(Model.)

E. A. JUDD.

TRUNK LOCK.

No. 297,938. Patented Apr. 29, 1884.

Fig. 1.

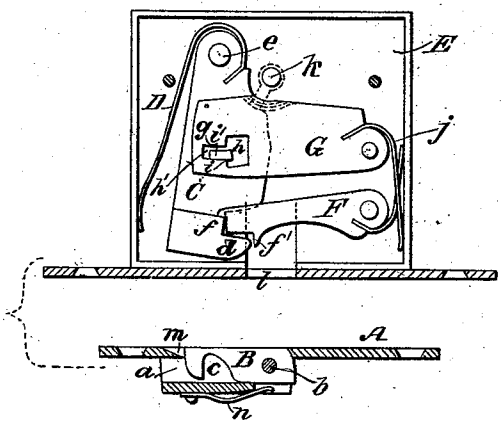


Fig. 2.

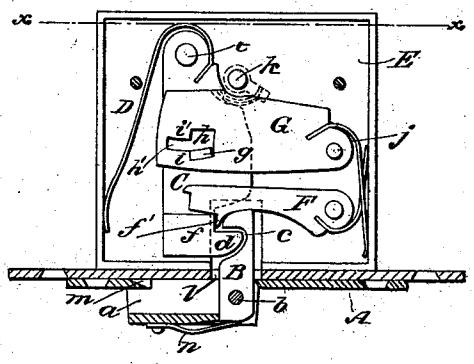


Fig. 3.

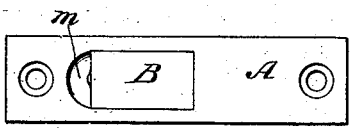
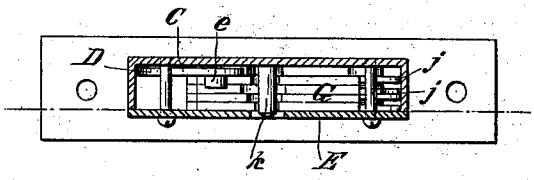


Fig. 4.



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TRUNK-LOCK.

SPECIFICATION forming part of Letters Patent No. 297,938, dated April 29, 1884.

Application filed November 10, 1883. (Model.)

To all whom it may concern:

Be it known that I, EDWARD A. JUDD, of New Britain, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Locks, of which the following is a full, clear, and exact description.

My invention relates to certain improvements in that class of locks in which a stop is used to hold the bolt in its retracted position when unlocked, and to release the said bolt upon the closing of the lid of the article to which the lock is attached; and the invention consists in the construction and arrangement of parts, as will be hereinafter fully described, and specifically set forth in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of the lock, keeper, and keeper-plate, showing the parts of the lock in position ready for locking and the keeper folded down into the keeper-plate. Fig. 2 is a similar view showing the parts in locked position. Fig. 3 is a plan of the keeper and keeper-plate, and Fig. 4 is a sectional plan view taken on the line *x x* of Fig. 2.

A is the keeper-plate, formed with the recess *a*, in which the keeper B is pivoted on pin *b*. The keeper B is notched, as shown at *c*, to receive the nose *d* of the bolt C of the lock, which bolt is pivoted in the lock-box E upon the pin *e*, and acted upon by the spring D, which throws it forward to lock with the keeper B, as shown in Fig. 2, when the keeper B enters the lock-box and lifts the forward end of the spring-actuated stop F out of engagement with the shoulder *f* of the bolt C. The bolt C is held locked with the keeper B by the spring-actuated tumblers G and stud *g*, secured to or formed upon one side of the bolt C, the tumblers in this instance being each forced upward by a spring, *j*, and formed with the T-shaped slot *h*, in which the stud *g* moves, the shoulders *i* formed in the tumblers by making the T-shaped slots serving to engage with the stud *g*, as shown in Fig. 2, for locking the bolt C in its forward or locked position.

