H. P. PORTER.

SASH LOCK.

APPLICATION FILED DEC. 2, 1919.

1,346,677. Patented July 13, 1920.

Fig. 1.

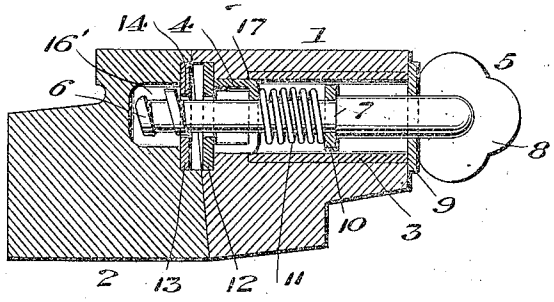



Fig. 2.

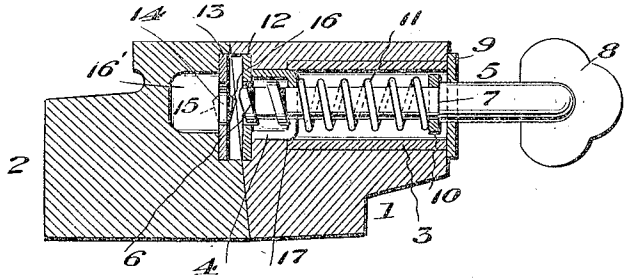



Fig. 3.

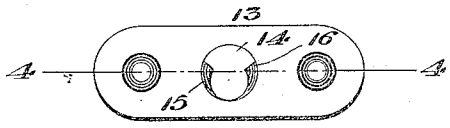



Fig. 4.

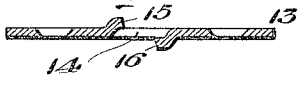


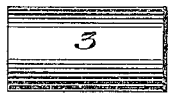

Fig. 5.




Fig. 6.




Fig. 7.




Witness.

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# UNITED STATES PATENT OFFICE.

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## SASH-LOCK.

1,346,677. Specification of Letters Patent. Patented July 13, 1920.

Application filed December 2, 1919. Serial No. 341,905.

*To all whom it may concern:*

Be it known that I, HERMAN P. PORTER, a citizen of the United States, residing at Jacksonville, in the county of Duval and State of Florida, have invented certain new and useful Improvements in Sash-Locks, of which the following is a specification.

This invention relates to certain novel, new and useful improvements in sash-locks especially designed to securely lock the meeting rails of sashes together to prevent unauthorized manipulation of either sash, and at the same time serving as an anti-rattler.

The prime object of the invention is to provide simple, durable, economical and efficient means for tightly and securely locking the meeting rails of sashes in contact with each other, consisting of a spring-pressed bolt carried by the top rail of the lower sash, adapted to engage with a special type of keeper seated within a suitable recess formed in the adjacent edge of the lower rail of the upper sash and rigidly secured thereto.

Further objects of this invention are so to construct my novel locking means that the locking bolt will enter the locking keeper whether it is placed straight or in a slanting position; that when the bolt is unfastened the spring will project it sufficiently inward to clear its outer end from contact with the meeting rail of the upper sash thereby avoiding the scarring or scraping of the wood as the lower sash is moved up and down, and so that the tighter the lock bolt is screwed inward the closer and more effective will be the joint of the contact faces of the meeting rails, which permits the locking means to also serve the purpose of an antirattler.

The foregoing and such other objects as may appear from the ensuing description are attained by the novel features of construction, arrangement, combination and location of parts hereinafter more fully described, illustrated in the accompanying drawings, and particularly pointed out in the claims appended hereto, it being understood that slight changes in the precise form, proportions and minor details of the construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Reference now being had to the accompanying drawings which form a part of this specification and in which similar numerals of reference indicate like parts throughout the several views, it will be seen that:—

Figure 1, is a transverse sectional view through the meeting rails of the two sashes showing the means embodying my invention in its locked position.

Fig. 2, is a similar view showing the locking bolt in its unlocked, or inwardly projected position.

Fig. 3, is an elevation of the locking keeper carried by the lower rail of the upper sash and removed therefrom.

Fig. 4, is a longitudinal section taken on the line 4—4, Fig. 3.

Fig. 5, is a detail plan view of the washer which engages the locking bolt.

Fig. 6, is a detail longitudinal section of the slotted washer or casing secured at the inner end portion of the bolt, and

Fig. 7, is a detail side elevation of the inner casing or housing carried by the upper sash rail of the lower sash.

