No. 648,853. Patented May 1, 1900.

J. T. COWLEY.

PNEUMATIC DESPATCH CARRIER.

(Application filed Mar. 23, 1898.)

(Model.)

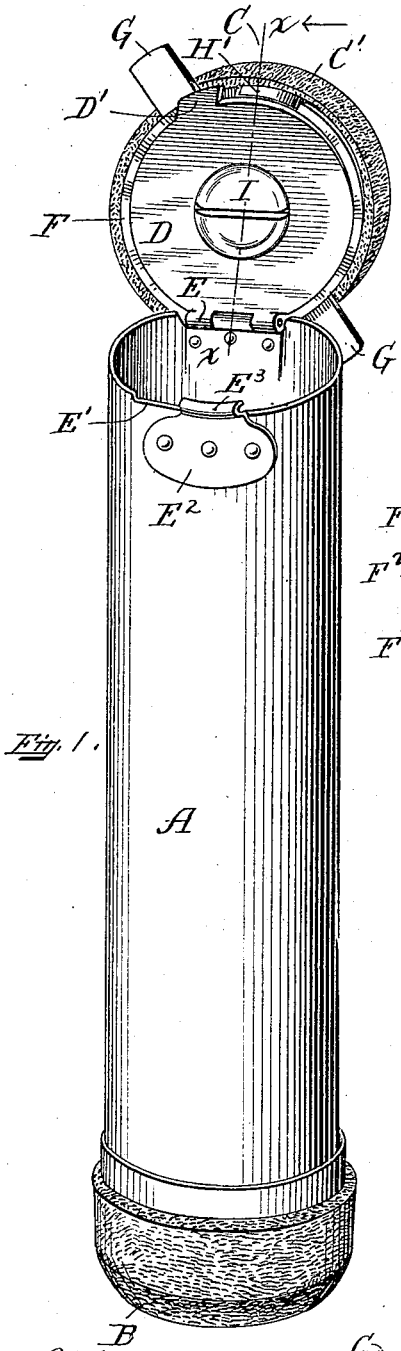

Fig. 1.

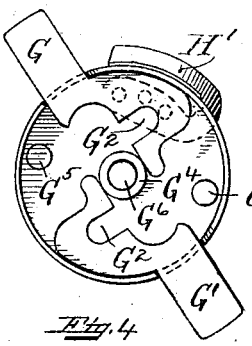

Fig. 4.

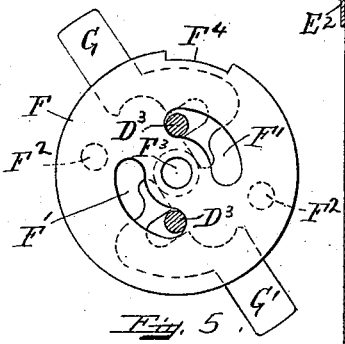

Fig. 5.

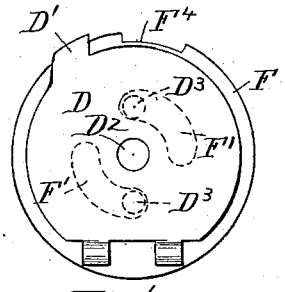

Fig. 6.

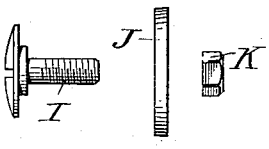

Fig. 7.

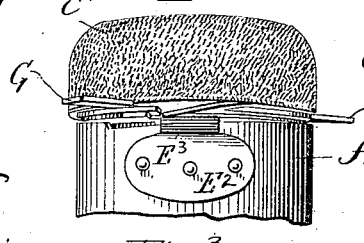

Fig. 3.

