R. DUNNING.

SASH FASTENER.

APPLICATION FILED JUNE 10, 1912.

1,066,802.

Patented July 8, 1913.

Fig 2.

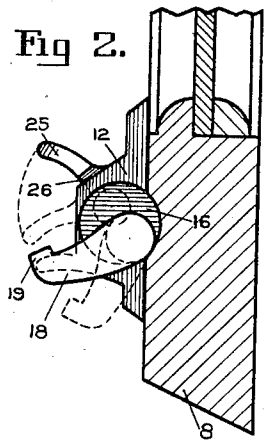


Fig 1.

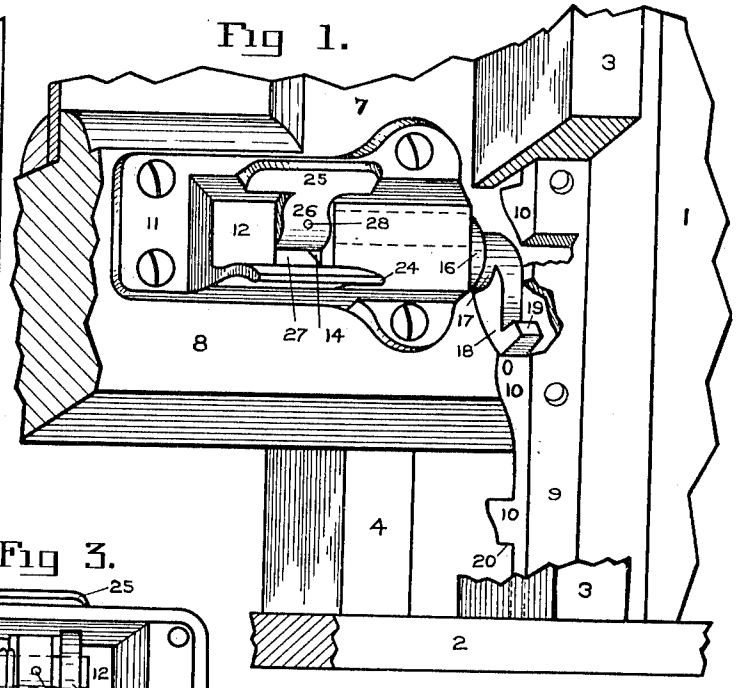


Fig 3.

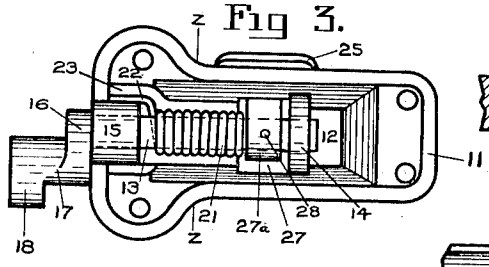


Fig 4.

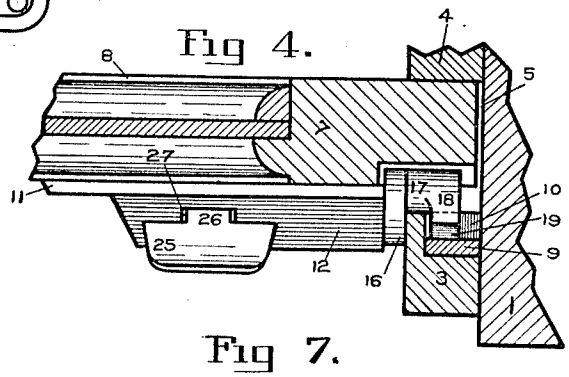


Fig 6.

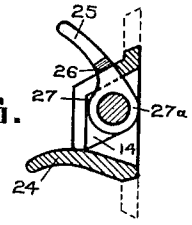


Fig 7.

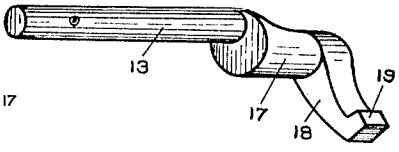


Fig 5.

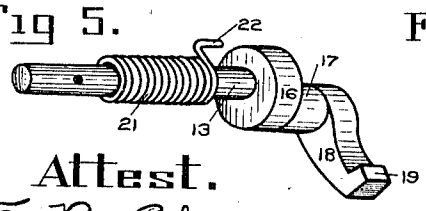
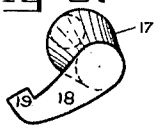


Fig 8.



Attest.

E. B. Lehman

Wm. P. Pasco.

Inventor.

ROBERT DUNNING.

BY J. Kirby Jr.

HIS ATT'Y.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ROBERT DUNNING, OF CINCINNATI, OHIO.

SASH-FASTENER.

1,066,802. Specification of Letters Patent. Patented July 8, 1913.

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To all whom it may concern:

Be it known that I, ROBERT DUNNING, a citizen of the United States, residing at No. 3422 Burnet avenue, in the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Sash-Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings and to the reference-numerals marked thereon.

My invention relates to sash fasteners of the type that are provided with a rock-shaft and pawl adapted to exert pressure against the sides of the guide-ways for the sash and thereby serve as an anti-rattle device as well as a fastener for holding the sash in various elevated positions and securing it in a locked position when closed.

My invention pertains more particularly to the general type of sash fasteners shown and described in Letters Patent of the United States, No. 220809, and its object is to so construct a sash fastener of the character described as to avoid boring into or mortising the sash rail to receive any part of the operating mechanism located between the ends of the casing, and yet permit the locking pawl to operate wholly within the guideway for the sash, where it is obscured from view, thus saving labor in applying the fixture and retaining the original strength of the bottom sash rail, and which object is accomplished by means of a novel construction of the rock-shaft and the pawl at the end thereof as will hereinafter be fully described and pointed out in the claims at the end of this specification.

