(No Model.)

P. BONUS.

SASH HOLDER.

No. 538,231. Patented Apr. 30, 1895.

Fig: 1.

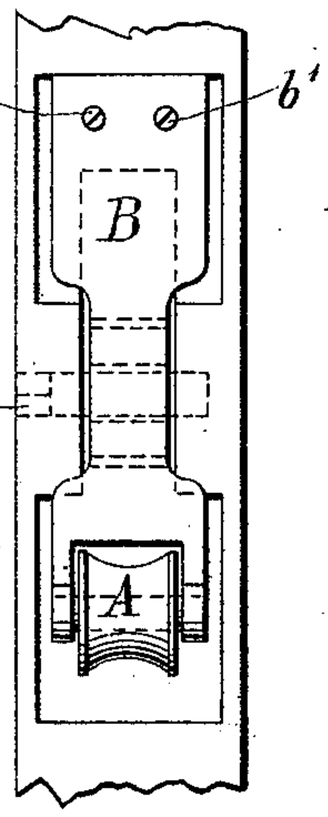


Fig: 2.

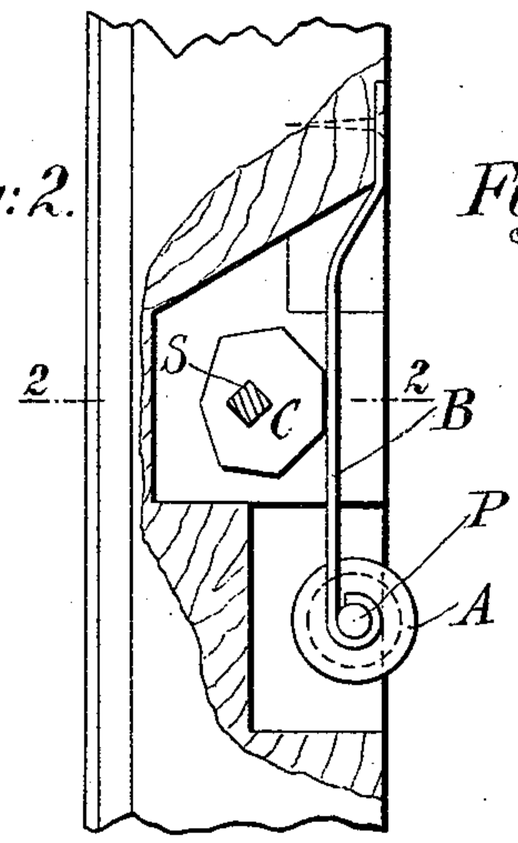


Fig: 4.

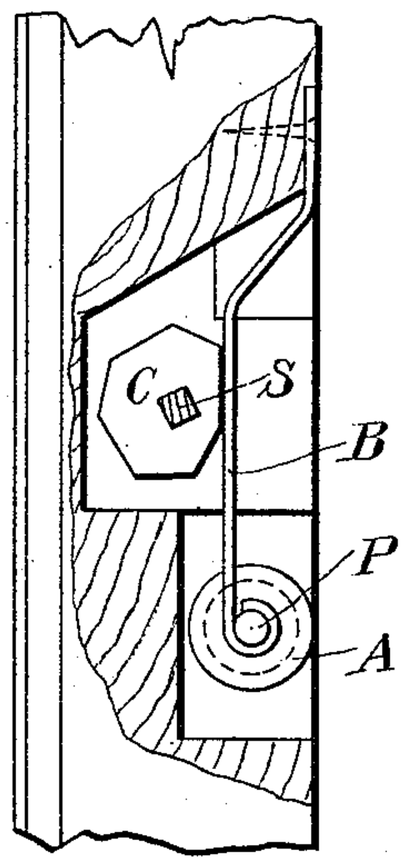


Fig: 5.

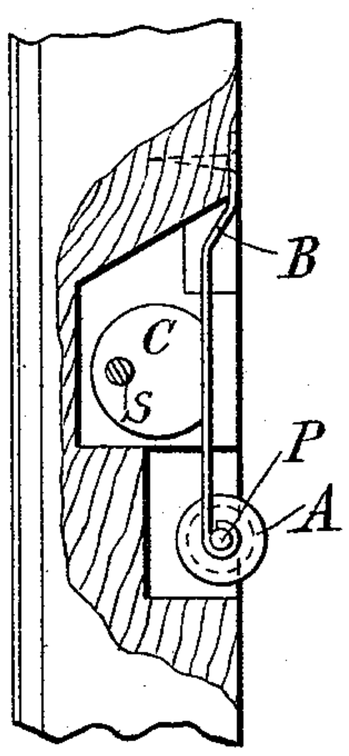


Fig: 3.

