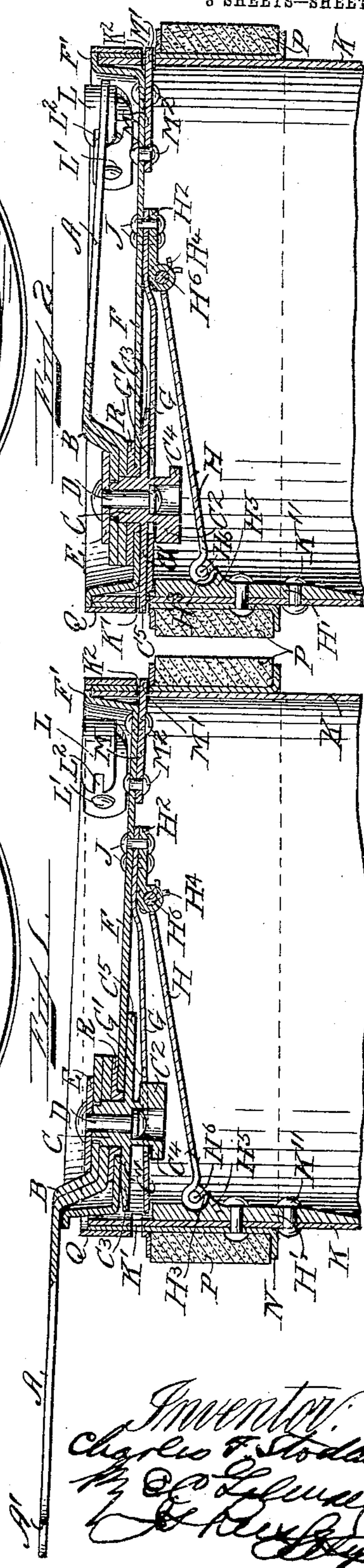
