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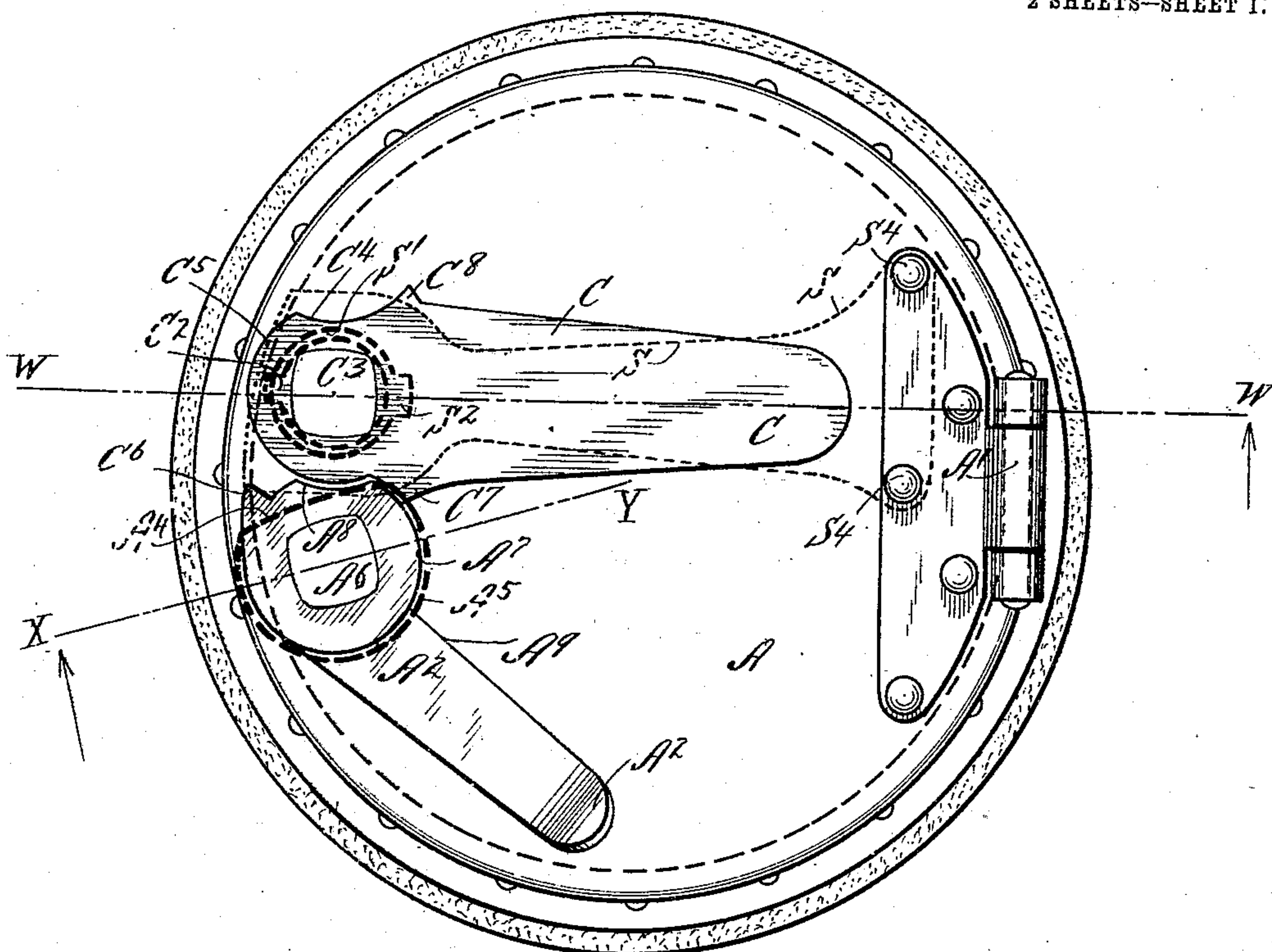
PATENTED JAN. 29, 1907.