In order to release the keeper B for unlocking whatever the lock may be applied to, the tumblers G must all be forced downward by a key placed upon key-pin *k*, to bring the narrow portions *h'* of the T-shaped slots *h* in line with the stud *g*, thus permitting the bolt C to be forced backward to the position shown in Fig. 1; and the tumblers G are made of different width, so that a complicated key is required to operate the lock, the shoulders *i'* of the tumblers serving to intercept the backward movement of the bolt C in case the proper form of key is not used; and there may be a greater or less number of the tumblers G, according as to whether the lock is to be very complicated or not. The proper form of key, when placed on key-pin *k* and turned, will first depress the tumblers G, forcing the shoulders *i* of all the tumblers just below the stud *g*, and then, on being turned further, will force the bolt C backward against the action of the spring D to the position shown in Fig. 1, sufficient to release the keeper B, in which position the bolt C will be held out of contact with the keeper B by the forward end of the stop F dropping in front of the shoulder *f* of the bolt, permitting the cover or lid, or whatever the lock may be applied to, to be opened.

In order to lock the lid or other article, the stop F must, as above intimated, be forced upward out of engagement with the shoulder *f*, which cannot be done by the key, but only by the entrance of the keeper B into the opening *l* of the lock-box E, so that in order to lock whatever the lock is applied to it is only necessary to lift the keeper B to the position shown in Fig. 2 and bring the parts together.

When the lid or cover to a desk, chest, or other object to which the lock is applied is open, the keeper B will be folded down into the recess *a* of the keeper-plate A, where it will not obstruct the surface into which the keeper-plate A is mortised.

In order to facilitate the opening out of the keeper B for locking, I form the keeper-plate A with the thumb-cavity *m*, and for holding the keeper B in upright position I provide the keeper-plate A with the spring *n*, the free end of which acts upon the lower end of the keeper, as shown in Fig. 2, and for preventing the bolt C from being forced forward too far by spring D when the stop F is raised above the shoulder *f*, I form upon the under side of the stop F the projection *f'*, against which the shoulder *f* is adapted to strike, as shown in Fig. 2.

Constructed in the manner described, it will

be seen that the lock is very convenient and cheap, and, besides the advantage gained by the folding keeper B of non-obstruction to the part in which the plate A is mortised, a similar advantage is gained in the form of the lock proper, as it presents no protruding parts, thus making the lock especially adapted for roll-top desks, pianos, and similar things, and also for folding doors, and for use in other places where protruding parts of a lock are objectionable.

I am aware that it is not new to provide a trunk-fastener with a vertical spring-operated latch to engage the keeper, said latch being provided with a shoulder, against which the end of a pivoted lever abuts to hold the latch back until the keeper causes it to release the latch, said keeper extending outside of the casing to form a handle for operating it to force the latch out of contact with the keeper.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of the vertical spring-bolt C, pivoted within the case, and formed with the shoulder *f* at its lower end, and constructed to be operated by a key at its upper end, with the horizontal spring-operated stop F entirely within the case and extending across the path of the keeper and resting at its free end on the lower part of bolt C, and a suitable keeper, whereby when the bolt C is retracted the stop will automatically engage the shoulder *f* and hold the bolt retracted, and release the bolt upon the entrance of the keeper, substantially as set forth.

2. The bolt C, formed with stud *g* and acted upon by spring D, in combination with slotted and spring-actuated tumblers G, stop F, located within the case, and pivoted keeper B, all arranged to operate substantially as described.

3. The pivoted and folding keeper, in combination with the lock proper, having the spring-operated bolt C and stop F, arranged for releasing the bolt upon the entrance of the keeper into the lock, substantially as set forth.

4. The combination, in a lock, of the notched and pivoted keeper B with the spring-actuated bolt C, having nose *d* and shoulder *f*, and the spring-actuated keeper F, having projection *f'*, substantially as described, and for the purpose set forth.

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