

(No Model.)

T. J. PERRIN.  
TELEPHONE SWITCH.

No. 322,122.

Patented July 14, 1885.

Fig. 1.

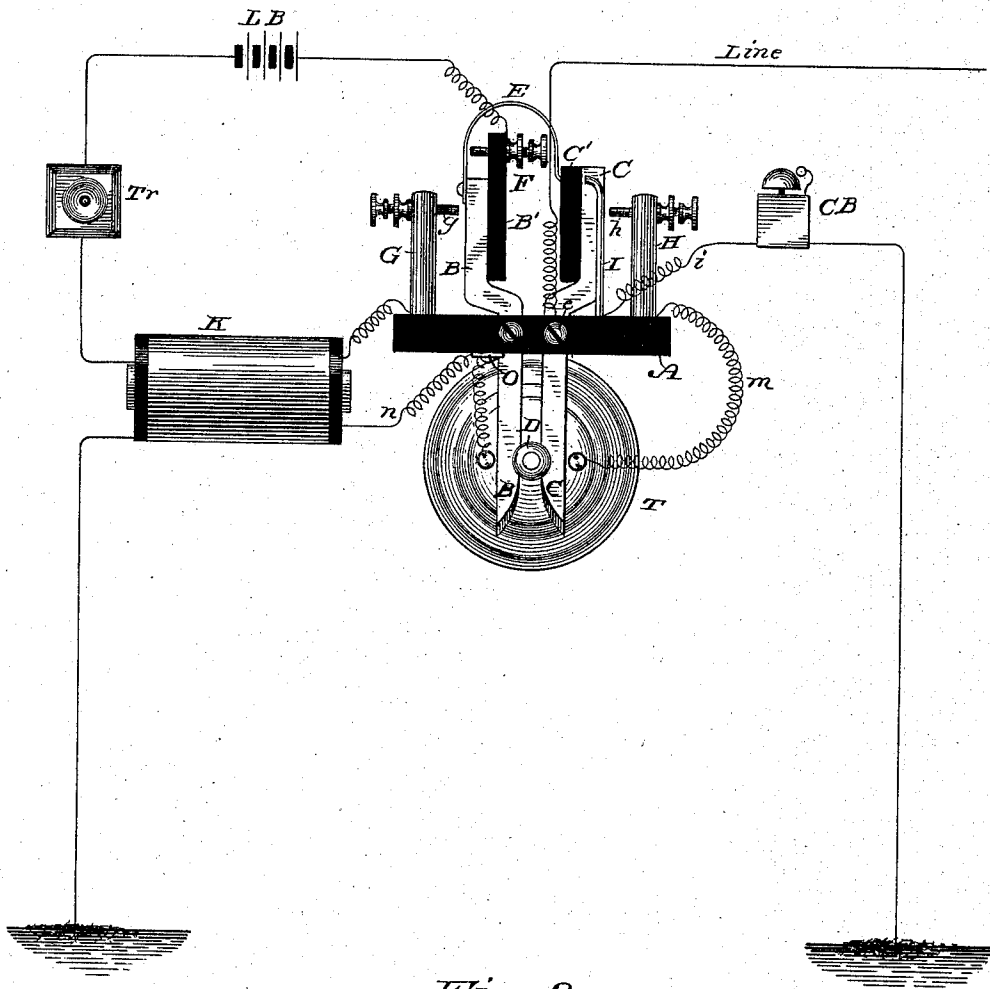
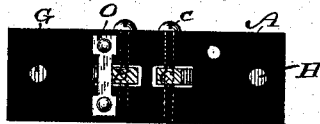


Fig. 2.



WITNESSES

Ed. A. Newman,  
Ch. C. Newman.

INVENTOR

Thomas J. Perrin.  
By his Attorneys  
Baldwin, Hopkins & Payson.

# UNITED STATES PATENT OFFICE.

THOMAS J. PERRIN, OF NEW YORK, N. Y., ASSIGNOR TO THE NATIONAL IMPROVED TELEPHONE COMPANY, OF NEW ORLEANS, LA.

## TELEPHONE-SWITCH.

SPECIFICATION forming part of Letters Patent No. 322,122, dated July 14, 1885.

Application filed March 23, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS J. PERRIN, of New York city, State of New York, have invented certain new and useful Improvements in Telephone-Switches, of which the following is a specification.

The object of my invention is to provide a telephone support or switch which will be simple in structure, effective in operation, and not likely to get out of order.

In the accompanying drawings, Figure 1 is a plan view, partly in diagram, of my improved instrument; and Fig. 2 is a face or front view with the telephone-supporting jaws cut off or shown in section.

A block, A, which is preferably made of non-conducting material, so that the parts mounted thereon will not have to be provided with independent insulation, is perforated for the reception of the horizontal telephone-supporting jaws B C, which are pivoted therein. These jaws project both to the front and rear of their pivots. At the front ends their adjacent faces are cut away, as shown, to permit the ready insertion of the insulated plug D on the end of the telephone T. The jaws are normally pressed toward each other at their forward ends by a spring, E, which is secured directly to the rear end of the jaw B, and bears against a block of insulating material, C', on the jaw C. The spring is curved outwardly beyond the end of the jaw B, and inwardly to make contact with the block of insulating material C' on the jaw C. The jaws B C are bent or deflected just back of their pivots, so that they are much farther apart at the rear than at the front. A block or strip of insulating material, B', is secured on the rear end of the jaw B, and projects beyond it into the curve of the spring E. An adjustable contact-screw, F, is carried in the end of the block B', so that its contact end may be adjusted toward and from the curved plate-spring E.

