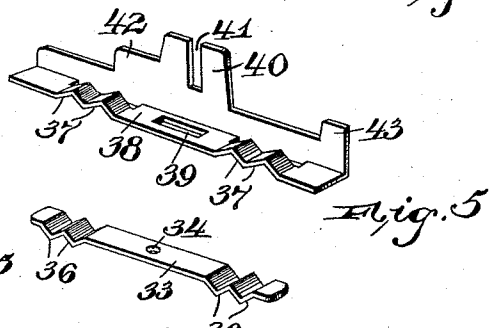
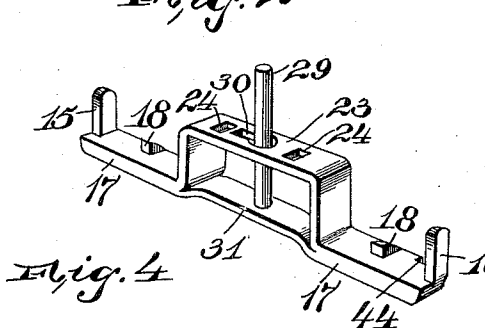
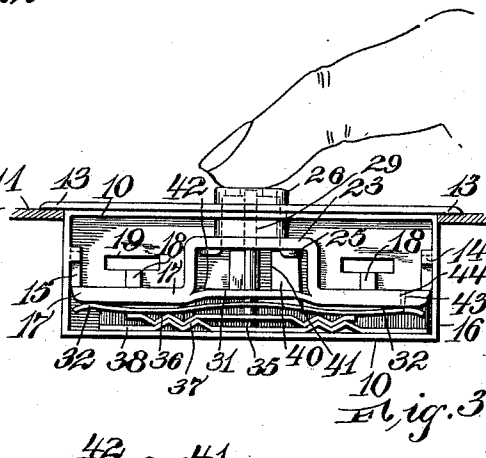
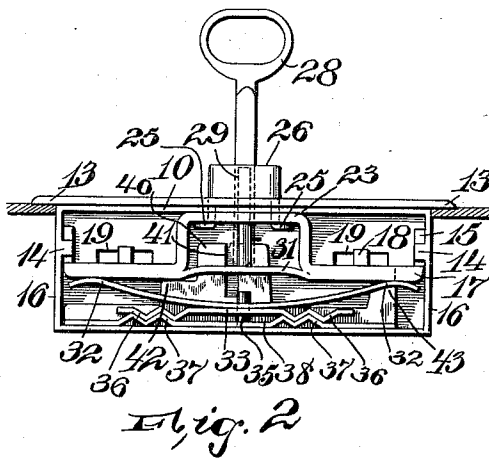
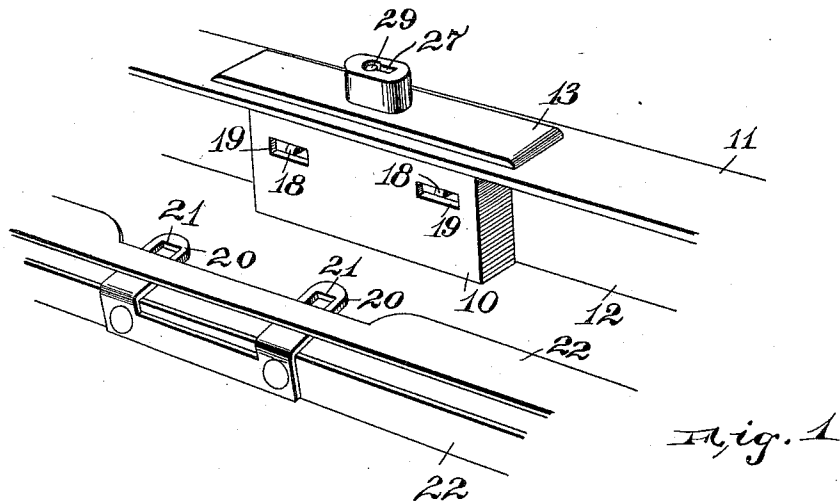


F. J. LAU.
 LOCK FOR BAG FRAMES AND THE LIKE.
 APPLICATION FILED JUNE 15, 1911.

1,005,850.