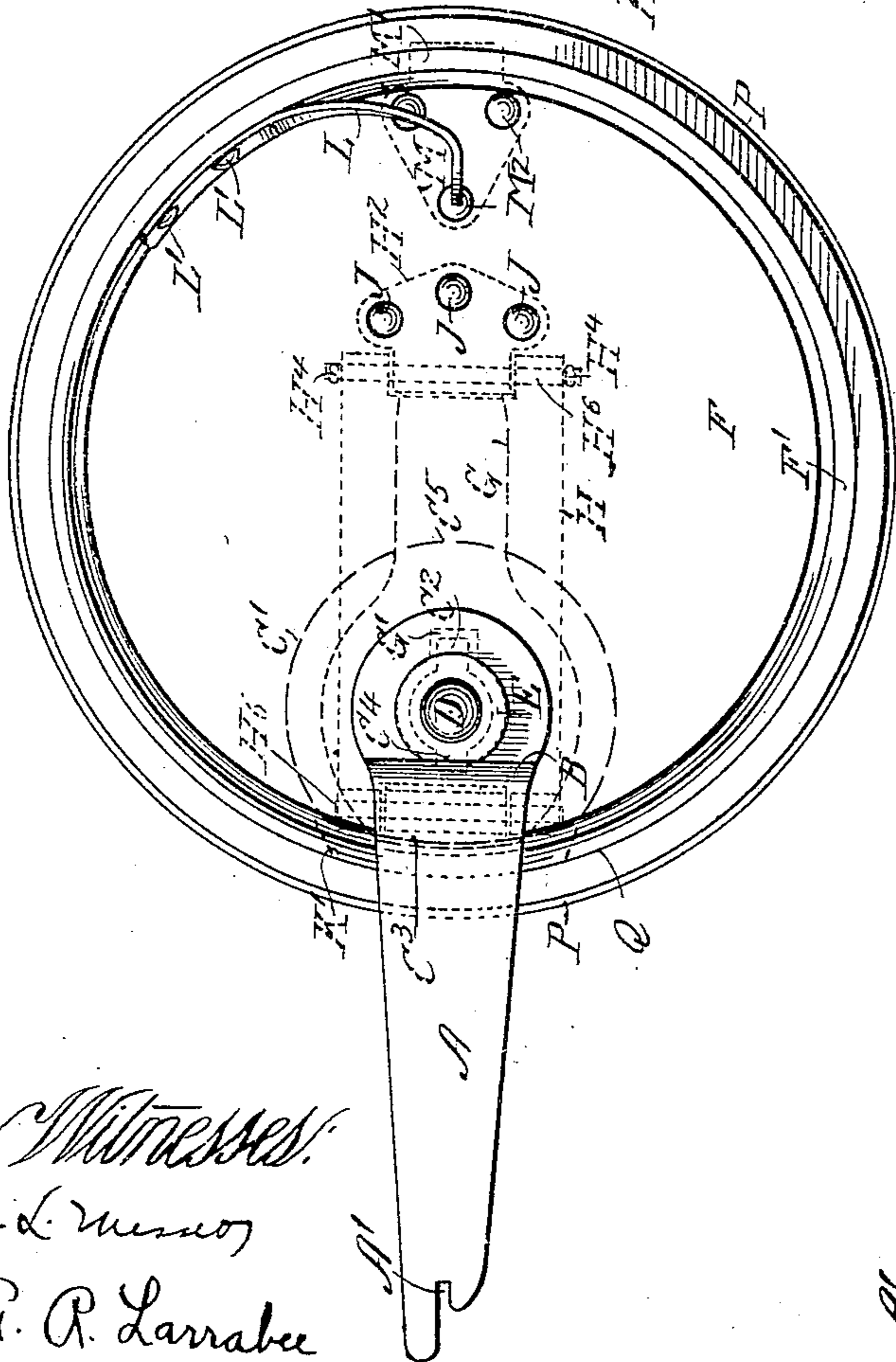
