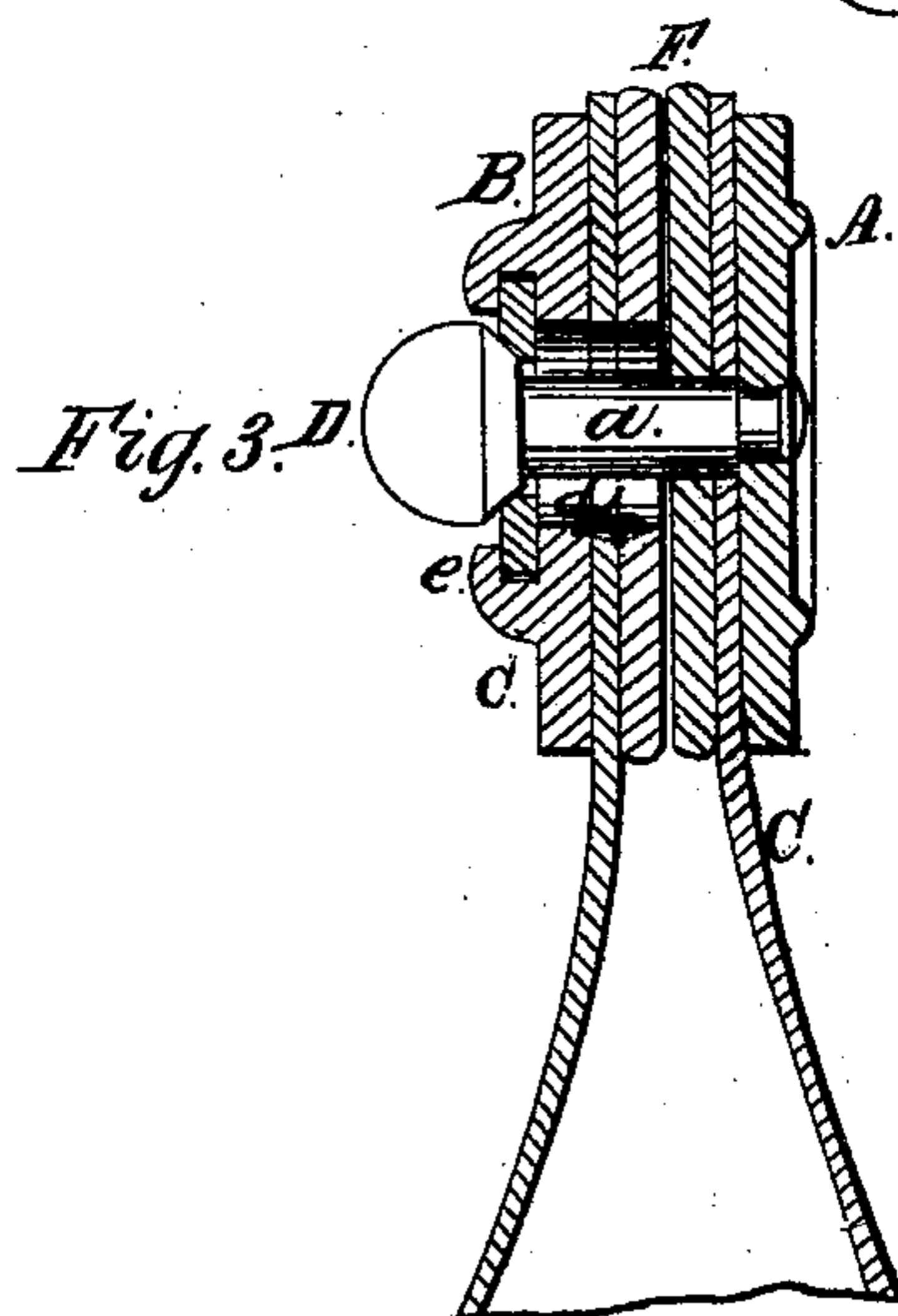


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Fig. 4. D.



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United States Patent Office.

R. O. LOWREY, OF SALEM, NEW YORK.

Letters Patent No. 95,818, dated October 12, 1869.

IMPROVEMENT IN MAIL-BAG FASTENERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, R. O. LOWREY, of Salem, in the county of Washington, and State of New York, have invented certain new and useful Improvements in Mail-Bag Fastenings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

My invention relates to devices for fastening mail-bags, and consists in connecting rigidly a series of peculiarly-constructed studs to a series of metallic plates attached to one side of the mouth of the bag, and in passing the heads of these studs through holes in a corresponding series of metallic plates, attached to the opposite side, and also through slots in a series of linked sliding bolts, so arranged as to fasten or release the heads of these studs, and to be locked in place by any suitable locking-device.

In the drawings—

Figure 1 is a side plan view;

Figure 2 is a top plan view;

Figure 3 is a vertical section on the line *x x* of fig. 1; and

Figure 4 is a longitudinal section of a modified form of one of the slides, and of the head of one of the studs.

As is well known, the ordinary fastening-devices of mail-bags consist of a series of metallic staples, attached to one side of the mouth of the bag, and which enter and pass through a series of slots in the opposite side, and that through these staples is passed and secured a strap, connected to the bag for that purpose.

To open and close bags thus secured, requires considerable time, and often delays the transportation of the mail, especially on routes where they are carried by stage, and are left at way-stations to be examined.

The object of my invention is to produce a fastening-device that will allow the bag to be opened, and closed, and secured with little or no delay.

