E. A. FORDYCE.

PNEUMATIC DESPATCH TUBE APPARATUS.

APPLICATION FILED SEPT. 8, 1905.

960,531.

Patented June 7, 1910.

2 SHEETS—SHEET 1.

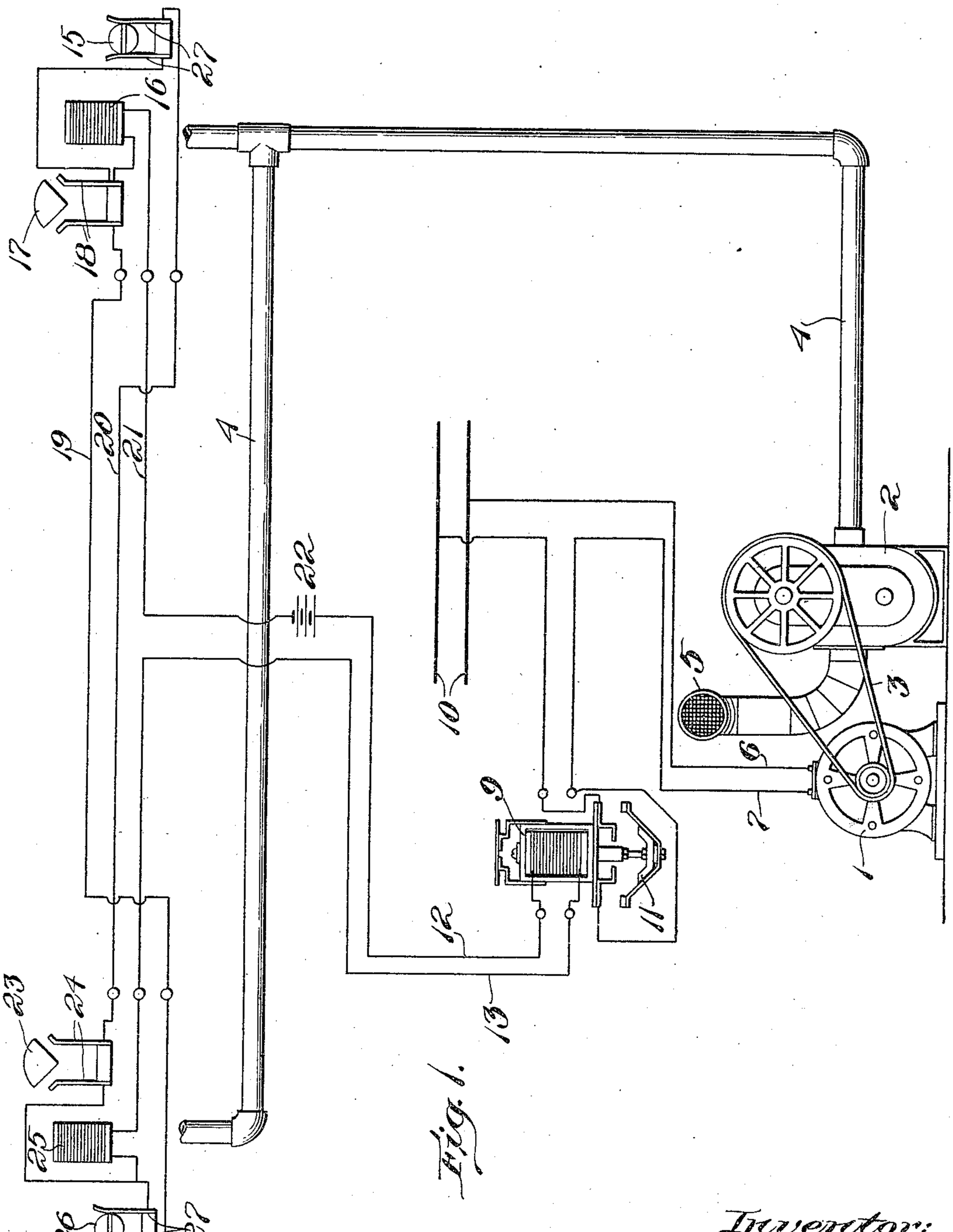

Fig. 1.

