

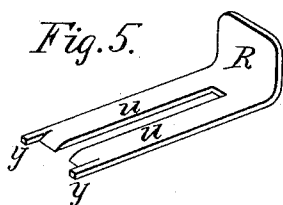
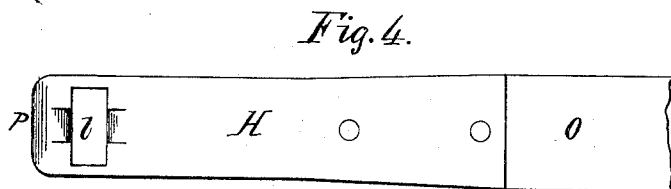
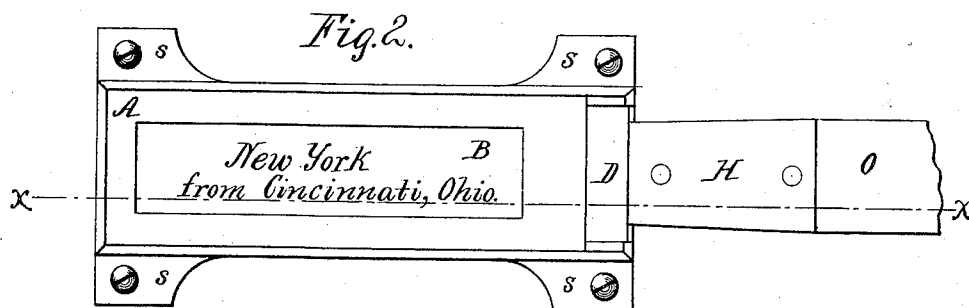
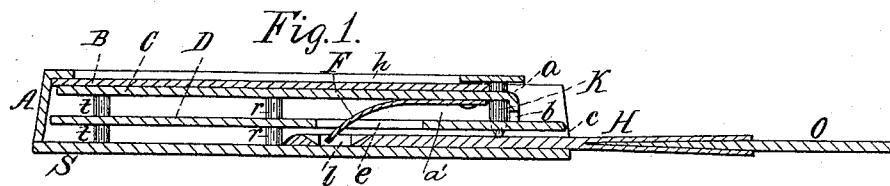
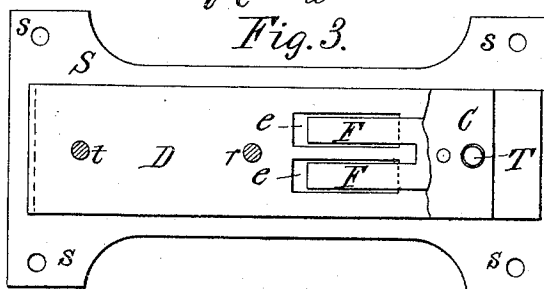
(No Model.)

H. K. HARKER.

SPRING LOCK.

No. 398,392.

Patented Feb. 26, 1889.



Witnesses:  
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Alfred M. Allen.

Inventor:  
Henry K. Harker  
by *Arthur S. Hall*  
his Attorney.

# UNITED STATES PATENT OFFICE.

HENRY K. HARKER, OF CINCINNATI, OHIO, ASSIGNOR OF FIFTY-ONE ONE-HUNDREDTHS TO L. A. HARRIS, OF SAME PLACE.

## SPRING-LOCK.

SPECIFICATION forming part of Letters Patent No. 398,392, dated February 26, 1889.

Application filed March 2, 1888. Renewed January 7, 1889. Serial No. 295,688. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY K. HARKER, a citizen of the United States, residing at Cincinnati, county of Hamilton, and State of Ohio, have invented certain new and useful Improvements in Spring-Locks, of which the following is a full, clear, and exact description.

My invention relates to an improvement in spring-locks adapted for use on packages for shipping—such as mail-bags and the like—the novel features of which will be more fully hereinafter set forth, and specifically pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical section through the line *x x*, Fig. 2. Fig. 2 is a top plan view. Fig. 3 is a top plan view with the outer casing or shell removed. Fig. 4 is the latch; Fig. 5, the key in perspective.

In Fig. 3, *S* is a bottom plate provided with ears *s s* for attaching it to the casing or shell *A*, provided with corresponding ears *s s*, by screws or bolts, which screws or bolts may also be used for attaching the lock to the package to be locked. Above this plate *S* is a plate, *D*, parallel with plate *S* and attached to it by the bolts *r* and *t*, though the bolt *t* may be omitted and the end of the plate *D* extended down against the plate *S*. Above this plate *D* is another parallel plate, *C*, also attached to the plates *S* and *D* by the bolts *r* and *t*. When the plates *C* and *D* are in place, they form three chambers or compartments open more or less at one end—to wit, one for the insertion of an address or directing card or tag, a second in which the locking-spring is secured and into which a key may be inserted to release the same from the locking-tongue, and a third into which the tongue is inserted to be engaged by the locking-spring, which latter projects from its compartment through a slot in the intermediate plate to the tongue-chamber. Attached to the under side of the plate *C* is a downwardly-curving spring, *F F*, bifurcated, as shown in Fig. 3. The plate *D* is cut away or slotted, as shown at *e*, Fig. 1, to permit the springs *F F* to pass through the plate and down to or near the face of the plate *S*.