In carrying out my invention as illustrated, and which shows a preferred construction, the numeral 1 designates the upper rail of the lower sash and 2 the lower rail of the upper sash with their meeting faces in contact with each other as shown in Figs. 1 and 2. Within the upper rail of the lower sash is bored two sizes of holes or openings and suitably secured within the larger hole is a tubular casing or housing 3, and within the smaller hole is secured a slotted washer or smaller casing 4, said casings surrounding the major portion of a locking bolt 5, provided with a screw threaded inner end portion 6, an integral shouldered portion 7 formed intermediate its length and an inner handle member 8, said bolt mechanism being securely fastened to the upper rail of the lower sash by means of a metallic plate 9, rigidly and securely fastened in any suitable manner to the inner face of said upper rail. Embracing the bolt 5 and resting in contact with the shouldered portion thereof is a slotted washer 10, and surrounding that portion of the bolt within

said upper rail with its inner end portion in contact with the outer face of said washer 10 and its outer end in contact with the inner face of the slotted washer or casing 4, is a coiled spring 11 for the purpose hereinafter described. Rigidly secured within a suitable recess formed in the outer face of the upper rail is a metallic plate 12 formed with a central opening for the passage of the locking bolt therethrough, the outer end of the slotted washer or casing 4 resting in contact with the inner face of said plate 12. Permanently and rigidly secured in a vertical position within a suitable recess formed in the inner face of the lower rail of the top sash is a metallic keeper plate 13, with a central opening 14 formed therethrough, the opposite side edges of said opening having an inner inclined integral extension 15, and an outer inclined integral extension 16 forming a part of said plate 13, as shown in Figs. 3 and 4, said extensions projecting slightly above the central portion of said opening 14, and adapted to engage with the inner threaded end of the locking bolt whether it is placed straight or in an inclined position, and the farther the bolt is screwed within the keeper, with its inner end projecting into the recess 16' formed in said lower rail, the tighter and closer the joint is made between the meeting rails of the sashes, the said locking means thereby also serving as an antirattler.

In assembling the parts of my novel locking means all of said parts being preferably made of brass or other non-corrosive material, the slotted washer or casing 4 is first seated within the smaller bore with its outer end in contact with the inner face of the plate 12 and its elastic side wall in contact with the wall of the bore, then the casing or housing 3 is placed within the larger bore with its outer edge resting on the shouldered portion 17 formed by said larger bore, the locking bolt is passed through the metallic plate 9, the slotted washer 10 is then seated against the shouldered portion 7 formed on the bolt, after which the coiled spring is placed in its proper position surrounding a portion of the bolt; the bolt inserted within the opening formed in the upper sash, and the locking mechanism secured thereto by the plate 9 fixedly fastened to the inner face of said upper rail.

It will be readily perceived that when the locking bolt is released from its locking keeper 13, the coiled spring will immediately be expanded and project the bolt inward to the position shown in Fig. 2, with its inner end within the outer face of the top rail of the lower sash, thereby avoiding any tendency to sear or scratch the inner face of the lower rail of the upper sash, as the lower sash is moved upon or down.

It will be seen that my novel locking means can only be used by boring two sizes of holes within the upper rail of the lower sash for the reception of said means for the purposes hereinbefore referred to.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:—

1. The combination with meeting sash-rails, one of said sash rails having two sizes of openings formed therein, of a tubular casing fitted within the larger opening, a slotted casing fitted within the smaller opening, a locking bolt revolubly mounted in said openings, a slotted washer embracing said bolt, and a spring surrounding the bolt with one end in contact with the washer and its other end in contact with said slotted casing.

2. The combination with meeting sash-rails, one of said sash rails having two sizes of openings formed therein, of a tubular casing fitted within the larger opening, a slotted casing fitted within the smaller opening, a locking bolt revolubly mounted within the said casings and provided with a shouldered portion, a slotted washer embracing said bolt in contact with its shouldered portion, a plate fixedly secured within a recess formed in the rail, and a coiled spring surrounding a portion of the bolt with one end resting in contact with said slotted washer and its other end in contact with the inner end of the slotted casing.

3. A sash lock of the character described, comprising a tubular casing fitted within an opening formed in one of the sash rails, a smaller slotted casing fitted into a smaller opening formed in the sash rail, a locking bolt revolubly mounted within said casings having a shouldered portion formed thereon, a slotted washer embracing said bolt in contact with its shouldered portion, a spring surrounding a portion of the bolt with one end resting in contact with said washer and its other end in contact with the inner end of the slotted casing and means for securing said mechanism within the said openings.

4. A sash lock of the character described, comprising a tubular casing fitted in an opening formed in one of the sash rails, a smaller slotted casing fitted into a smaller opening in said rail, a locking bolt revolubly mounted within said casings having an outer screw-threaded end portion and an intermediate shouldered portion, a slotted washer embracing said bolt in contact with its shouldered portion, a coiled spring surrounding a portion of the bolt with one end resting in contact with said slotted washer and its other end in contact with the slotted casing, and a keeper secured to the other sash rail provided with an opening formed therethrough with an inclined extension formed on either side thereof adapted to engage with the threaded end of the bolt for securing the sash rails together.

5. A sash lock of the character described, comprising a spring locking bolt revolubly mounted in the upper rail of the lower sash provided with a screw-threaded inner end portion, and a keeper fixedly secured to the lower rail of the upper sash, said keeper being formed with an inclined integral extension formed at opposite sides of the walls of a central opening through said keeper with one extension projecting inward and the other extension projecting outward, both extensions projecting above the central portion of said opening and adapted to engage the screw-threaded end of the locking bolt when in either a straight or inclined position.

HERMAN P. PORTER.