

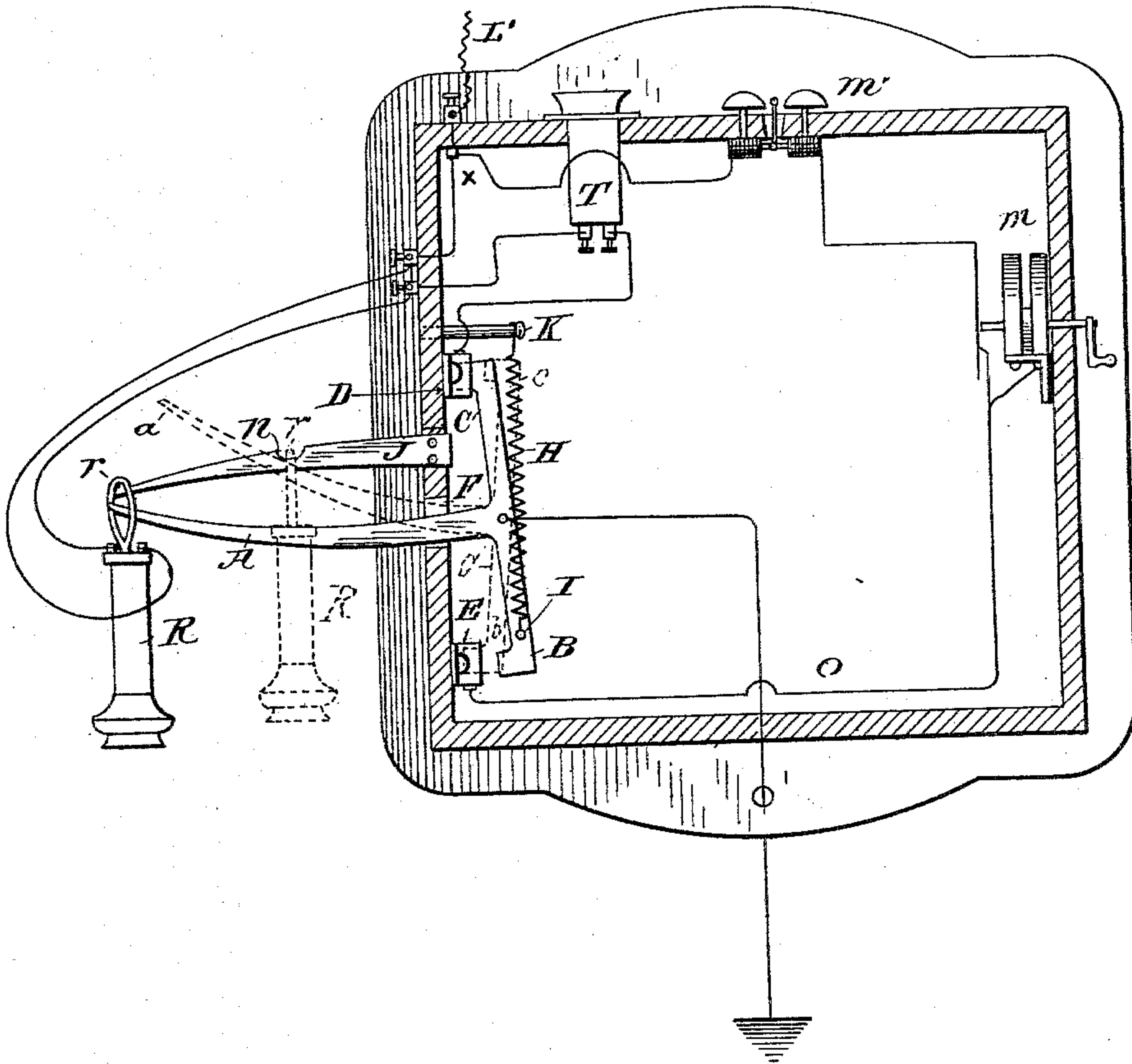
(No Model.)

G. F. SHAVER.

COMBINED TELEPHONE RECEIVER SUPPORT AND SWITCH.

No. 545,253.

Patented Aug. 27, 1895.



WITNESSES:
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GEORGE FREDERICK SHAVER, OF YONKERS, NEW YORK, ASSIGNOR TO AMY R. SHAVER, OF SAME PLACE.

COMBINED TELEPHONE-RECEIVER SUPPORT AND SWITCH.

SPECIFICATION forming part of Letters Patent No. 545,253, dated August 27, 1895.

Application filed December 6, 1894. Serial No. 531,051. (No model.)

