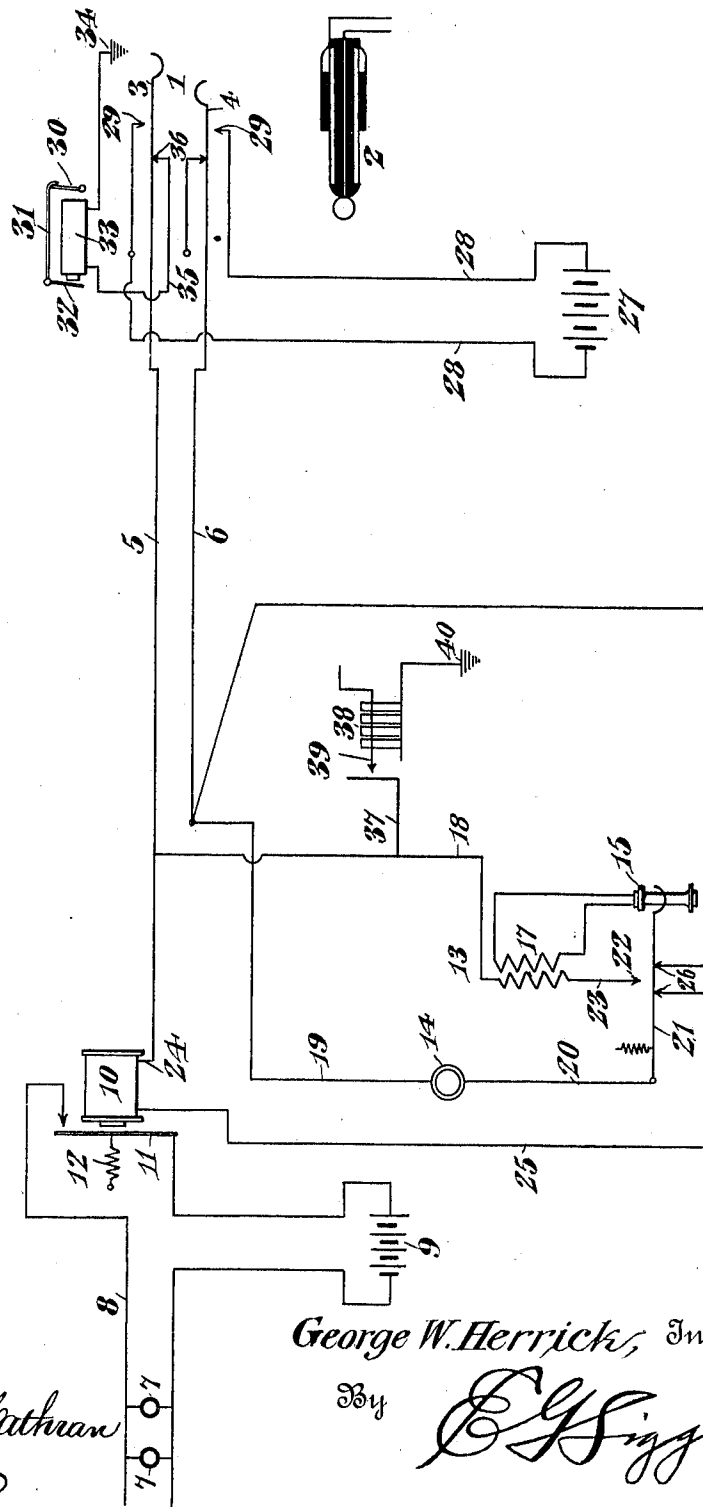


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VILLAGE TELEPHONE POLICE CALL.
APPLICATION FILED MAR. 20, 1908.

980,256.

Patented Jan. 3, 1911.



Witnesses
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GEORGE WASHINGTON HERRICK, OF ST. MARYS, PENNSYLVANIA.

VILLAGE TELEPHONE POLICE-CALL.

980,256.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed March 20, 1908. Serial No. 422,290.

To all whom it may concern:

Be it known that I, GEORGE W. HERRICK, a citizen of the United States, residing at St. Marys, in the county of Elk and State of Pennsylvania, have invented a new and useful Village Telephone Police-Call, of which the following is a specification.

The present invention relates more particularly to that class of signaling mechanism employed in connection with telephone systems, for calling policemen, watchmen and the like or for other purposes of an analogous nature, and is particularly useful in the smaller towns and villages where but one or two guardians are on duty during the night.

The primary object is to provide novel and exceedingly simple systems that can be applied at small cost to any established telephone system now ordinarily found in the smaller towns, and is so arranged that the party calling for assistance or desiring the signal operated will be put into direct telephonic communication with the party whose aid is desired, while the establishing of such communication automatically effects the operation of the signal or alarm mechanism and will maintain the same in operation until the party called responds.

The preferred embodiment of the invention is diagrammatically illustrated in the accompanying drawing.

In the central or exchange of an ordinary telephone system is located a socket 1, into which any of the calling plugs of the exchange, as for instance 2 may be placed. This socket is provided with the usual contact springs 3 and 4, and connected to said springs are the ordinary line wires 5 and 6, which are extended any distance desired. The signaling mechanism preferably consists of one or more electric lamps 7 placed at suitable points in the streets or wherever they may be readily seen by a policeman on his beat, a watchman or other persons whose assistance may be desired. These lamps are located in a circuit 8 that includes a suitable source of electrical energy 9 and a relay comprising an electro-magnet 10 and a circuit closer 11, the latter being normally held open by any suitable means, as for instance, a spring 12.

