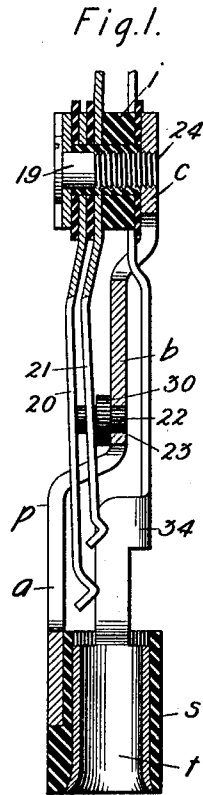
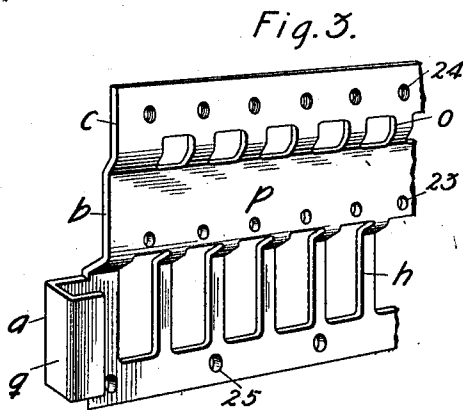
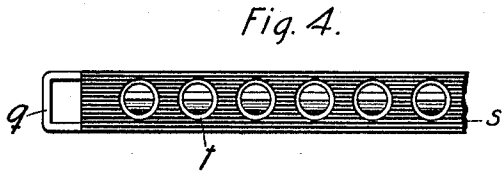
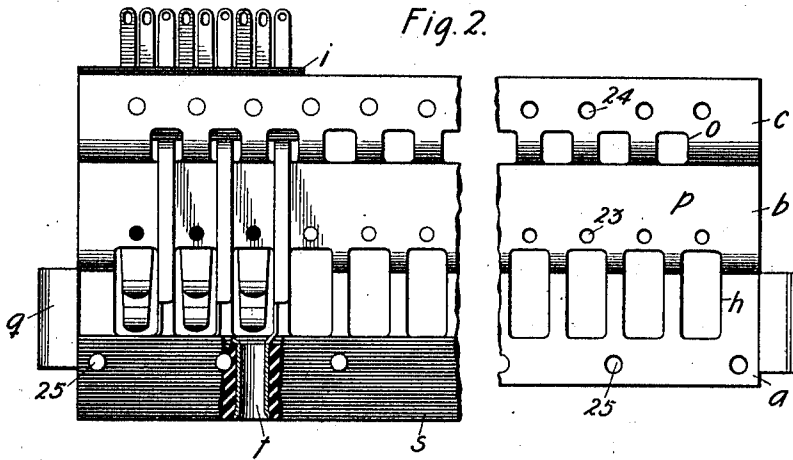


E. B. CRAFT.  
 SPRING JACK SWITCH.  
 APPLICATION FILED FEB. 11, 1911.

1,004,244.

Patented Sept. 26, 1911.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

EDWARD B. CRAFT, OF HACKENSACK, NEW JERSEY, ASSIGNOR TO WESTERN ELECTRIC COMPANY, OF NEW YORK, N. Y., A CORPORATION OF ILLINOIS.

## SPRING-JACK SWITCH.

1,004,244.

Specification of Letters Patent. Patented Sept. 26, 1911.

Application filed February 11, 1911. Serial No. 607,938.

To all whom it may concern:

Be it known that I, EDWARD B. CRAFT, a citizen of the United States, residing at Hackensack, in the county of Bergen and State of New Jersey, have invented a certain new and useful Improvement in Spring-Jack Switches, of which the following is a full, clear, concise, and exact description.

This invention relates to springjack switches such as are employed in telephone exchange switchboards and the object is to provide a mounting for a plurality of spring-jacks which is durable and effective as a mechanical structure while less expensive to manufacture.

The invention includes front and rear parallel strips and a plate mechanically uniting one surface of the rear strip with the respectively opposite surface of the front strip; preferably the metal plate is formed, pressed or stamped to present three successive sections in three parallel planes, all integrally united in the one plate; the exterior sections are slotted or perforated, as by punching, and on each exterior edge or section, there is supported the strip, preferably of insulating material, referred to on which the electrical contacts are fixed or supported. The front strip, preferably of insulating material, is perforated to receive the jack plug; a contact for the busy test is in this perforation, and a conductor extends across to the rear strip while the jack contact springs are fixed on the rear strip and extend through perforations in the plate to present their free terminals at or near the perforations in the front strip. There is a stud of insulating material supported on the middle section of the plate and this stud forms a mechanical stop for the jack spring. The well known form of springjack plug is employed in connection with the jacks.

