

No. 724,729.

PATENTED APR. 7, 1903.

G. S. NICHOLS.  
LOCKING DEVICE.

APPLICATION FILED FEB. 7, 1903.

NO MODEL.

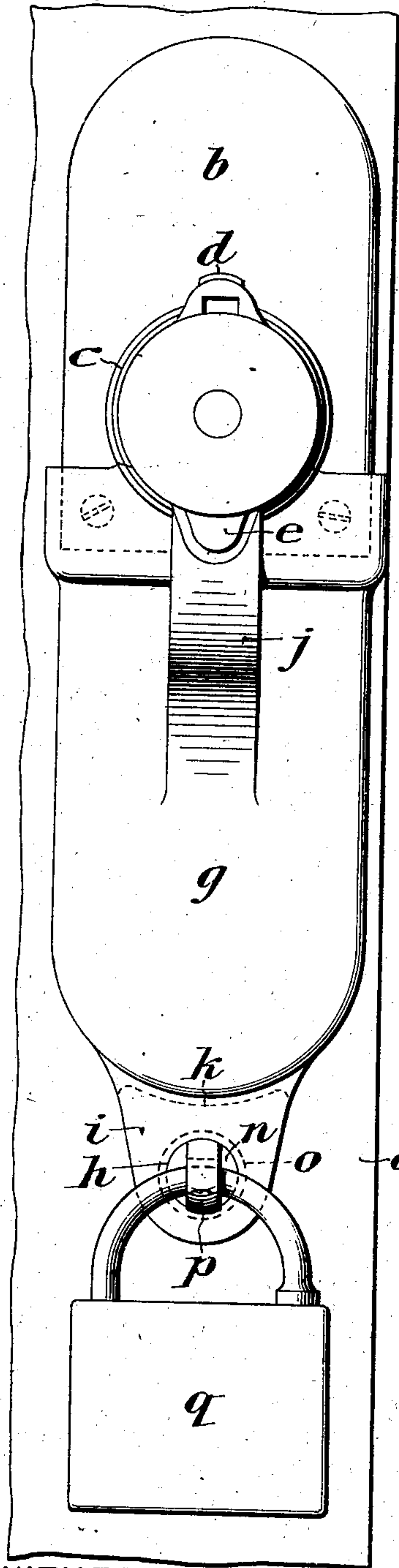


FIG. 1.

FIG. 3.

