

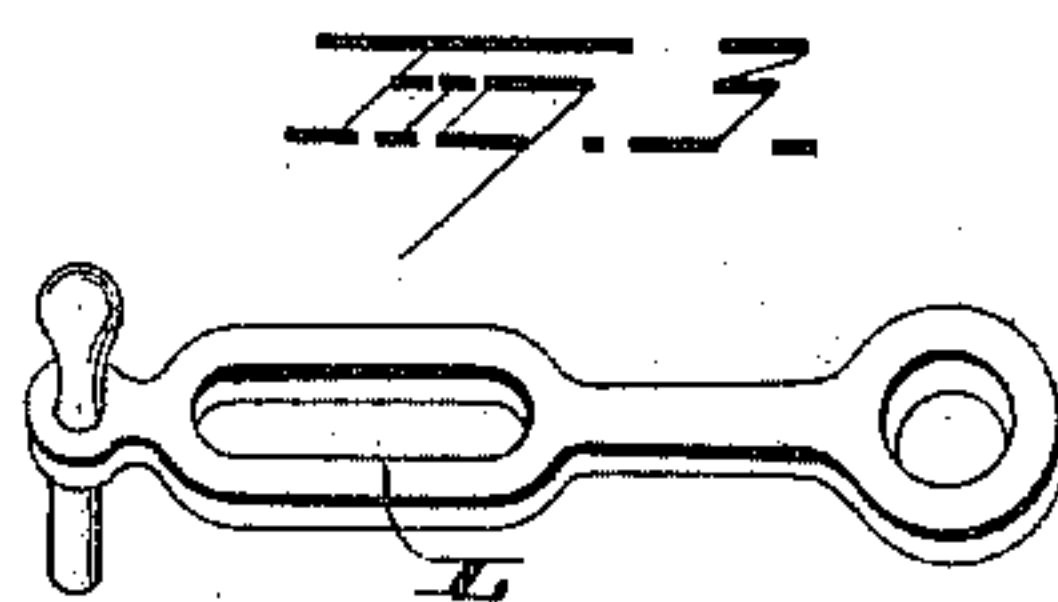