C. F. STODDARD.

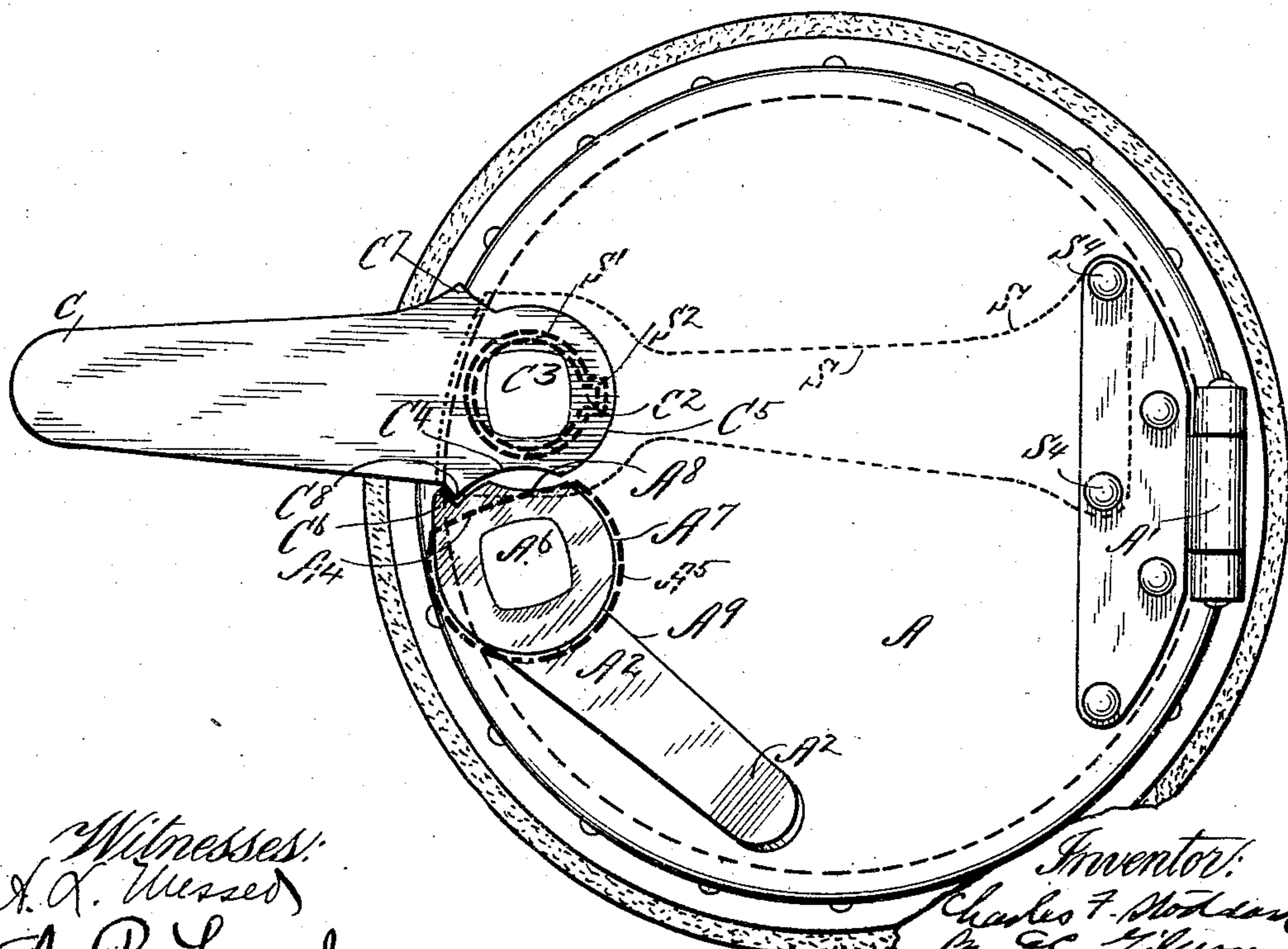
CARRIER FOR PNEUMATIC DESPATCH TUBE APPARATUS.