When the parts are in the position shown in the drawings—that is, with the plug D on the end of the telephone thrust into the jaws B C to support the telephone—the rear ends of the jaws will be pressed toward each other and the curve of the spring between its point of support on the end of the jaw B and its point of contact on the block of insulating material

C' will be contracted, as shown. When the telephone is withdrawn from the jaws, however, the spring presses them toward each other at the front and away from each other at the rear, and as the curve of the spring flattens it will make contact with the end of the adjustable contact-screw F. A post, G, secured on the rear side of the block A, is provided with a contact-stop, g, against which the rear end of the jaw B strikes when the telephone-plug is drawn from between the jaws. A similar post, H, is provided with an adjustable contact-stop, h, against which the rear end of the jaw C works in like manner. The block C' of insulating material on the jaw C is flush with the upper face of the jaw, so that the two give a substantially even surface. A spring-conductor, I, secured in the block A, bears upon the surface C C', as shown in the drawings, and when the rear ends of the jaws B C are pressed together, as shown in Fig. 1, the conductor I makes contact with the face of the jaw C; but when the telephone is withdrawn from the jaws and their rear ends are pressed away from each other, then the conductor I rests upon the insulating material C'.

K is the induction-coil; Tr, the transmitter; L B, the local transmitting-battery, and C B the call-bell. The line enters the switch and is electrically connected with the jaw C, preferably through its pivot c, as shown in the drawings. When the telephone-plug is thrust between the jaws—that is, when the line is idle—the main-line circuit is then completed from the jaw C, through the conducting-rod I and wire i, through the call-bell C B to ground. One binding-post of the telephone is connected with a wire, m, which runs from the post H; the other binding-post of the telephone is connected with a plate, O, secured on the block A, and from said plate the circuit is continued by a wire, n, through the secondary of the induction-coil to ground. With the apparatus, therefore, in the position indicated in the drawings—that is, with the call-bell in circuit—the telephone will be cut out, its circuit being open at the contact h. One end of the primary of the induction-coil is connected with the post G, and the other end of the primary passes to the transmitter and local battery, and thence to the insulated contact-stop F, carried

by the jaw B. It will therefore be noted that with the apparatus in the position indicated in the drawings the primary circuit will be open at the contact *g*. Upon a call being received the subscriber withdraws the telephone from the jaws B C, and the spring E, forcing their rear ends apart, makes contact between the jaw B and the contact *g*, and between itself and the contact F, thus completing the subscriber's transmitting-circuit. At the same time the movement of the jaw C transfers the conductor I onto the insulated block C', and completes contact between the jaw C and the contact *h*, thus breaking the call-bell circuit through the conductor I, and completing the main-line circuit through the telephone by way of the jaw C, contact *h*, wire *m*, &c.

I claim as my invention—

1. The combination of a block or support, A, pivoted jaws, a spring which normally presses the jaws apart at their rear ends, a contact-stop, *g*, against which one of said jaws works, a primary transmitting-circuit, one end of which is connected with said contact, and a terminal for the other end of said circuit carried by the jaw B.

2. The combination, substantially as set forth, of the block or support A, the pivoted telephone-supporting jaws, a spring which normally presses the jaws apart at their rear ends, contacts *g h*, against which the jaws are pressed when the telephone is withdrawn therefrom, the primary transmitting-circuit, which is completed at the contact *g*, the call-bell, a conductor, I, through which the main-line circuit through the call-bell is normally completed, but is electrically disconnected when

the rear ends of the jaws are pressed apart by the spring, a telephone connected with the contact *h*, and a main-line connection with the jaw C.

3. The combination of the block or support A, telephone-supporting jaws pivoted therein, a main-line connection with the jaw C, the insulating material C', carried by said jaw, means for pressing the rear ends of the jaws apart when the telephone is withdrawn from the jaws, a conductor, I, electrically connected through the call-bell to the earth, which alternately makes contact with the jaw C and with the insulating material carried thereby, a contact, *h*, against which the jaw C is pressed when the telephone is withdrawn from the jaws, and a conductor leading from the contact *h* through the telephone and induction-coil to earth.

4. The combination of the block or support A, the telephone-supporting jaws pivoted therein, a spring carried by one of said jaws, which normally presses them apart at their rear ends, an insulated contact-screw carried by the spring-supporting jaw, a primary transmitting-circuit, one end of which is connected with said contact, and another contact, *g*, against which the said jaw works, and with which the other end of the primary transmitting-circuit is connected.

In testimony whereof I have hereunto subscribed my name.

THOMAS J. PERRIN.

Witnesses:

JNO. R. JUDEN,  
E. C. DAVIDSON.