(No Model.) 2 Sheets—Sheet 1.

J. F. MAINS.

BAG LOCK.

No. 432,539. Patented July 22, 1890.

Fig. 5.

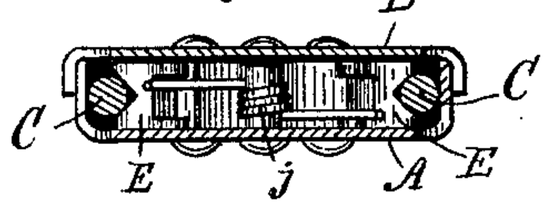


Fig. 4.

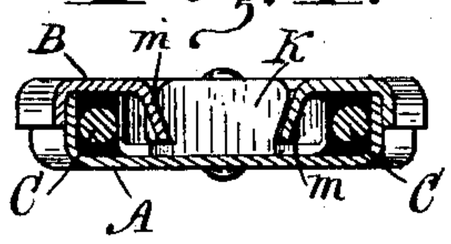


Fig. 3.

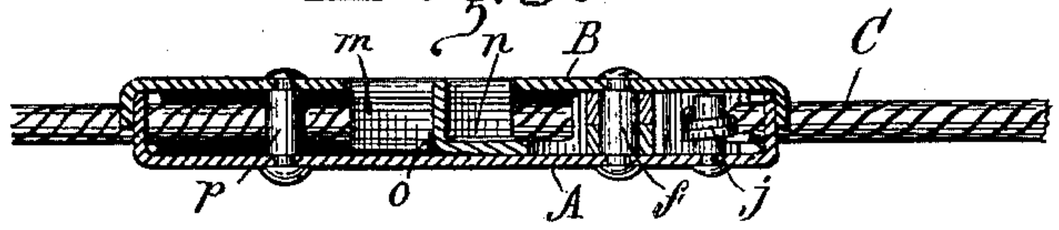


Fig. 2.

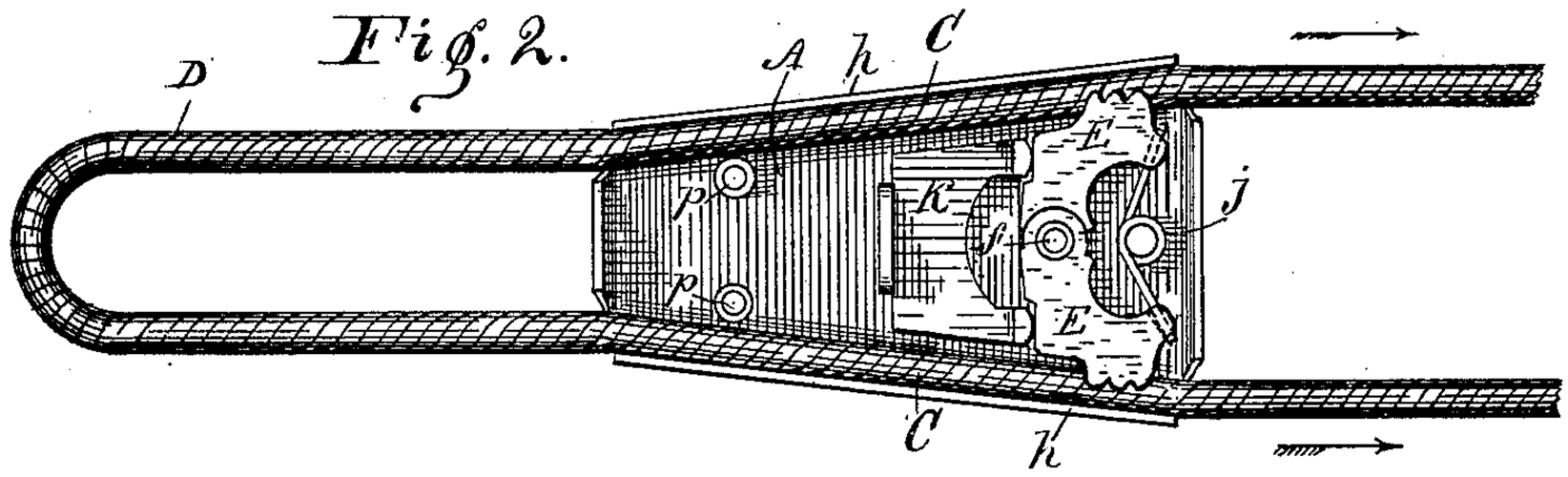
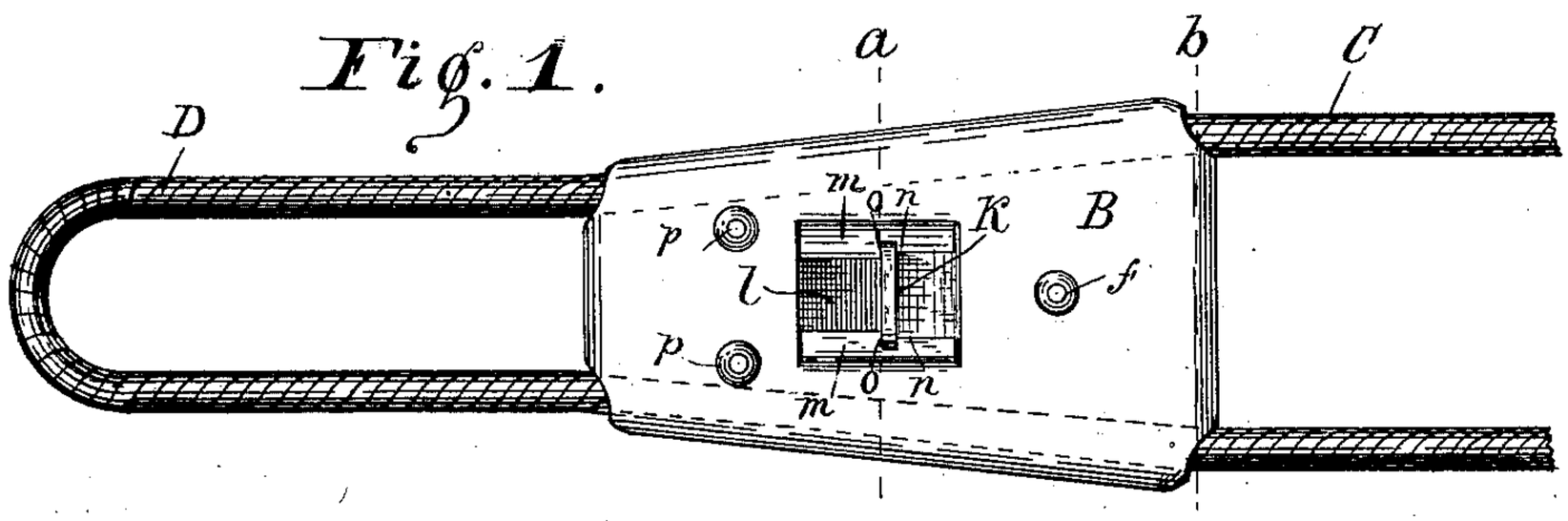


