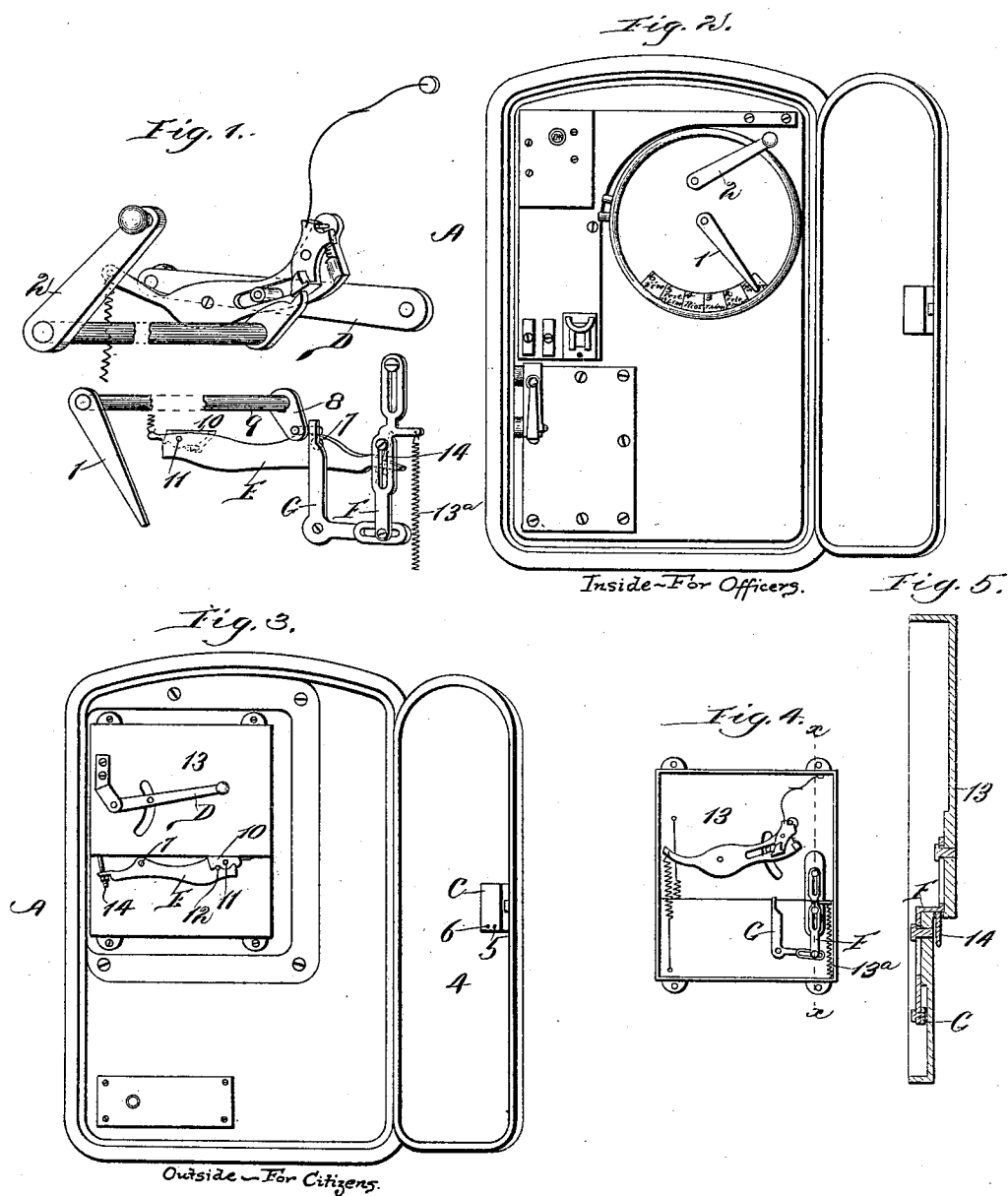


(No Model.)

C. A. ROLFE.
POLICE SIGNAL TELEGRAPH SYSTEM.

No. 521,183.

Patented June 12, 1894.



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UNITED STATES PATENT OFFICE.

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POLICE SIGNAL-TELEGRAPH SYSTEM.

SPECIFICATION forming part of Letters Patent No. 521,183, dated June 12, 1894.

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To all whom it may concern:

Be it known that I, CHARLES A. ROLFE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Police Signal-Telegraph Systems, of which the following is a specification.

