(No Model.)

C. F. PIKE.

PNEUMATIC DESPATCH TUBE SWITCH.

No. 590,770. Patented Sept. 28, 1897.

FIG. 1

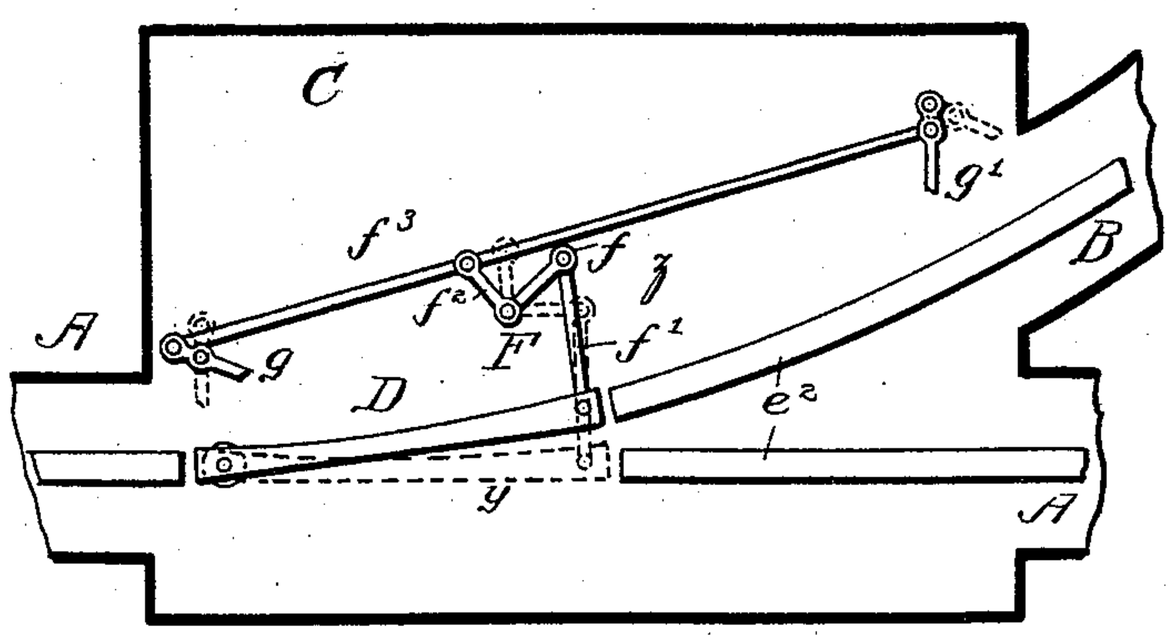
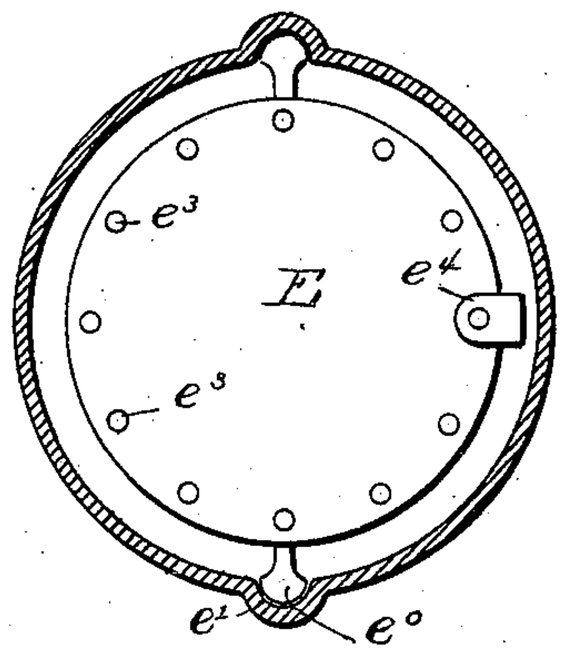


FIG. 2



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CHARLES F. PIKE, OF PHILADELPHIA, PENNSYLVANIA.

PNEUMATIC-DESPATCH-TUBE SWITCH.

SPECIFICATION forming part of Letters Patent No. 590,770, dated September 28, 1897.