APPLICATION FILED MAY 20, 1904. RENEWED JULY 28, 1906.

2 SHEETS--SHEET 1.



File 1.



~~Page~~ 2

Witnesses:
W. K. Messed
A R Larrabee

Inventor:
Charles F. Mottson
By W. C. Gilman
J. F. Rush

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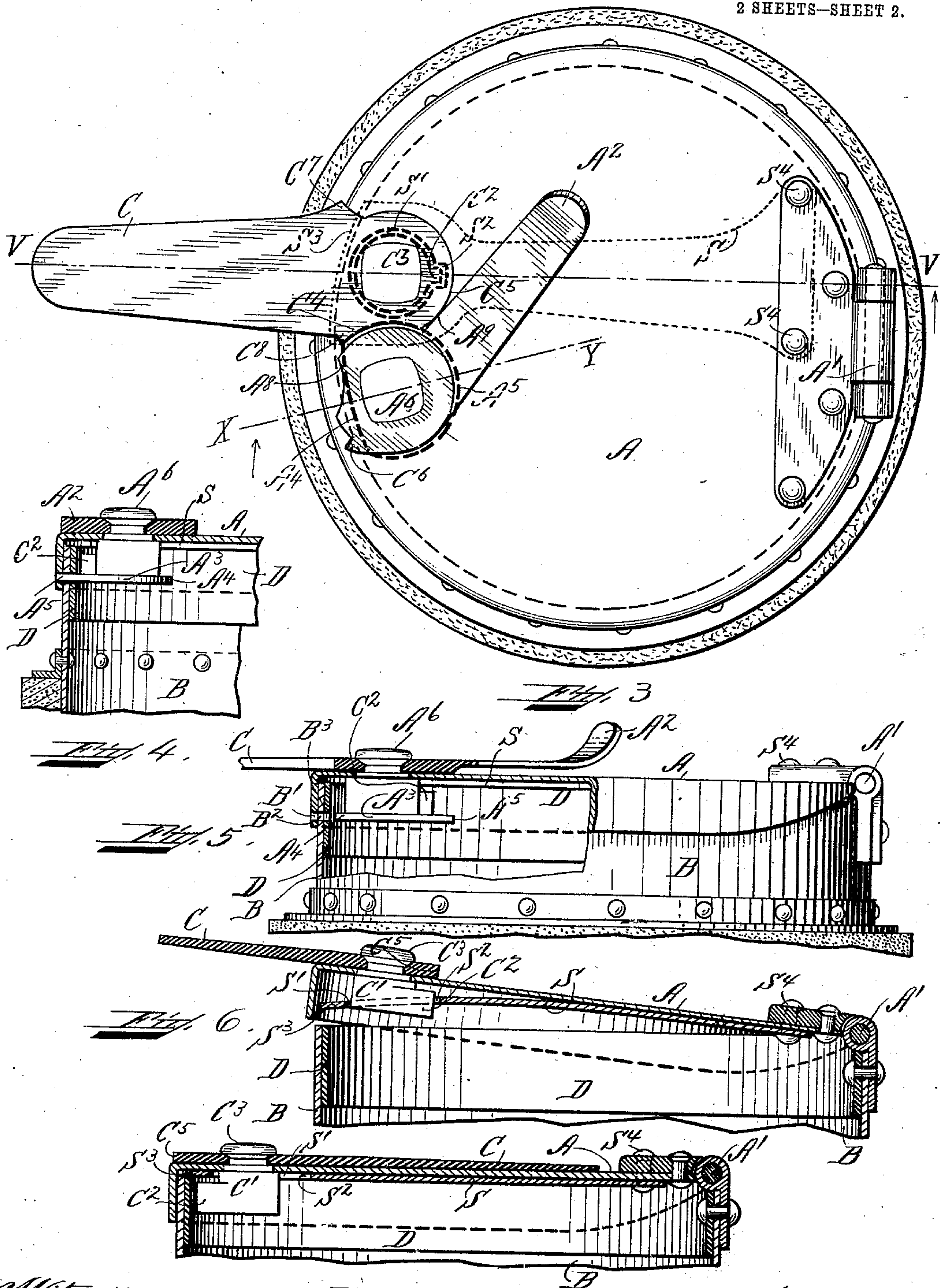
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2 SHEETS—SHEET 2.