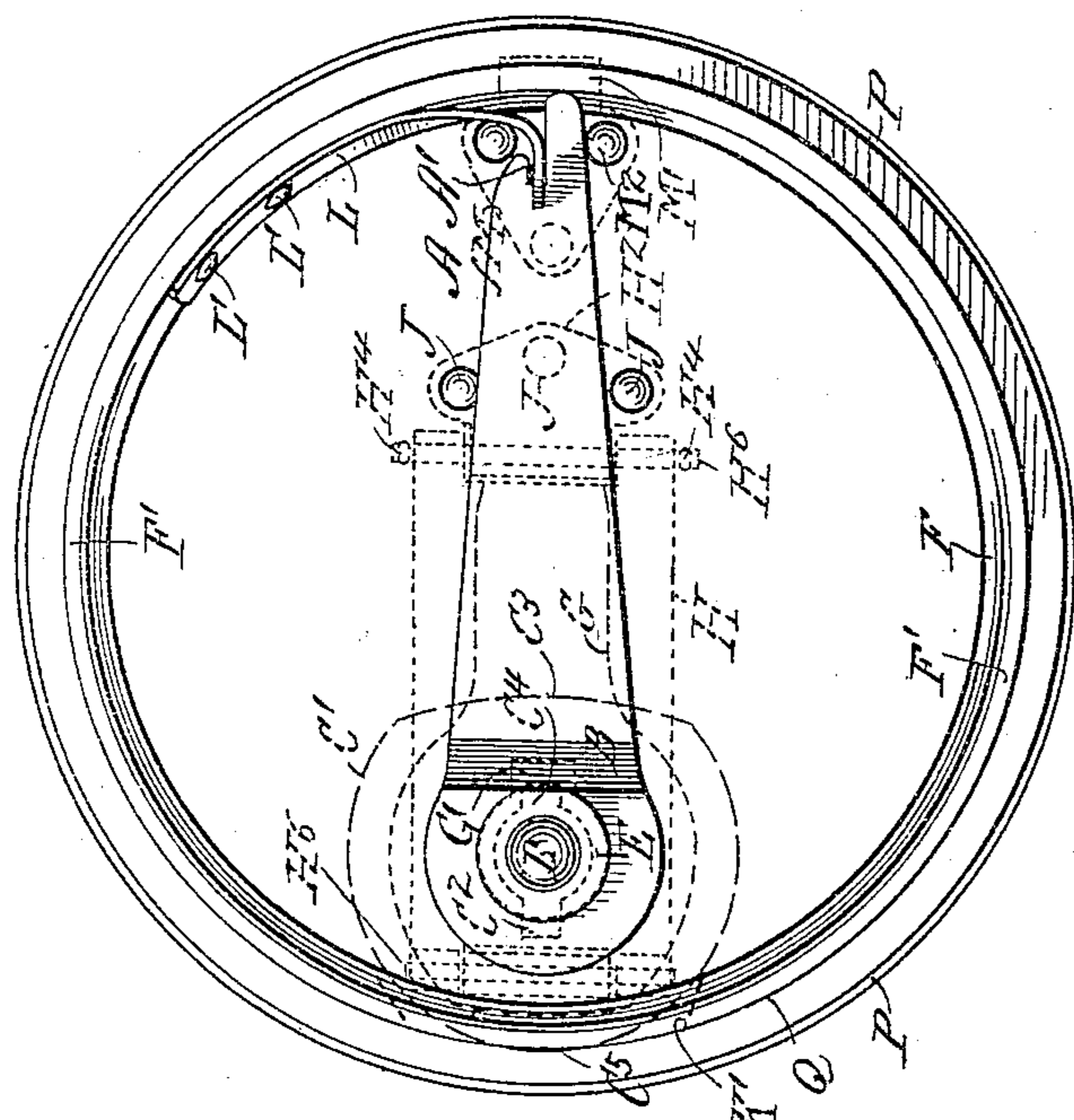