A telephone 13, readily accessible to the policeman or watchman to be called, is employed, and consists of the usual transmitter 14 and receiver 15, the latter being connected

to the usual induction coil 17. The coil 17 has an electrical connection 18 with one of the line wires 5 and the transmitter 14 has an electrical connection 19 with the line wire 6. This transmitter is also electrically connected as shown at 20 to a receiver supporting hook 21, which is movable into and out of engagement with a contact 22 electrically connected, as shown at 23 to the induction coil 17. The electro-magnet 10 of the relay has an electrical connection 24 with the line 5, and also an electrical connection 25 with the line 6. This connection 25 includes a pair of spaced contacts 26 engaged by the supporting hook 21 when the receiver is thereon. Therefore it will be noted that when the hook 21 is in its lowermost position, due to the weight of the receiver, the electro-magnet will be electrically connected to the line wires 5 and 6, while the telephone receiver and transmitter will be cut out of the same circuit. If therefore, a current is passed through the line wires 5 and 6, the electro-magnet 10 will be energized, causing the bar 11 to close the circuit 8, thus lighting the lamps 7. On the other hand, if the receiver 15 is removed from the hook 21 the hook will rise, breaking the connection 25 of the electro-magnet with the line wire 6, thus cutting said electro-magnet out of the circuit while the telephone will be cut into the same by the hook 21 engaging the contact 22.

Any suitable means may be employed for energizing the circuits 5 and 6. For instance, an electric current may be carried thereto through a calling plug, but for the purpose of illustration, a separate source of electrical energy is shown at 27, and the poles 28 thereof terminate in contacts 29 that are engaged by the socket springs 3 and 4 when a plug is placed in the socket.

The operation of the system is substantially as follows: Assuming that a subscriber desires police assistance, he calls up the exchange, and makes known his wants to the operator. The operator thereupon inserts the calling plug 2 in the socket 1. The springs 3 and 4, being thereby forced apart, are brought into engagement with the contact points 29, thus cutting the source of electrical energy 27 into the lines 5 and 6. Inasmuch as these lines are now electrically connected to the electro-magnet 10, the circuit 8 will be closed and the lamps ignited. The police or watchman, being thereby notified that his services are desired, goes to the

telephone 13, and by removing the receiver 15 from the hook, automatically cuts out the electro-magnet 10 and cuts the telephone 13 into the line. The electro-magnet 10 thereby being deenergized, the relay will be opened and the lamps extinguished. The policeman is now in direct telephonic communication with the calling party, and learning his wants and the character of the trouble, can govern himself accordingly. On the other hand, it often becomes desirable or necessary for the policeman to communicate with the exchange, and thereby with other parties connected thereto. To this end, associated with the plug 1 is the ordinary switch-board drop 30 held elevated by a latch 31 that includes an armature 32 co-operating with the magnet 33. One pole of the magnet is grounded, as shown at 34; and the other pole has an electrical connection 35 with a contact 36 normally engaged by the spring 3 of the socket. The electrical connection 18 which, through the line wire 5, is connected to the spring 3, has a branch 37 associated with a magneto generator 38, the shaft 39 of which is movable into and out of engagement with the branch 37. The generator 38 is grounded, as shown at 40. With this arrangement of parts, if the policeman desires to call the exchange, he has only to engage the shaft 39 of the branch 37, and operate the generator 38. The circuit is thereby closed through the electro-magnet 33 which will cause the latch to be moved to an inoperative position, releasing the drop 30, thereupon the exchange operator is notified of the call, and it will be observed that this mechanism in no manner interferes with the use of the telephone as already described.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is:—

1. In a supplemental signaling system for telephone exchanges, the combination of a jack in the exchange switchboard, a pair of line wires extending therefrom to a distant point, a source of current connected with the line wires upon the insertion of a plug in the jack, a telephone set connected with the line wires at a point remote from the exchange switchboard and normally cut out of circuit with the line wires by the receiver fork thereof, a pair of shunt conductors connected with the line wires and terminating in spaced contacts that are normally bridged by the receiver fork of the telephone set, a relay arranged in series with one of said shunt conductors and responsive to current flowing through the line wires and shunt conductors by the insertion of the plug in the jack at the exchange switchboard, an external signal circuit including a source of current and signal devices, and means for closing the signal circuit by the energizing of the relay.

2. In a signaling system of the character set forth, the combination with a telephone circuit including a pair of line wires, electrically-operated signaling means including an electric circuit independent of the telephone circuit, a relay controlling the said circuit, a telephone, a receiver-supporting hook for the telephone forming a terminal for one of the line wires, the other line wire terminating adjacent thereto to be engaged thereby to cut the telephone into circuit, and a shunt circuit connected to the line wires and passing through the relay and having spaced terminals normally bridged by the telephone receiver fork whereby when current is passed over the line wires the relay will be energized until the connections between the relay and the line wires are broken by the removal of the receiver from the hook.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GEORGE WASHINGTON HERRICK.

Witnesses:

R. E. ANDERSON,
D. J. DRISCOLL.