Witnesses:
A. A. Muzzey
A. R. Larrabee

Inventor:
Charles F. Stoddard
By E. C. Gilman
J. H. Rusk, Atty.

UNITED STATES PATENT OFFICE.

CHARLES F. STODDARD, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO AMERICAN PNEUMATIC SERVICE COMPANY, OF DOVER, DELAWARE, A CORPORATION OF DELAWARE.

CARRIER FOR PNEUMATIC-DESPATCH-TUBE APPARATUS.

No. 842,355.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed May 20, 1904. Renewed July 28, 1905. Serial No. 271,718.

To all whom it may concern:

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

My invention relates to new and useful improvements in carriers for pneumatic-despatch-tube apparatus, and especially to such carriers wherein mail-matter and merchandise are transmitted through a pneumatic-despatch tube.

The object of my invention is to produce a carrier simple in construction and which cannot be inserted into the tube until the cover is absolutely closed and locked to the carrier.

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 an elevation of the rear end of the carrier with the parts in their positions when the carrier is ready to be despatched and the cover locked to the shell of the carrier. Fig. 2 is a similar view, but with the safety-lever thrown into the opposite position. Fig. 3 is a similar view to Fig. 2 except that the locking-lever is thrown into its opposite position and the cover is unlocked from the shell of the carrier. Fig. 4 is a section through the locking mechanism on the line X Y, Fig. 1, with the parts in locked position, showing the locking-bolt in full lines. Fig. 5 is a side elevation of the rear end of the carrier, partly in section, taken on the line X Y, Fig. 3, with the parts in their unlocked positions and showing the locking-bolt in full lines. Fig. 6 is a section through the rear end of the carrier on the line V V, Fig. 3, showing the position of the parts when the cover is opened. Fig. 7 is a similar view on the line W W, Fig. 1, showing the parts in their positions when the carrier is closed and locked ready to be despatched.

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

B represents the shell of the carrier, the top of which is reinforced by the band D. To the shell B by means of the hinge A' is piv-

oted the cover A. The upper portion of the cam-bolt A³ is securely fastened to the lever A² at A⁶ in such a way that the cam-bolt A³, which locks the cover to the shell of the carrier, may be swung around by the lever A². The safety-lever C is pivotally connected to the cover A at C³ in such a way that it can swing freely on the pivot C³ and will carry the locking-bolt C' with it in its movements. The portions of the locking-lever A² and the safety-lever C immediately around their pivots A⁶ and C³ are so shaped as to form an interlocking device, so that it is possible to swing the lever A² only when the lever C is in the position shown in Fig. 2 and possible to swing the safety-lever C only when the locking-lever A² is in the position shown in Fig. 1. The cam portion A⁵ of the cam-bolt A³ is shown in dotted lines, Figs 1, 2, and 3, and full lines, Figs. 4 and 5, and it is so shaped that the side A⁴ will not extend into the slots B', B², and B³ in the cover A³, shell B, and reinforcing-band D, respectively, when said cam-bolt A³ is in the position shown in Figs. 3 and 5, in which position the cover A is not locked to the shell B. When the cam-bolt A³ is swung into the position shown in Fig. 4, the cam portion A⁵ extends into the slots B', B², and B³.