CARRIER FOR PNEUMATIC DESPATCH TUBE APPARATUS.

APPLICATION FILED MAY 3, 1908.

Patented June 28, 1910.

3 SHEETS—SHEET 1.



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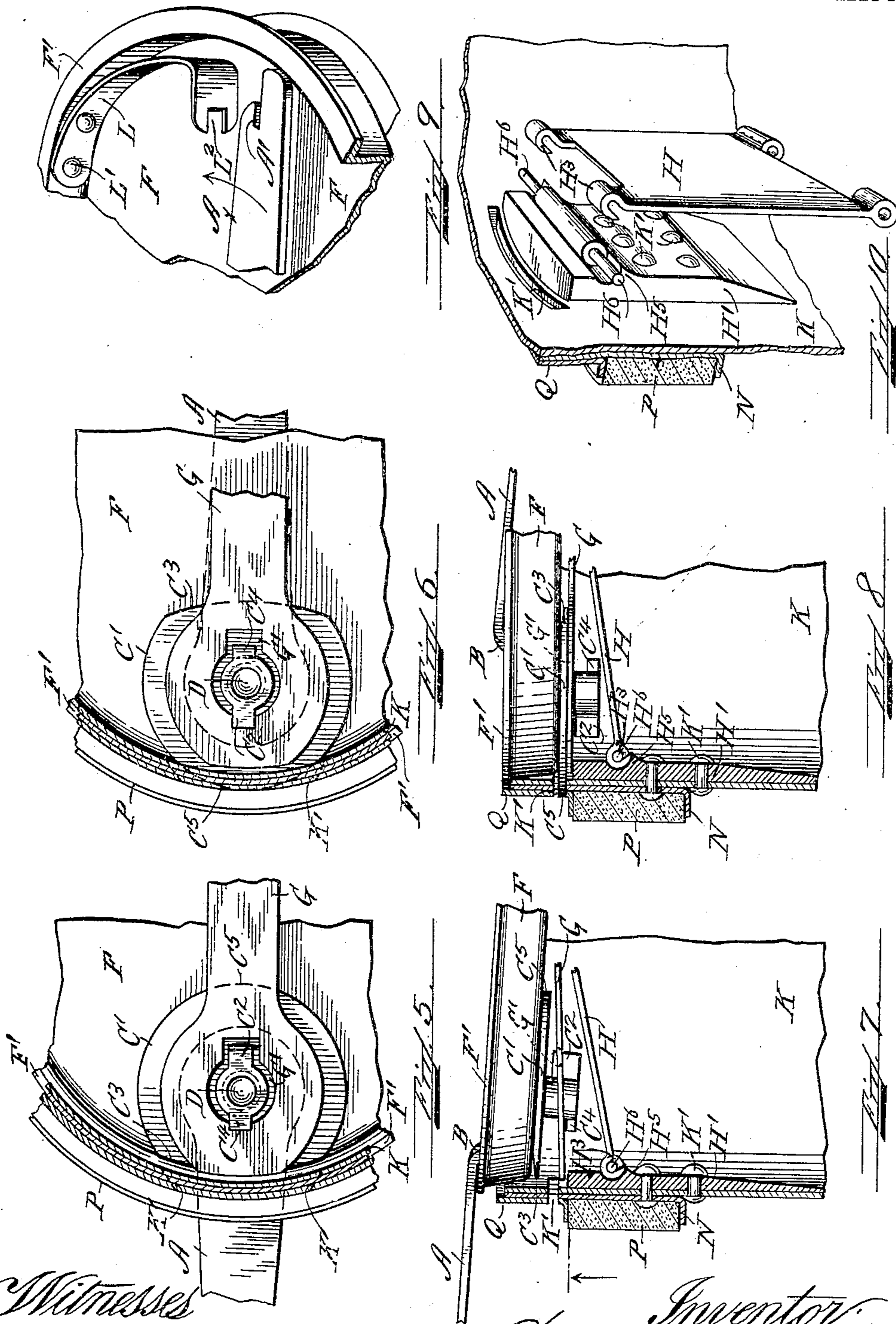
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3 SHEETS—SHEET 2.