To all whom it may concern:

Be it known that I, GEORGE FREDERICK SHAVER, a citizen of the United States of America, and a resident of Yonkers, county of Westchester, and State of New York, have invented a new and useful Improvement in a Combined Telephone-Receiver Support and Switch, of which the following is a specification.

The object of my invention is to provide a combined support for a telephone-receiver and a circuit-changing switch whereby the act of hanging the telephone-receiver upon the support involves the required change in the circuits—cutting out the telephone receiver and transmitter from the line and cutting in the magneto-bell or other signaling device. The act of removing the telephone-receiver from the support involves another desired change in the circuit connections—cutting out the magneto-bell or signaling apparatus and cutting in the telephone transmitter and receiver—both operations—hanging up and taking down the receiver from its support—being made by a positive impulse of the hand holding the receiver toward and away from the support in a horizontal plane and entirely extraneous from any influence attributable to the effect of gravity.

In the accompanying drawing, which forms a part of this specification, the figure is an elevation with the side of the box removed.

In the drawing, A B C represent a T-shaped switch supported upon a pivot G and adapted for partial rotation or oscillation thereon, the ends B C being wedge-shaped in cross-section and adapted to close the circuit at either end by contact with the clips D E, to which are attached the terminal wires of the circuits, carrying the transmitter and receiver and calling device M, respectively. The tail of the switch A is curved near the end to adapt it for use, as hereinafter set forth. The ground connection or return-wire of a metallic-circuit telephone-line is made through the pivot G. A stationary post J is fixed to the side of the case within which the switch is mounted, and is provided with a notch *n* to retain the ring *r* of the receiver R in position when hung up. This notch is unnecessary, except that it may be useful in showing how far the ring should be pushed. The tail of the switch A,

which is curved up, forms, with the fixed post, a lock when the telephone-receiver is hung up. A coiled-wire spring H extends between a stud I, mounted upon the switch-arm B, to a support K. The circuits X X are joined together to form the outgoing line-wire L.

The dotted lines *a b c* show the position of the switch and spring H when the lever end A is raised and the connection between B and E is established.

The accompanying drawing shows the arrangement of circuits and position of the switch when the telephone is in position for use and the operator is about to hang up the receiver. The fixed post J is mounted nearly in the same plane as the lever A and just far enough at one side to allow the lever A to pass by in its movement without touching.

The operation of the device is as follows: The receiver R is grasped with one hand and the ring *r* is passed over the ends of the post J and lever A. As the ring is pressed along the post J to the notch *n* the lever A is forced upward until the switch opens the telephone-circuit by disengaging the arm C from the clip D and closing the bell-circuit by the engagement of the arm B with the clip E. It is obvious that upon the removal of the receiver from the notch *n*, upon moving the ring *r* and receiver R outwardly from the case O, the ring *r* will engage the raised lever, as shown by the dotted lines, and force it back to the original position, thus cutting out the bell-circuit and cutting in the telephone-circuit. The upper edge of the post J and the lower edge of the lever A form an angle with each other, or two inclined planes, one being drawn toward and past the other when the ring *r* is pressed over them toward the side of the box O, so that the two together form a lock when the notch is thrown into one extreme position, and is forced back again when the ring *r* is moved away from the box O through the engagement of the ring *r* with the lower edge of the lever A *a* and upper edge of the post J, so that the outer ends of the post J and the lever A *a* are brought nearly together when the switch is thrown into the other extreme position. When the lever A is moved either way one-half the distance between the extreme upper or lower position,

the support K, pivot G, and stud I assume a straight line and establish a dead-point with respect to the retractile power of the spring, so that the balance of the movement of the lever, either upward or downward, after passing the dead-point is operated by the force of the spring and to that extent becomes automatic.

I am aware that springs have been used heretofore for the purpose of completing a circuit automatically after passing a dead-point, so I do not claim, broadly, the invention of that part of the switch; nor do I limit myself to the precise circuits shown, as it is obvious that many different arrangements of circuits may be operated therewith; but

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

1. In a combined switch and telephone support, the combination of a fixed post and a pivoted lever provided with contact points

the post and the lever being set so as to form a lock when the switch is in one extreme position and so that their outer ends are brought nearly together when the switch is in the other extreme position, and a telephone provided with a ring or equivalent actuating mechanism whereby it is sustained by the support and operates the switch, substantially as described.

2. The combination of a T-shaped circuit changing switch A, B, C, curved up at its outer end, circuit terminals D, E, pivot G, spring H, post J, and ring r, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 30th day of November, 1894.

GEORGE FREDERICK SHAVER.

Witnesses:

DUDLEY M. MILLS,
M. A. THOMAS.