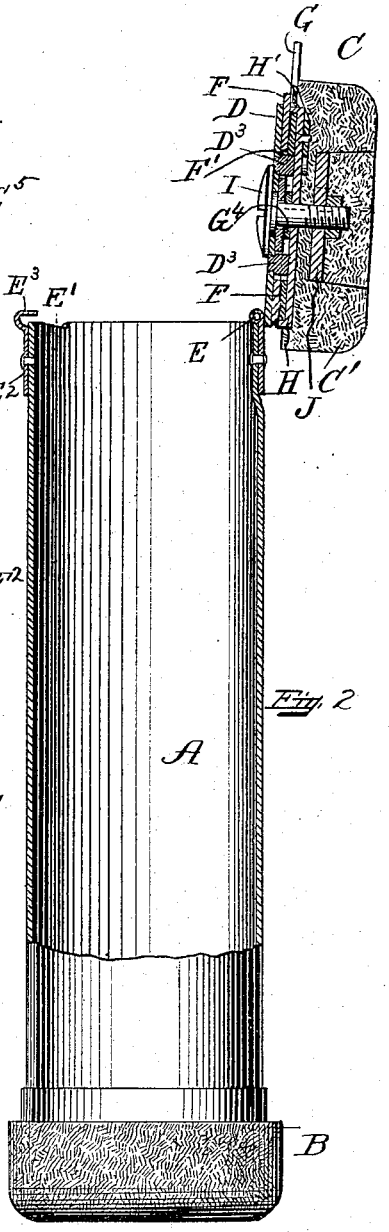

Fig. 2.

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UNITED STATES PATENT OFFICE.

JAMES T. COWLEY, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO THE LAMSON CONSOLIDATED STORE SERVICE COMPANY, OF NEWARK, NEW JERSEY.

PNEUMATIC-DESPATCH CARRIER.

SPECIFICATION forming part of Letters Patent No. 648,853, dated May 1, 1900.

Application filed March 23, 1898. Serial No. 674,853. (Model.)

To all whom it may concern:

Be it known that I, JAMES T. COWLEY, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Pneumatic-Despatch Carriers, of which the following is a specification.

The object of this invention is to so construct a carrier that it is impossible to insert the carrier into the pneumatic-despatch tube until the cover is closed and locked to the body of the carrier and also after the cover is closed and locked to the carrier and the carrier is inserted in the tube it will be impossible for the cover to become unlocked and open while the carrier is in the tube and in transit.

My invention consists of certain novel features hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which illustrate a construction embodying my invention, Figure 1 is a front elevation of the carrier with the cover open and showing the fingers projecting which prevent the insertion of the carrier when the cover is open. Fig. 2 is a side elevation with a part of the carrier and cover in section, the section of the cover being taken on the line X X, Fig. 1. Fig. 3 is a detail side view showing the cover partly down and with the operating parts of the cover in a locked position to prevent the turning of the cover to lock it to the body of the carrier. Fig. 4 is a detail plan view of one of the plates and showing the projecting fingers which prevent the insertion of the carrier into the tube until the cover has been positively locked to the body of the carrier. Fig. 5 is a plan view of a plate forming a part of the locking mechanism of the cover and showing, partly in dotted lines, the projecting fingers. Fig. 6 is a plan view of the plate of the cover which is hinged to the carrier and also showing, partly in dotted lines, the plate shown in full lines, Fig. 5. Fig. 7 represents a side view of the bolt, washer, and nut for holding the parts of the cover together.

Like letters of reference refer to like parts throughout the several views.

The carrier A is preferably made of sheet or other suitable metal and is provided at one end with a fixed head B, of felt, usually of larger diameter than the diameter of the body of the carrier. The opposite end of the carrier is provided with a movable cover C, which is adapted, as hereinafter described, to be locked to the body of the carrier.

The cover C is provided with an inner plate D, hinged at E to the body of the carrier and provided on the opposite edge with a projection D′, and also provided with a central hole D^2, through which the bolt I passes. On the rear side of said plate D are two pins D^3, which pass through the arc-shaped slots F′ F′ of the plate F, which is also provided with a central hole F^3, through which the bolt I passes. On the rear side of said plate F are two pins F^2, which pass through the opposite holes G^5 in the plate H up into the felt head C′ of the cover, and in this manner said plate is locked to turn as one with the felt head C′ of the cover C. The plates F and H and the felt head C′ form a cap which closes the opening into the interior of the carrier A. The pins D^3, which, as above stated, pass through the slots F′, then extend into the pockets G^2 of the fingers G and G′. (See Fig. 4.) Through the hole G^6 of the plate H and through the collar G^4, resting on said plate, the bolt I passes, and around its rear end is located the washer J and nut K, by which means all of the parts are held firmly in position. The collar G^4 prevents the plate F, upon the screwing up of the bolt I, from pressing down on the fingers G G′, and thereby prevents the free motion of the said fingers in the operation of the device.