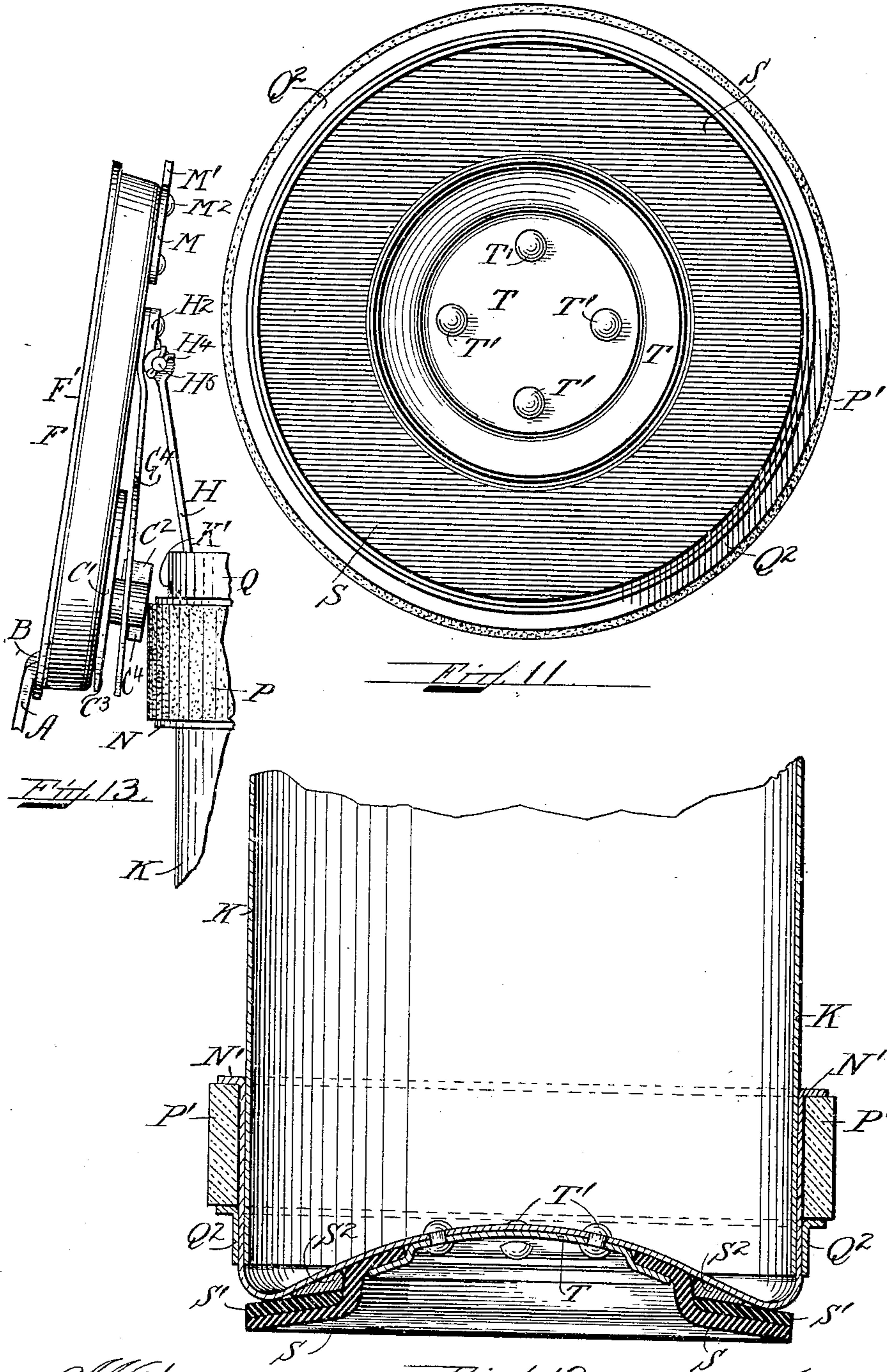
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UNITED STATES PATENT OFFICE.

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.

962,796.

Specification of Letters Patent. Patented June 28, 1910.

Application filed May 3, 1906. Serial No. 314,928.

To all whom it may concern:

Be it known that I, CHARLES F. STODDARD, of Dorchester, 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 carriers for pneumatic despatch apparatus and its object is to simplify and cheapen the construction, use fewer parts and make repairs less frequent and more expeditious.

In the accompanying drawings which illustrate a construction embodying my invention, Figure 1 is a plan view of the top of the carrier showing the lid closed. Fig. 2 is a plan view showing the lid closed and locked. Fig. 3 is an elevation in section showing the lid unlocked. Fig. 4 is an elevation in section showing the lid closed and locked as in Fig. 2. Fig. 5 is a plan view of cover looking from underneath showing it unlocked. Fig. 6 is a plan view of the lid looking from underneath showing it locked. Fig. 7 is an elevation in section showing the cover unlocked and slightly open. Fig. 8 is an elevation partly in section showing the lid closed and locked. Fig. 9 is a perspective view of part of the locking mechanism. Fig. 10 is a perspective view of hinge attached to the carrier with hinge strap detached. Fig. 11 is a plan view of bottom of the carrier. Fig. 12 is an elevation in section of the bottom of the carrier showing the construction of the buffer. Fig. 13 is an elevation in section of the upper portion of the carrier showing the cover wide open.