Patented Oct. 17, 1911.



WITNESSES:
 M. A. Johnson
 W. E. Morton.

INVENTOR
 Fredrick J. Lau,
 BY
 Wm. H. Campfield,
 ATTORNEY

UNITED STATES PATENT OFFICE.

FREDRICK J. LAU, OF NEWARK, NEW JERSEY.

LOCK FOR BAG-FRAMES AND THE LIKE.

1,005,850.

Specification of Letters Patent.

Patented Oct. 17, 1911.

Application filed June 15, 1911. Serial No. 633,340.

To all whom it may concern:

Be it known that I, FREDRICK J. LAU, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Locks for Bag-Frames and the Like; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to a lock that is adapted for use under different conditions, but is particularly designed to be used as a lock for bag-frames and the like, and particularly for the type of bag known as the English traveling bag.

The lock consists of a casing in which there is a sliding latch which has means to receive and engage the hasp of the lock, the sliding member being locked against any sliding movement by a latch-plate, and between the latch-plate and the latch is a spring bearing on both and having the double function of holding the latch in its normal position and forcing the latch-plate in engagement with a locking-plate, which locking-plate is held by the latch-plate in its locked or unlocked position, being operated by a key which passes in the usual way down through the lock-casing and engages the locking-plate to slide it. The locking-plate has a stem thereon which acts as a guide for the key and also as a bearing therefor.

Another object of the invention is to provide the locking-plate and the latch-plate with co-acting means to positively and securely lock them in their relative positions, but at the same time permit their easy movement by means of the key when it is desired to change their relative positions.

The invention is illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of a part of the bag-frame with the lock and the hasp slightly separated. Fig. 2 is a back view of the lock. Fig. 3 is a similar view showing the latch-plate slid down to the position where it releases the hasp. Fig. 4 is a perspective view of the latch. Fig. 5 is a per-

spective view of the locking-plate, and Fig. 6 is a perspective view of the latch-plate.

The invention consists of a casing 10 which is inserted down through the top horizontal part 11 of one of the swinging members of the bag-frame, the casing 10 having an open side which is closed, when the lock is in place, by the vertical part 12 of the bag-frame, the casing having an escutcheon plate 13 projecting beyond the vertical sides of the casing 10 and either attached thereto or integral therewith, this escutcheon plate being adapted to be fitted against the horizontal plate 11 of the bag-frame and form a finish for the lock and the bag-frame. The bag-frame is provided on its side edges with fingers 14 which act as guides and retaining means for the studs 15 which fit within the side walls 16 of the casing and bear thereon and are attached to or a part of the latch 17 which extends across the casing from one side to the other having the noses 18, which noses are adapted to be normally in position across the openings 19 in the front of the casing, and being rounded to permit their being depressed when they are engaged by the ends of the hasps 20 which have perforations 21, which perforations 21 go over the noses 18 and lock the bag-frame members 22 and 11 together. The latch 17 has a bridge 23 which engages the top edge of the casing 10 when the latch is in its normal position, and thereby limits the movement of the latch. The bridge 23 is provided with slots 24 which receive the tongues 25 of a ferrule 26, which ferrule acts both as a finger-piece, as shown in Fig. 3, when it is desired to uncatch the lock, and is provided with a key-hole slot 27 whereby it is adapted to act as a key-casing, the key 28 being inserted through the key-hole slot 27, and the key being recessed on the inside is further guided by the post 29, which post extends from the latch up through a key-hole slot 30 in the bridge and therefore acts to guide the key until its end engages the portion 31 of the latch. In Fig. 2 the bottom part of the key is shown dotted so as not to confuse the drawing.