Secured to the back of the plate H is a spring-catch H′, which projects around the edge of the plate H and is bent downwardly, as shown in Figs. 1 and 3, so that when the cover is open the front edge of this catch will engage with the projection D′ of the plate D. When the cover is open and the spring-catch H′ is in its normal position, it will engage with the projection D′ of the plate D. When the cover is open, the pins D^3 are at the extreme end of the slots F′, as shown in Figs. 5 and 6.

Consequently the cover cannot turn backward but must be turned forward away from the operator, and inasmuch as the spring-catch H′ is directly opposite the edge of the projection D′ the head and plates H and F cannot be turned forward to draw in the fingers G G′, which fingers, by reason of the pins D^3 entering the pockets G^2, are in their outer position when the cover is open. Now in order to draw in the fingers G G′ and lock the cover to the body of the carrier it is necessary to press down the cover C against the tension of the spring-catch H′, (see Fig. 3,) so that the catch H′ is moved upwardly by contacting with the catch E^2, secured to the body of the carrier, and the upper end E^3 of the catch E^2 will pass up through the recess F^4 on the plate F and the projection D′ will rest in the recess E′ of the body of the carrier. As the catch H′ is moved from its locking position it is obvious that upon the turning of the head C′ and connected plates F and H the catch E^2 will pass over the upper edge of the plate F and lock the cover to the body of the carrier. As the movement continues the fingers G G′ will be drawn inwardly by reason of the pins D^3 of the plate D moving from the extreme opposite ends of the slots F′ toward the outer ends of said slots, and said pins D^3, located in the pockets G^2, will draw the said fingers inwardly.

It is obvious from the above description that the carrier cannot be introduced into the tube until it is positively locked, because the fingers G G′, if the cover is not locked, will project beyond the body of the carrier a sufficient distance to prevent the insertion of the carrier into the tube, and these fingers cannot be withdrawn until the spring H′ is moved upwardly by the closing of the cover C and the head C′ turned to lock the cover to the body of the carrier.

Of course it is clear that after the carrier has been introduced into the tube the cover cannot become unlocked, because the fingers G G′ would contact with the sides of the tube and prevent the head C′ turning to bring the recess F^4 of the plate F opposite the catch E^2 on the body of the carrier.

In brief the operation is as follows: The plate D being secured to the body of the carrier A and the plates F and H being secured to the felt head C′ and being loosely mounted on the bolt I, it is obvious that when the catch H′ is opposite the projection D′ of the plate D and upon a slight movement of the cover C said catch H′ would contact with said projection D′, and it is obvious that the said head could not be turned until the catch H′ is pushed upwardly and away from the projection D′, in which case the head C′ is free to revolve and the upper end E^3 of the catch E^2 is passed through the recess F^4 of the plate F, and upon turning the head C′ the upper end E^3 of the catch E^2 passes over and is held by the plate F to the body of the carrier, with the fingers G G′ drawn inwardly. From the above it is clear that the cover must be actually locked to the body of the carrier before the fingers G G′ are drawn inwardly.

I do not limit myself to the arrangement and construction shown, as the same may be varied without departing from the spirit of my invention.

Having thus ascertained the nature of my invention and set forth a construction embodying the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a pneumatic-despatch-tube carrier, a cover, locking mechanism for securing said cover to the shell of the carrier, means for operating said locking mechanism, means on said carrier coöperating with said locking mechanism and arranged to project beyond the shell of the carrier and thereby prevent the insertion of the carrier into the despatch-tube until the cover is locked to the carrier, means arranged to engage with said locking mechanism and normally hold said locking mechanism and projecting means against movement, and means with which said holding means engages for releasing said locking mechanism upon the movement of the cover into locking position whereby said locking mechanism may be operated to lock the cover to the carrier and said preventing means may be withdrawn from beyond the shell of the carrier to permit the insertion of the carrier into the despatch-tube.

2. In a pneumatic-despatch-tube carrier, a cover hinged to said carrier, locking mechanism for securing said cover to the shell of the carrier, means for operating said locking mechanism, means on said carrier coöperating with said locking mechanism and arranged to project beyond the shell of the carrier and thereby prevent the insertion of the carrier into the despatch-tube until the cover is locked to the carrier, means arranged to engage with said locking mechanism and normally hold said locking mechanism and projecting means against movement, and means with which said holding means engages for releasing said locking mechanism upon the movement of the cover into locking position whereby said locking mechanism may be operated to lock the cover to the carrier and said projecting means may be withdrawn from beyond the shell of the carrier to permit the insertion of the carrier into the despatching-tube.

