April 17, 1928. 1,666,654

W. C. HIERING

BAG AND LIKE LOCK

Filed July 28. 1926

Fig. 1.

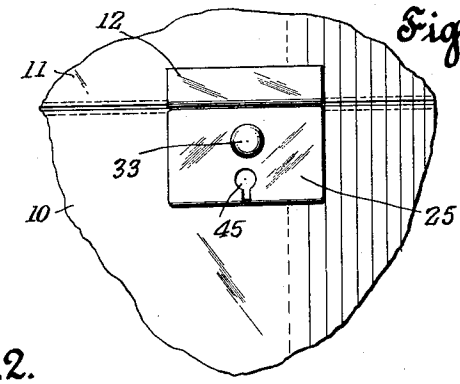


Fig. 2.

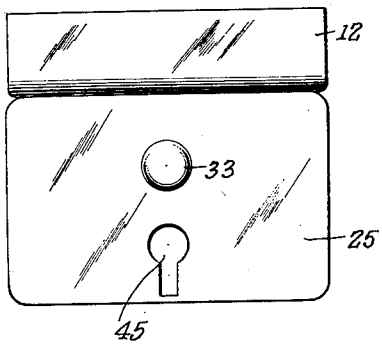


Fig. 3.

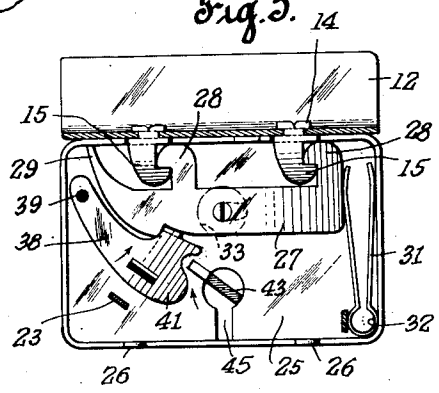


Fig. 4.

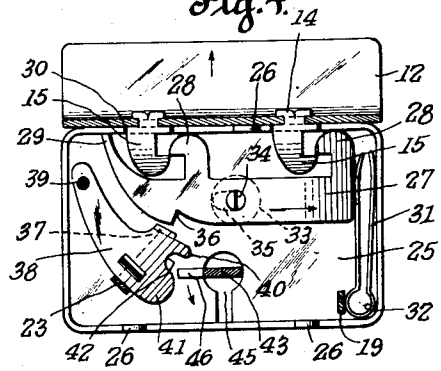


Fig. 5.

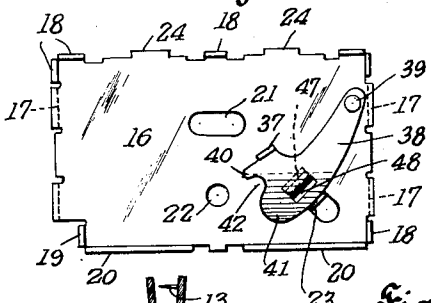


Fig. 6.

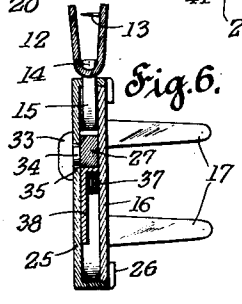


Fig. 7.

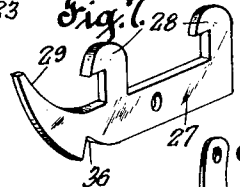


Fig. 8.

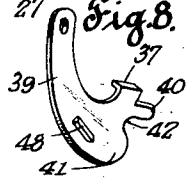
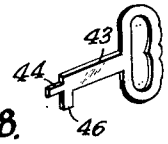


Fig. 9.



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UNITED STATES PATENT OFFICE

WILLIAM C. HIERING, OF NEWARK, NEW JERSEY, ASSIGNOR TO J. E. MERGOTT CO., OF NEWARK, NEW JERSEY, A CORPORATION OF DELAWARE.

BAG AND LIKE LOCK.

Application filed July 28, 1926. Serial No. 125,377.

This invention relates to locks and particularly to those of a thin flat character as used on bags, brief and suit cases, and similar containers.

Locks of this type are required to be essentially simple, yet adequately fulfill their function of security, and be susceptible of construction at a low cost.

It is the main object of the present invention to provide a lock answering the foregoing requirements, comprising only two operative parts and an actuating spring.

Other advantages will become noticeable in the following detailed description, taken into connection with the accompanying drawing, the same being part of this disclosure, and in which:—

Figure 1 is a front elevational view of an embodiment of the invention, illustrating its application.

Figure 2 is a similar view of the lock and keeper drawn to an enlarged scale.

Figure 3 is a plan view of the lock mechanism showing the bolt in locked engagement with the keeper.

Figure 4 is a similar view of the same parts as disengaged.

Figure 5 is a plan view of the lock casing back plate looking from the inner side.

Figure 6 is a transverse sectional view of the assembled lock.

Figures 7, 8 and 9 are perspective views of the slide bolt, swing tumbler and key respectively.

The numerals 10 and 11 designate the body and cover of a conventional type of container, the cover 11 having engaged on its meeting edge a keeper 12 struck from a rectangular metal blank and bent to produce a longitudinal loop its rear wall being sheared to form a pair of sharp prongs 13 to pierce the bag cover material and become upset therein upon pressing the loop walls towards each other, firmly securing the keeper body to the bag cover.