To accomplish this result, I firmly secure to one side of the mouth of the bag a series of metallic plates, A, and to its opposite side an equal number of metallic plates B, as clearly shown in fig. 2. These plates are all of the same size, and are placed immediately opposite each other, as shown in the same figure.

To each of the plates A, I connect rigidly a stud, D, by passing the end of its stem or shank *a* through the plate, and riveting it there, or by any other suitable means, as shown in fig. 3.

Each of the plates B, I construct with a hole, *d*, in its centre, of sufficient size to allow the head of the stud D to pass easily through it, as shown in said fig.

3, and provide its outer face with a pair of guide-ways, *c*, having lips or flanges *e*.

These guide-ways are arranged on each side of the hole *d*, and so as to be parallel with each other and the sides of the plates, as clearly shown in figs. 1 and 3.

The head of the stud D, I make round on top, but conical on its under side, and the length of its stem or shank I make to suit the thickness of the plates A and B, and the intervening thickness of the bag C and of any packing F, so that when the head of the stud is passed through the plate B, its base may be on a line with the face of the plate, as shown in said fig. 3.

Between the guide-ways *c*, and under the flanges or lips *e*, of each of the plates B, I insert a locking-bolt, E, arranged so as to slide easily between the guide-ways. These bolts are of the same length as the plates, and are connected by a wire link, *f*, as shown in figs. 1 and 2, or in any other suitable manner, and are made with oblong tapering slots G, shaped as clearly shown in fig. 1.

The head of these slots is round, and of the requisite size to allow the head of the studs D to pass easily through, and is near one end of the bolt.

The foot of these slots is also round, and is of the same size with the neck of the studs D.

The length of the slot is such that when the ends of the bolt are flush with the ends of the plate, the lower end of the slot will be immediately over the hole in the plate.

The taper of the slot is gradual throughout its length.

To the last bolt on each end, I attach a strap, J, for convenience in sliding the bolts E when desired.

When the parts are thus constructed and arranged, it will be seen that when the larger ends of the slots G are immediately over the openings *d* in the plates B, and the heads of the studs, the latter can be passed through the openings *d* and slots G, and that then, by drawing on one of the straps J, the bolts E will be moved so that their slots will pass under the heads of the studs, and as the slots are tapering, and the under side of the heads of the studs conical, the latter will be forcibly raised, and thus bind the sides of the mouth of the bag closely together.

In order to lock these bolts in this position, I use a lock, H, as shown in fig. 2, so constructed as to be fastened to one of the studs D, and to fit snugly between the shoulders *g* of the hinge, at each end of the sliding bolts E.

This lock H consists of a box-frame, K, with projections on its under side, so as to allow them to fit against the shoulders *g*, and also to hold the bottom of the lock away from the guide-ways *c*, as clearly shown in fig. 2.

Within the frame K is located a bolt, L, with two

catches *h* and *i*, arranged as shown in the same figure, so that the former may catch into a notch, *j*, in the head of the stud *D*, for that purpose, and the latter be operated against by the tongue of a key, *M*.

The bottom of the frame has an opening, through which the head of the stud passes.

The bolt *L* of this lock is held forward by a spiral spring, *m*, and consists of a frame extending around the inside of the box-frame of the lock, with two cross-pieces, on which are the catches *h* and *i*, and the stem, about which the spiral spring is placed.

On the top of the lock are springs *o*, under which cards may be placed, with the name of the post office to which the bag is to be sent printed thereon.

This lock is applied, after the bolts *E* are drawn into the proper position for fastening the mouth of the bag, by simply passing the head of the stud through the opening in its under side.

As the round or conical head strikes against the slanting side of the catch *h*, the bolt *L* is driven back, until the end of the catch *h* slips into the notch *j*, when the bolt *E* is locked in position.

In order to lock the bag securely, I place two of these locks upon it, one near each end.

To open the bag when thus fastened, I insert a key, *M*, into the lock, with a tongue having its upper side made so as to correspond with the end of the catch *i*, and turn it until it comes immediately under the same, and then pull upon it, when it will force the bolt *L* back, and release it from the stud. The lock can then be taken off, when, by pulling upon one of the straps *J*, the bolts *E* will be drawn forward, so that the bag can be at once opened.

The closing of the bag is equally simple, and can be done in a moment. The studs are put in their places,

a single move of the bolts *E* fastens them, when the locks can be attached by simply pressing them upon the studs for which they are designed.

It is obvious, that instead of having the under side of the heads of the studs conical, the sides of the slots *G* may be provided with an incline, *i*, as shown in fig. 4, which will serve the purpose of pressing the sides of the mouth of the bag closely together.

It is also obvious that it will only be necessary to provide the heads of the studs, to which the locks are applied, with catches.

By this construction and arrangement of devices I can quickly and tightly close the mail-bag, and securely lock it. As the ends of the lock bear against the shoulders *g*, it will be seen that the stud cannot be moved, and that the bolt *E*, through which it passes, is securely locked with it.

Having thus described my invention,

What I claim, is—

1. A mail-bag fastening, consisting of the plates *A* and *B*, the studs *D*, and the linked sliding bolts *E*, or their equivalents, when constructed and arranged substantially as herein described.

2. The combination of the linked sliding bolts *E* and studs *D*, or their equivalents, when constructed and arranged to operate substantially as herein described, and for the purpose set forth.

3. The sliding bolts *E* and studs *D*, when constructed and arranged for receiving the locking-device *H*, substantially as herein described, and for the purpose set forth.

R. O. LOWREY.

Witnesses:

H. B. MUNN,
PHIL. T. DODGE.