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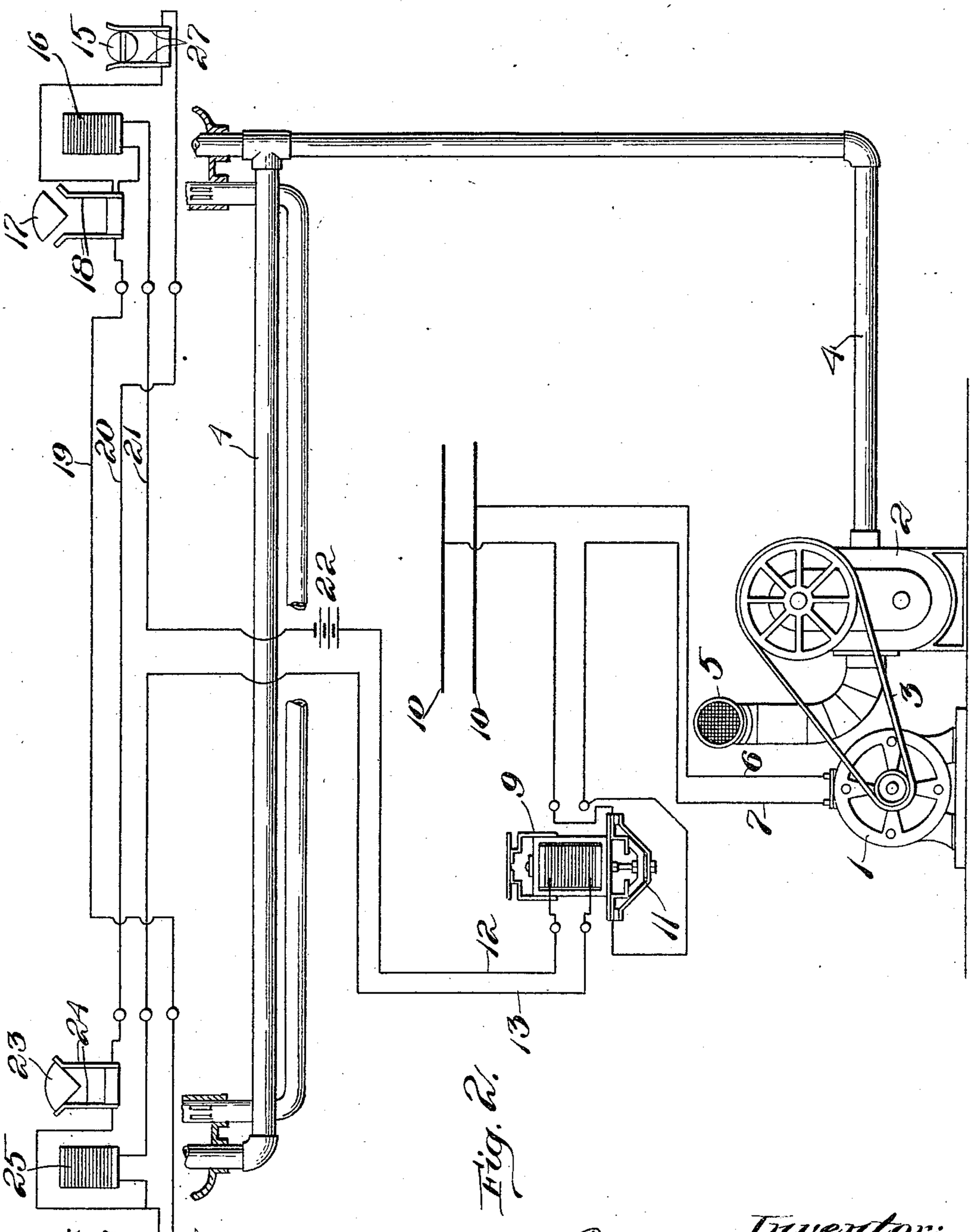

Fig. 2.

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UNITED STATES PATENT OFFICE.

EDMOND A. FORDYCE, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO LAMSON CONSOLIDATED STORE SERVICE COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

PNEUMATIC-DESPATCH-TUBE APPARATUS.

960,531. Specification of Letters Patent. **Patented June 7, 1910.**

Application filed September 8, 1905. Serial No. 277,507.

