

No. 720,395.

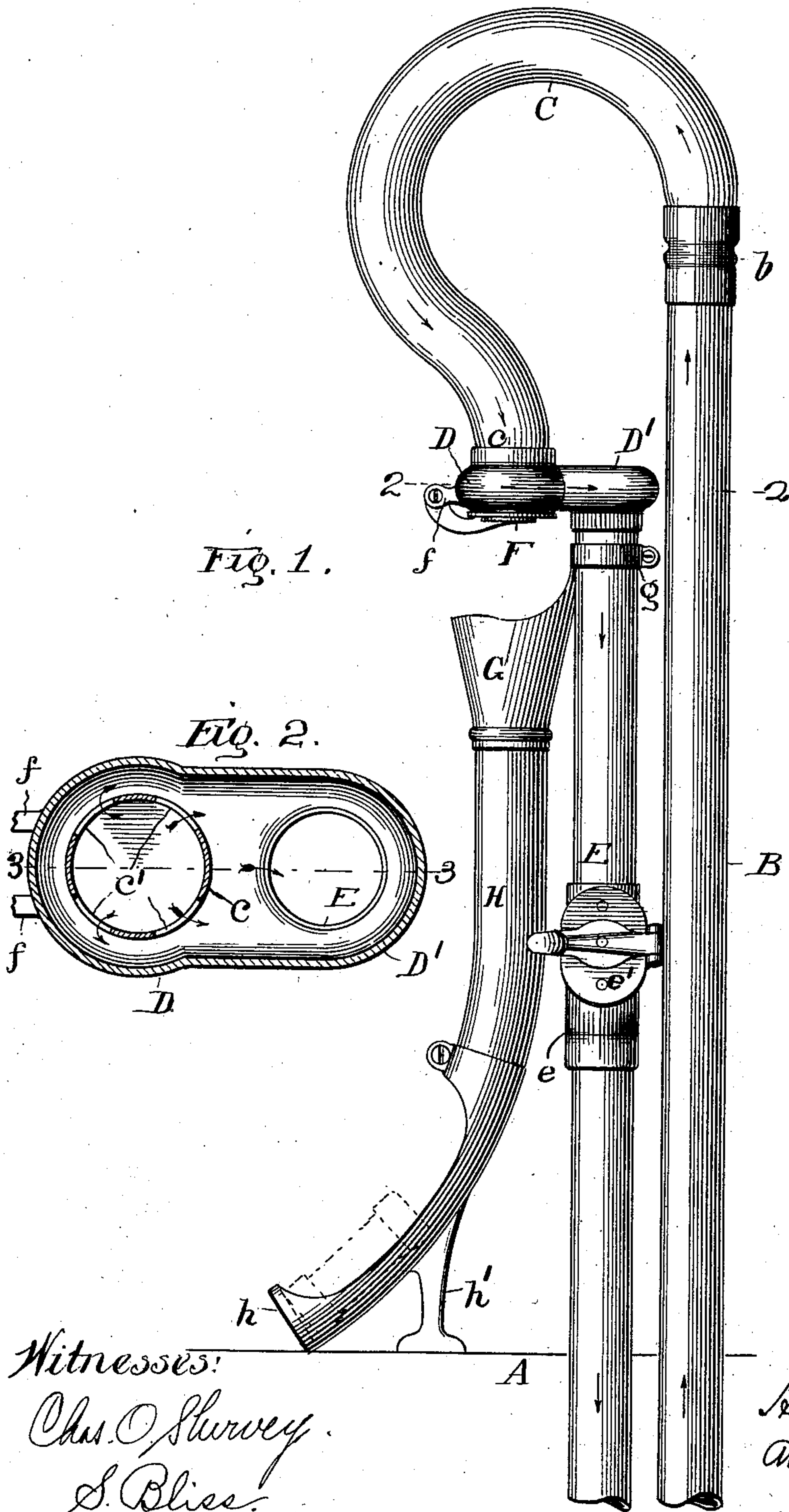
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H. ASH & A. WOLTMAN.
TERMINAL FOR PNEUMATIC DESPATCH SYSTEMS.

APPLICATION FILED MAR. 17, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

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UNITED STATES PATENT OFFICE.

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TERMINAL FOR PNEUMATIC-DESPATCH SYSTEMS.

SPECIFICATION forming part of Letters Patent No. 720,395, dated February 10, 1903.

Application filed March 17, 1902. Serial No. 98,459. (No model.)

To all whom it may concern:

Be it known that we, HUGO ASH and AUGUST WOLTMAN, citizens of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Terminals for Pneumatic-Despatch Systems, of which the following is a specification.

Our invention relates to certain improvements in terminals for pneumatic-despatch systems, and is especially adapted to the type commonly known as "consecutive-delivery" terminals; and its object is to produce a terminal which operates effectively, is light, and therefore easy and cheap of construction, is handsome in appearance, and more compact than the ordinary form.

To these ends our invention consists in certain novel features of construction, which are fully illustrated in the appended drawings and described in this specification.

In the aforesaid drawings, Figure 1 is an elevation of our improved terminal. Fig. 2 is a horizontal section in the line 2 2 of Fig. 1 looking downward. Fig. 3 is a transverse section in the line 3 3 of Fig. 2, showing the upper part of the terminal and consecutive-delivery chute; and Fig. 4 is a section in the line 4 4 of Fig. 3.

Referring to the drawings, A is the top of a desk upon which the terminal is supported, and it may be either a cashier's desk or a salesman's desk, this form of terminal being adapted for use at either of these places.

