No. 610,209. Patented Sept. 6, 1898.

H. G. VOIGHT.

FASTENER FOR MEETING RAILS OF SASHES.

(Application filed Apr. 4, 1898.)

(No Model.)

Fig. 1.

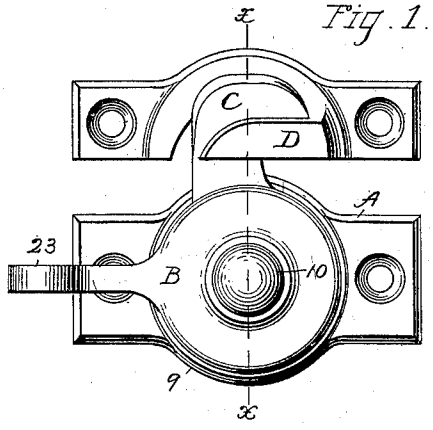


Fig. 2.

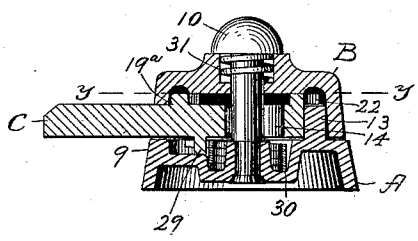


Fig. 3.

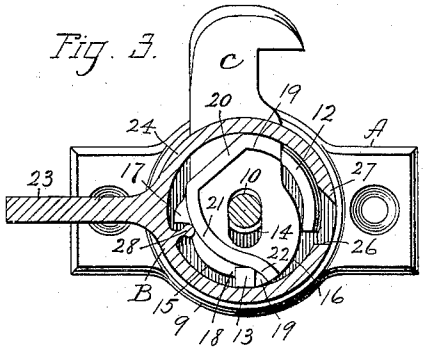


Fig. 4.

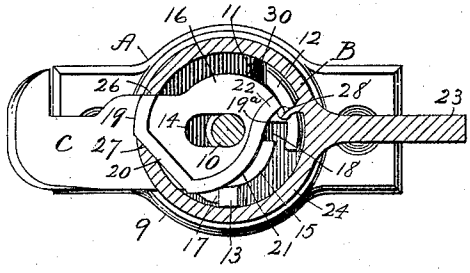


Fig. 5.

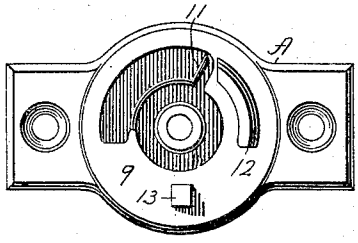


Fig. 6.

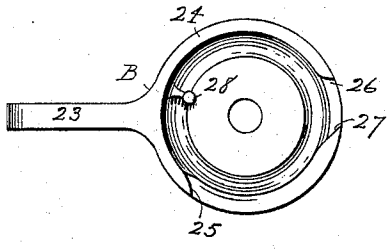


Fig. 7



Fig. 8.



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UNITED STATES PATENT OFFICE.

HENRY G. VOIGHT, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE RUSSELL & ERWIN MANUFACTURING COMPANY, OF SAME PLACE.

FASTENER FOR MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 610,209, dated September 6, 1898.

Application filed April 4, 1898. Serial No. 676,278. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. VOIGHT, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Fasteners for Meeting-Rails of Sashes, of which the following is a specification.

My invention relates to improvements in fasteners for the meeting-rails of sashes; and the objects of my improvement are simplicity and economy in construction and efficiency in operation.

In the accompanying drawings, Figure 1 is a plan view of my fastener and its keeper. Fig. 2 is a vertical section of the fastener on the line *x x* of Fig. 1, looking toward the right. Fig. 3 is a horizontal section of the same on the line *y y* of Fig. 2. Fig. 4 is a like sectional view of the same with the parts in a different position. Fig. 5 is a detached plan view of the base. Fig. 6 is a reverse plan view of the sweep. Fig. 7 is a detached plan view of the spring, and Fig. 8 is a side elevation of the same.

A designates the base; B, the sweep; C, the latch, and D the keeper. In their general form they are similar to ordinary fasteners of this class.

The base A is provided with a disk-shaped central portion 9, upon the flat face of which the under bearing-face of the sweep B is supported, said sweep being pivoted thereto by the central post 10. Within the face side of the central portion 9 of the base is a depressed spring-chamber having a shoulder 11. Projecting from the flat face of the said central portion there are a flange-segment 12 and a stud 13.