The bight of the loop thus formed is provided with two openings to receive the stems 14 of keeper hooks 15 extending outwardly as shown, the stems 14 being split and upset, drawing the shoulders of the hooks against the bight and holding the hooks rigidly.

The lock casing is composed of two sheet metal parts, its back plate 16, having at its ends pairs of prongs 17 extending rearwardly and adapted to pass through the material of the bag body and thereafter bent to engage its inner side, anchoring the lock body rigidly to it in register with the keeper.

Short spacing lugs 18 extend from the edges of the plate 16 at intervals and a similar lug 19 is inset from the left hand end adjacent the lower edge, which is provided with elongated lugs 20.

An elongated slot 21 is formed through the plate 16 and an opening 22, both being on its median line; near the right hand lower corner is a sheared opening the material being extended inwardly forming a diagonally disposed stop 23.

Reaching directly upward from the upper edge of the plate are two projections 24 spaced in conformity with the keeper hooks 15 to guide the same when entering the casing.

The other, outer part of the casing consists of a plate 25 having a flange extending rearwardly from each of its four edges the flanges being suited to engage the edges of the plate 16, the lugs 18 to 20 of which seat against the inner surface of the front plate 25 maintaining the plates in spaced relation.

Raised from the upper edge flange is a prong 26 and a pair of similar prongs are on the lower edge, these prongs being bent to engage over the outer surface of the back plate 16 when the lock is assembled.

A flat bolt 27 is slidably mounted between the plates 16 and 25, the same having two undercut hooks 28 movable into and out of engagement with the flukes of the keeper hooks 15, being reversed thereto, the keeper hooks entering the casing through openings 30 in the upper flange.

The outer curved edge, cam-like, surfaces of the hooks 28 slide in contact with the flange on the upper edge of the casing and a curved projection 29 acting as a guide rides thereon in a similar manner, thus causing the bolt to move in a straight path.

The bolt is maintained normally in a locked position by a two armed, gun type spring 31 disposed between the end flange of the casing and adjacent end of the bolt, the spring loop 32 being held in place by the lug 19 of the back plate.

Retraction of the bolt to permit locking engagement of the hooks 15 and 28 is accomplished by merely entering the keeper hooks in the openings 30 and applying a

moderate pressure, the curved, cam-like edges of the hooks causing the bolt to oppose the spring 31 until the flukes of the hooks pass each other and snap into engagement.

The bolt 27 is normally retracted by a knob 33 having a stem 34 passing through a slot 35 in the plate 25 and riveted in the bolt, the riveted portion finding clearance in the slot 21 of the back plate.

In order to hold the bolt 27 positively in a locked position, incapable of being moved by the knob 33, an angular notch 36 is formed in its outer edge, near its curved projection 29, and engageable in the notch is a detent 37 formed on a flat tumbler 38, pivoted on a pin 39 fixed in the back plate 16, this tumbler being of resilient material.

The free, wider end of the tumbler presents a finger 40 adjacent the detent 37 and a wider projection 41 having between them a recess 42.

A key 43, having a pilot stem 44 to engage the opening 22 of the back plate, is enterable in a key-hole opening 45 in the front plate of the casing, the key having a ward 46 adapted to move in the tumbler recess 42 to engage the finger 40 in moving the detent into engagement with the bolt notch, when the key is turned as indicated by the arrow in Figure 3, or when the key is turned in a reverse direction, as in Figure 4, the ward engages the projection 41, releasing the detent and swinging the tumbler against the stop 23, the key clearing the tumbler projections when in either position.

In order to prevent the tumbler from swinging or becoming accidentally displaced from its adjusted positions, the back plate has a raised projection 47 struck up to extend into the path of a corresponding projection 48 on the under side of the tumbler 38, which, as before stated, is resilient and permits snapping the projections past one another when the tumbler is actuated by a key, the full motion of the tumbler being limited by the bolt 27 and stop 23.

Although the foregoing is descriptive of the preferred embodiment of the invention, it will be apparent that minor changes may be made in its construction, without the exercise of invention of conflicting with the scope of the claims hereto appended.

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

1. A bag lock comprising a casing, a keeper having elements enterable through said casing, a spring actuated slide bolt having members engageable with said keeper elements, said members acting as guides for the bolt, a curved auxiliary guide at the front of said bolt, an angular notch in the rear edge of said bolt, a key actuated tumbler engageable in said notch, said tumbler being pivoted to the outer wall of said casing and curved to conform with the curvature of the auxiliary guide, a lug on said tumbler engageable in the notch in the bolt, spring means for retaining said tumbler in either of two adjusted positions, and means to manually move said bolt when the pawl is disengaged.

2. A bag lock comprising a casing, a keeper having hooks enterable through the edge of the casing, a spring actuated bolt slidable in the casing, hooks on said bolt to engage the keeper hooks, said bolt hooks acting as guides for the bolt, a curved arm on said bolt extending into register with the ends of the hooks thereon and spaced to permit entrance of one of the keeper hooks therebetween, an angular notch in the opposite edge of said bolt disposed between the arm and adjacent hook, a swinging tumbler having a detent to engage said notch, said tumbler being curved to conform to the curvature of the curved arm, a stop for said tumbler, detents to retain said tumbler in engaged and disengaged positions, and key operated means for moving said tumbler into either position.

This specification signed this twentieth day of July, 1926.

WILLIAM C. HIERING.