Application filed May 31, 1895. Serial No. 551,215. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. PIKE, a citizen of the United States, and a resident of the city of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Pneumatic-Despatch-Tube Switches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention has relation generally to actuating the switches in pneumatic-despatch-tube switches, and particularly to that form of systems in which the despatch-tubes are provided with upper and lower track rails or grooves on or in which wheel-supported carriers travel; and it has for its object to provide an actuating device under the control of the carrier for both setting and resetting the switch, said actuating device being mechanically operated by the passing or traveling carrier, and being particularly adapted for large and heavy switches used in tubes of large diameter.

My invention accordingly consists of the combinations, constructions, and arrangement of parts, as hereinafter described in the specification, and pointed out in the claims.

Reference is had to the accompanying drawings, wherein—

Figure 1 is a horizontal section of a switch-box joining a main line and a branch line of a pneumatic-despatch-tube system, showing a switch and form of actuating device under the control of a traveling carrier for mechanically setting and resetting the switch; and Fig. 2 is a cross-section of a form of despatch-tube and an end view of a form of carrier provided with a bracket or finger for contact with the actuating device.

A represents a main line, and B a branch line, of a pneumatic-despatch-tube system, the junction of which is inclosed in an air-tight box C and provided with any suitable construction and arrangement of track-rail or grooved switch D, as desired.

The carrier shown in the drawings is of the type having end wheels e^0, which travel in grooves e', formed at the top and bottom of the tubes A and B, but any other desired or suitable carrier may be employed. The carrier contact-finger is in the form of a bracket e^4, and the end of the carrier is provided with differently-arranged openings e^3 or equivalent devices for varying the location of said bracket to make contact with the actuating devices.

In Fig. 1 at z the full lines represent the levers and switch G in position to make a continuous track from the main to the branch tube, and the dotted lines show the switch reset for the main-line tube. The lever appliances consist of a bell-crank lever F, suitably pivoted, as desired, having at one end f a link connection f' with the switch D, and at its other end f^2 a long link connection f^3, the ends of which are connected with differently-pivoted pawls or tappets g and g', against which the carrier or its bracket e^4 strikes to actuate the link f^3 and lever F to set and reset the switch D. When the latter is in position shown in full lines in Fig. 1, the carrier has actuated the pawl or tappet g to effect such position or movement of the switch, and the pawl g' is brought into vertical position for the carrier to actuate it and reset the switch D into position indicated by dotted lines y, which is its normal position, and the pawl or tappet g assumes its normal position for being actuated by a following or any succeeding carrier destined for the tube B. From the foregoing it will be noted that the carriers through the medium of a mechanical device control the movement of the switch D and positively set and reset said switch.

It is obvious that the arrangement and construction of parts embodying my invention may be varied greatly without departing from the spirit of the same, and I do not confine myself to those as shown and described, as the essential feature of the invention is to provide an actuating device for positively setting and resetting the switch D and provided with appliances located one in the main and the other in the branch tubes to be actuated by the traveling carrier, so that the switch is both set and reset by a mechanical device under the control of the carrier, and this is to be contradistinguished from a switch having a device for setting it, a locking device for retaining it in its set position, which locking device and setting appliances are controlled by the carrier, and a separate device for resetting the switch when the locking device is released.

In the latter case the carrier does not reset the switch, but only releases its locking mechanism.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a pneumatic-despatch-tube system having main and branch tubes, a switch at the junction of said tubes, an actuating device for both positively setting and resetting said switch appliances in the main and branch tubes actuated by a passing carrier controlling said actuating device for setting and resetting the switch, substantially as set forth.

2. In a pneumatic-despatch-tube system having main and branch tubes provided with track rails or grooves, an air-tight box joining said tubes at their junction, a switch rail or groove in said box, an actuating device for both positively setting and resetting said switch, appliances in advance of and beyond said switch operated by a passing carrier for controlling said actuated device for both positively setting and resetting said switch, substantially as set forth.

In testimony whereof I have affixed my signature in presence of two witnesses.

CHARLES F. PIKE.

Witnesses:
THOS. S. RODGERS,
JOHN H. HUDSON.