The latch C has the ordinary hook at its outer end for engaging the keeper. It is slotted longitudinally at 14 for the passage of the central post 10 and is provided at its inner end with two concentric edge faces 15 and 16 on two different circles, a shoulder 17 at one end of the concentric face 15, a slot 18, and shoulder 19^a at the opposite end of said face 15, said slot and shoulder being between the faces 15 and 16. On the top of the latch C is a cam having a short concentric portion 19, an inclined middle portion 20, a longer concentric portion 21, and a short curved or inclined end portion 22.

The sweep B has the usual handle 23, while its hollow head is provided with a rim 24, the main portion of which has its edge resting on the flat face of the central portion 9 of the base. On this rim there are three shoulders, of which the shoulder 25 is for engagement with one edge of the latch C, the shoulder 26 for engagement with the end of the short concentric portion 19 of the cam on top of the latch, and the shoulder 27 for engagement with the inclined middle portion 20 of said cam. The portion of the rim of the sweep that lies between the shoulders 26 and 27 is cut away sufficiently to let the short concentric portion of the cam on the latch pass under it, while the portion between the shoulders 25 and 27 is cut away sufficiently to let the body of the latch outside of its cam pass under. The said sweep is also provided on the inside of its hollow head with a projection or lug 28 for engaging the cam; but said lug is short enough to permit the body of the latch that lies below the cam to pass without engagement. The under side of the latch is provided with a pin 29, Fig. 2, for being engaged by one end of the spring 30, the other end of said spring resting on the shoulder 11 of the spring-chamber in the base. An ordinary friction-spring 31 may also be placed in the top of the sweep and under the head of the post.

In Figs. 1, 2, and 3 the parts are in the locked position. Upon turning the handle of the sweep B to bring it toward the front it swings nearly a quarter-circle without moving the latch, the lug 28 merely moving along by the side of the longer concentric portion 21 of the cam on the top of the latch. As said lug engages the short curved or inclined end portion 22 of said cam it acts to move the latch longitudinally outward far enough to disengage the slot 18 of the latch from the stud 13 of the base, thereby bringing the concentric edge face 16 of the latch up against the inside of the flange-segment 12 and the other concentric edge face 15 opposite the inner face of the stud 13. At the same time the short concentric portion 19 of the cam on the top of the latch and inclined portion 20

of the same are forced in between the shoulders 26 and 27 of the sweep, whereby the further movement of the sweep causes the latch to swing around with said sweep and the parts are changed from the position shown in Figs. 1, 2, and 3 into the position shown in Fig. 4. The spring 30 acts to throw the parts into the position shown in Fig. 4 as soon as the latch is unlocked or released from the stud 13. The spring also serves to hold the parts in said position and prevent either the latch or the handle from working out of place and being accidentally caught against the sash-rail. To lock the sash, the handle 23 is pulled toward the front, the latch moving with it until the shoulder 19^a of the latch engages the stud 13 of the base, so as to stop the further movement of the latch. The latch is then free to move longitudinally inward, and is so moved by the action of the shoulder 27 of the sweep on the inclined middle portion 20 of the cam on top of the latch. Said longitudinal movement of the latch locks the latch to the base and also unlocks the latch from the sweep by withdrawing the short concentric portion 19 of the latch-cam from between the shoulders 26 and 27 of the sweep. The continued movement of the sweep about one-quarter of a revolution after the latch is stopped carries the parts again into the position shown in Figs. 1, 2, and 3, in which position the latch is positively held against longitudinal movement by means of the rim 24 of the sweep, which bears against the heel of the latch at one side of the central post 10 and against the short concentric portion 19 of the cam on the opposite side of said central post. It will thus be seen that in my combination of base, pivotal stud, latch, and sweep the longitudinally-sliding latch is provided with a cam having two opposite portions—the short concentric portion 19 on one side of the pivotal post and the combined cencentric and short inclined end portion 21 and 22 on the other side of said post in the longitudinal direction of the latch—and that the sweep is provided with devices (the rim 24 on one side and the lug 28 of the opposite side) for simultaneously engaging the said two portions of the cam on said latch for controlling its longitudinal movement.

I claim as my invention—

1. The combination of the base having the flange-segment 12, and stud 13, with the hollow sweep having the rim 24 provided with shoulders 25, 26 and 27 and also having the projection or lug 28, the longitudinally-sliding latch having the concentric edge faces 15 and 16, shoulders 17, slot and shoulder 18 and 19^a, and the top cam 19, 20, 21, 22, and a central post for securing the said sweep and latch on the said base, substantially as described.

2. The combination of a base, a pivotal post, a longitudinal sliding latch having a cam with two opposite portions on opposing sides of the pivotal post in the longitudinal direction of the latch, and a sweep having devices for simultaneously engaging the said two portions of the cam on said latch for controlling its longitudinal movement, substantially as described.

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