Fig. 1.



Witnesses
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Inventor:
John F. Mains.
By His Attorney
H. P. Hood.

(No Model.) 2 Sheets—Sheet 2.

J. F. MAINS.

BAG LOCK.

No. 432,539. Patented July 22, 1890.

Fig. 9.

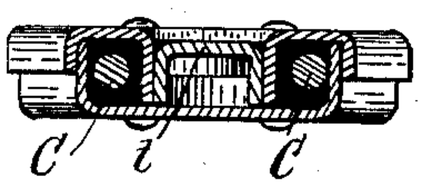


Fig. 8.

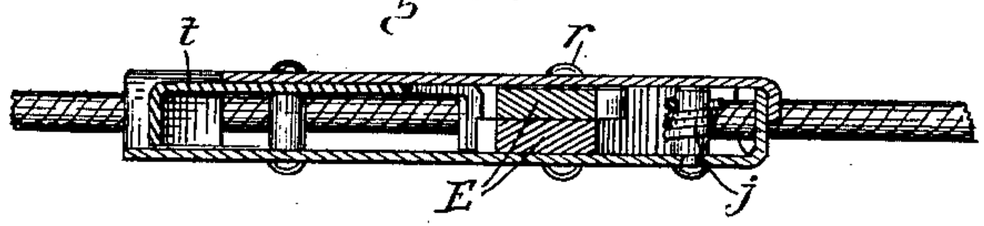


Fig. 7.

