Dec. 4, 1934. E. N. JACOBI 1,982,813

LOCK

Filed July 20, 1932

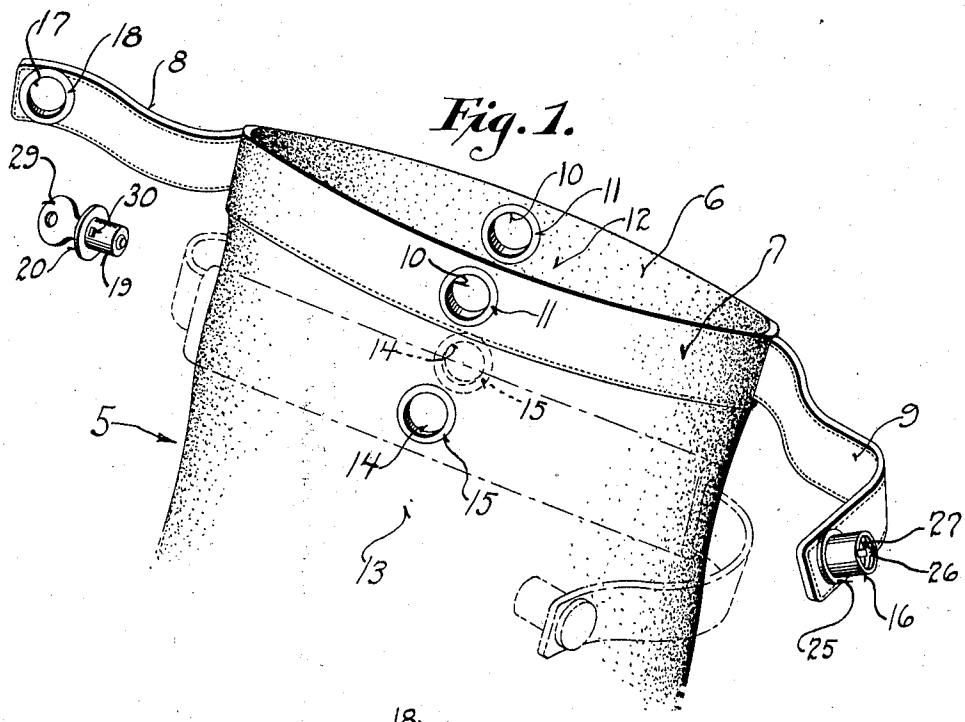


Fig. 1.

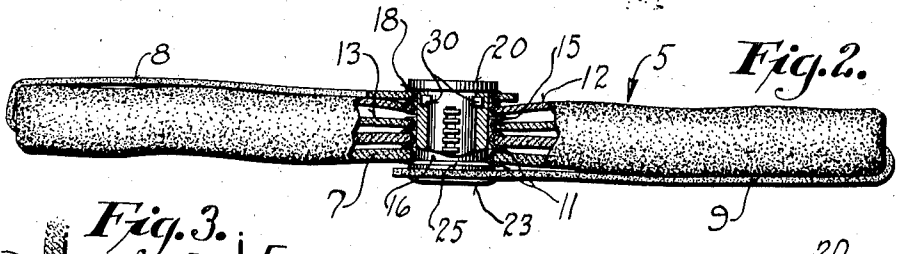


Fig. 2.

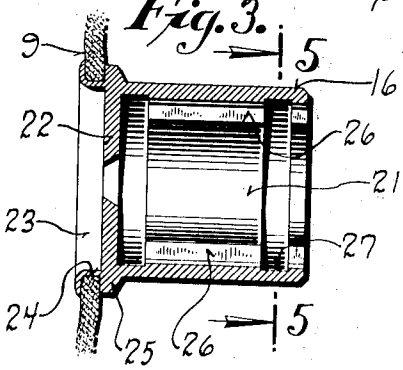


Fig. 3.

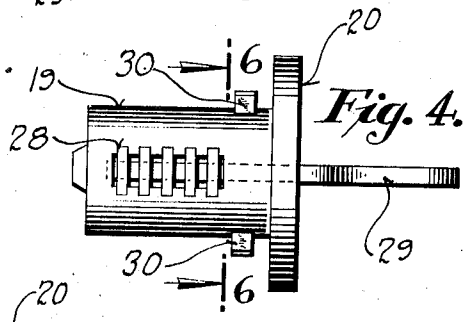


Fig. 4.

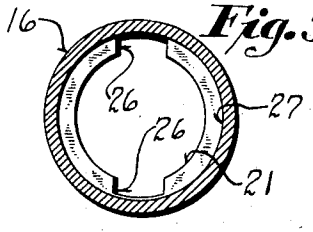


Fig. 5.

