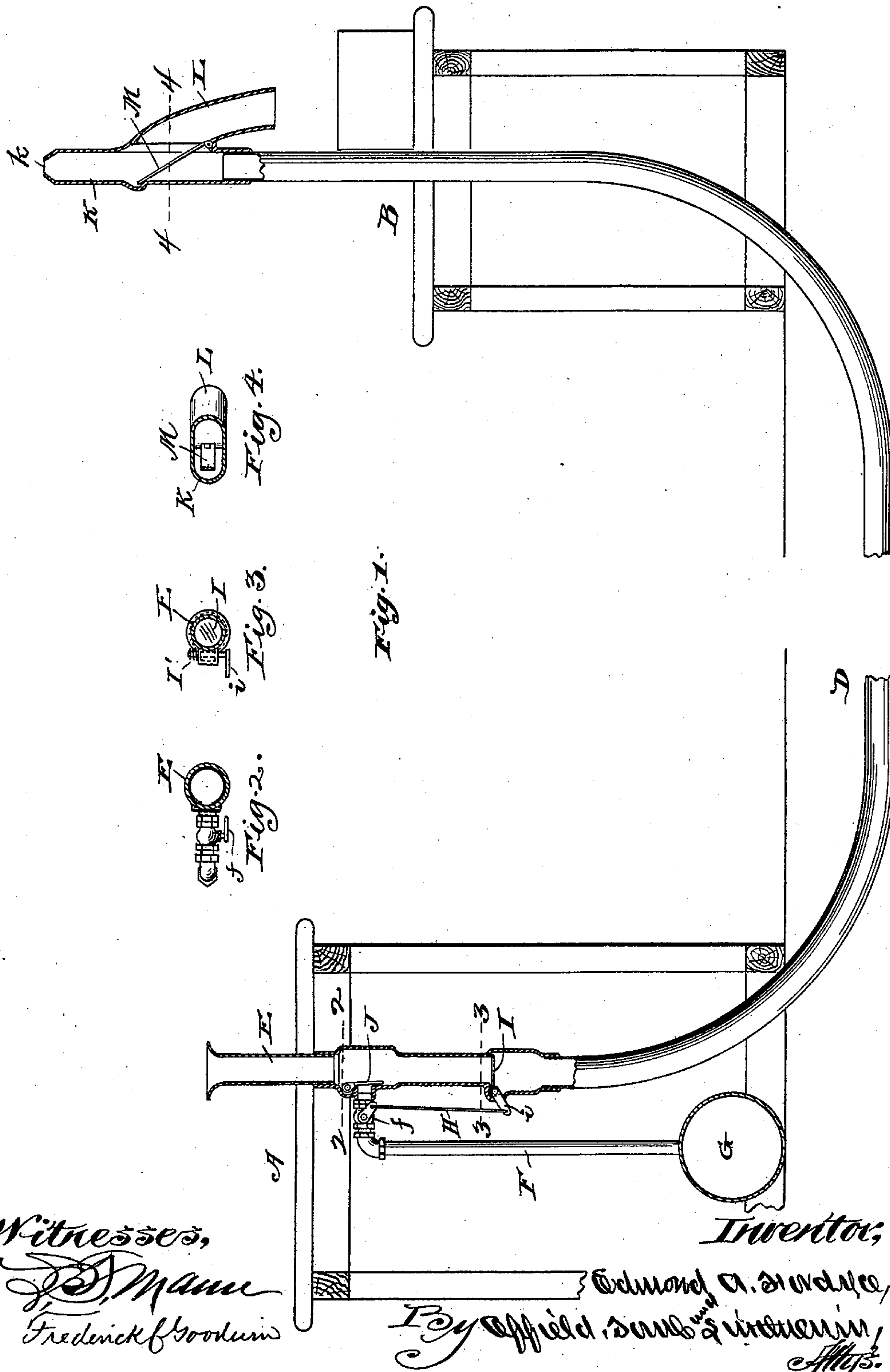


(No Model.)

E. A. FORDYCE.  
PNEUMATIC DESPATCH APPARATUS.

No. 570,161.

Patented Oct. 27, 1896



Witnesses,  
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# UNITED STATES PATENT OFFICE.

