wall 15 of base 13. A washer 20 is riveted to the lower end of pintle 17 in spaced relation to and below the plate 19. The portion of pintle 17 between slide or plate 19 and washer 20 has a flat side 21 adapted to be engaged by a leaf spring 22 to prevent accidental turning of the cam plate 9 when the latter is rotatably adjusted to the position wherein its cam flange 11 is away from hook 8 and inoperatively disposed, as shown. The side of cam plate 9 opposite the flange 11 is flangeless and has a downwardly and inwardly beveled edge 23. A spring 24 acts upon plate 19 to force the cam plate 9 toward hook member 5 with the pintle 17 at the outer end of slot 16 and with the flangeless side of the cam plate in the path of hook 8. The arrangement is such that when the lower sash is lowered to closed position, the cam plate 9 will be cammed inwardly by hook 8 against the action of spring 24, as shown in Figure 3, so as to pass said hook, whereupon spring 24 will force the cam plate outwardly beneath said hook as shown in Figure 2. To release the lower sash, the cam plate is manually slid inwardly to disengage it from beneath the hook 8. By turning the cam plate 180° from the position of Figures 1 and 2, the flange 11 will engage hook 8 and draw the rails 7 and 10 together, as usual. Spring 22 may be held at its ends between lugs 25 and 26, while spring 24 may be engaged at its ends over pins 27 and 28, respectively fixed to plate 19 and base 13.

It will be seen that the present device will automatically lock the sashes even if the cam plate is not turned to draw the sashes together. Also, a more durable and efficient device is had than would be possible by providing a pivoted hook member, as heretofore proposed. Minor changes in construction are contemplated within the spirit of the invention as claimed.

Having described the invention, what is claimed as new is:

1. In a sash lock, a base adapted for attachment to the top rail of a lower sash, a cam plate mounted upon said base for rotation about a vertical axis and for limited horizontal sliding

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movement outwardly into and inwardly out of engagement beneath the hook of a hook member attached to the lower rail of an upper sash, and a spring acting to slide the cam plate outwardly, said cam plate having a beveled edge adapted to coact with the hook for shifting the cam plate inwardly and laterally when the lower sash is lowered to allow the cam plate to pass and engage beneath the hook and automatically lock the sashes in closed position.

2. The construction defined in claim 1, said base being hollow and having a top wall provided with an elongated slot, a pintle fixed to said cam plate and rotatable and laterally slidable in said slot, and a slide mounted in the base and having said pintle journaled therein, said spring being disposed in said base and acting on said slide.

3. The construction defined in claim 1, said base being hollow and having a top wall provided with an elongated slot, a pintle fixed to said cam plate and rotatable and laterally slidable in said slot, and a slide mounted in the base and having said pintle journaled therein, said spring being disposed in said base and acting on said slide, a washer secured on the lower end of the pintle, and a leaf spring mounted on the slide and engaging the pintle between the slide and the washer to prevent accidental turning of the cam plate.

4. In a sash lock, a base adapted for attachment to the top rail of a lower sash, a cam plate mounted upon said base for rotation about a ver-

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tical axis and for limited horizontal sliding movement outwardly into and inwardly out of engagement beneath the hook of a hook member attached to the lower rail of an upper sash, and a spring acting to slide the cam plate outwardly, said cam plate having a bevelled edge adapted to coact with the hook for camming the cam plate inwardly when the lower sash is lowered to allow the cam plate to pass and engage beneath the hook and automatically lock the sashes in closed position, said base being hollow and having a top wall provided with an elongated slot, a pintle fixed to said cam plate and rotatable and laterally slidable in said slot, and a slide mounted in the base and having said pintle journaled therein, said spring being disposed in said base and acting on said slide, a washer secured on the lower end of the pintle, and a leaf spring mounted on the slide and engaging the pintle between the slide and the washer to prevent accidental turning of the cam plate.

JOHN C. EMERSON.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
112,717	Judd	Mar. 14, 1871
661,404	Hubbard	Nov. 6, 1900
1,901,974	Macy	Mar. 21, 1933