

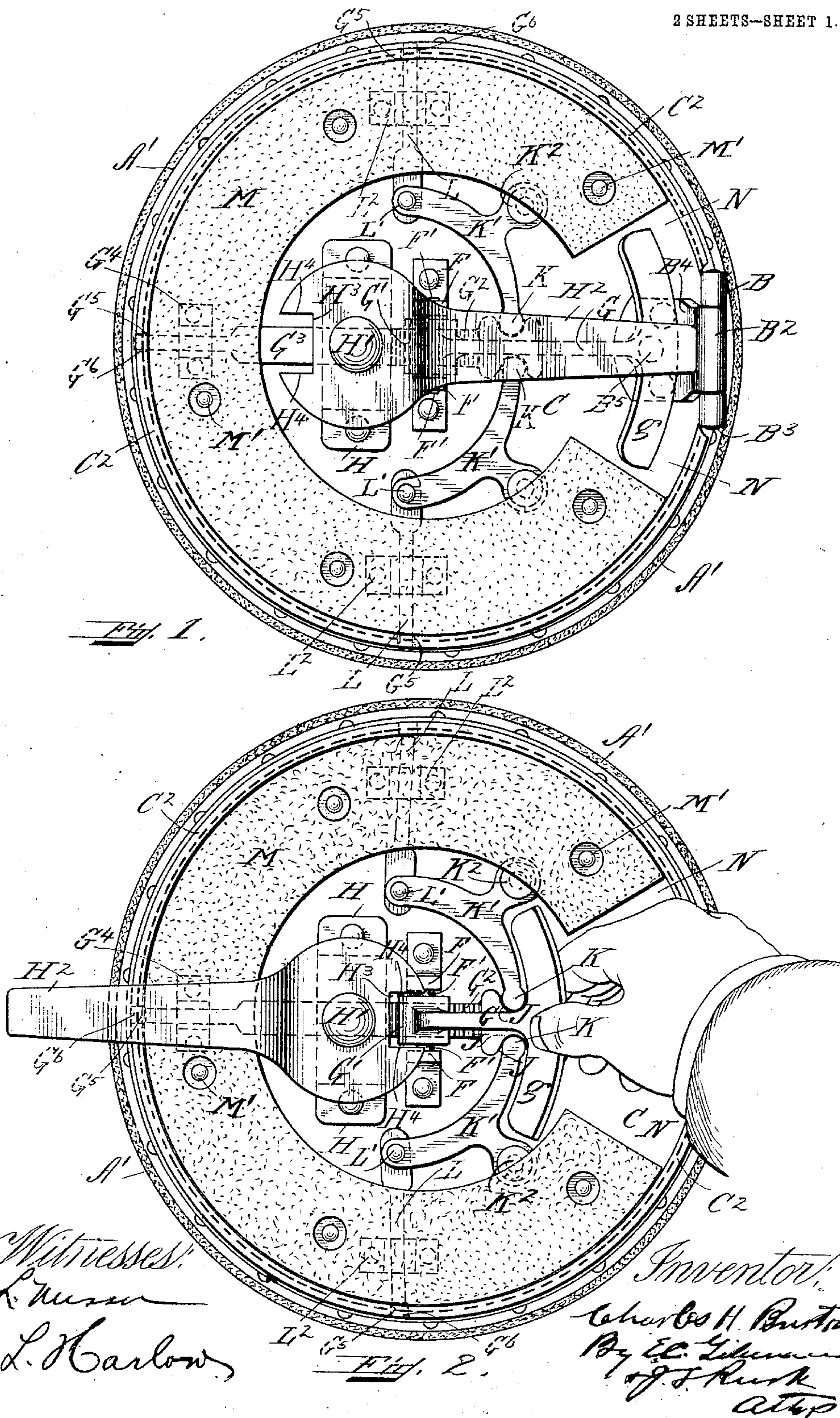
No. 779,638.

PATENTED JAN. 10, 1905.

C. H. BURTON.
CARRIER FOR PNEUMATIC DESPATCH APPARATUS.

APPLICATION FILED APR. 23, 1904.

2 SHEETS—SHEET 1.



No. 779,638.