To all whom it may concern:

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

My invention relates to improvements in pneumatic despatch tube apparatus, and specially to that class of pneumatic apparatus in which the air current is used only when the carrier is in transit.

The object of my invention is to start the pump when the carrier is inserted in the tube for transit and to stop the pump when the carrier is discharged, thereby producing an economical system.

For purposes of description, my invention will be described in connection with the apparatus described and shown in U. S. Letters Patent issued Aug. 15, 1905, #797,053 to the Lamson Consolidated Store Service Company, as my assignee.

In the accompanying drawings which illustrate a construction embodying my invention, Figure 1 is a diagrammatic view illustrating the position of the parts when the line is dead, that is, when no carriers are being transmitted and the pump is idle. Fig. 2 is a similar view illustrating the position of the parts when a carrier is in transit from the left hand terminal to the right hand terminal.

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

The power plant consists of a rotary blower 2 driven by the motor 1 through the belt 3 and the air is taken into the blower through the pipe 5 and a suitable screen and is delivered to the terminals through the pipe 4 while the electrical connections to the motor are shown by the wires 6—7 which complete the circuit through the switch device 11 to the power wires 10. The two wires 12—13 of the solenoid 9 are in series with the operating wires 19—20—21 of the terminals.

Taking the construction shown in above named patent in connection with the present drawings, the operation thereof will be clearly understood. With the parts in the position shown in Fig. 1, the line is dead, as no carriers are being transmitted.

Should it be desired to transmit a carrier from the left hand terminal to the right hand terminal, the carrier is inserted into the tube at the left hand end and the door is closed which actuates mechanism shown in said patent and closes the contacts 23 and 24 and opens the air-valve in the pipe 4. The electrical contact thus being made, the magnet 25 is energized which holds the air-valve in the pipe 4 open at the left hand terminal in a similar manner to that described in said patent, and the solenoid 9 is also magnetized through the battery 22, and wires 12—13 which raises the switch 11 thereby closing the circuit through the wires 6—7 and power wires 10 and the motor 1 and blower 2 are set in motion. As the air-valve in the left hand sending terminal is the only one open, the air is forced through the terminal driving the carrier to the other end of the line where it strikes the trip as illustrated in the above mentioned patent, which actuates the circuit breakers 15—27 and breaks the circuit through the wire 20. When the circuit is thus broken at 15—27, the magnet 25 becomes demagnetized allowing the air valve in the pipe 4 to close and the solenoid 9 likewise becomes demagnetized and the switch 11 drops thereby breaking the power circuit to the motor and stopping the pump.

When a carrier is to be sent from the right hand terminal to the left hand terminal, the same operation takes place as to the contacts 17 and 18 and the magnet 16 opening the air-valve in the pipe 4 for the right hand terminal, and as the carrier discharges from the left hand terminal, it actuates the circuit breaker 26—27 and breaks the circuit through the wire 19 and the pump will stop.

From the foregoing it will be understood that the operation for both terminals is identical, and in each case the pump is only in operation when a carrier is actually in transit in either direction.

Having thus described the nature of my invention and set forth a construction embodying my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In apparatus of the character described, an air-supply pipe, a pump supplying air to said pipe, a motor operating said pump, an electric circuit including said motor, a switch controlling said motor circuit, a secondary circuit separate from said motor

circuit, a solenoid in said secondary circuit for actuating the switch controlling the motor circuit, a normally closed switch in said secondary circuit at one terminal of the system, a normally open switch in said secondary circuit at another terminal of the system, and a magnet in said secondary circuit at the terminal having the normally closed switch.

2. In apparatus of the character described, an air-supply pipe, a pump supplying air to said pipe, a motor operating said pump, an electric circuit including said motor, a switch controlling said motor circuit, a secondary circuit separate from said motor circuit, a solenoid in said secondary circuit for actuating the switch controlling the motor circuit, normally closed switches at opposite terminals controlling said secondary circuit, normally open switches at opposite terminals controlling said secondary circuit, and magnets at opposite terminals included in said secondary circuit.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this first day of Setpember A. D. 1905.

EDMOND A. FORDYCE.

Witnesses:
HOWARD R. DUNBAR,
H. D. WATERHOUSE.