The accompanying drawings illustrate the invention.

Figure 1 is a longitudinal section; Fig. 2 is a top plan view partly in section; Fig. 3 shows the detached plate; and Fig. 4 is a front elevation of a section of the strip of springjacks.

There is a plate of metal  $p$  bent or pressed into three successive sections  $a$ ,  $b$  and  $c$ , occupying parallel planes; the section  $a$  has a bent or turned projection  $g$ ; as shown this projection is in the form of three sides of quadrilateral figure. The section of the

plate  $a$  is perforated as shown at  $h$ ; the section of the plate  $c$  is perforated as shown at  $o$ , and there are perforations at 23, 24 and 25 for screws, rivets or holding devices. A strip of insulating material  $s$  is fixed upon the strip  $a$  and its end abuts against the projection  $g$ ; this strip is perforated to receive a jack plug and is lined with a metal thimble  $t$  which constitutes a contact point to be used for the busy test. Upon the opposite edge of the plate  $p$  and upon the opposite surface of said plate with respect to the strip  $s$  is a strip of insulating material  $i$ . In this strip  $i$  are fixed the two jack springs 20 and 21 with their free terminals extending through the hole  $h$  in plate  $p$  into proximity with thimble  $t$  in the strip  $s$ . A stud or rivet of insulating material is placed in the hole 23 in position to engage with the spring 20 and there is a collar upon the stud 22 shown at 30 upon which the spring 21 rests. The insulating strip  $i$ , the springs and the conductor 34 extending from the thimble  $t$  are united with the plate section  $c$  by the screw 19 engaging the hole 24.

What I claim is:

1. The combination of a plurality of springjacks and a common frame therefor consisting of a plate formed to present a plurality of adjacent sections in a plurality of parallel planes, strips of insulating material fixed on each exterior section on opposite surfaces of the plate and means for fixing the contact points of the jack on one strip in position to extend through perforations in said plate to present their free terminals at perforations in the other strip.

2. A mounting for a plurality of spring-jacks consisting of a metal plate formed to present three integral sections in three parallel planes in combination with a strip of insulating material on each exterior section, on respectively opposite surfaces of the plate, and pairs of spring contacts fixed on one strip and extending through perforations in said plate to present their free terminals at perforations in the other strip.

3. A mounting for a plurality of spring-jacks consisting of a metal plate formed to present three successive sections in three parallel planes, in combination with strips of insulating material, one fixed to each exterior section on respectively opposite surfaces of the plate, plug contact points located in perforations in the front strip, in-

5 insulated electrical connections, one for each contact, extending to the rear strip, and a series of pairs of spring contacts fixed on the rear strip, each pair presenting free terminals at one of a series of perforations in the front strip.

10 4. A mounting for a plurality of spring-jacks consisting of a metal plate formed to present three successive sections in three parallel planes, in combination with strips of insulating material, one fixed to each exterior section, on respectively opposite surfaces of the plate; pairs of spring contacts fixed on one strip and extending through 15 perforations in said plate to present their free terminals at perforations in the other strip, and an insulating stop located on the central station of said plate in position to limit the movement of said springs.

20 5. A mounting for a series of springjack switches consisting of the combination of front and rear parallel strips, a plate mechanically uniting one surface of the rear strip with the opposite surface of the front strip, contacts supported on the rear strip 25 extending through perforations in said plate to present free terminals at or near perfora-

tions in said front strip, means for fixing the rear strip and said contacts to one edge of said plate, means for fixing the front strip to the other edge of said plate and means for insulating complementary contacts of the jack switches from each other and from adjacent contacts.

35 6. A mounting for a series of springjack switches consisting of the combination of two parallel insulating strips, a metal plate uniting the surface of the rear strip with the opposite surface of the front strip, means for fixing said strips at or near opposite 40 edges of said plate, and a series of parallel pairs of contacts supported on the rear strip, each pair extending through a perforation in said plate to present free terminals at or near a plug socket or perforation in the 45 front strip.

In witness whereof, I, hereunto subscribe my name this 9th day of February A. D., 1911.

EDWARD B. CRAFT.

Witnesses:

IRVING MACDONALD,  
MORGAN WASHBURN, Jr.