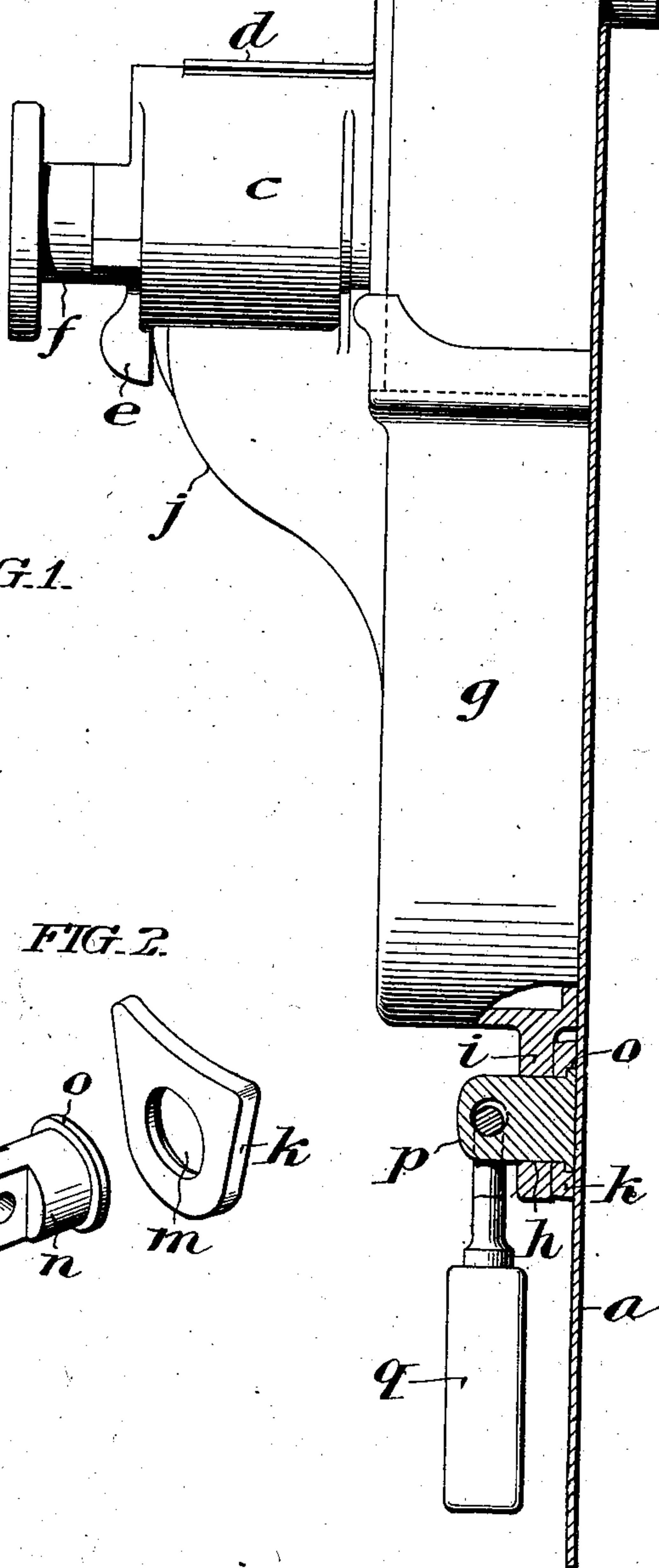
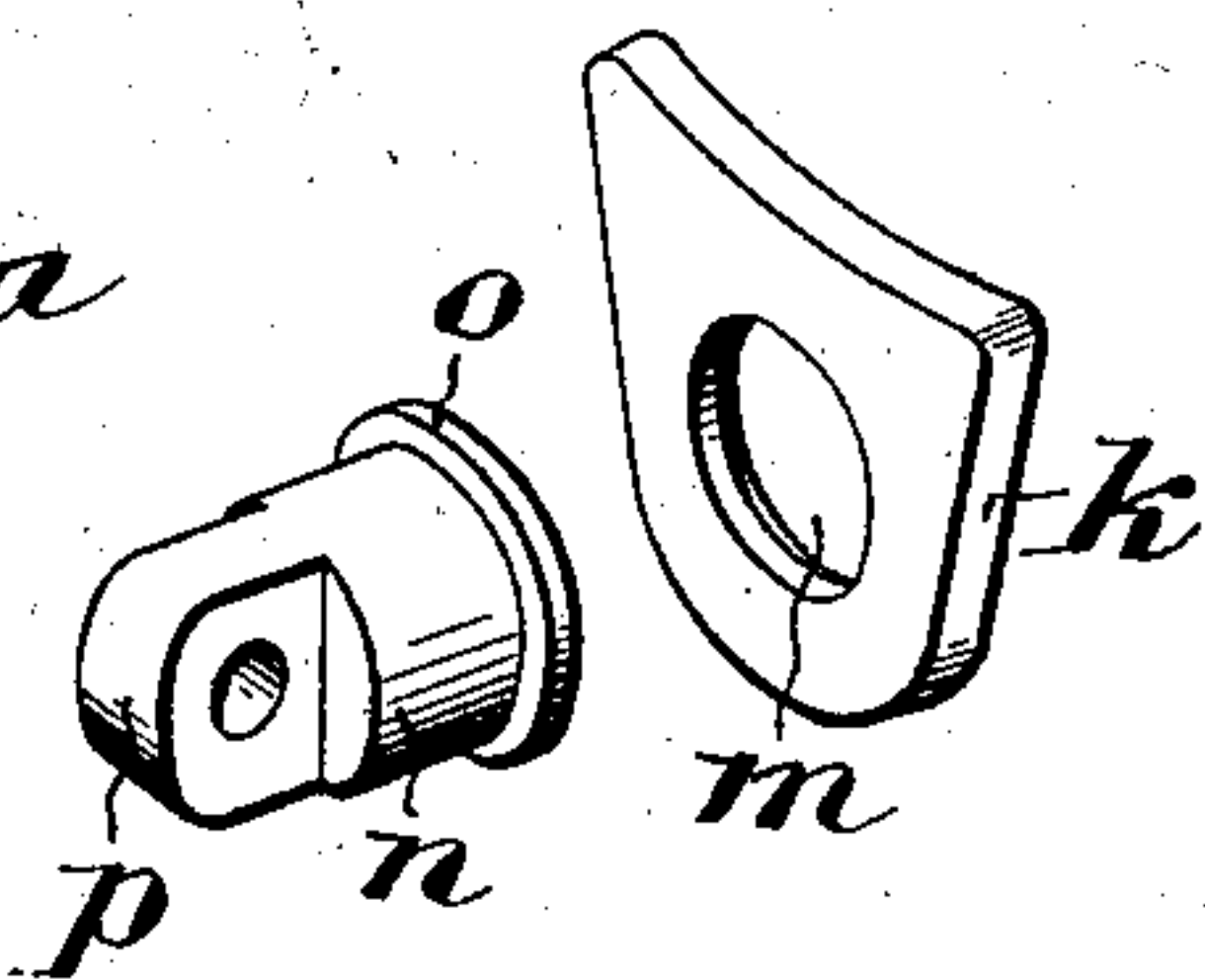


FIG. 2.