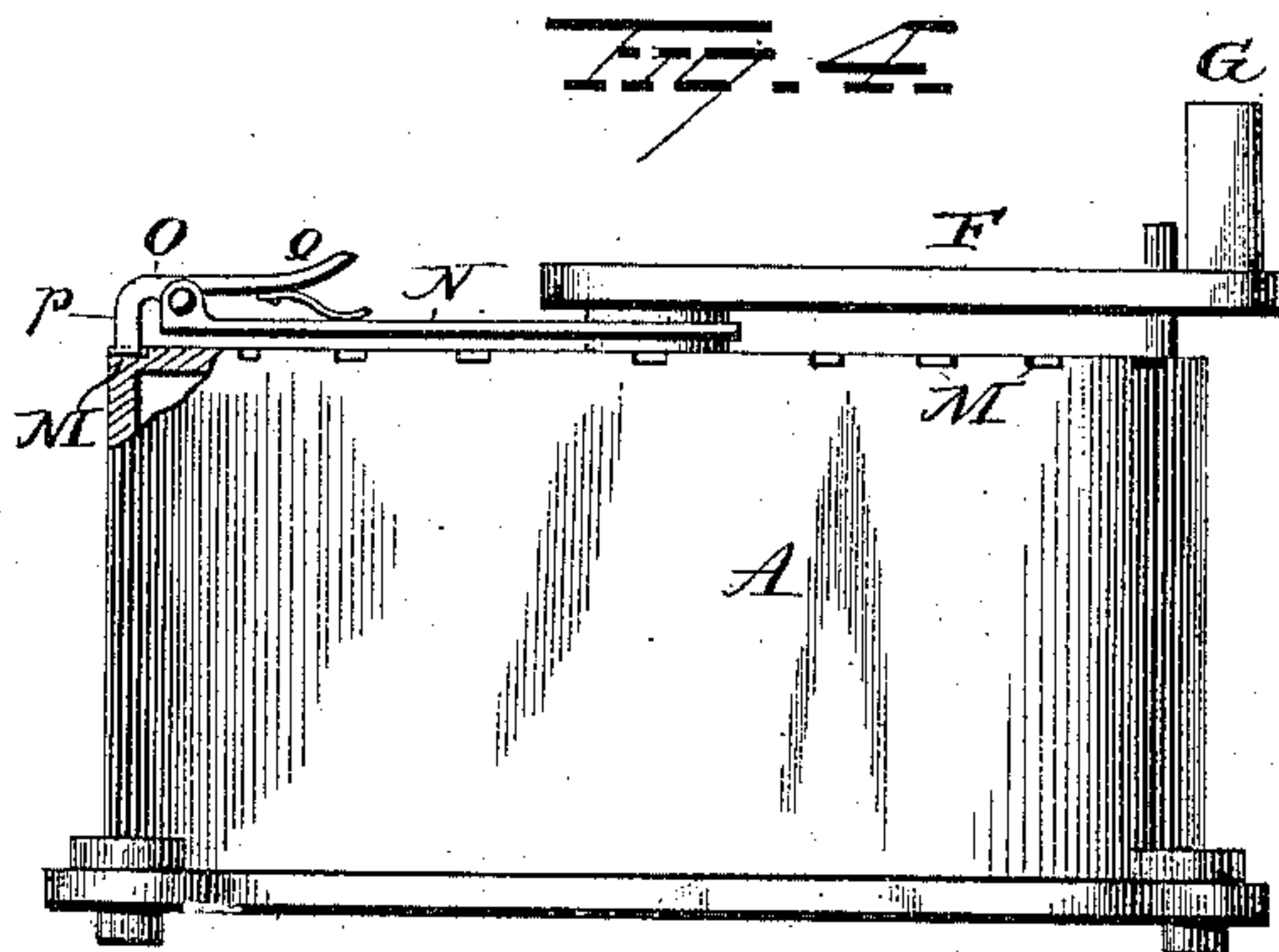
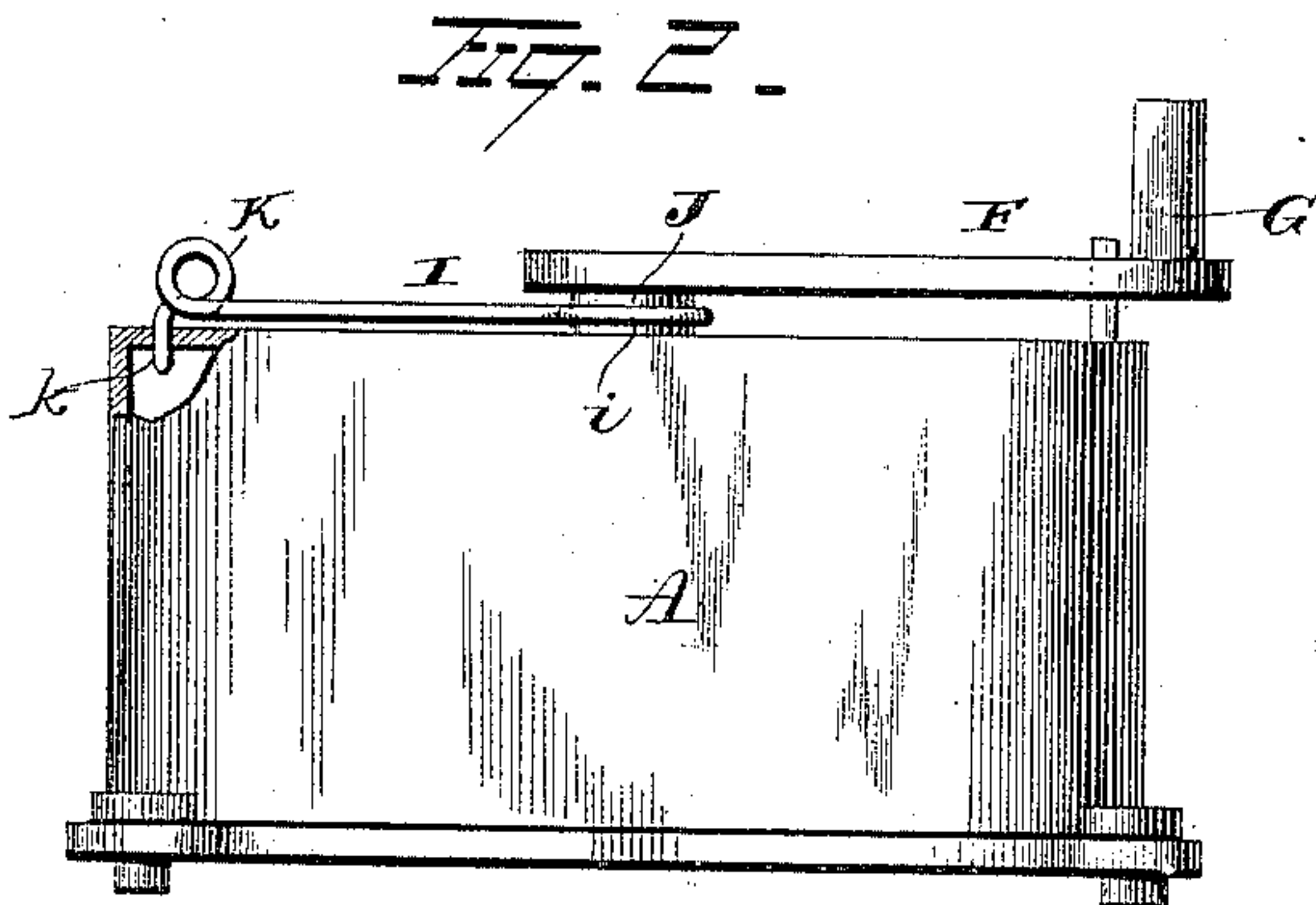