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

A is the handle reinforced by the plate B Fig. 1; C is the cam bolt to which is attached the handle by means of the rivet D, and between the cam bolt C and the handle A is placed a washer E, so that the head of the rivet may not be made unnecessarily large. The cam C is constructed so that the web portion C' locks into the slot K' of the shell K; the projecting portion C² of the cam C passes through the opening G' of the spring G which is secured to the lid F by the plate H² of the hinge and the rivets J. The hinge strap H is provided with a hook H³ which engages the pin H⁶ of the plate

H' which plate is secured to the shell K by rivets K''. The spring L is secured to the lid F by rivets L' and is provided with a slot L² which engages the handle A at the slot A'. Secured to the lid F by means of the rivets M² is the secondary locking plate or rigid catch M which is provided with a lip M' which enters the slot K² of the shell K. The hinge strap H is secured to the hinge plate H² by means of the pin H⁶ which is in turn held in place by the split cotter pins H⁴ at each end. The strap or plate H forms a swinging hinge-connection between the cover and the shell. Over the shell K is secured the sleeve N which acts as a reinforcement to the shell K and over which is placed the ring P upon which the carrier slides through the tube; this ring P is held in place on the sleeve N by means of the retaining ring Q which extends somewhat above the shell K and the sleeve N; the flange F' sets down when the cover is closed on the ends of the shell K and the sleeve N but inside of the retaining ring Q so that the carrier is made practically water tight.

Where the cam C passes through the lid F there is provided a bushing R which is securely fastened to the lid F and in which revolves the cam C; the web portion C' of the cam C is provided with a flattened side which disengages the cam C from the shell K when the cover is unlocked as shown in Fig. 3. The cam C is also provided with the lip C⁴ which keeps the spring G from dropping down away from the cam C when the lid is opened as shown in Fig. 7. The hinge plate H' is carried out at the point H⁵ concentric to the pin H⁶ so that the hinge strap H will be held in place when the lid is swung wide open as shown in Fig. 13. The lower ring P' (Fig. 12) upon which the carrier slides is held in place on the sleeve N' by the retaining ring Q² which is securely fastened to the sleeve N'. This sleeve N' acts as the bottom of the carrier and is securely fastened to the shell K.

On the concave bottom of the carrier is a buffer to take up the shock when the carrier strikes a stop at a terminal. The buffer comprises a cupped disk S of elastic material with a central opening. Interposed between the flange of the disk S and the rim of the concave bottom are the rings S', S², also

of elastic material to give the necessary cushioning effect to the buffer. The disk and rings are held in place by the metal plate T inserted in the central opening in the disk and secured to the concave bottom by the rivets T'. The edge of the plate T extends over the adjacent edge of the disk S and clamps the latter to the concave bottom of the carrier, and the flange of the disk projecting over the rings S', S² holds the latter in place.

The operation is as follows: As the cover is closed, the lip M' of the plate M or rigid catch, which is in the same plane of movement as the swinging hinge-connection formed by the plate H, enters the slot K² thereby securing to the shell K the lid F at this point; when the lid F is down in place so that the web C' is in alinement with the slot K', the handle A is swung from the position shown in Fig. 1 to the position shown in Fig. 2 bringing the portion of the cam at C⁵ into the slot K' as shown in Fig. 4 thereby securing to the shell the lid F at this point and locking the cover to the two opposite points, thus making it secure. It is to be observed that the rigid catch M and the slot K² in the shell K are in the same plane of movement as the hinge-connection between the lid F and the shell, so that when the lid is swung to a closed position the catch M will readily register with the slot K². The lid can be slammed to with but little attention on the part of the operator to see that the catch engages the slot, thereby permitting a speedy closing of the lid, which is of considerable importance in the operation of such apparatus.

When the handle A is thrown into the position shown in Fig. 2, the slot L² in the spring L engages the handle A in the slot A' and holds the handle A in the position shown in Fig. 2. In unlocking the carrier the spring L is pressed back away from the handle A thereby disengaging same, allowing the handle A to be swung out into the position shown in Fig. 1 which brings the flattened portion C³ of the cam C opposite the slot K' disengaging the cam C from the shell K as shown in Fig. 3. The lid F is then raised by the handle A and when it reaches the position shown in Fig. 7, the spring G will have dropped down over the portion C² of the cam C thereby locking the handle A into the position shown in Fig. 1 and making it impossible to swing the handle A around. Further lifting of the lid F by the handle A disengages the lip M' of the plate M from the slot K² thereby making the cover free from the shell K. The cover is then swung back into the position shown in Fig. 13.