*H* is a tongue consisting of a flat piece of metal of a width and thickness to pass into the opening or space between the plates *D* and *S*. The end of this tongue *H*, as shown at *P*, is beveled, so that as it passes into the lock it raises the springs *F F* until they fall into the slot *l* and lock the latch *H* and prevent its withdrawal.

To open the lock, I provide a key, *R*, Fig. 5, which consists of a flat piece of metal of a size to pass readily into the space *a'* between the plates *C* and *D* through an opening at *b*, Fig. 1, and is provided with the arms *u u*, corresponding with the arms of the springs *F F*, the rear end being turned up for convenience in handling.

*y y* are points or projections which serve as guides.

As the key is pushed in to the space between the plates *C* and *D*, the beveled ends of the arms *u u* pass under the arms of the spring and lift them, thus releasing the tongue *H*, which can then readily be withdrawn.

*O* is a strap or cord attached to the latch *H*.

The lock is attached to the box or pouch by the rivets or screws and the tongue *H* to the lid or flap by means of the strap *O*; or the lock can be used like a padlock, one end of the strap *O* being fastened to the lock, the strap then passed through a staple or staples, and the tongue fastened in the lock. In the top of the shell or casing *A* is a slot or opening, *h*, for displaying the directions or any other matter on a card or slip of pasteboard, *B*, as seen in Fig. 2. This card is larger than the slot or opening *h*, and is slipped under the shell through the opening or slit shown at *a*, Fig. 1. In order to hold it in place, I provide a bolt, *K*, which freely moves vertically through holes in the plates *C* and *D*. The lower end of this bolt *K* is beveled or cone-shaped, and when the lock is not closed rests upon the plate *S*, and when in that position the upper end is flush with the top of the plate *C*, so as to leave open and free the space or slit *a* for the free insertion or withdrawal of the card *B*. When the tongue *H* is inserted, the front end of it being beveled, it passes under and raises the bolt up to or against the shell *A* and closes the opening *a*,

preventing the withdrawal of the card B until the tongue H is again withdrawn.

In Fig. 4 the tongue H is shown with the slot *l* beveled on each side, so as to lift the bolt K; but the tongue may be made solid across the center of the slot *l* and two narrower slots to receive the ends of the springs F F used instead of the longer slot *L*.

The lock is not intended to provide peculiar or special security, but a convenient form of fastening for packages *in transitu*, and by the same key and operation the package is locked or unlocked and the direction-tag secured or released.

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

1. A lock of the class described, composed of the base-plate S and a casing or shell, A, the plate C, slotted plate D, secured in the case and forming compartments therein, and a locking-spring secured in one compartment, passing through the slot or slots in the plate D into the adjacent compartment, the said compartments being open at one end, substantially as described.

2. In a lock of the class described, the case composed of the base-plate S and casing or shell A, having an opening, *h*, at its upper side for exposing a tag or card, the plates C and D, located and secured in said casing or shell to form compartments open at one end for the insertion of a tag or card, a locking and unlocking device, and the locking-spring F, substantially as described, combined with the movable bolt K, extending across the openings at the end of the casing, substantially as shown, and for the purpose described.

3. In a lock of the class described, the com-

bination of a casing or shell, A, the plate C, and the slotted plate D, secured in the case and forming compartments therein, the said compartments being open at one end, a locking-spring secured in one compartment and extending through the slot in the plate D into the adjacent compartment, and a locking-tongue, H, to be engaged by the locking-spring, as set forth.

4. In a lock of the class described, the combination of a casing or shell, A, the plate C, and the slotted plate D, secured in the casing or shell and forming chambers therein, the said chambers being open at one end, and a locking-spring secured in one chamber and projecting through the slotted plate D, adapted to engage the end of a locking-tongue, H, and to be disengaged by a key inserted at the end of the chamber in which it is secured, in the manner set forth.

5. In a lock of the class described, composed of the casing having three compartments or chambers open at one end—to wit, one for the reception of a latching-tongue, H, a second in which the locking-spring is secured, but projecting into the tongue-receiving chamber, as described, and a third for containing a direction or address card—a movable bolt or pin extending across the openings to the chambers, adapted to be operated by the locking-tongue when the latter is inserted to close the opening through which the card is passed and to open the same when the locking-tongue is withdrawn, as set forth.

HENRY K. HARKER.

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