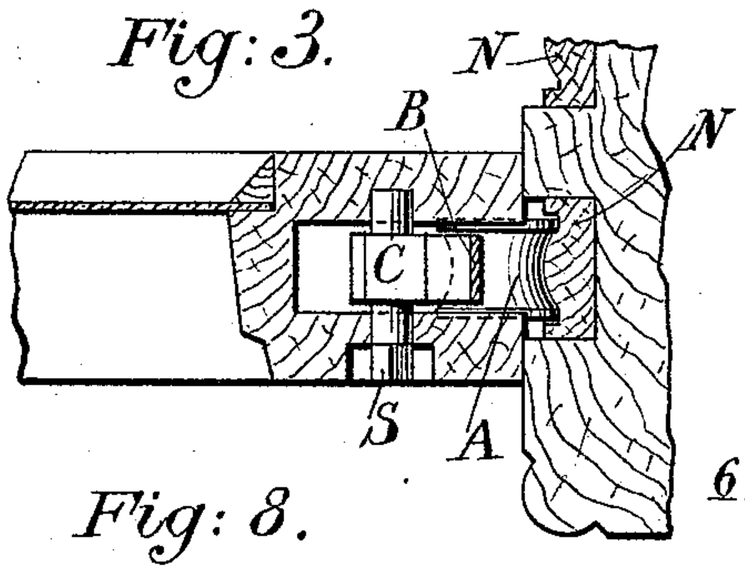


Fig: 8.

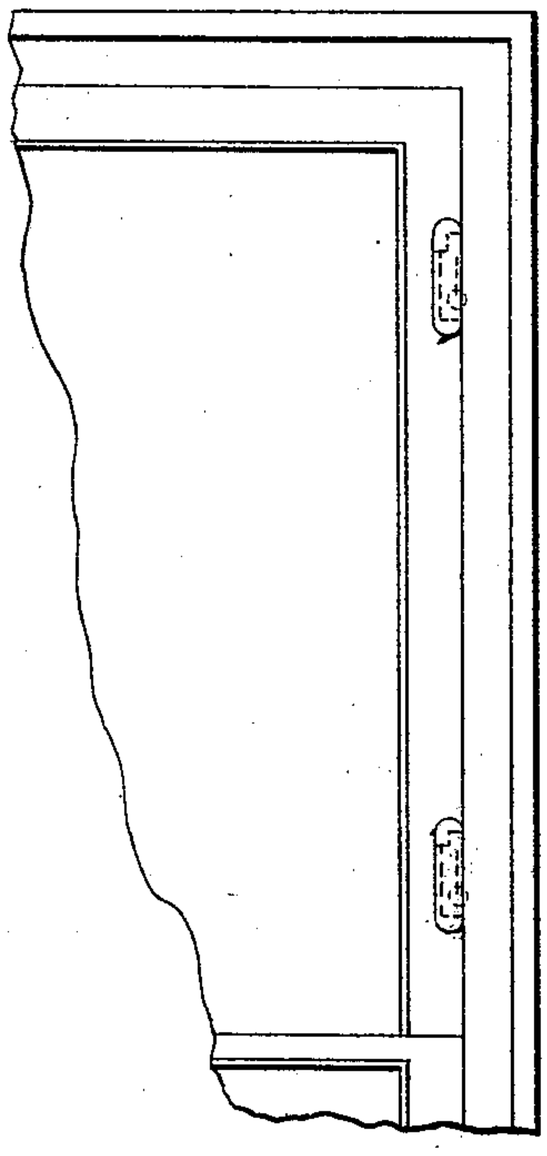


Fig: 6.

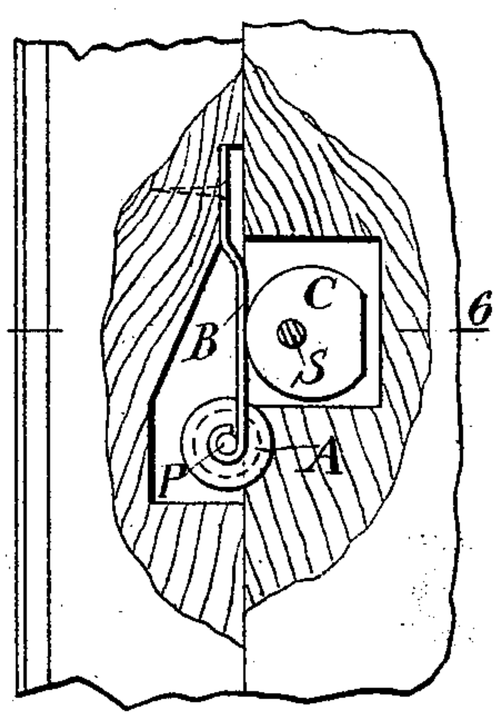


Fig: 7.