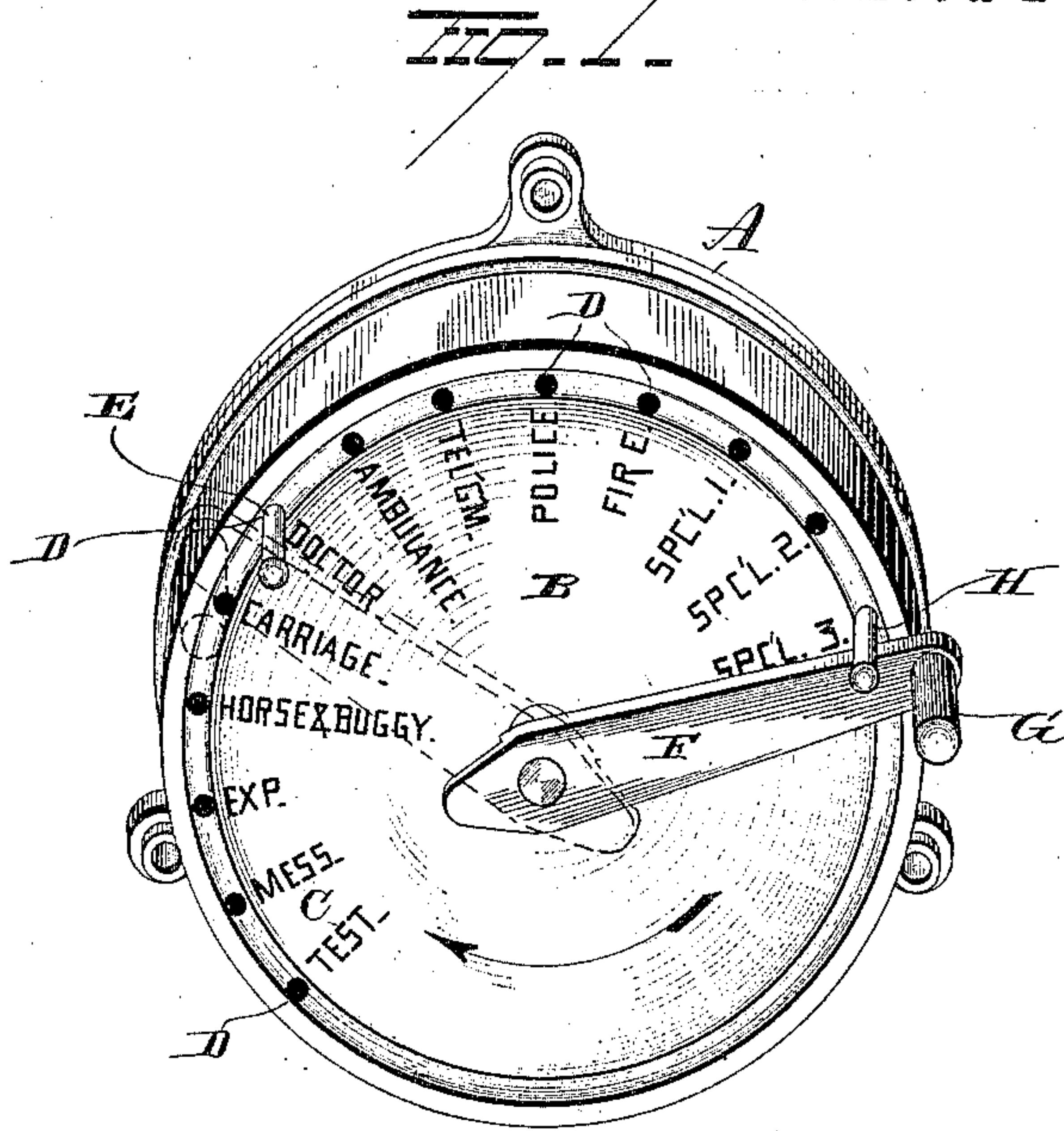
(No Model.)