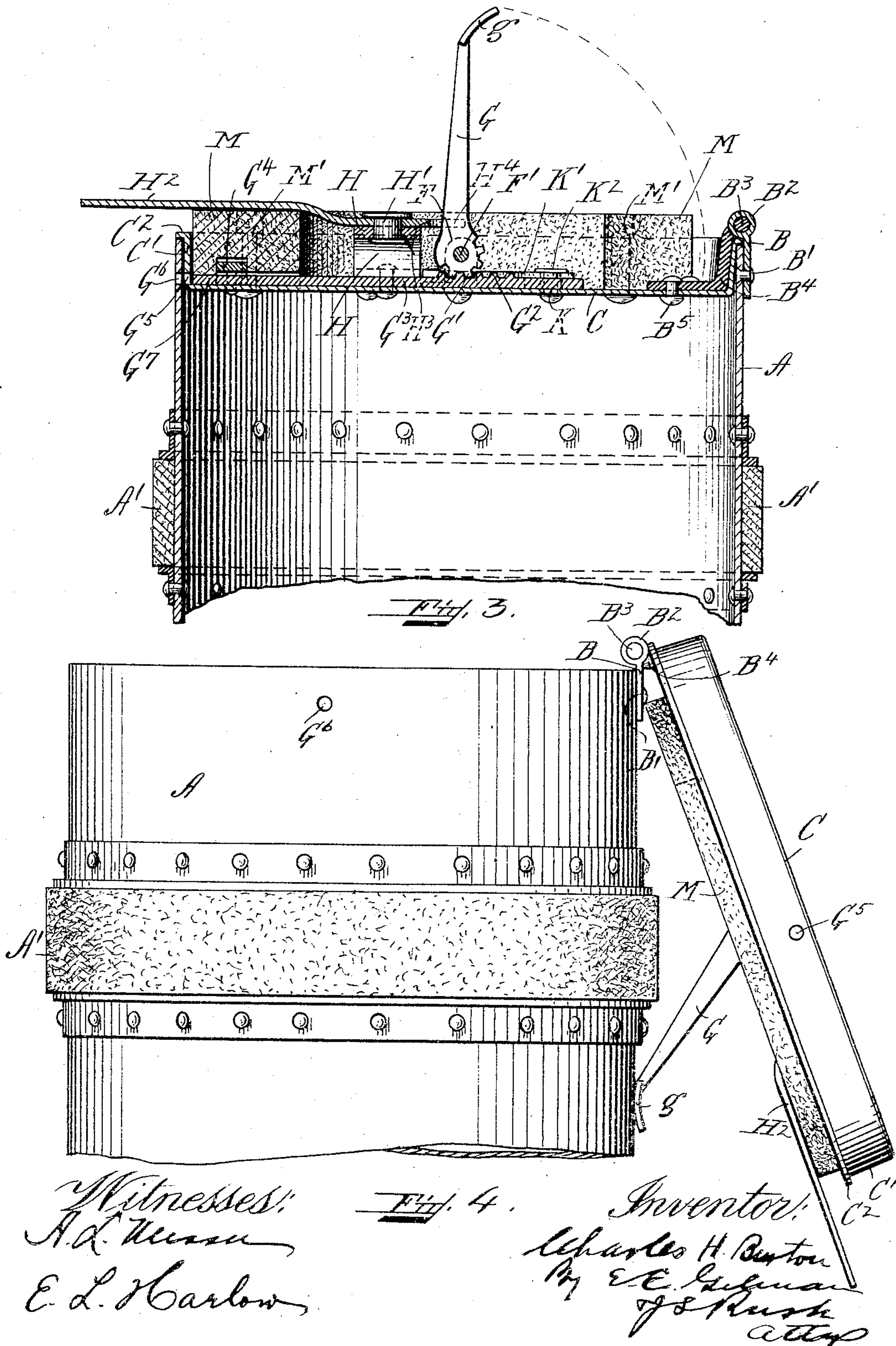
PATENTED JAN. 10, 1905.

C. H. BURTON.

CARRIER FOR PNEUMATIC DESPATCH APPARATUS.

APPLICATION FILED APR. 23, 1904.

2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

CHARLES H. BURTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO
AMERICAN PNEUMATIC SERVICE COMPANY, OF DOVER, DELA-
WARE, A CORPORATION OF DELAWARE.

CARRIER FOR PNEUMATIC-DESPATCH APPARATUS.

SPECIFICATION forming part of Letters Patent No. 779,638, dated January 10, 1905.

Application filed April 23, 1904. Serial No. 204,616.

To all whom it may concern:

Be it known that I, CHARLES H. BURTON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Carriers for Pneumatic-Despatch Apparatus, of which the following is a specification.

My invention relates to new and useful improvements in carriers for pneumatic-despatch-tube apparatus; and its object is to produce a water-tight cover for the open end of the carriers with improved locking mechanism for said cover.