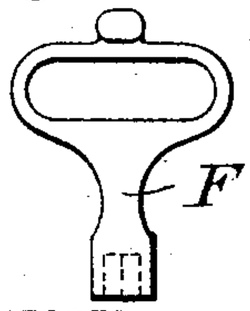
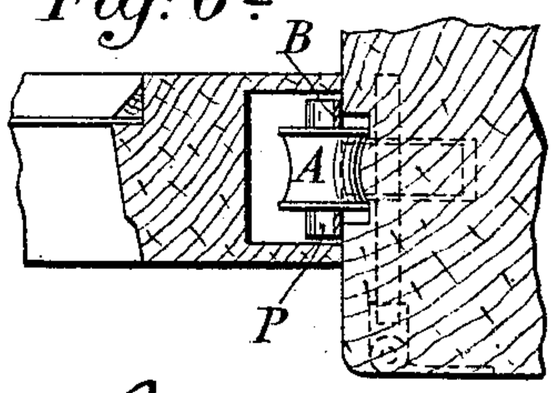


Fig: 6ª.



WITNESSES:

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UNITED STATES PATENT OFFICE.

PETER BONUS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO WALTER M. STEIN AND AUGUST KOENIG, OF SAME PLACE.

SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 538,231, dated April 30, 1895.

Application filed December 14, 1894. Serial No. 531,820. (No model.)

To all whom it may concern:

Be it known that I, PETER BONUS, a citizen of the United States, and a resident of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Sash-Slide Contrivances, of which the following is a full, clear, and exact specification, reference being had to the accompanying drawings, wherein—

Figure 1 is a front view; Figs. 2 and 4, side views; Fig. 3, a section 2—2 of my improved sash-slide-contrivance. Figs. 5, 6 and 6ª represent modifications in the arrangement of the parts. Fig. 7 represents a set key, and Fig. 8 shows how my improved sash-slide-contrivance is affixed to a sash.

My invention tends to provide means for an easy up and down moving of the sash, at the same time holding it securely in an uplifted position and dispensing with the use of cords and counterweights, and permitting it being taken out of the casing for the purpose of cleaning and the like, without disturbing the casing. For this purpose I have constructed a device consisting of a flat spring B made of tempered spring steel and fastened by two wood screws b' and b^2 to the side of the sash turned toward the casing. This spring is coiled up and forked on its lower end so as to form bearings for the grooved roll A, revolving on pin P.

Cam C is made of hard-wood or of some suitable metal and is embedded in the sash, wherein also a receptacle is provided for the roll A. This cam C may be circular or polygonal in form and is set eccentrically on pivot S, having a squarely shaped head, fitted into the key F shown in Fig. 7. Spring B presses against cam C, and thus by turning it the position of roll A is governed, and also its pressure against guide strip N, set opposite the roll A in the casing, to guide the sash in its movement up and down. Each sash is provided with two of such spring-slide rolls on each side, and the guide strips N, made preferably of hard-wood or of vulcanized rubber, are fitted into the groove of the roll A, and hold the sash securely in the casing.

To insert a sash provided with my described spring roll slides in the casing, the cams on one side are turned to allow the rolls to recede in position shown in Fig. 4, and when the sash is set in position, the cams are turned to bring the rolls outward against the guide strips. The sash will then glide with the rolls A on the guide strips N and by properly setting the cams C, sufficient pressure will be exerted on the four rolls of a sash to produce the necessary friction to sustain the heaviest sash in uplifted position.

For taking out a sash from the casing, the rolls on one side are turned in, disengaging the sash from the guide strip and the sash swung out of the casing.

It is apparent that the described form of my invention is capable of numerous modifications, two of which are shown in Figs. 5 and 6; also the parts may be variously modified in shape and arrangement. The flat spring B may be made of uniform width throughout, bulged and slotted in midst and the roll A set in this slot. Cam C may then be set below, supporting one end of the spring; or a double wire spring may be used, instead of the flat spring B and a separate friction spring, operating upon the roll A. The arrangement of the parts may also be reversed; spring B, roll A and cam C being set in the casing, and guide strips affixed to the sash—but I prefer the arrangement shown in the drawings Figs. 1, 2, 3 and 4 and described in this specification.

I claim as new and of my invention and desire to secure by Letters Patent—

1. A contrivance for holding a sash in the casing and for sliding it up and down, comprising the roll revolving on a pin, carried on a spring; an eccentric cam with one or more flat faces, set rigidly on a pivot having a square head fitted into a key; the cam pressing directly against the spring and thus governing the position of the roll relatively to the guide strip.

2. In a contrivance for holding a sash in the casing and for sliding it up and down, the combination of a spring, carrying a grooved roll and of an eccentrically pivoted cam, having one or more flat faces pressing directly against the spring and governing the position of the roll, with a guide strip, entering the groove of the roll, all arranged as described, whereby the sash is retained in place without the usual stop beads.

PETER BONUS.

Witnesses:
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