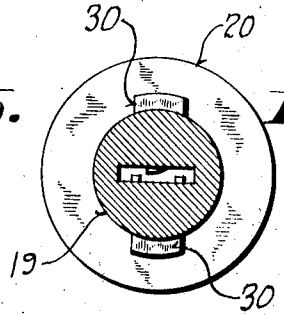


Fig. 6.

Inventor
Edward N. Jacobi
By Dewitt Jones
Attorney

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UNITED STATES PATENT OFFICE

1,982,813

LOCK

Edward N. Jacobi, Milwaukee, Wis., assignor to Briggs & Stratton Corporation, Milwaukee, Wis., a corporation of Delaware

Application July 20, 1932, Serial No. 623,473

3 Claims. (Cl. 70—2)

This invention relates to certain new and useful improvements in locks and refers more particularly to locks especially adapted to secure fabric bags and similar containers closed.

In containers of this character, and especially fabric money bags, the open top is closed by folding down the upper end portion of the bag and securing the folded portion against displacement by some lock means. Heretofore, the means provided for this purpose usually consisted of a pin inserted through aligned apertures in the downturned upper portion of the bag, and a padlock having its bail passed through an aperture in the end of the pin to prevent its retraction.

The present invention contemplates means for locking a bag of this nature closed, whereby the use of a padlock is obviated and the locking function is obtained by means of a conventional tumbler lock.

Another object of this invention is to provide a tumbler lock of such construction as to permit the passage of its casing through the aligned openings of the bag to be held therein by an enlargement on the removable key plug.

Stated more broadly, it is an object of this invention to provide a tumbler lock comprising a barrel or casing and a removable key plug, with means for holding two or more elements against separation when the plug is inserted into the casing.

And a further object of this invention resides in the provision of lock means for securing a money bag or similar receptacle closed, in which a conventional lock barrel or casing is carried by one of a pair of flaps or straps sewed to the bag and arranged to extend over the downturned or folded, open end portion, to be passed through the aligned openings in the bag and be there secured by the insertion of a key plug into the casing, the plug having an enlarged flange and being passed through an opening in the other of the pair of straps.

With the above and other objects in view which will appear as the description proceeds, my invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the hereindisclosed invention may be made as come within the scope of the claims.

In the accompanying drawing, I have illustrated one complete example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a perspective view illustrating a portion of a conventional money bag equipped with this invention;

Figure 2 is a top view of the bag showing the same with its open end turned down and secured in closed position, parts of said view being broken away and in section;

Figure 3 is a longitudinal section view through the lock barrel or casing;

Figure 4 is a side elevation of the key plug;

Figure 5 is a cross section through the lock barrel taken on the plane of the line 5—5 of Figure 3; and

Figure 6 is a cross section through the key plug taken on the plane of the line 6—6 of Figure 4.

Referring now more particularly to the accompanying drawing in which like numerals indicate like parts throughout the several views, the numeral 5 represents a fabric bag of any desired shape or design. The open end 6 of the bag is reinforced by a band 7, to which oppositely extending straps 8 and 9 are secured. These straps may be formed of any suitable material such as leather or a heavy fabric and if desired may be provided with a flexible metal strip embedded therein.

Formed in the reinforcing band 7 substantially midway between the points of connection of the straps 8 and 9 with the band, are oppositely disposed openings 10 provided with grommets 11 attached in the usual manner. The opposite walls 12 and 13 of the bag inwardly of the reinforcing band 7 also have openings 14 which are protected by grommets 15.

The openings 14 are directly opposite each other and are positioned in line with the openings 10 in the reinforcing band, so that when the open end of the bag is turned down as illustrated in dotted lines in Figure 1, all of the openings may be aligned.

By turning down the bag in this manner, its open end is effectively closed and to secure the same in this position the straps 8 and 9 are folded over, as illustrated in Figure 2, with the strap 8 lying against the wall 12 of the bag and the strap 9 positioned over the reinforcing strip 7. With the straps 8 and 9 in this position their free end portions cover the aligned openings 10 and 14.

The strap 9 has secured thereto a lock barrel

or casing 16 which is adapted to be passed through the aligned openings 10 and 14 and also through an opening 17 in the outer end portion of the strap 8, and provided with a grommet 18. The lock barrel 16 is held in its position extended through the aligned openings by the insertion of a key plug 19 into the barrel, the key plug having an enlarged flange 20 to overlie the peripheral edge of the opening 17.

The specific manner in which the lock barrel 16 is secured to the strap 9, its construction, and the construction of the key plug, are best illustrated in Figures 3 to 6 inclusive.