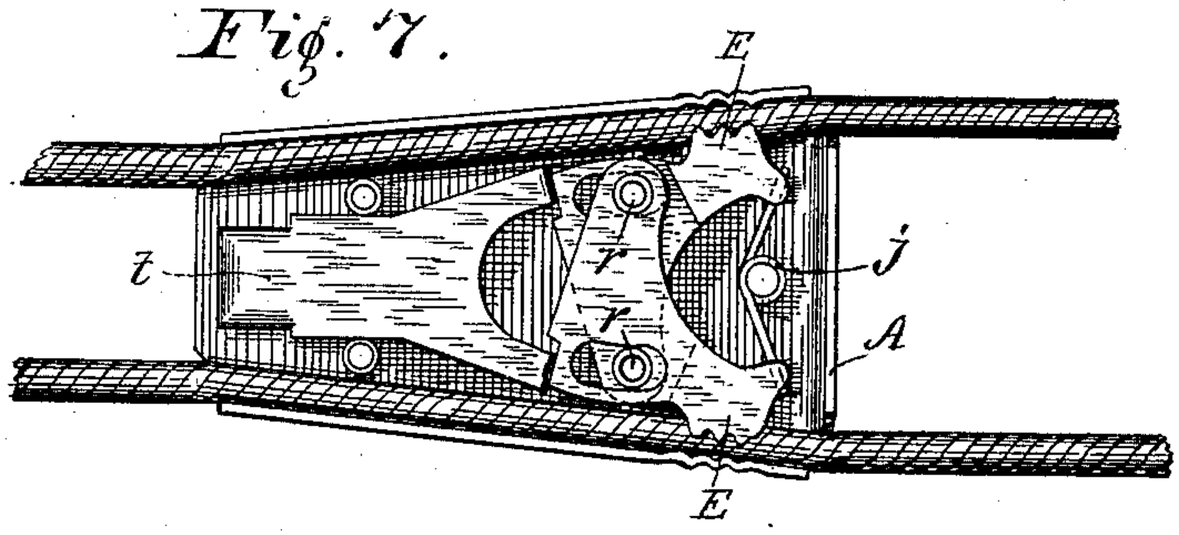
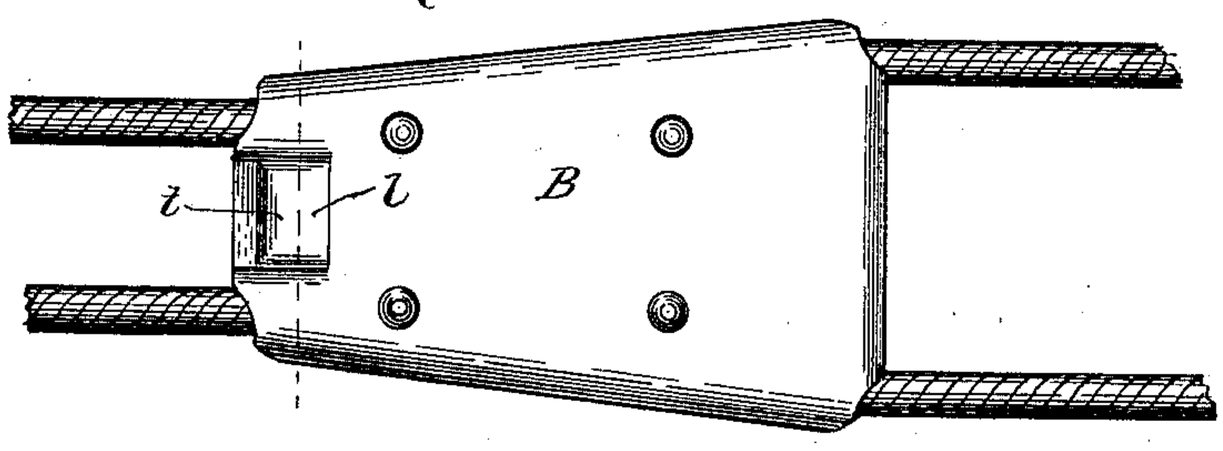


Fig. 6.



Witnesses
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C. M. Hood.

Inventor
John F. Mains
By His Attorney
H. P. Hood

UNITED STATES PATENT OFFICE.

JOHN F. MAINS, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF TWO-THIRDS TO BRUCE CARR AND HARVEY M. LA FOLLETTE, OF SAME PLACE.

BAG-LOCK.

SPECIFICATION forming part of Letters Patent No. 432,539, dated July 22, 1890.

Application filed December 16, 1889. Serial No. 333,866. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. MAINS, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Bag-Locks, of which the following is a specification.

My invention relates to an improvement in the mail-bag lock for which Letters Patent No. 413,624 were granted to myself and others October 22, 1889. The lock shown in the above-mentioned patent consists, essentially, of a metallic casing, through which the free ends of the lacing-cord of a mail-bag are threaded, and a pair of dogs pivoted within the casing between the two ends of the cord, and having between them a sliding wedge which, when forced forward by a cam-shaped key, operates to force the dogs into engagement with the cord, thereby locking the cord and preventing its withdrawal, the dogs being normally out of engagement with the cord and the cord free to move longitudinally through the lock in either direction.