In Fig. 3, which shows the locking parts in their positions when the cover A is not locked to the shell B, it will be seen that the lever A² can be freely moved into the position shown in Fig. 2, but the safety-lever C cannot be moved from the position shown in Fig. 3. The convex rounding portion A⁷ of the lever A² and the concave rounding portion C⁴ of the lever C are concentric with the pivot A⁶, upon which the lever A² swings. This arrangement makes it impossible to swing the safety-lever C into the position shown in Fig. 1 until the lever A² is swung into the position shown in Fig. 2, which brings the concave rounding portion A⁸ of the lever A² concentric with the pivot C³, upon which the safety-lever C swings. The convex rounding portion C⁵ of the safety-lever C is concentric with the pivot C³, on which the safety-lever C swings, and constructed to mesh with the concave rounding portion A⁸ of the lever A² when said lever A² is in the position shown in Fig. 2, so that it is possible with the

lever A² in this position to swing the safety-lever C into the position shown in Fig. 1. This safety-lever C is pivoted near the periphery of the cover A, so that when it is swung into the position shown in Fig. 3 it extends beyond the circumferential limits of the carrier and makes it impossible to insert the carrier into the transmission-tube and also makes it impossible for the lever C to be swung from the position shown in Fig. 1 to that shown in Fig. 2 while the carrier is in the transmission-tube. As before explained, when the cover A is unlocked from the shell B the parts are in the position shown in Fig. 3 and the cycle of operation of the lock is as follows: The cover A being swung upon the hinge A' into its closed position, (shown in Fig. 5,) the lever A² swings into the position shown in Fig. 2, the motion being limited by the shoulder C⁶, which engages the safety-lever C, (shown in Fig. 2,) when the proper position of the lever A² is reached. Then the safety-lever C is swung into the position shown in Fig. 1, leaving the carrier locked and ready for transmission. When the lever A² is swung away from the position shown in Fig. 3 to that shown in Fig. 2, the cam-bolt A³, being securely fastened thereto, swings with the lever A², and the cam portion A⁵ moves into said slots B', B², and B³, Fig. 4. Then the lever C is swung from the position shown in Fig. 3 to that shown in Fig. 1, which causes the cover to be held locked to the shell of the carrier. In unlocking the cover A it is necessary to swing the safety-lever C from the position shown in Fig. 1 to that shown in Fig. 2 before the lever A² can be moved from the position shown in Fig. 1 to that shown in Fig. 3, because the convex rounding portion C⁵ of the safety-lever C is meshed with the concave rounding portion A⁸ of the lever A². After the safety-lever C is swung from the position shown in Fig. 1 to that shown in Fig. 2 the lever A² is swung from the position shown in Fig. 1 to that shown in Fig. 3, thereby locking the safety-lever C into the position shown in Fig. 3, because the convex rounding portion A⁷ of the lever A² is meshed with the concave rounding portion C⁴ of the lever C. The shoulder C⁷ of the safety-lever C limits the motion of the safety-lever C when it is swung from the position shown in Fig. 2 to that shown in Fig. 1. When the safety-lever C is swung from the position shown in Fig. 1 to that shown in Fig. 2, the portion C⁸ engages the shoulder C⁶ of the lever A², thereby limiting the swing of the safety-lever C in this direction. The motion of the lever A² in swinging from the position shown in Fig. 2 to that shown in Fig. 3 is limited by the portion A⁹ of the lever A² engaging the convex rounding portion C⁵ of the safety-lever C. To the under side of the cover A is secured by suitable bolts S⁴ the rear end of the spring S, which is con-

structed with an opening S' at its front end, in which moves the locking-bolt C'. Upon the locking-bolt C' is the extended portion C², which when the locking-lever C is in the position shown in Fig. 2 comes directly opposite the extended cut-away portion S² of the spring S, so that when the cover A is raised, as shown in Fig. 6, the spring S will drop down so that the extended cut-away portion S² of the opening S' in the spring S will come over the extended portion C² of the locking-bolt C', so that the safety-lever C cannot swing from the position shown in Fig. 2 until the cover is again closed tightly, because when the cover A is closed the end S³ of the spring S engages the shell B of the carrier and pushes the spring S from the position shown in Fig. 6 to that shown in Fig. 7. This allows the extended portion C² of the locking-bolt C' to swing under the spring S, as shown in Fig. 7, upon the operation of the safety-lever C into the position shown in Fig. 1.