As here shown, the lock barrel 16 has a longitudinal bore 21 open at one end, but closed at its other end by a wall 22. Projected from the wall 22 is an annular flange 23 which is adapted to pass through an opening 24 formed in the strap 9. A flange 25 encircling the barrel adjacent the wall 22 serves as an abutment against which the peripheral edge portion of the opening 24 in the strap 9, is clamped by peening the outer end of the annular flange 23 over the marginal edge of the opening 24. The barrel is thus rigidly secured to the strap 9.

Communicating with the bore 21 in the barrel are two diametrically opposite tumbler receiving grooves 26 and an annular channel 27, for a purpose to be later described.

The key plug 19 is insertable into the bore 21 of the barrel and carries a plurality of key operable tumblers 28 spring pressed to yieldably project one end into one of the tumbler receiving grooves 26 upon alignment therewith and withdrawal of a key 29 which is inserted into the key plug to retract the tumblers as is customary. Obviously, when the key plug is in the barrel and the tumblers are projected into one of the grooves 26, rotation of the plug is prevented.

Retraction of the plug 19 from the casing is prevented by the engagement of diametrically opposite lugs 30 formed on the key plug, in the annular channel 27. The engagement of the lugs 30 in the channel 27 is effected through the open ends of the tumbler grooves 26.

It is observed that the lugs 30 lie in a transverse plane substantially at right angles to the plane of the longitudinal axes of the tumblers, so that after the key plug is inserted into the barrel and its lugs 30 are aligned with the annular channel 27 through the open ends of the grooves 26, rotation is required on the part of the plug to align the tumblers with the grooves.

It is evident that during the insertion of the key plug into the barrel, the key 29 must be in place holding the tumblers fully retracted so that rotation of the plug is possible. After the tumblers are properly aligned with the grooves, the key 29 is withdrawn.

Consequently, the plug is locked against removal from the casing and may be withdrawn only with the aid of a proper key.

From the foregoing description taken in connection with the accompanying drawing, it will be readily apparent to one skilled in the art that this invention affords a novel lock for securing a fabric bag or similar container closed, and while the lock has been shown in conjunction with one specific type of bag, it is obvious that it is adapted to many different uses and may be employed wherever two or more elements, and particularly fabric pieces, are to be locked against separation.

Where the lock is designed for general utility, the barrel or casing 16 instead of being fastened to a strap may be provided with an enlarged flange similar to the flange 20 on the key plug. The two flanges will thus serve as abutments between which the members to be locked together are confined.

What I claim as my invention is:

1. In a lock for a bag, the combination of a lock casing having a bore substantially closed at its inner end and open at its outer end and provided with a longitudinal tumbler groove communicating with a transverse groove to form a bayonet slot, means securing said casing to one portion of the bag, a key plug passing partially through an opening in another portion of the bag and readily insertable and removable from the bore of the casing through the open outer end thereof, means preventing said key plug from passing entirely through said opening in the bag, a lug carried by the plug and engageable in the bayonet slot to hold the cylinder in the casing, said engagement of the lug in the bayonet slot necessitating rotation of the plug, and key operable tumblers to prevent rotation of the plug in the casing so that retraction of the plug from the lock casing necessitates the use of a proper key.

2. In a lock for a bag, the combination of a lock casing having a longitudinal tumbler groove communicating with a transverse groove to form a bayonet slot, said casing passing partially through an opening in the bag, a shoulder on the casing to prevent the casing from passing entirely through said opening in the bag, a key plug passing partially through an opening in another portion of the bag and insertable into the casing, a shoulder on the key plug to prevent the plug from passing entirely through the opening into which it is inserted, a lug carried by the plug and engageable in the bayonet slot to hold the plug in the casing, said engagement of the lug in the bayonet slot necessitating rotation of the plug, and key-operable tumblers to prevent rotation of the plug in the casing so that retraction of the plug from the casing necessitates the use of a proper key.

3. A lock of the character described, comprising a bored casing having a longitudinal tumbler groove and an annular channel in communication with the bore and with each other, the tumbler groove opening to the open end of the bore, a key plug insertable into the casing, key operable tumblers carried by the key plug and engageable with the longitudinal groove in the casing to secure the plug against rotation, said tumblers being retractable to free the plug for rotation upon the insertion of a proper key into the plug, and a lug carried by the key plug and insertable into the annular channel through the longitudinal groove, said lug being out of line with the tumblers so that alignment of the tumblers with the longitudinal groove after the lug is inserted into the annular channel necessiates rotation of the plug and withdrawal of the plug requires the use of a proper key.

EDWARD N. JACOBI.