When it becomes necessary to place a new cover on a carrier, it is done by remov-

ing one of the split pins H⁴ and then removing the pin H⁶ from the hinge plate H² which disengages the lid F from the hinge plate H². Another lid is then put on.

When it is necessary to renew the hinge strap H it is disengaged from the hinge plate H² in the same manner as the cover is disengaged and it is then dropped down into the shell K and unhooked and lifted out as shown in Fig. 10.

If it becomes necessary to renew the cam C, the head of the rivet D is knocked off which disengages the cam C, the lid F and the handle A, so that any of these parts may then be changed without having destroyed anything but the one rivet.

Should it become necessary to renew the buffer of the carrier, it is done by knocking the heads off the rivets T' which disengages the cupped disk S, and the rings S' S², and the buffer plate T from the sleeve N' without destroying anything but the rivets T'.

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 shell, a cover, a swinging hinge-connection between said cover and said shell, a catch on said cover in the same plane of movement as said hinge-connection actuated by the closing of the cover to engage one side of said shell, and means for locking the opposite side of said cover to the shell.

2. In a carrier for pneumatic despatch tube apparatus, a shell, a plate pivoted at one end to the interior of said shell, a cover pivoted to the other end of said plate, a catch on said cover in the plane of movement of said plate actuated by the closing of the cover to engage one side of said shell, and means for locking the opposite side of the cover to the shell.

3. In a carrier for pneumatic despatch apparatus, a shell, a plate pivoted to said shell, a cover pivoted to said plate and provided with a circular flange adapted to fit into the shell of said carrier, a rigid catch attached to said cover and adapted to secure one side of said cover to said shell when said cover is in position thereon, removable pins for holding said cover pivoted to said plate, and locking mechanism adapted to secure the opposite side of said cover to said shell.

4. In a carrier for pneumatic despatch apparatus, a shell having a slot in one side, a strap pivoted at one end to the other side of said shell opposite to said slot, a lid to close the shell pivoted to the free end of said strap, and a rigid catch on said lid in the same plane of movement as the pivotal con-

nections of the strap with the shell and lid and in a position to enter said slot in the shell when the lid is swung in a closed position.

5 5. In a carrier for pneumatic tube apparatus, a shell, a cover provided with a circular flange adapted to fit into said shell, a rigid catch attached to said cover and adapted to secure one side of said cover to said
10 shell when said cover is in position thereon, locking mechanism adapted to secure the opposite side of said cover to said shell, a slotted handle for operating said locking mechanism, and a slotted spring on said
15 cover to engage said slotted handle to hold the latter in fixed position after the locking mechanism has been operated to lock the cover to the shell of the carrier.

20 6. In a carrier for pneumatic despatch apparatus, a shell, a lid to close said shell, locking mechanism to secure the lid to the shell when closed, a slotted handle pivoted to the lid for operating said locking mechanism, and a slotted spring on said lid to en-
25 gage said slotted handle to hold the latter in a fixed position after said handle has been operated to lock the cover to the shell.

7. In a carrier for pneumatic despatch apparatus, a shell having a concave bot-

tom, a cupped elastic disk with a central opening seated in the concave bottom having its flange projecting over the rim of said bottom, a plate seated in the central opening of the disk with its edge projecting over the adjacent edge of the disk, and means for
35 securing the plate to the concave bottom to clamp the disk to said bottom.

8. In a carrier for pneumatic despatch apparatus, a shell having a concave bottom, a cupped elastic disk with a central
40 opening seated in the concave bottom having its flange projecting over the rim of the bottom, an elastic ring interposed between the flange of the disk and the rim of the concave bottom, a plate seated in the central
45 opening of the disk with its edge projecting over the adjacent edge of the disk, and means for securing the plate to the concave bottom to clamp the disk and ring to said
50 bottom.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this 28th day of April A. D. 1906.

CHARLES F. STODDARD.

Witnesses:

A. L. MESSER,
L. G. BARTLETT.