

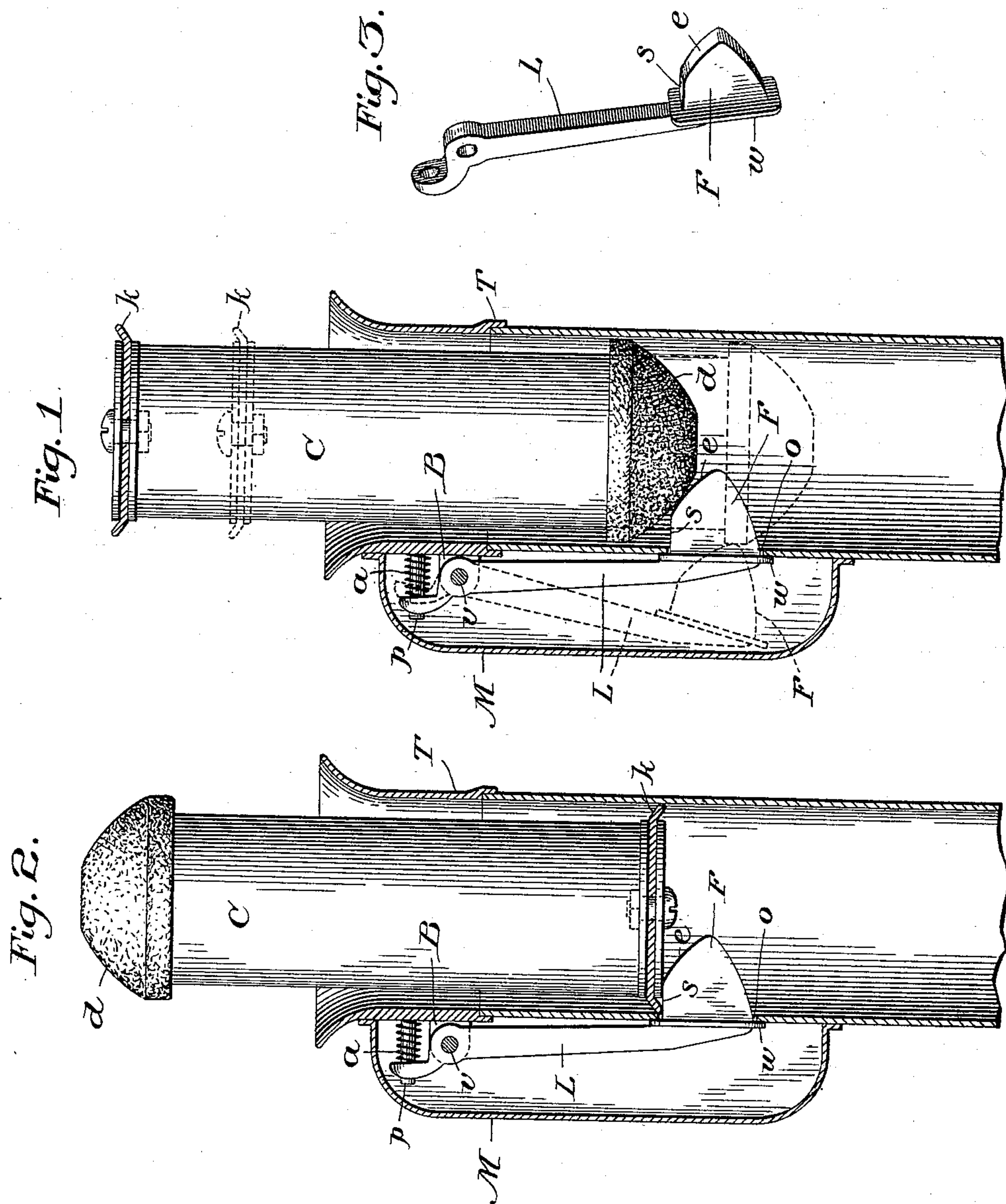
No. 610,528.

Patented Sept. 13, 1898.

S. R. GAYTON.
PNEUMATIC DESPATCH TUBE.

(Application filed Oct. 28, 1897.)

(No Model.)



WITNESSES:

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SAMUEL R. GAYTON, OF PHILADELPHIA, PENNSYLVANIA.

PNEUMATIC-DESPATCH TUBE.

SPECIFICATION forming part of Letters Patent No. 610,528, dated September 13, 1898.

Application filed October 28, 1897. Serial No. 656,675. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL R. GAYTON, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Pneumatic-Despatch Tubes, of which the following is a specification.

My invention relates to a device which shall prevent the introduction of a carrier of a particular form into a pneumatic-despatch tube wrong end foremost, while not interfering with its introduction in the proper manner.