3. In a pneumatic-despatch-tube carrier, a cover, a plate hinged to the shell of the carrier and forming a part of the cover, a cap mounted on said plate so as to turn thereon, locking mechanism for securing said cap to the shell of the carrier, means on said carrier coöperating with said locking mechanism and arranged to project beyond the shell of the carrier and thereby prevent the insertion of the carrier into the despatch-tube until

the cover is locked to the carrier, means arranged to engage with said locking mechanism and normally hold said locking mechanism and projecting means against movement, and means with which said holding means engages for releasing said locking mechanism upon the movement of the cover into locking position whereby said locking mechanism may be operated to lock the cover to the carrier and said projecting means may be withdrawn from beyond the shell of the carrier to permit the insertion of the carrier into the despatching-tube.

4. In a pneumatic-despatch-tube carrier, a cover, a plate hinged to the shell of the carrier and forming part of the cover, a cap mounted on said plate so as to turn thereon, pins projecting from the rear side of the hinged plate, a plate connected to said cap and provided with slots into and through which said pins project, a plate in contact with the cap of the cover and connected thereto, fingers located between the plates and connected to said cap having pockets into which the said pins of the hinged plate extend, the said pins being adapted in the turning of said cap to project said fingers or to withdraw the same within the cap, and means for locking the cover to the body of the carrier.

5. In a pneumatic-despatch-tube carrier, a plate hinged to the shell of the carrier, a cover carried by said plate and adapted to turn thereon, one or more pins projecting from the rear side of the hinged plate, a plate forming part of said cover and provided with one or more slots into which said pin or pins project, the said pin or pins limiting in the turning of said cover the movement of said cover on said plate, and means for locking the cover to the carrier.

6. In a pneumatic-despatch-tube carrier, a cover, locking mechanism for securing the cover to the shell of the carrier, means located on the exterior of the carrier for operating said locking mechanism to lock and unlock the cover, means arranged to engage with said locking mechanism and normally hold said locking mechanism against movement, and means with which said holding means engages for releasing said locking mechanism upon the movement of said cover into locking position whereby said locking mechanism may be operated to lock the cover to the carrier.

7. In a pneumatic-despatch-tube carrier, a cover, locking mechanism for securing the cover to the shell of the carrier, means located on the exterior of the carrier for operating said locking mechanism to lock and unlock the cover, a catch arranged to engage with said locking mechanism and normally hold said locking mechanism against movement, and means with which said catch engages for releasing said locking mechanism upon the movement of said cover into locking position whereby said locking mechanism may be operated to lock the cover to the carrier.

8. In a pneumatic-despatch-tube carrier, a cover, locking mechanism for securing said cover to the shell of the carrier, means for operating said locking mechanism, means on said carrier coöperating with said locking mechanism and arranged to project beyond the shell of the carrier and thereby prevent the insertion of the carrier into the despatch-tube until the cover is locked to the carrier, a catch arranged to engage with said locking mechanism and normally hold said locking mechanism and projecting means against movement, and means on the shell of the carrier with which said catch engages upon the movement of the cover into locking position to release said locking mechanism from said catch whereby said locking mechanism may be operated and said projecting means may be withdrawn from beyond the shell of the carrier to permit the insertion of the carrier into the despatch-tube.

9. In a pneumatic-despatch-tube carrier, a cover, locking mechanism for securing the cover to the shell of the carrier, means movable alternately in opposite directions and located on the exterior of the carrier for operating said locking mechanism to lock and unlock the cover, a catch arranged to engage with said locking mechanism and normally hold said locking mechanism against movement, and means with which said catch engages for releasing said locking mechanism upon the movement of said cover into locking position whereby said locking mechanism may be operated to lock the cover to the carrier.

10. In a pneumatic-despatch-tube carrier, a cover, a plate hinged to the shell of the carrier and forming a part of the cover, a cap mounted on said plate so as to turn thereon a plate secured to said cap to move therewith and forming the locking mechanism by which the cover is secured to the shell of the carrier, a catch arranged to engage with said plate of said locking mechanism and normally hold said locking mechanism against movement, and means on the shell of the carrier with which said catch engages upon the movement of said cover into locking position to release said locking mechanism from said catch whereby said locking mechanism may be operated to move the plate thereof into locking engagement with said means and thereby lock the cover to the carrier.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 18th day of March, A. D. 1898.

JAMES T. COWLEY.

Witnesses:
A. L. DESSER,
E. L. HARLOW.