F. A. HOLCOMB.

DISTRICT TELEGRAPH SIGNAL BOX.

No. 335,701.

Patented Feb. 9, 1886.



WITNESSES  
*E. J. Nottingham*  
*Geo. F. Downing*

INVENTOR  
*Fred A. Holcomb*  
By *H. A. Seymour* Attorney



# UNITED STATES PATENT OFFICE.

FRED A. HOLCOMB, OF GRAND RAPIDS, MICHIGAN.

## DISTRICT-TELEGRAPH SIGNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 335,701, dated February 9, 1886.

Application filed August 10, 1885. Serial No. 173,993. (No model.)

*To all whom it may concern:*

Be it known that I, FRED A. HOLCOMB, of Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in District-Telegraph Signal-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in district-telegraph signal-boxes.

In the type of signal-boxes in which different signals are determined by the distance the crank is turned the crank has ordinarily been provided with a pointer or hand, which moves over the list of calls printed or otherwise designated on the front of the signal-box, and indicates to the sender the point to which the crank should be turned to transmit to the central station the proper or desired call or signal. This construction of signal-box is defective, for the reason that the sender is liable to turn the crank slightly past the proper point, or else not quite to the point, and thus transmit the wrong signal, and there is greater liability of such mistakes happening when it is of the utmost importance that the correct signal should be sent, as in the case of fire or when police assistance is desired, the sender in the hurry and excitement at the time is very liable to turn in the wrong call. Again, in this type of signal-boxes no provision is made to prevent the crank being turned backwardly, and when this is done it results in injury to and derangement of the signaling mechanism.

The object of my invention is to obviate the defects above noted and provide signal-boxes with an attachment whereby it will be practically impossible for the sender to transmit the wrong signal to the central station, and to prevent the crank from being turned backwardly, to the injury of the signaling mechanism; and with these ends in view my invention consists in the combination, with the crank of a signal-box, of an adjustable stop loosely journaled to the shaft of the crank and adapted to be secured opposite any call indicated on the box-front, and serve to arrest the

crank-handle at such point, and thereby insure the transmission of the correct signal.

My invention further consists in a stop secured to the box-front to prevent the handle from being turned backwardly and injuring the mechanism of the box.

My invention further consists in certain features of construction and combinations of parts, as will hereinafter be described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of a signal-box, showing a removable pin for limiting the movement of the crank in one direction. Fig. 2 is a view in side elevation showing the movable stop connected with the crank-shaft. Fig. 3 is a detached view of the movable stop; and Fig. 4 is a view of the box in side elevation, showing a modified construction of movable stop.

A represents a district-telegraph signal-box, which may be provided with any approved construction of signaling mechanism.