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# UNITED STATES PATENT OFFICE.

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## LOCKING DEVICE.

SPECIFICATION forming part of Letters Patent No. 724,729, dated April 7, 1903.

Application filed February 7, 1903. Serial No. 142,405. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE S. NICHOLS, a citizen of the United States, residing at Paterson, New Jersey, have invented certain new and useful Improvements in Locking Devices, of which the following is a specification.

My improvements relate generally to the class of locking devices in which a staple or the like, mounted on a suitable support, and a structure having an opening through which said staple extends, are secured together by engaging a padlock or kindred lock with the end of the staple projecting through said opening.

I herein illustrate my improvements as employed in securing a movable collection box to the casing of a prepayment sale and delivery mechanism. It is obvious, however, that said improvements may be employed in various connections and wherever locking mechanism of the class to which it relates is employed. The description of my device in connection with the coin-operated mechanism will illustrate its application in kindred connections.

In certain classes of coin-operated mechanisms, arrangements or provisions are made by virtue of which the coins inserted into or through devices which thereupon become operative to control the performance of an act such, for example, as to deliver a quantity of merchandise,—are successively deposited after or in connection with the performance of such act within a removable collection box wherein they accumulate until withdrawn by a collector.

As heretofore constructed, such removable collection boxes have in some instances been arranged as shells upon the exteriors of main casings, the upper ends of which shells have been secured by bodily engagement with rigidly secured auxiliary casings inclosing part of the coin-operated mechanism, and the lower ends of which shells have been provided each with an opening through which has extended a staple mounted on the casing.

With the projecting bight of such staple has been engaged a padlock to secure the lower end of the removable shell or collection box against disengagement from such staple,

whereby,—the upper end of the box being as stated engaged with a fixed auxiliary casing inclosing part of the operating mechanism,—the shell or collection box as a whole has been locked to the main casing.

In constructions heretofore in vogue, said staple has been rigidly connected to the main casing, and has projected through a slot in a lip of the collection box, with the result that when a padlock in locked engagement with the projecting bight of said staple, has been manipulated or rotated to a position in which, for example, the two side members of its curved arm engage against the two side members of the staple, further forcible rotation imparted to the body of the lock has been liable to occasion the breakage of the arm of the lock or the body of the staple, and thus permit the removal of the collection box or shell and the abstraction of its contents.

It is the object of my invention to provide a locking mechanism having such an arrangement of parts as will render it more difficult to break the arm of the lock or the body of the staple, than has been the case with the construction last above described, and thus render the contents of the collection box or shell more secure against wrongful removal.

In the accompanying drawings,

Figure 1 is a view in front elevation of a collection box in connection with which are employed devices embodying my invention.

Figure 2 is a view in perspective of a swivel block and an anchor plate.

Figure 3 is a side elevation of the collection box and the associated parts, the lower end of the box, and the swivel block and anchor plate, being shown in central vertical section.

Similar letters of reference indicate corresponding parts.

In the accompanying drawings, *a* is a support, being, in this instance, shown as a wall which may be the casing of a prepayment gas meter or a casing in which may be stored or through which may pass any selected merchandise to be sold and delivered, or which may be employed to contain merchandise of any kind.

*b* is what may be termed an auxiliary cas-



ing fixedly mounted upon the meter casing. The auxiliary casing comprises, in the form of apparatus illustrated, in addition to its basal portion which rests flatwise against the meter casing *a*, an approximately cylindrical forward extension designated *c*. Said auxiliary casing, with its extension, is adapted to contain operating mechanism of any usual form, which, inasmuch as it forms no part of my invention, is not herein illustrated or described.

In the operation of the apparatus, a coin inserted within the forward extension *c*, through a suitable slot located at the point *d*, will descend through said extension, and drop within the collection box.

*e* is a rigid lug depending from the outer end of the cylindrical extension *c*. The cylindrical extension is illustrated as supporting an operating knob *f*, the shaft of which, extends into the interior of the cylindrical extension, such knob and shaft being employed in many forms of coin operated apparatus, in connection with the operation of payment mechanism.

*g* is a removable device, being in the apparatus shown, a shell like collection box. Said box may be of any desired form, according to the form of apparatus in connection with which it is employed.

In the form illustrated, the lower portion of said box is shown as provided with a circular aperture *h* conveniently formed in a lip or extension *i*. The front of said collection box is provided with an outward extension *j* of slight breadth the open upper end or lip of which rests against the under face of the cylindrical extension *c*, the respective sides of said extension *j* existing respectively one on each side of the coin outlet of said cylindrical extension, while the front edge or wall of said extension *j* exists behind the depending lug *e*.

The body of the removable collection box rests flatwise against the meter casing *a*, and the upper end portions of its front and side walls are conveniently slightly set outward or flared, as illustrated.