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## PNEUMATIC-DESPATCH APPARATUS.

SPECIFICATION forming part of Letters Patent No. 570,161, dated October 27, 1896.

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*To all whom it may concern:*

Be it known that I, EDMOND A. FORDYCE, of Chicago, Illinois, have invented certain new and useful Improvements in Pneumatic-Despatch Apparatus, of which the following is a specification.

This invention relates to an apparatus for transmitting carriers through a despatch-tube by the use of compressed air, and the principal object of the invention is to provide an apparatus of this kind which shall be entirely automatic in its operation, the deposit of the carrier serving to operate the valves which control the admission of the motor fluid.

In the accompanying drawings, Figure 1 is a diagrammatic view of an apparatus embodying my invention, some of the parts shown broken away and others in elevation. Figs. 2, 3, and 4 are sectional details on corresponding lines of Fig. 1.

In the drawings, let A represent a sending-station, and B a receiving-station. Between these two extends a continuous tube, the body of which is marked D, and which terminates at the sending-station in a receiving-spout E. Below this receiving-spout an air-supply pipe F pierces the tube, said pipe leading from a source of compressed air or other pressure fluid, as at G. The pipe F is provided with a valve *f*, and a valve-handle is connected by a rod H with a crank *i* of the trip I, arranged in the tube below the air-inlet. The trip is a circular disk of metal, which is pivoted in the tube, and the crank *i* is rigidly connected to its pivot. The air-inlet is covered by a flap-valve J. The end of the pipe at the receiving-station is provided with a discharge-terminal, consisting of a pipe-section K, the upper end of which is preferably conical and affording a central aperture *k* of less diameter than the bore of the tube. A discharge-spout L branches from the tube K, and the entrance to said discharge-spout is controlled by a switch M.

The operation of this apparatus is as follows: Normally the valves and trip stand in the position shown in the drawings. Now if a carrier be deposited it will fall by gravity until it strikes the trip. This will open the valve *f* more or less, depending upon the force. If it only be opened partially, it will admit some air through the valve *f*, and this air will

blow the flap-valve on its seat, thus closing the entrance to the tube. As the motor fluid accumulates above the carrier it will force the carrier past the trip, thus opening the valve wide and admitting the full pressure of the motor fluid behind the carrier, which will serve to drive it through the tube, rocking the switch M on its pivot and the carrier lodging in the upper end of the tube K, closing the orifice *k*. When the current stops flowing, the trip will be returned to its seat by the action of its spring I', thus closing the valve *f* and shutting off the flow of air. The air, of course, now escapes freely through the receiving end of the tube, and the carrier being unsupported drops down and is deflected by the switch M out through the discharge-tube L. The trip and the switch will be normally maintained in their position preferably by the use of springs, although weights or other equivalent mechanical devices may be employed.

It will be understood that I do not limit my invention to any of the precise details shown. The supply of pressure fluid will be regulated to the length of the line, and the valves, springs, and their coöperating devices will be proportioned to the particular requirements.

I claim--

1. A pneumatic-despatch apparatus, comprising in combination a despatch-tube having a valve-controlled inlet for a motor fluid, a trip normally projecting into the bore of the tube and adapted to be actuated by the impact of the carrier and a connection between the trip and the valve, a check-valve between the motor-fluid inlet and the end of the tube and adapted to be seated by the pressure of the motor fluid, and means for arresting the carrier at the opposite end of the tube and a switch for diverting it when relieved of the motor-fluid pressure, substantially as described.

2. A pneumatic-despatch apparatus, comprising a despatch-tube, a motor-fluid reservoir, a pipe connecting the reservoir to the despatch-tube near the receiving end thereof, a valve in said pipe, a second valve interposed between the motor-fluid inlet and the receiving end of the despatch-tube, a trip normally sustained across the path of the carrier, a connection between the trip and the valve

in the motor-fluid-supply pipe, means for ar-  
resting the carrier at the delivery end of the  
tube, a branch tube through which the car-  
rier discharges by gravity and a switch ar-  
5 ranged at the junction of the branch with the  
despatch-tube and adapted to be rocked out  
of the way of the carrier and to close behind

the same whereby to divert it through the  
branch, substantially as described.

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