As my invention is not confined to any special construction of signaling mechanism, I will not illustrate or describe the details of any such mechanism, but for present purposes will assume that the signal-box is of the ordinary and well-known construction and arrangement of parts.

B is the box-front, usually made of sheet metal, and has indicated thereon, by printing, stamping, or otherwise, any desired number of calls, C. Opposite each call is a hole or recess, D, and E is a removable plug-stop, which may be readily inserted in any one of the holes D.

To the shaft of the signaling mechanism is secured a crank, F, having a handle, G, at its outer or free end. The crank is prevented from being turned backwardly by a pin or stop, H, permanently secured in the box front at the extreme backward limit of movement of the crank-handle.

When it is desired to call a messenger, the pin or stop E is inserted in the hole opposite the word "Messenger" on the signal-box. The handle is then turned until it strikes the pin, and hence will insure the transmission to the central station of the proper signal for a messenger. If a call for police, or a fire-



call is afterward received at the central station, it is known that the pin of the signal-box must have been removed and inserted again opposite the call for "fire" or "police," thereby indicating a correct call, instead of a possible mistake or blunder of the sender.

Again, the improved attachment is of decided convenience in case that the patron should desire to send a call at night. Before retiring the patron may insert the plug opposite the call of fire, and in the event of a fire during the night, it is not necessary that he should strike a light to operate the call, as in the old style of box, but simply to turn the handle until it strikes the pin, which operation will insure the transmission of the call for fire.

In the device shown the plug E is removable, and is liable to fall out or be mislaid. To prevent this I prefer to attach the plug or stop to the crank-shaft, as shown in Figs. 2 and 4.

In Fig. 3 I have represented a modified form of attachment. I represents a spring-metal rod provided with an eye, *j*, at one end, which is made to encircle the shaft J, whereby the latter serves as the axis of rotation of the rod. The outer end of the rod is bent into the form of a loop, K, the end extending downward and forming a pin, *k*. By taking hold of the loop K and pulling outwardly, the pin is retracted from the hole, allowing the rod to be rotated to the desired point, and the pin adjusted to register with the hole opposite the desired call, when the loop is released and the pin enters the hole and the loop serves as the stop for the handle. This construction prevents the loss of the pin, as it is permanently connected to the box, and forms a simple and comparatively inexpensive attachment thereto. The rod may be of small diameter, so as to not hide from view the calls on the box; or it may be made as illustrated in Fig. 3, and have an elongated opening, L, formed in its outer end. In such construction the rod will be turned until the call-word is exposed to view within this opening, and when such point is reached the pin will have become engaged in the hole opposite such call.

Fig. 4 represents a modification of the construction shown in Fig. 2, in which the holes are dispensed with, and notches M formed in the outer edge of the front of the box opposite each one of the calls. A rod, N, is journaled at one end on the central shaft, and on

the other end of the rod is pivoted a lever, O, the handle *o* of which is raised by a spring, thereby depressing the outer arm, *p*, of the lever, causing it to engage one of the notches M. By depressing the handle *o* the lever-arm is disengaged from the notch, allowing the rod to be turned to any desired call on the signal-box and be secured against displacement.

As it is evident that many slight changes in the construction and relative arrangement of parts might be resorted to without departing from the spirit and scope of my invention, I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described; but,

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

1. The combination, with the handle of a signal-box, and a stop adapted to be detachably secured to the box for the purpose of arresting the handle opposite any call on said box, of a stop for preventing the handle from being turned backwardly, substantially as set forth.

2. The combination, with the handle of a signal-box, of a movable stop journaled on the shaft of said handle, and adapted to be detachably secured at its free end to the box opposite any call thereon and arrest the movement of the handle at any desired point.

3. The combination, with a signal-box having a series of calls and a movable handle or crank, of a stationary pin for limiting the movement of the handle in one direction, and a movable stop connected to the handle-shaft for limiting the movement of the handle in the opposite direction, substantially as set forth.

4. The combination, with a signal-box having a series of calls thereon and a movable handle, of a spring-arm journaled on said crank-shaft and provided at its outer end with a stop for limiting the movement of the handle in one direction, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRED A. HOLCOMB.

Witnesses:

CREYTON J. POST,  
CHAS. B. JUDD.