The latch is normally free to slide and is held up by a spring 32, which is preferably a flat leaf spring, bearing on the under side of the latch and also bearing on a latch-plate 33 which has a perforation 34 fitting

over a stud 35, thereby being held against any sliding movement, but being adapted to have a vertical movement, the spring thereby tending to normally force the latch up and the latch-plate down. The latch-plate on each end is provided with a double set of V-shaped projections 36, which V-shaped projections are adapted to fit over inverted V-shaped projections 37 of the locking-plate 38, the locking-plate 38 being adapted to slide on the bottom of the casing, having a slot 39 which fits over the stud 35. The locking-plate 38 slides longitudinally of the casing, that is at right angles to the sliding motion of the latch, and has a vertical plate 40 attached thereto, being preferably made integral therewith and stamped up from sheet metal, the vertical plate having a slot 41 which is engaged by the tongue of a key whereby the locking-plate is slid to its locked or unlocked position.

When the locking-plate is moved by the key to the position shown in Fig. 2, the nose 42 engages the bottom of the latch adjacent to one side of the bridge, and the nose 43 engages the bottom edge of the latch, these two noses thus effectually locking the latch against any movement, and when the hasps 20 are over the noses 18 the members of the bag-frame can not be separated and the bag is locked. When the locking-plate 38 is slid to its other limit of movement, that is in the position opposite to that shown in Fig. 2, the nose 42 is underneath the portion 31 of the bridge which is slightly narrower than the main portion of the latch 17, and the nose 43 is then underneath the recess 44 which is cut in the latch so that the latch can be slid down, not coming in contact with the noses 42 and 43, against the pressure of the spring 32 and the noses 18 are thus drawn down beyond the openings 19 and the hasps can be withdrawn from the lock and the bag thus opened.

To positively lock the locking-plate in its locked and unlocked positions, the V-shaped and the inverted V-shaped projections on the latch-plate and the locking-plate, respectively, engage each other, as shown in Figs. 2 and 3, to prevent any sliding of the locking-plate by jarring the bag or any other accidental method, but at the same time provide an easy bearing for the locking-plate when it is slid by the key, the inclined faces of the projections 36 and 37 permitting the latch-plate to ride over the locking-plate easily, the spring 32 forcing the latch-plate continuously toward the locking-plate, and after the projections have moved on each other far enough to get over the high points on the projections, the spring snaps the locking-plate to its position so that the locking-plate is assured of being either in its locked or unlocked position as it is forced by the spring in one direction or the other,

due to the inclined faces of the projections 36 and 37. The spring 32 is held in place by having a perforation therein which fits over the stud 35.

The operation of the locking-plate is by a simple tongue on a key which engages the slot 41, and according to which direction the key is turned, the locking-plate is either slid to its locked or unlocked position. The projections 36 and 37 can be disposed at separated points on the latch-plate and the locking-plate respectively, but I prefer to arrange them as shown, that is, a double set of projections being arranged adjacent to each other on each end of the latch-plate, and a double set near each end of the locking-plate to register with those on the latch-plate.

Having thus described my invention, what I claim is:—

1. A lock comprising a casing, a latch sliding in the casing and having means for engaging a hasp, a latch-plate and a locking-plate, the latch-plate being held against sliding in the casing, the locking-plate being arranged to slide in the casing, the latch-plate and the locking-plate having co-acting means for holding the locking-plate in its relative positions, co-acting means on the latch and on the locking-plate for holding the latch-plate against sliding movement or permitting it to slide according to the position in which the locking-plate is held, a finger-piece projecting from the latch through the casing for manipulating it, and a spring bearing on the latch to normally hold it in locking position and bearing on the latch-plate to force the latch-plate on the locking-plate.

2. A lock comprising a casing, a vertically sliding latch in the casing having means thereon for engaging a hasp, a ferrule forming a key-casing and a finger-piece projecting from the latch through the casing, a post on the latch and projecting into the ferrule to form a guide for a key, a locking-plate sliding in the casing transversely to the sliding movement of the latch, means for holding the locking-plate in its relative positions, the locking-plate having means thereon for its engagement by a key to slide it, the latch and the locking-plate having co-acting means for locking and releasing the latch according to the position of the locking-plate, and a spring bearing on the latch to hold it in its normal position and bearing on the holding means to force the holding means in engagement with the locking-plate.

