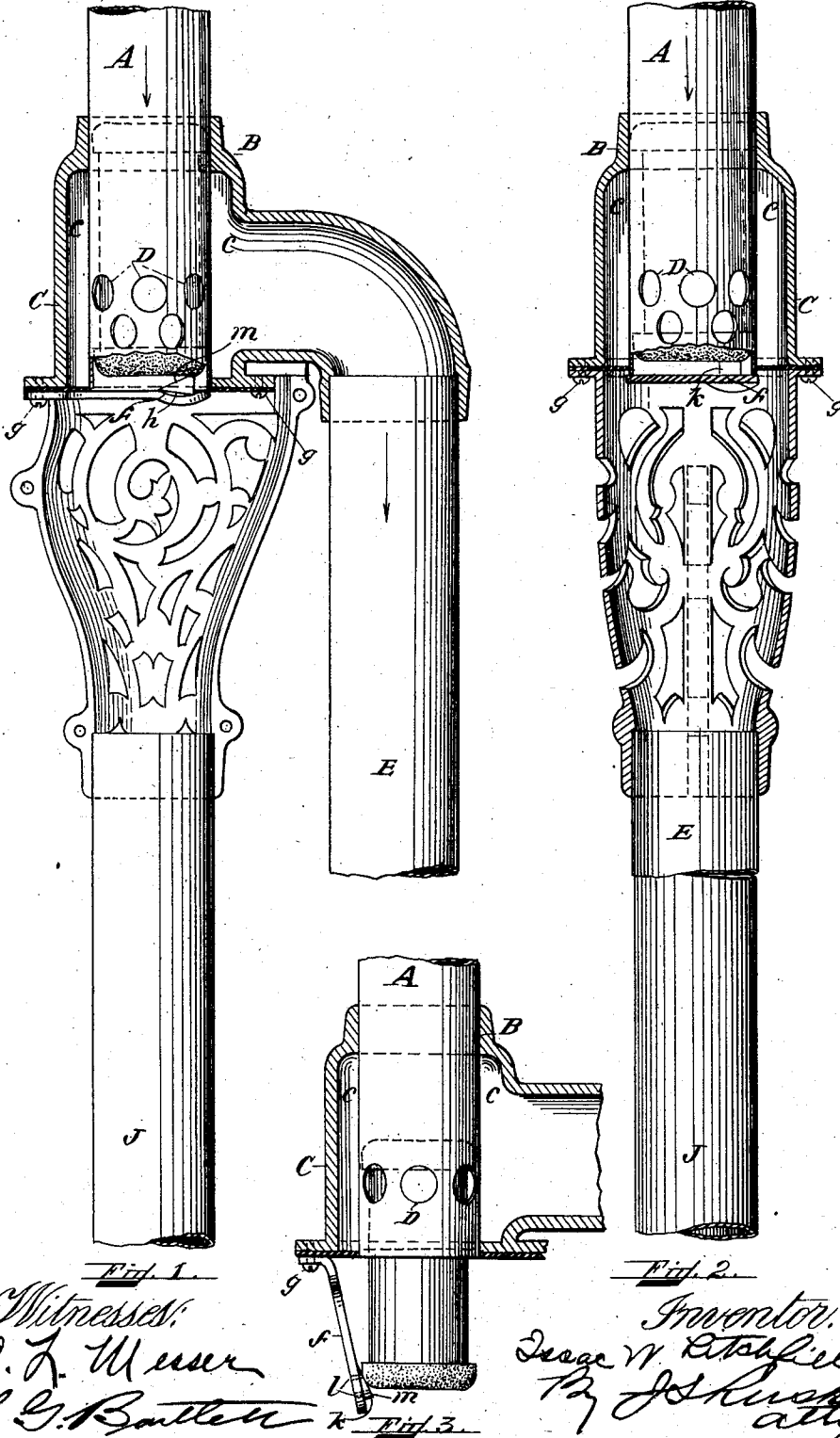


I. W. LITCHFIELD.
VALVE FOR PNEUMATIC DESPATCH TUBE APPARATUS.
APPLICATION FILED DEC. 20, 1906.

992,784.

Patented May 23, 1911.



Witnesses:
A. T. Mear
L. G. Bantlett

Inventor:
Ira W. Litchfield
By J. S. Rush
att'y

UNITED STATES PATENT OFFICE.

ISAAC W. LITCHFIELD, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO LAMSON CONSOLIDATED STORE SERVICE COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

VALVE FOR PNEUMATIC-DESPATCH-TUBE APPARATUS.

992,784.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed December 20, 1909. Serial No. 534,155.

To all whom it may concern:

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

My invention relates to improvements in pneumatic despatch tube apparatus and particularly to the construction of the valves controlling the delivery openings of such apparatus.

The object of this invention is to provide means for localizing the impact of the carrier upon the valve at one point preferably near the valve seat thereby providing an initial opening for the admission of air. This initial opening greatly facilitates the opening of the valve by said carrier with reduced retardation of said carrier. This is accomplished by mounting a small lug or projection on the inner face of the valve close to the valve seat and projecting slightly into the mouth of the delivery opening and localizing the point of impact of the carrier upon the valve.

In the accompanying drawings which illustrate a construction embodying my invention: Figure 1 is a side elevation of a terminal with the tube partly broken away and with the carrier in contact with the lug to localize the impact of the carrier. Fig. 2 is a rear elevation of Fig. 1. Fig. 3 is a detail view partly in section showing the valve open and a carrier passing through.

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

The delivery tube A being an extension of the transmission tube is inserted in the casing B which surrounds said tube A and is connected with the source of power through the tube E. The chamber C surrounding the delivery tube A is connected with said

casing B by perforations D; the vacuum tube E is inserted in casing B and connects with chamber C. Controlling the opening in the delivery tube A is a valve *f* which is hinged at *g*. The angular lug *k* is fastened by rivets *l* to the inner face of the air valve *f* at a point near the edge of said valve. The carriers arriving near the delivery opening impinge upon said lug *k* causing the valve *f* to be lifted from its seat nearest that point forming an initial opening; the pressure on the valve *f* quickly equalizes allowing the valve to fully open and the carrier to pass through. The angular face *m* of lug *k* allows the passage of the carrier without being retarded by said lug.

J is a suitable receiver into which carriers are discharged from the tube line.

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 apparatus, a terminal, a valve controlling the delivery opening of said terminal, a lug mounted on and inclined to the inner level face of said valve and adapted to receive the impact of a carrier thereon.

2. In a pneumatic despatch tube apparatus, a terminal, a valve controlling the delivery opening of said terminal, a lug mounted on and inclined inwardly to the inner level face of said valve and adapted to receive the impact of a carrier thereon.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this 14th day of December A. D. 1909.

ISAAC W. LITCHFIELD.

Witnesses:

LOUIS G. BARTLETT,
A. L. MESSER.