The objects of my improvement are to provide means for holding the dogs normally in engagement with the cord, so as to prevent the cord from moving in one direction, and to provide means contained entirely within the lock-case and presenting no projecting parts, whereby the pair of dogs pivoted within the case may be simultaneously released from the cord by the thumb or finger of the operator, all as hereinafter fully described.

The accompanying drawings illustrate my invention.

Figure 1 is a plan; Fig. 2, a plan of the interior, the top plate having been removed; Fig. 3, a central longitudinal section; Fig. 4, a transverse section at *a*, Fig. 1; and Fig. 5, a transverse section at *b*, Fig. 1. Figs. 6, 7, 8, and 9 represent a modification of the same general plan as the preceding figures, being an exterior plan, an interior plan, a longitudinal section, and a transverse section, respectively.

A and B are plates of sheet metal flanged at the edges to form a separable hollow casing, of which A is the bottom plate, and B the top plate. The flanged edges of plates A and B are cut away at the corners of the casing to form openings, through which the free ends of a cord C pass, the cord lying along and in contact with opposite inner sides of the casing. The bight D of the cord is to be understood to be laced through the open end of a mail or other bag. (Not shown.)

E E are a pair of dogs, which are pivoted at *f* to the bottom plate A in such a manner that the outer edges of the free ends of the dogs engage the cord and clamp it against the upturned edges *h h* of the plate when the attempt is made to draw the cord through the casing in the direction of the bight D, but allowing the cord to slide easily in the opposite direction. The free ends of dogs E are held normally in contact with the cord by a coiled spring *j*, whose opposite ends engage the ends of the dogs and force them outward.

K is a push-bar arranged to slide on the bottom plate of the casing and to engage at one end both of the dogs on opposite sides of the pivot *f*. The opposite end of bar K is turned upward, so as to project into an opening *l*, formed in the top plate B. Plate B is provided on opposite sides of the opening *l* with the inwardly-turned flanges *m m*, which are formed, preferably, by turning down portions of the material of the plate which are removed from the opening *l*. The lower edges of the flanges *m* are cut away at *n*, so as to rest upon the push-bar and hold it in place and to form shoulders *o o*, which limit the outward movement of the push-bar.

The plates A and B are held together by rivets *p p* and pivot *f*, passing through both plates.

In the modification shown in Figs. 6 to 9, inclusive, the dogs E, instead of being both mounted upon a single pivot, are mounted on separate pivots *r r* near opposite sides of the casing, thus increasing the leverage of the push-bar, the dogs being suitably extended and overlapping, as shown, so as to extend into the path of the push-bar. The push-bar *t* is also turned the other side up, so that its flat portion comes against the under side of the top plate, and the opening in the top plate is carried forward to the end of the plate.

In operation, the bight D of the cord C having been laced into a bag at its mouth, as before described, and the free ends passed

through the casing between the sides of the casing and the faces of dogs E E, as shown, the cord may be drawn freely through the lock in the direction indicated by the arrow, but cannot be drawn in the opposite direction, the dogs being held in contact with the cord by the spring *j*, and being, by reason of their relation to their pivot, clamped more tightly against the cord when drawn in that direction. When the cord is to be released, so as to permit the opening of the bag, the operator places the end of his thumb in the opening *l* against the end of the push-bar, and, pushing thereon toward the dogs, the dogs are simultaneously swung inward, thus releasing the cord and permitting its withdrawal.

By the use of the push-bar arranged in the manner shown I am enabled to dispense with a key and to operate the dogs simultaneously without the use of any parts which project beyond the face of the lock-case—a result of much value in this class of locks.

I claim as my invention—

1. In a bag-lock, the combination of the casing, the pair of dogs pivoted within the casing with their faces arranged to engage a cord passing along the opposite interior edges of the casing, the spring arranged to hold the dogs normally in engagement with the cord, and the push-bar arranged to slide longitudinally in the casing and having one end in engagement with both dogs and the other end accessible through the casing, whereby both dogs are operated simultaneously and the use of projecting parts is avoided, as set forth.

2. In a bag-lock, the combination of the casing formed of plate A and plate B, having the opening *l* and inwardly-turned flanges *m m*, provided with shoulders *o*, the dogs E E, pivoted within the casing, and the push-bar K, adapted at one end to engage the dogs and held in place at the other end by the flanges *m m*, as set forth.

3. In a bag-lock, the combination, with plate A, dogs E E, and push-bar K, of the top plate B, having opening *l* and flanges *m m*, arranged to guide and limit the movement of the push-bar, substantially as set forth.

JOHN F. MAINS.

Witnesses:
H. P. HOOD,
V. M. HOOD.