

C. H. VANDERHOOF.
 SPRING JACK.
 APPLICATION FILED DEC. 6, 1913.

Patented July 6, 1915.

1,145,338.

FIG. 1-

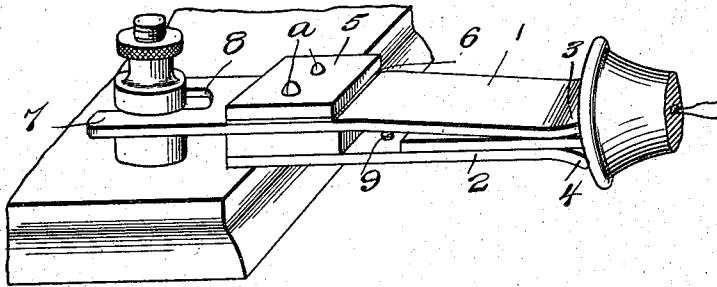


FIG. 2

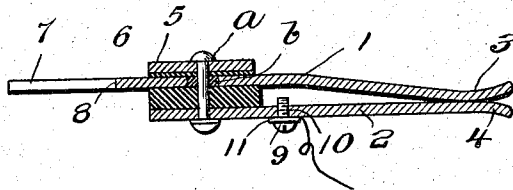
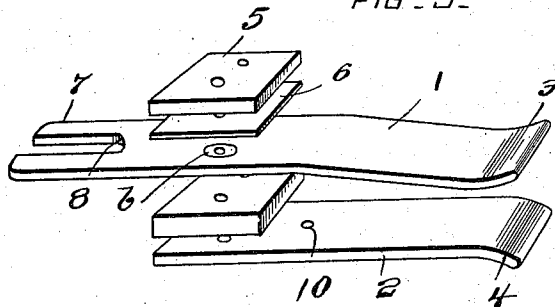


FIG. 3-



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SPRING-JACK.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES H. VANDERHOOF, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Spring-Jacks, of which the following is a specification.

My invention relates to spring-jacks or cut-ins for telegraph keys.

The object of my invention is to produce a spring jack adapted to be attached to the post of a telegraph key or to the main-line post of a telegraph relay and adapted to receive and retain by spring pressure the plug attached to the cord of a sending key and complete the circuit therewith.

A further object thereof is to produce a jack of said character comprising a pair of metal plates properly insulated from each other and secured to each other one of which is adapted to be attached to the main line wire while the other plate may be conveniently attached to and connected electrically with the sending key or relay post, each of said plates having projecting extensions curved toward each other to form contacting spring lips between which the plug of the cord attached to the sending key may be inserted, and a still further object of my invention is to provide a more simple, cheap and efficient article of said class than has heretofore been attained.

To these ends, my invention includes the combination and arrangement of component parts to be hereinafter described and more particularly pointed out in the claim.

In the accompanying drawings, in which like reference characters indicate similar parts, Figure 1 is a perspective view of my invention attached to the post of a telegraph relay and with the plug attached to the cord of a sending key inserted; Fig. 2 is a longitudinal sectional view of my jack, and Fig. 3 is a perspective view of the parts thereof separated.

My invention comprises the upper plate 1 and the lower plate 2, one of which has a compound curved extension and the other has a substantially straight extension, the ends of which are flared, forming the contacting lips 3 and 4. Said plates are of brass or other spring metal constituting efficient conductors of electricity, riveted or otherwise fastened together at intermediate their ends, and are insulated from each

other by a layer of gutta percha, fiber or other non-conducting material. To render such insulation complete, the upper plate 1 is provided with orifices 5 of larger diameter than the rivets, which are filled with insulating material through which the rivets pass to avoid contact with that plate.

The structure of my jack may be reinforced by a cap or washer 6 through which the rivets pass, and which is insulated from the top plate 1 by the layer of gutta percha or other non-conducting material 6.

As shown in the drawings, the top plate 1 has a longitudinal extension 7 in the opposite direction from the curved lip 3, the end of which is bifurcated by providing the semi-circular U-shaped cut-out portion 8, by which said plate may embrace the post of a telegraph key or the main-line post of a telegraph relay.

For the purpose of attaching and electrically connecting my jack with the main line wire of a telegraph circuit, I provide a screw 9 threaded into an orifice 10 in the lower plate 2 on which is carried a washer 11.

In use, my jack may be connected with the main line wire by attaching to the lower plate while the upper plate is connected with the post of a telegraph key or to the main-line post of a telegraph relay. The spring lips of the upper and lower plates being in contact, the circuit is completed through such points while being insulated between the lips and the circuit connections on the jack. While thus connected, the plug connecting a sending key may be readily inserted between the lips of the upper and lower plates, and readily disconnected therefrom without at any time breaking the circuit.

Having thus described my invention, what I claim as new, and desire to be secured by Letters Patent, is—

A spring jack, comprising an upper and a lower plate of spring metal, insulating material between same, and means for fastening said plates and insulating material together, a longitudinal extension on each plate projecting beyond the interposed insulating material normally in contact with each other adjacent to their outer ends to complete the electrical circuit, said plates having flaring lips at their ends adapted to contact with both electrical points of a plug when same is inserted between the plates before the contacting faces of the plates

are separated and to retain such contact until after the faces of the extension plates are again in contact when the plug is removed, whereby the circuit is maintained without interruption, a bifurcated oppositely extending projection on the upper plate extending beyond said insulating material adapted to be secured to the post of a telegraph instrument or relay, and wire attaching means on the lower plate, substantially as described. 10

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."