My invention relates to police signal telegraph systems comprising a series of lines or circuits radiating from different police stations and connecting with street stations which are available to officers and other authorized persons, and further comprising suitable connections with the fire department.

The primary and principal object of my invention is to insure the sending in of an alarm of fire, when occasion for the same occurs, no matter how careless, ignorant or hasty the officer or person opening the signal transmitting box may be.

As a brief illustration of the general plan and service of a signal transmitting instrument characterized by my invention, the signal transmitting instrument is for the purposes of general business, such as calls, reports, and the like, available only to a certain class, such as officers holding pass or officers' keys. On the other hand, for special signals, such as fire, the transmitting mechanism is accessible to the holders of citizens' keys, and in the same way, also available to the holders of officers' keys so that in case of fire, an officer as well as a citizen, can expeditiously send in an alarm. And to thus expedite the sending in of an alarm of fire, the signal transmitting box is arranged with its front side within a booth or street station box or case, and with its rear side available outside the same. For general business purposes an officer can enter the booth or station box, and may at such time send in an alarm of fire, as well as transmit other signals, all of which however require information and care. But in case of fire however, the officer or any person holding a citizen's key, can open the back of the signal transmitting box without opening the booth or street station, and upon thus opening the signal transmitting box, can turn or operate a crank, or lever, or analogous supplemental means for starting up the signal transmitting mechanism, so as to send in an alarm of fire. In order therefore, to relieve

the sender from the exercise of any special skill or care, I provide in conjunction with such supplemental means for operating the signal transmitting mechanism, a setting device which is subject to and operated by the action of said supplemental operating means and which when thus operated, serves to set the signal transmitting mechanism for the transmission of a fire alarm signal. This setting device is adjustable and could be adjusted for other purposes, but its greatest and peculiar advantage is for the sending in of fire alarm signals with absolute certainty.

In the accompanying drawings,—Figure 1 shows in perspective the two operating levers and setting device with the signaling devices omitted. Fig. 2 shows the box in front elevation with its front door open. Fig. 3 shows the box in rear elevation with its rear door open. Fig. 4 represents the frame shown in Fig. 3 removed from the box and reversed so as to expose the side opposite to that illustrated in said Fig. 3. Fig. 5 is a section on a larger scale on line *x—x* in Fig. 4.

The side or front of the signal alarm box or case A, which is understood to be available within an ordinary booth, is illustrated in Fig. 2 and comprises a movable pointer 1 arranged to traverse a line of service designations for the usual purposes, and a crank or lever 2 as a means for starting up the signal transmitting mechanism. The remaining portion of the apparatus or mechanism shown in said figure can be of any usual or desired construction and arrangement, and need not therefore be herein described. The back or side of the box which is available outside of the booth, is illustrated in Fig. 3. This portion of the casing is provided with a door 4, substantially as in Letters Patent of the United States granted and issued to me, November 10, 1891, No. 462,741. The door for the back of the box is provided with a lock C, and separate key-holes 5 and 6 respectively for officers' keys and citizens' keys, it being preferable to adapt the lock so that when a citizen's key is employed for opening the door it will be "trapped" and held against removal until the lock is operated by an officer's key. The door can however be opened by both officers' and citizens' keys, and when so opened, it will expose a crank or lever D

corresponding with the crank or lever 2 at the front of the box in that it serves when operated, to actuate the signal transmitting mechanism. The special and preferred use of this lever D is to operate the signal transmitting mechanism for the purpose of fire, so that while an officer may enter the booth for the purpose of sending in reports, and the like, either an officer or the holder of a citizen's key, can without entering the booth, open the door 4 at the back of the box and operate the actuating lever D. In order to insure the sending in of an alarm of fire, as a result of the operation of this signal-mechanism actuating lever D, I provide in conjunction therewith a device which is subject to the action of said lever, and which when actuated by the same, operates to move and bring the pointer or index-hand 1 opposite the fire-alarm signal designation, so as to set the transmitting devices for a fire alarm signal. In this way, no matter how careless, ignorant, or hurried may the person be who opens the back of the box and pulls or operates the lever D, its action will accomplish the two-fold purpose of setting the transmitting mechanism for sending in an alarm of fire, and of starting said mechanism so that it will send in such an alarm.