When said collection box is in position, the upper ends of its front and side walls overlap the lower ends of the front and side walls of the fixed auxiliary casing, as illustrated in the drawings, in which the lower end portion of the auxiliary casing *b*, in place within the upper end of the collection box, is illustrated in dotted lines.

As will be understood, a coin dropped within the slot at the point *d* will, in due course, pass through the cylindrical extension of the fixed auxiliary casing, and into the extension *j*, of the collection box, and will pass down said extension *j* as a chute into the body of the collection box.

As will be understood, the collection box is, in being placed in position, moved upwardly to engage its upper end portion about the

lower portion of the body of the fixed auxiliary casing, and when thus engaged said auxiliary casing will secure the collection box against movement either to the right or left, or directly outwardly away from the wall *a*, said last mentioned movement being of course prevented by the lug *e*. The removable collection box has thus what may be termed an interlocking engagement with a relatively fixed part of the structure.

The form of the upper end of the collection box or other device may, of course, vary in accordance with the form of the auxiliary casing or other fixture.

The rear face of the lip *i* is shown as recessed slightly, and beneath the recessed portion is arranged an anchor block *k* soldered or otherwise secured to the main casing *a*.

Within a circular opening *m* extending through said anchor block, the inner mouth of which opening is counter-sunk, is arranged a swivel block *n*, the body portion of which is of circular section and snugly fits the openings *h* and *m*, and the head *o* of which is seated in the counter-sunk portion of said opening *m*.

The swivel block projects slightly beyond the lip *i*, and permanently secured to said block and preferably formed integral with and as a part of it, is a staple or staple-like device, *p*. I prefer to provide said staple by forming an opening in the flat outwardly projecting end of the swivel block. Any desired form of staple to be engaged by a lock may be employed instead of the special form of staple indicated.

*q* is a padlock of any usual form adapted to engage said staple. As will be understood, the swivel block is capable of rotative movement with respect both to the block *k* and the lip *i*, through both of which in the form shown it extends, and as a result of this arrangement said staple will, when the padlock is grasped and given movement of rotation, have rotative movement with said lock without disturbing the permanence of its attachment to the block *k* or other fixture to which it may be connected.

As said staple, therefore, so far as it rotates, offers no resistance to the rotation of the padlock, the parts are consequently rendered more difficult to break or destroy without the use of special implements.

The lock *q* and the swivel block may have movement equal to an entire revolution, or the opening *h* may be so close to the projecting body of the removable collection box and the padlock be so large, that the rotation of the lock and swivel block will be limited to somewhat less than a complete revolution by the encounter of the arm of the padlock with said projecting body. Whether the swivel block and padlock shall have capacity for a whole revolution or merely for rotative movement, limited as above set forth, will depend upon the proportions of the parts, and be a matter within the province of the construc-



tor. Either construction, however, will, of course, embody my invention and be attended by advantages over former constructions.

As explained, the upper end of the collection box *g* in its application to the main structure, engages with the lower end of an auxiliary casing fixed to said main structure, and the swivel block, during and by reason of its engagement in an opening in said box, which opening it snugly fits, prevents the slipping downward of said box from said auxiliary casing.

To remove the removable collection box, the padlock is to be unlocked and removed,—the lower end of the collection box drawn outward from the structure *a* until it clears the swivel block, and said box may therefore be drawn away from its engagement with the fixed auxiliary casing.

Having thus described my invention, I claim—

1. In a locking device, in combination, a main structure, a removable device structurally independent of said structure and having a swivel block opening, fixed means carried by the main structure with which said removable device is adapted to make temporary interlocking engagement, and, as a means for temporarily securing said removable device in such engagement, a swivel block swiveled upon said main structure, and adapted to extend through and have rotative movement with respect to the swivel block opening in the removable device, said opening being of such form that movement of said re-

movable device in a direction perpendicular to the axis of said block is precluded so long as the swivel block is engaged in said opening, a staple carried by said swivel block, and a lock removably applied to said staple, substantially as set forth.

2. In combination with a main structure, a movable device the rear face of which embodies a recess, said movable device having a circular swivel block opening extending through it to said recess, an anchor block secured to the main structure, and arranged within said recess, said anchor block having an opening extending through it, which opening registers with the opening of the movable device and is larger at its inner end than at its outer, a swivel block fitted snugly in said openings, and having a head or enlargement resting in the larger end of the opening formed in the anchor block, said swivel block having a transversely extending opening through its outer end, and a padlock adapted to engage in the opening in the outer end of said swivel block, said swivel block and lock having movement of rotation with respect to the movable device and the anchor block, substantially as set forth.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 19th day of January, A. D. 1903.

GEORGE S. NICHOLS.

In presence of—

JOHN BIMSON, Jr.,  
HARRY C. SHELBY.