In the drawings, Figure 1 is a side view, partly in section, showing the transmitter or transmitting end of a pneumatic-despatch tube with my improvement and showing the carrier in process of introduction in the proper manner. Fig. 2 is a similar view with the carrier wrongly introduced. Fig. 3 is a perspective view of the catch or finger forming the essential feature of my invention.

The carrier C which I prefer to use is made with a felt cushion *d* at the forward end, which is beveled or pointed, as shown. The rear end is approximately flat and has a leather ring or "skirt" *k* secured to it in such way that the air-pressure behind the carrier when in the tube may force the skirt against the sides of the tube, making an air-tight fit.

Through a slit or opening *o* in the side of the tube a finger *f* projects laterally into the tube. This finger is sloped or beveled at *e*, on the edge nearest the mouth of the tube, from the end of the finger about half-way to the inner side of the tube when the finger is pushed in as far as it will go, the rest of this edge of the finger remaining flat or approximately at right angles to the side of the tube, thus forming a shoulder *s*. This finger *F* is carried on the longer arm of a lever *L*, situated outside the tube and pivoted at *v* in a bracket *B*, forming part of or attached to the bell-mouth of the tube *T*. A pillar *p* is fixed to or forms part of the bracket *B* and passes through a hole in the short arm of the lever *L*. Surrounding this pillar *p* is a spiral spring *a*, which, pressing against the short arm of the lever *L*, keeps the same pushed away from the side of the tube, and consequently

keeps the long arm of the lever *L*, carrying the finger *F*, pressed against the side of the tube and the finger *F* normally pressed into the tube through the opening *o*. A leather washer *w* is provided to fit around the finger *F* and make an air-tight joint when pressed against the opening *o*. A casing or cover *m* is also provided to cover up the working mechanism to avoid tampering with it, and it may also be made air-tight and prevent all leakage through the opening *o*.

The carrier *C* of the form shown I do not claim as new. The same has long been looked upon by users of pneumatic tubes as desirable, because, having no leakage, it requires less air-pressure than the form of carrier most frequently used. The objection to it, however, has always been that employees cannot be relied upon to put it in the tube right end foremost, and when put in wrong it not only causes great leakage of air, but is liable to jam and block the tube. For this reason a carrier having both ends of felt and pointed exactly like the forward end *d* of the carrier shown has come into common use. This, however, cannot be made to fit the tube tightly, or it would jam at the turns, and being made loose results in a great loss of air. These difficulties I believe I have overcome in my invention, the operation of which is as follows: If the carrier be inserted properly, as in Fig. 1, the pointed end *d*, coming in contact with the bevel *e* of the finger *F*, pushes the finger *F* aside out through the opening *o* until the head of the carrier passes the finger *F*. Then the finger *F*, partly retracted, passes along the side of the moving carrier until it reaches the rear end with the skirt *k*. This comes in contact only with the beveled portion *e* of the finger *F*, the shoulder *s* being retracted outside the tube, and consequently forces said finger farther out, so that the entire carrier may pass it. When the carrier is introduced wrong end foremost, as in Fig. 2, the flat end *k* of the carrier comes directly in contact with the shoulder *s* and is prevented from entering the tube, so that the employee must withdraw it and insert it properly.

The essential part of my invention is the finger *F* of the form shown, and it is obvious

that various forms of mechanism for keeping said finger normally projecting into the tube under spring - pressure may be employed without departing from the spirit of my invention. Even in the form shown the bracket B may be riveted or soldered or otherwise attached to the side of the tube instead of being on the bell-mouth. I have adopted the method shown so that the bell-mouth and mechanism of my invention may be readily attached together to tubes now in use.

Having, as above, fully described my invention and the best method known to me of constructing the same, what I claim, and desire to secure by Letters Patent, is—

1. In a pneumatic-despatch-tube transmitter, a catch or finger projecting into the tube through an opening in its side and in advance of the entrance-opening for the carrier, and having sloping sides and a shoulder, *s*, whereby a carrier pointed or sloping at one end and approximately flat at the other, may be

introduced point first only, substantially as shown and described.

2. In a pneumatic-despatch tube, the combination of a bracket *B*, attached to the outside of the tube, a lever, *L*, pivoted in said bracket, a spring, *a*, adapted to keep said lever normally pressed against the side of the tube, an opening *o*, in the side of the tube, a finger, *F*, forming the end of said lever and normally passing through said opening into the tube, a bevel or slope, *e*, on the edge of said finger, a shoulder, *s*, on the edge of said finger next to said lever all combined and operated substantially as shown and described, whereby a carrier pointed or sloping at one end and approximately flat at the other may be introduced pointed end first only.

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Witnesses:

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