B is a pneumatic-despatch tube, through which carriers come to the desk. At the upper end of the tube B is a coupling *b*, which is expanded, as shown, to receive a tube of larger diameter than the pneumatic-despatch tube B. In this coupling is secured a second delivery-tube C of larger diameter than the tube B, bent in a reverse curve, as is clearly shown in Figs. 1 and 3, the end of the curve terminating in a substantially straight vertical portion *c*. The delivery-tube C is flattened transversely, as shown in Fig. 4, so as to be oval in cross-section, thereby permitting a carrier of the ordinary type to pass readily through it around the curve. The proportions between the sizes of the tubes B and C

may be substantially as follows: The tube B is in practice made two and one-quarter inches internal diameter, and the delivery-tube C is a two-and-one-half-inch tube flattened to an oval tube having a minor diameter of two and one-quarter inches and a major diameter of two and three-quarters inches. These sizes can of course be varied as desired. It will be seen that this construction will permit a carrier of the size of the tube B to pass readily through the curved delivery-tube C and through and out of the straight portion *c*. This portion *c* is perforated at *c'* (see Figs. 2 and 3) and is surrounded by an enlarged collar D, preferably formed integrally with a cap D', which extends from the straight portion *c* toward the pneumatic-despatch tube B. The cap D' surrounds and completely closes the upper end of an exhaust-tube E. The perforations *c'* in the end of the delivery-tube C are preferably equidistantly spaced in the periphery of said tube, so that the suction upon carriers passing through the portion *c* will be equal upon all sides and there will be little or no tendency for them to be drawn against and held in contact with any one portion of the tube within the collar D. It will be seen that suction applied to the suction-tube E will draw air through the whole system in the direction shown by the arrows in Figs. 1 and 3, the air passing through the delivery-tube C and the perforations *c'* into the collar D, thence to the integral cap D', and thence to the exhaust-tube.

The bottom of the vertical portion *c* of the delivery-tube C is closed by a valve F, pivoted between two lugs *f f*, extending from the collar D. These lugs are on the side of the collar D opposite to the exhaust-tube E and the pneumatic-despatch tube B, and the valve therefore swings outward and downward in the direction indicated by the arrow in Fig. 3, and therefore away from the exhaust-tube E and the pneumatic-despatch tube B. The valve F is held against the lower end of the vertical portion *c* partly by suction and partly by means of a coiled spring *b'*, which surrounds the pin upon which said valve is pivoted and tends to keep it in contact with the

collar D. Immediately below this valve F and directly in line with the straight portion *c* of the delivery-tube is a consecutive-delivery hopper G, secured, preferably by a clamp *g*, to the suction-tube E. From the lower end of this hopper extends a vertical tube or chute H, approximately parallel to the suction-tube and the pneumatic-despatch tube, this tube being curved at its lower end and provided with a stop *h*. It is cut away, as is shown in Fig. 1, to permit the removal of carriers and is supported upon the desk A by means of a suitable bracket *h'*.

The exhaust-tube E is provided with an offset portion *e*, provided with an inlet-valve *e'*, whereby the exhaust-tube E may, if desired, be used as a despatching-tube. This of course may be omitted, if preferred; but we consider it very desirable to have this despatching apparatus arranged in this way in order to secure cheapness of construction and compactness.

We are aware that the broad idea of a consecutive-delivery terminal is old, and for that reason we do not intend to claim this as a broad idea. On the other hand, we believe that the use of the delivery-tube C, curved as shown, is a much cheaper, simpler, and lighter construction of this portion of a pneumatic-service terminal than has hitherto been used. Furthermore, the fact that the straight portion *c* of the tube C is brought by the reverse curve in said tube nearer to the pneumatic-service tube than the outermost portion of the curved tube C makes the whole device much more compact than are the forms at present in use.

The collar and cap D D' are light and cheap, and their small size is due to the fact that the distance between the lower end *c* of the delivery-tube and the pneumatic-despatch tube B is decreased by the use of the reverse curve in the tube C. Furthermore, the fact that the valve F opens away from the exhaust-tube instead of toward it, as in the common forms, permits still more economy of space, and hence of metal, in the offset por-

tion D D'. In relation to the consecutive-delivery hopper and chute economy and convenience of construction are obtained, as is very plainly seen, by securing the hopper to the exhaust-tube E instead of to the vertical portion *c* of the tube C or to the offset casting D D'.

Having now fully described and explained our invention, we claim as new and desire to secure by Letters Patent—

1. In a device of the class described, the combination with a pneumatic-despatch tube, B, of a coupling, *b*, attached thereto, a tube, C, connected to said coupling, said tube being oval in cross-section, and curved in a reverse curve, so that the end thereof farthest removed from said tube shall be substantially parallel thereto and nearer thereto than the main sweep of the curve formed by said tube, C, an exhaust-tube, suitably connected to said tube, C, a valve closing the bottom of said tube, C, and a consecutive-delivery hopper and chute below said valve and in line with the lower portion of said tube, C, substantially as described.

2. In a device of the class described, the combination with a pneumatic-despatch tube, B, of a coupling, *b*, attached thereto, a tube, C, connected to said coupling, said tube being curved in a reverse curve so that the end thereof farthest removed from said tube shall be substantially parallel thereto and nearer thereto than the main sweep of the curve formed by the tube, C, an exhaust-tube suitably connected to said tube, C, and a valve closing the bottom of the tube, C; substantially as described.

In witness whereof we have hereunto set our hands, at Chicago, in the county of Cook and State of Illinois, this 8th day of March, A. D. 1902.

HUGO ASH.
AUGUST WOLTMAN.

Witnesses:

CHAS. O. SHERVEY,
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