

C. D. PLATT.
 ROTARY CONTACT FOR SNAP SWITCHES.
 APPLICATION FILED APR. 24, 1912.

1,037,525.

Patented Sept. 3, 1912.

Fig. 1

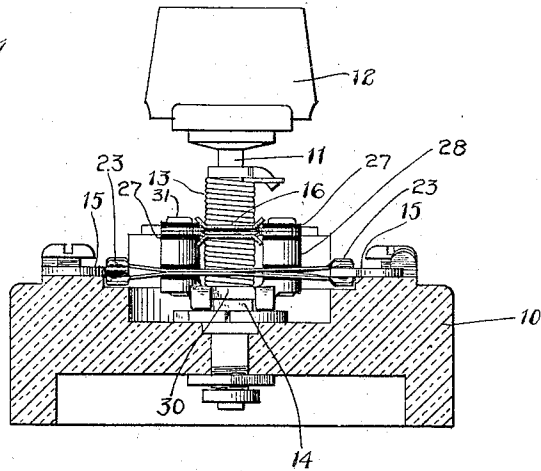


Fig. 2

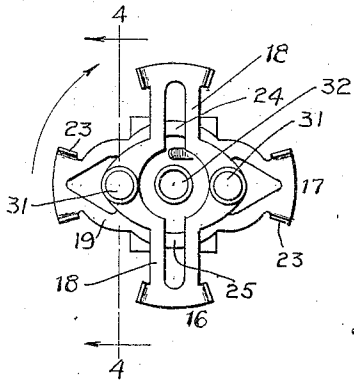


Fig. 3

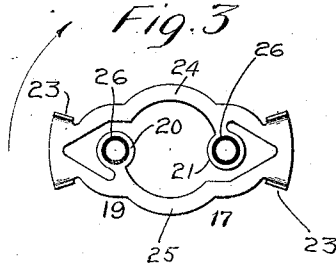


Fig. 4

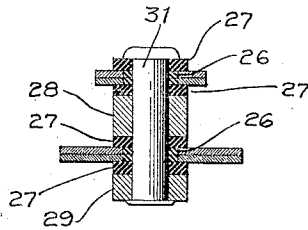
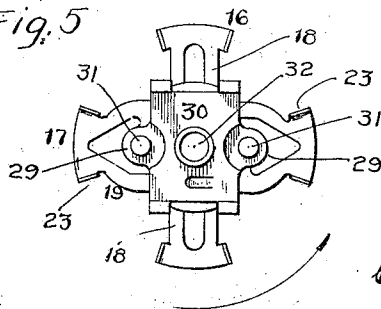


Fig. 5



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ROTARY CONTACT FOR SNAP-SWITCHES.

1,037,525.

Specification of Letters Patent.

Patented Sept. 3, 1912.

Application filed April 24, 1912. Serial No. 692,991.

To all whom it may concern.

Be it known that I, CLARENCE D. PLATT, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented an Improvement in Rotary Contacts for Snap-Switches, of which the following is a specification.

This invention relates to electric snap switches and has for its object to provide a novel rotary contact member so constructed as to give increased flexibility and resiliency to the plates of the lower contact arm, the effect of which is to improve the operation of the switch in use and to greatly increase its durability.

With these and other objects in view I have devised the novel rotary contact member which I will now describe, referring to the accompanying drawing forming a part of this specification and using reference characters to indicate the several parts:

Figure 1 is a sectional view on an enlarged scale showing my novel rotary contact applied to an ordinary type of snap switch; Fig. 2, a plan view of the rotary contact member detached; Fig. 3, a plan view of one of the plates of the lower arm detached; Fig. 4, a section on the line 4-4 in Fig. 2, looking in the direction of the arrows; and Fig. 5 is an inverted plan view of the rotary member detached.

10 denotes the base, 11 the spindle, 12 the operating handle, 13 the spring which is wound by rotation of the handle and 14 the locking and releasing mechanism. These parts are not illustrated in detail as specifically they form no portion of the present invention.

15 denotes the lower fixed contacts. The upper fixed contacts are not shown but may be of any ordinary or preferred construction and are placed a quarter turn from contacts 15 and in a higher plane.

My novel rotary contact member comprises upper and lower arms which cross at right angles and are indicated respectively by 16 and 17 and an engaging plate indicated by 30. Each arm comprises two corresponding plates, the plates of the upper arm being indicated by 18 and the plates of the lower arm by 19. The plates of the upper arm are made flexible and resilient by cutting out metal from the center, as clearly shown in Fig. 2, each branch of each arm being provided with a hole for a rivet. The plates 19 of the lower arm are

likewise made flexible and resilient by cutting out metal from the center, the branches being specifically indicated by 24 and 25. The novel feature is that each branch is provided with an eye for a rivet at one side of the center, said eyes being indicated respectively by 20 and 21. In use, the contact member rotates from left to right, consequently, the portions of plates 19 indicated by 23 are the engaging portions. It will be noted that the left engaging portions 23, as seen in Figs. 2 and 3, are upon the branches 24 of the plates, which are connected to the plates of the other arm by means of eyes 21 on the opposite side of the mid-length of the plate, that is, at the right of the center, and that the engaging portions 23 at the right end of the plate are upon branches 25 which are connected to the plates of the other arm by means of eyes 20 lying at the left of the mid-length of the arm. The effect of this arrangement of the eyes is to give an amount of resiliency to the plates that has not been secured by any other construction known to the trade. The parts comprising the rotary member as a whole are spaced apart and secured together as clearly shown in Fig. 4. The eyes in both plates are provided with insulating bushings 26, insulating washers 27 are placed above and below the plates of each arm and the arms are spaced apart by metal collars 28. Rivets 31 pass through the several parts and through eyes 29 upon engaging plate 30.

32 denotes a tube secured to the engaging plate in which the spindle rotates freely.

But two rivets are used and each rivet passes through one of the holes at the mid-length of each plate of the upper arm and through an eye of each plate of the lower arm. A high degree of flexibility and resiliency is secured for the plates of the upper arm by passing the rivet through the mid-length of the plates. A similar construction being impossible however for the plates of the lower arm, I have succeeded in obtaining even greater flexibility and resiliency in the plates of the lower arm by placing the attaching eye of each branch on the opposite side of the mid-length from the corresponding engaging portion.

Having thus described my invention, I claim:

1. A rotary contact member for snap switches comprising upper and lower arms

crossing at right angles, each arm consisting of corresponding plates cut away at the center leaving branches, said plates being provided with contact portions and the
5 branches of the lower arm with eyes on the opposite sides of their mid-length from the corresponding contact portions; and rivets passing through the mid-length of the branches of the upper arm and through the
10 eyes of the lower arm.

2. A rotary contact member for snap switches comprising upper and lower arms crossing at right angles, each arm consisting of corresponding plates cut away at the
15 center leaving branches, said plates being provided with contact portions and the

branches of the lower arm with eyes on the opposite sides of their mid-length from the corresponding contact portions, and the branches of the upper arm with rivet holes at their mid-length, insulating bushings in the rivet holes and eyes, insulating washers on opposite sides of the arms, spacing collars between the arms and rivets by which the parts are secured together.

In testimony whereof I affix my signature in presence of two witnesses.

CLARENCE D. PLATT.

Witnesses:

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