The invention is particularly adapted for use on either wood or metal window sash of railway cars, steamships, and similar uses.

In the accompanying drawings, which form a part hereof, like reference numerals represent corresponding parts in the several figures of said drawings, in which—

Figure 1 is a perspective view of a portion of a sash and the adjoining parts of a car window having my improved fastener applied to the lower rail of the sash, which is shown in an elevated position. Fig. 2 is an end view of the fastener applied to the sash; Fig. 3 is a rear view of the fastener detached from the sash; Fig. 4 a cross-section through the line x—x of Fig. 1; Fig. 5 a perspective view of the rock-shaft and pawl removed from its casing and showing a coiled spring surrounding the shaft, and by which spring pressure is exerted to force the pawl in a forward direction; Fig. 6 a cross section through line z—z of Fig. 3; Fig. 7 is a perspective view, and Fig. 8 an end view of a modified form of the rock-shaft and pawl.

In the said drawings 1 represents a post which forms one side of the window frame, and 2 is the window stool.

3 represents the inner and 4 the outer window strips spaced apart to form the guide-way 5 in which the sash operates.

7 represents a vertical rail and 8 the bottom rail of the sash.

Attached to and recessed within the inside of the strip 3 is a metallic rack 9, forming a series of stops 10, the purpose of which will presently appear. The casing of the fastener consists of a plate 11, having a raised portion 12 forming a hollow shell adapted to receive and conceal a rock-shaft 13 having its bearings in the members 14, 15 of the casing. This shaft extends through one end of the casing and is provided with a head 16, preferably circular in form, one face of which is arranged adjacent to one end of the casing, and from the opposite face of the said head there extends an arm or extension 17 arranged substantially parallel with the rock-shaft 13, but sufficiently out of line therewith to avoid the necessity of cutting into the sash to receive the same. This latter arm extends into the guideway 5 and is provided at its free end therewithin with a pawl 18 disposed at right-angle, or practically so, to the rock-shaft and adapted to engage either of the stops 10, of the rack 9, and hold the sash in a raised position; the free end of said pawl being provided with a projection 19 adapted to hook under the shoulder 20 of the lower of the stops 10 and when thus engaged to prevent the raising of the sash from the outside. Around the shaft 13 there is coiled a spring 21 having one end secured to the shaft and the other end bent as shown at 22 in Figs. 3 and 5, and resting in a depression 23 formed in the back side of the casing so that the tendency of the spring is to force the pawl 18 against the inner face

of the rack 9, which in turn presses the sash against the outer strip 4, and thus prevents rattling of the sash at this point thereof.

The rock-shaft 13; head 16; arm 17, and pawl 18 are preferably made in a single structure and they may be of the modified form shown in Figs. 7 and 8 or of any other form suitable to the purpose of my invention. From the shell portion 12 of the casing and preferably integral therewith, there projects outwardly a member 24, which serves as a lift by which the sash can be raised. Attached to the rock-shaft 13 is a finger-piece 25 provided with a neck or reduced portion 26 which protrudes through a slot or opening 27 in the shell portion 12 of the casing and having an enlarged inner end 27^a through which the rock-shaft passes and to which it may be secured by a pin 28 passing through a hole therein, or by any suitable means. When the fastener is in position on a sash, as shown in Fig. 1, the pawl 18 engages one of the stops 10 and holds the sash in a relatively elevated position and at the same time forces the sash outwardly against the strips 4 as previously described. To release the pawl 18 from engagement with either of the stops 10, the finger-piece 25 is pressed downwardly toward the projection 24, which operation rotates the rock-shaft 13, as indicated by dotted lines in Fig. 2 and with it the pawl 18, which when moved sufficient to clear the stops 10, permits the sash to be raised or lowered at will.

Heretofore with sash fasteners of the type to which my invention relates it has been necessary to mortise the sash to receive part of the rock-shaft because of its projecting at the rear of the back side of the casing and this objection has seriously handicapped the use of such type of fasteners, first, because of the labor involved in applying the fixture to the sash; and second, because of the objection to cutting away the bottom rail of the sash and thereby reducing its strength. With my improvement the fastener can be applied without cutting away any of the sash rail back of the casing, or involving any labor more than to apply the fastener to the face of the sash in the usual manner and cutting a small recess in the vertical rail of the sash, at the edge thereof, to receive the portion of the head 16 which extends back of the rear line of the casing and to permit of the free operation of the pawl within the guideway. Thus all mortising immediately back of the casing is avoided by reason of the offset position of the pawl 18 relative to the rock-shaft 13, the advantage of which will readily be realized by those familiar with the industry to which the invention belongs.

Having thus fully described my invention, I claim—

1. In a sash fastener of the character described, the combination of a casing, a rock-shaft mounted therein and longitudinally therewith and projecting through one end thereof, an arm extending outwardly from the free end of the rock-shaft substantially parallel therewith but to one side of the center line thereof, a pawl at the end of said arm disposed at right angle to the rock-shaft and adapted to operate within the guide-way for the sash whereby in applying the fastener to the sash cutting into the same intermediate the ends of the casing is made unnecessary, and means for operating the rock-shaft and pawl.

2. A new article of manufacture for use in sash fasteners, consisting of an integrally formed structure comprising a shaft provided at one end with an extension arranged substantially parallel with said shaft and to one side of the center line thereof and carrying at its free end a pawl disposed at right angle to the said shaft and adapted to operate within the guide-way for the sash.

In testimony whereof, I hereunto subscribe my name this 6th day of June, 1912.

ROBT. DUNNING.

Witnesses:
C. F. DENNIS,
J. KIRBY, Jr.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."