A further object of my invention is to provide mechanism for locking the cover to the shell of the carrier before the carrier can be inserted into the tube.

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 perspective view in elevation of one head of the carrier with the cover locked in position. Fig. 2 is a similar view to Fig. 1, showing the position of the parts when the cover is either being locked to the carrier or unlocked therefrom. Fig. 3 is a cross-sectional view from one end of the carrier and cover with the operating-lever in full lines. Fig. 4 is a side elevation of one end of the carrier, showing the cover in its open position.

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

A represents the shell of the carrier, provided near one end with a friction-packing A' of ordinary construction, and to the exterior of the shell at one end is secured the plate B by the bolts B'. In the eyes in the upper end of this plate B is located a shaft B³, and on said shaft is loosely mounted the eye B² of the plate B⁴, secured by the bolts B⁵ to the cover C, (see Fig. 3,) and by this arrangement the cover and shell are pivotally connected. This cover C is provided with an outwardly-extending vertical circular flange C', provided with a transverse rim C², which fits over the outer end of the shell A, Fig. 3. Secured in the

center of the top of the cover C are two opposite bearings F, in which is journaled the shaft F', to which is fixed fast the toothed segment-gear G', and secured fast to said gear is the lever G, having the handle g. This toothed segment-gear engages with the rack G² on the bar G³ to reciprocate the same in the top of the cover. On one end of said rack-bar G³ is a bolt G⁷, controlled in its movement by the guide G⁴, fast on the top of the cover C, and said bolt is adapted to move outwardly to engage the holes G⁵ G⁶, respectively, in the flange C' and shell A of the carrier. In the opposite end of the rack-bar G³ are located two semicircular recesses J, in which are located the rounded ends K of the bell-crank levers K', pivoted at K² to the cover C. The other ends of the bell-crank levers are pivoted at L' to the bolts L, controlled in their movements by the guides L², secured to the cover C. Located within the cover C is a yielding buffer-head M, secured to the shell of the carrier by bolts M'. Over this buffer-head there is adapted to move the lever H² on the pin H', located in the top of the bracket H, which is secured by suitable bolts to the cover C. (See Fig. 3.) The opposite end of the lever H² is cut away, as shown at H³, leaving two projecting edges H⁴. (See Fig. 1.) When the cover is locked to the shell of the carrier, as shown in Fig. 1, this lever H² is within the circumference of the shell of the carrier and does not interfere with the insertion of the carrier into the tube; but when the cover is being locked or is unlocked, as shown in Figs. 2 or 3, or when the cover is entirely open, as shown in Fig. 4, this lever H² projects beyond the periphery of the cover, and consequently beyond the shell of the carrier, and the carrier cannot be inserted into the tube for transmission. When the lever G is pushed down to operate the bolts and lock the cover to the shell of the carrier, it takes the position shown in Fig. 1, so that the edges H⁴ of the lever H² do not contact with this lever, and therefore allow the lever H² to be moved around into its locked position. (Shown in Fig. 1.) With the lever G in the position

shown in Figs. 2 or 3 the lever H^2 cannot be moved inwardly, so as to withdraw it within the periphery of the cover, as the edges H^4 will contact with the lever G , so that this lever H^2 can only be operated to be brought within the periphery of the shell of the carrier when the lever G is down in its locked position. (Shown in Fig. 1.)

With the parts in the position shown in Fig. 4, the articles having been placed in the carrier, the cover is moved over and closed in the position shown in Fig. 3. The operator then taking hold of the handle g moves the lever G toward the right, thereby operating the rack-bar G^3 , the bolt G^7 , and bolts L , which pass through openings G^5 G^6 in the cover and shell of the carrier, respectively. After the lever G has been pressed fully down, Fig. 1, the operator takes hold of the lever H^2 and brings the same round into the position shown in Fig. 1, thereby preventing the lever G from rising and withdrawing the bolts and unlocking the cover from the shell of the carrier. During transmission in the tube this lever H^2 cannot move out sufficiently to allow the lever G to move upwardly to unlock the bolts. When the carrier reaches its destination, the operator taking hold of the lever H^2 moves the same to the position shown in Fig. 3, then taking hold of the handle g lifts up the lever G , thereby withdrawing the bolts and unlocking the cover from the shell of the carrier, when said cover can be raised or opened for the removal of the articles. This operation for the locking and unlocking is repeated for each trip of the carrier through the tube. This construction of the cover, together with the locking mechanism, prevents water which might be in the transmission-tube from entering the carrier.