As a simple and convenient device for causing the signal transmitting mechanism to be set for sending in an alarm of fire at each action of the lever D, I arrange below the latter a vibratory lever E, pivoted at 7 and positioned so that one of its ends or arms shall be acted upon and be depressed by the down swing of the said lever D. The opposite arm or end of this vibratory lever E is adjustably connected with a slide F which is in turn connected with an elbow lever or bell-crank lever G. The bell-crank G is arranged for engaging and operating a crank arm 8 fixed upon the spindle 9 which carries the pointer 1 by which arrangement a down swing on the part of lever D will serve to actuate the bell-crank G through the medium of lever E, and slide F, and thereby turn the spindle 9 to an extent to set the signal transmitting instrument for sending in an alarm of fire.

The lever E carries a movable stop or abutment 10 which is engaged by the lever D during the down stroke of the latter but which yields to the up swing of said lever so as to permit the same to pass on its way to its normal position. This movable stop or abutment is desirably formed by a plate, pivotally held upon the lever at 11 and limited in its movement by a stud 12. When the lever D is swung down it will first engage the stop or abutment 10 so as to operate the lever E, and then free itself from and pass the stop so as to permit the lever E and adjuncts, to resume their normal positions. During the return or up movement of lever D it will upon engaging the movable stop or abutment 10 swing the same back and out of its way, it being observed that after the lever D has

passed above the stop 10, the latter will drop, back into its normal position.

The slide F is arranged at one side of a plate 13, and is normally drawn down by a spring 13^a. The lever E is adjustably connected with the slide so as to permit the adjustment of this portion of the device with reference to the desired extent of throw on the part of the bell-crank, and to such end the lever E carries a rod 14 which is adjustably secured to the lever (Fig. 3) and arranged to engage the slide, as in Fig. 5. This arrangement permits an adjustment of the device for setting the signal transmitting mechanism with reference to the signal which it is proposed shall be sent in when lever D is operated, and hence such device can be adjusted with reference to the position the fire signal indicator may occupy with relation to the movement of the pointer 1, and obviously, the said device could by such means be set so that in place of sending in an alarm of fire, a wagon call, or report will be sent in as a result of operating the lever D. It is however more desirable that the lever D should be used for sending in an alarm of fire, and that notwithstanding any previous use of the box by a person inside of the booth, the act of operating lever D at the back of the box will cause the sending in of an alarm of fire.

The lever D for operating the signal transmitting mechanism, is herein understood to be a supplemental lever when considered relatively to the lever 2. The lever D however may be also regarded simply as a lever for operating the signal transmitting mechanism, it being obvious that regardless of special location, it will when operated for the purpose of effecting the action of the signal transmitting mechanism, also operate the vibratory lever E which latter will when thus operated serve to set the setting device, thereby providing a simple and effective arrangement.

The remaining portions of the box and signal transmitting mechanism can be any usual or suitable construction, and need not therefore be described.

What I claim as my invention is—

1. The combination with a suitable signal transmitting mechanism available for general business at the front of its allotted box, of supplemental means for operating the same, available only for special signals, at the back of the box when the latter is open at its back, and a setting device subject to and actuated by said supplemental means and operating in conjunction therewith whereby an action of the supplemental means serving to operate the signal transmitting mechanism shall cause the setting device to adjust the latter with reference to the transmission of a determinate signal, substantially as described.

2. The combination with a suitable signal transmitting mechanism available at the front of the box or casing for general business, of a supplemental lever for operating the same

available at the back of the box, a setting device subject to and actuated by said lever and operating in conjunction therewith whereby an action on the part of the supplemental lever serving to operate the signal transmitting mechanism shall cause the setting device to set the latter for the transmission of a determinate signal, substantially as described.

3. The combination with a suitable signal transmitting instrument of the lever D for operating the same, and a setting device adapted to set the signal transmitting mechanism for a special signal and comprising a vibratory lever E subject to and operated by the lever D, substantially as described.

4. The combination with the supplemental lever for operating a suitable signal transmitting mechanism, of a setting device adapted to set the signal mechanism for a determinate signal and comprising a vibratory lever carrying a movable stop or abutment which is engaged by the supplemental lever when the latter is moved in one direction and which is moved out of the way by the return

movement of the supplemental lever so as to allow the latter to pass to its normal position, substantially as described.

5. The combination with a suitable signal transmitting mechanism, of the lever D for operating the same, and a setting device adapted to set the signal transmitting mechanism for a determinate signal and comprising a vibratory lever, a slide connected with said lever by an adjustable connection, and a bell-crank operated by the slide and arranged for operating the pointer spindle, substantially as described.

6. The combination with suitable signal transmitting mechanism provided with a permanent operating lever, of a signal setting device subject to and actuated by said lever when the latter is operated to start the signal transmitting mechanism, substantially as and for the purpose described.

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