3. A lock comprising a casing, a latch vertically sliding in the casing having studs on each end and having a bridge in the center, fingers on the casing to engage the studs of the latch to guide the latch, the bridge being adapted to limit the movement of the latch

in an upward direction, the bridge having a slot for a key, a post on the latch extending up through the hole in the bridge to act as a guide for a key, a ferrule secured to the bridge and closing the stud, said ferrule projecting through the casing to form a finger-piece, the latch having recessed portions, a locking-plate sliding in a direction transverse to the sliding movement of the latch and having tongues adapted to engage the bottom edge of the latch to lock it in position when the locking-plate is in one position and to be in line with the recessed portions when the locking-plate is slid to its other position to release the latch, means on the latch for engaging a hasp, the locking-plate having means for engagement by a key to provide for the sliding of the locking-plate, a holding means engaging the locking-plate to hold it in its relative positions, but permitting the sliding of the locking-plate by the key, and a spring bearing on the holding means to force the holding means in engagement with the locking-plate and bearing on the latch to hold the latch in its normal position.

4. A lock comprising a casing, a latch sliding vertically in the casing and having means for engaging an element forming the other member of the lock, a key-casing projecting from the latch through the casing of the lock and forming a finger-piece, the latch having means thereon for guiding a key inserted through the key-casing, a locking-plate sliding on the bottom of the casing in a direction transverse to the sliding motion of the latch, a vertical plate on the locking-plate having means for engagement by the key for sliding the locking-plate and having noses to engage the latch to lock the latch, the latch being recessed so that the noses can be brought in register with the recessed portions to release the latch, inverted V-shaped projections on the locking-plate, the locking-plate having a slot therein, a stud on the casing projecting through the slot, a latch-plate having a perforation therein and fitting over the stud and having V-shaped projections to engage the inverted V-shaped projections of the locking-plate, and a spring bearing on the latch-plate and on the latch to force the latch upward and to force the latch-plate downward.

5. A lock comprising a casing, a latch sliding vertically in the casing and having means for engaging an element forming the other member of the lock, a key-casing projecting from the latch through the casing of the lock and forming a finger-piece, the latch having means thereon for guiding a

key inserted through the key-casing, a locking-plate sliding on the bottom of the casing in a direction transverse to the sliding motion of the latch, a vertical plate on the locking-plate having means for engagement by the key for sliding the locking-plate and having noses to engage the latch to lock the latch, the latch being recessed so that the noses can be brought in register with the recessed portions to release the latch, inverted V-shaped projections on the locking-plate, the locking-plate having a slot therein, a stud on the casing projecting through the slot, a latch-plate having a perforation therein and fitting over the stud and having V-shaped projections to engage the inverted V-shaped projections of the locking-plate, and a flat leaf spring being perforated in its center to receive the stud of the casing and to bear at its center on the latch-plate to force it downward and having its ends arranged to engage the bottom of the latch at its ends to normally force the latch upward.

6. A lock comprising a casing having openings in its front side and having an open back, the lock having an escutcheon plate and being adapted to be placed in a perforation in a bag-frame, the escutcheon plate overlapping the edges of the perforation in the bag-frame to limit the movement of the lock-casing in the frame, a latch sliding in the casing, noses on the latch having inclined top faces and adapted to be normally placed across the openings in the casing to form with the openings means for engaging a hasp, a latch-plate and a locking-plate, the latch-plate being held against sliding in the casing, the locking-plate being arranged to slide in the casing, the latch-plate and the locking-plate having co-acting means for holding the locking-plate in its relative positions, co-acting means on the latch and on the locking-plate for holding the latch-plate against sliding movement or permitting it to slide according to the position in which the locking-plate is held, a finger-piece projecting from the latch through the casing for manipulating it, and a spring bearing on the latch to normally hold it in locking position and bearing on the latch-plate to force the latch-plate on the locking-plate.

In testimony, that I claim the foregoing, I have hereunto set my hand this 13th day of June, 1911.

FREDRICK J. LAU.

Witnesses:

WM. H. CAMFIELD,
M. A. JOHNSON.