From the foregoing it is clear that when the lever H^2 extends beyond the periphery of the carrier the carrier cannot be inserted into the tube, and when the locking operation has taken place and the lever H^2 is moved around into the position shown in Fig. 1 the lever G is prevented from moving upward, and consequently the bolts cannot be withdrawn and the cover is locked to the shell of the carrier until unlocked by the operator at the other end of the line.

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 described 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 plate pivoted to the shell of the carrier, a cover pivoted to said plate and provided with a circular flange to fit into the shell of the carrier, locking mechanism on the exterior of

the cover for locking the cover to the shell of the carrier, a lever pivoted in the center of the exterior of the cover for locking and unlocking said locking mechanism, and means pivoted on said cover for holding said lever against displacement after locking the cover to the shell of the carrier.

2. In a pneumatic-despatch-tube carrier, a plate pivoted to the shell of the carrier, a cover pivoted to said plate and provided with an outwardly-projecting circular flange to fit into the shell of the carrier, locking mechanism on the exterior of the cover for locking the cover to the shell of the carrier, a lever pivoted in the center of the exterior of the cover for locking and unlocking said locking mechanism, and means pivoted on said cover for holding said lever against displacement after locking the cover to the shell of the carrier.

3. In a pneumatic-despatch-tube carrier, a plate pivoted to the shell of the carrier, a cover pivoted to said plate and provided with an outwardly-projecting circular flange and a transverse rim adapted to fit respectively within the shell of the carrier and over the edge of the shell, locking mechanism on the exterior of the cover for locking the cover to the shell of the carrier, a lever pivoted in the center of the exterior of the cover for locking and unlocking said locking mechanism, and means pivoted on said cover for holding said lever against displacement after the locking of the cover to the shell of the carrier.

4. In a pneumatic-despatch-tube carrier, a plate pivoted to the shell of the carrier, a cover pivoted to said plate, bolts on the exterior of said cover for securing the cover to the shell of the carrier, a rack-bar and cooperating bell-crank levers for operating said bolts, a gear adapted to engage with the rack on said rack-bar for operating said rack and said bell-crank levers to operate said bolts to lock and unlock the cover, a lever for operating said gear and provided with a suitable handle, and means pivoted on said cover for holding said lever against displacement after the locking of the cover to the shell of the carrier.

5. In a pneumatic-despatch-tube carrier, a plate pivoted to the shell of the carrier, a cover pivoted to said plate, bolts on the exterior of said cover for securing the cover to the shell of the carrier, a rack-bar and cooperating bell-crank levers for operating said bolts, a gear adapted to engage with the rack on said rack-bar for operating said rack and said bell-crank levers to operate said bolts to lock and unlock the cover, a lever for operating said gear and provided with a suitable handle, and a lever adapted when located within the circumferential limits of the carrier to prevent the movement of said gear-operating lever.

6. In a pneumatic-despatch-tube carrier, a plate pivoted to the shell of the carrier, a cover pivoted to said plate, bolts on the exterior

rior of said cover for securing the cover to the
shell of the carrier, a rack-bar and coöperat-
ing bell-crank levers for operating said bolts,
a gear adapted to engage with the rack on said
5 rack-bar for operating said rack and said bell-
crank levers to operate said bolts to lock and
unlock the cover, a lever for operating said
gear and provided with a suitable handle, and
a lever mounted eccentrically on said cover
10 and adapted when located within the circum-
ferential limits of the carrier to prevent the
movement of said gear-operating lever and
adapted to be moved without the circumfer-
ential limits of the carrier to allow the un-
15 locking of the cover and to prevent the inser-
tion of the carrier into the tube.

7. In a pneumatic-despatch-tube carrier, a
movable mover mounted on the body of a car-
rier and provided with an outwardly-project-

ing circular flange and a transverse rim and 20
adapted to fit respectively within the shell of
the carrier and over the edge of the shell,
locking mechanism on the exterior of the
cover for locking the cover to the shell of the
carrier, a lever pivoted in the center of the ex- 25
terior of the cover for locking and unlocking
said locking mechanism, and means pivoted
on said cover for holding said lever against
displacement after locking the cover to the
30 shell of the carrier.

In testimony whereof I have signed my name
to this specification, in the presence of two sub-
scribing witnesses, this 14th day of April, A. D.
1904.

CHARLES H. BURTON.

Witnesses:

E. L. HARLOW,
A. L. MESSER.