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 carrier for pneumatic-despatch-tube apparatus, a cover, locking mechanism for securing the cover to the shell of the carrier, means for holding said locking mechanism against movement when the cover is locked to the shell of the carrier, a device for locking said holding mechanism against movement when the cover is open, and means for releasing said holding mechanism when the cover is moved into locking position on the shell of the carrier.

2. In a carrier for pneumatic-despatch-tube apparatus, a cover, locking mechanism for securing the cover to the shell of the carrier, mechanism engaging with said locking mechanism for holding said locking mechanism against movement when the cover is locked to the shell of the carrier, a device for locking said holding mechanism against movement when the cover is open, and means for releasing said holding mechanism when the cover is moved into locking position on the shell of the carrier.

3. In a carrier for pneumatic-despatch-tube apparatus, a cover, a bolt for locking said cover to the shell of the carrier, a locking-lever for operating said bolt to lock and unlock the same, a safety-lever cooperating with said locking-lever for holding said locking-lever against movement when the cover is locked to the shell of the carrier, a device for locking said safety-lever against movement when the cover is open, and means for

releasing said safety-lever when the cover is moved into locking position on the shell of the carrier.

4. In a carrier for pneumatic-despatch-tube apparatus, a cover, a bolt for locking said cover to the shell of the carrier, a locking-lever for operating said bolt to lock and unlock the same, a safety-lever engaging and cooperating with said locking-lever for holding said locking-lever against movement when the cover is locked to the shell of the carrier, a device for locking said safety-lever against movement when the cover is open, and means for releasing said safety-lever when the cover is moved into locking position on the shell of the carrier.

5. In a carrier for pneumatic-despatch-tube apparatus, a cover, a bolt for locking said cover to the shell of the carrier, a locking-lever for operating said bolt to lock and unlock the same, a safety-lever engaging and cooperating with said locking-lever, the said levers being provided with interacting parts for preventing the operation of the locking-lever when the cover is locked to the shell of the carrier, a device for locking said safety-lever against movement when the cover is open, and means for releasing said safety-lever when the cover is moved into locking position on the shell of the carrier.

6. In a carrier for pneumatic-despatch-tube apparatus, a cover, a bolt for locking said cover to the shell of the carrier, a locking-lever for operating said bolt to lock and unlock the same, a safety-lever engaging and cooperating with said locking-lever for hold-

ing said locking-lever against movement when the cover is locked to the shell of the carrier and extending beyond the periphery of the carrier to prevent the insertion of the carrier into the transmission-tube when removed from locking engagement with the locking-lever, a device for locking said safety-lever against movement when the cover is open, and means for releasing said safety-lever when the cover is moved into locking position on the shell of the carrier.

7. In a carrier for pneumatic-despatch-tube apparatus, a cover, a cam-bolt for locking said cover to the shell of the carrier, a locking-lever for operating said bolt to lock and unlock the same, a safety-lever engaging and cooperating with said locking-lever for holding said locking-lever against movement when the cover is locked to the shell of the carrier, and extending beyond the periphery of the carrier to prevent the insertion of the carrier into the transmission-tube when removed from locking engagement with the locking-lever, a device for locking said safety-lever against movement when the cover is open, and means for releasing said safety-lever when the cover is moved into locking position on the shell of the carrier.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 17th day of May, A. D. 1904.

CHARLES F. STODDARD.

Witnesses:

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