J. G. PETERSON.

SNAP SWITCH.

APPLICATION FILED APR. 10, 1908.

906,738.

Patented Dec. 15, 1908.

Fig. 1

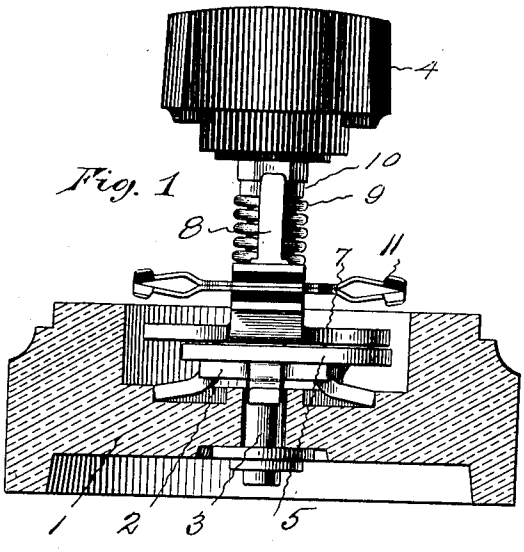


Fig. 2

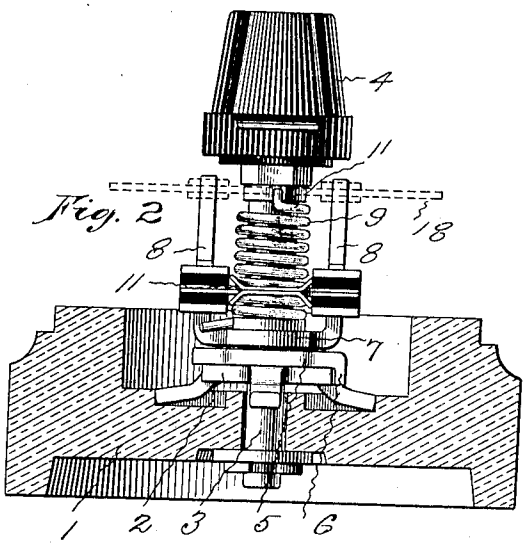


Fig. 7

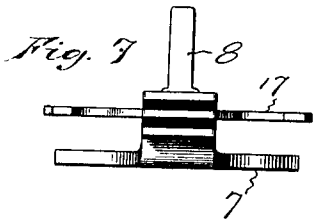


Fig. 4

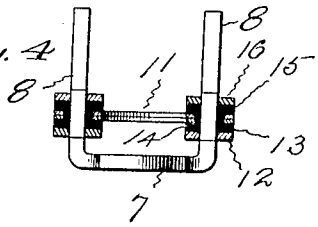


Fig. 6

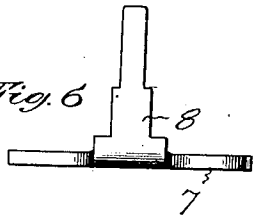


Fig. 3

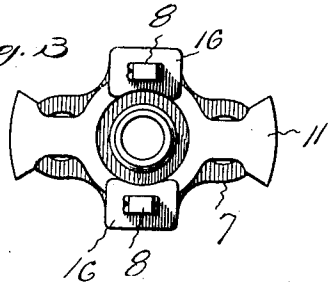
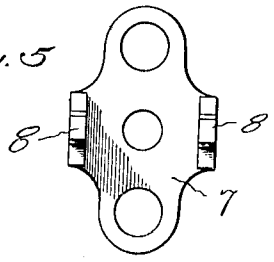


Fig. 5



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JOHANN GODFREY PETERSON, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE ARROW ELECTRIC COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

SNAP-SWITCH.

No. 906,738 Specification of Letters Patent. Patented Dec. 15, 1908.

Application filed April 10, 1908. Serial No. 426,252.

To all whom it may concern:

Be it known that I, JOHANN GODFREY PETERSON, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented a new and useful Snap-Switch, of which the following is a specification.

This invention relates to the construction of a rotary snap electric switch.

The object of the invention is to provide a very simple and cheap construction for a rotary snap switch, by means of which the movable contacts or poles, whether a single plate or two plates, can be easily and quickly mounted upon and, if desired, perfectly insulated from the pole carrying plate, which is thrown by the actuating mechanism at the proper time, which pole carrying plate is also constructed so that it may be utilized to operate an indicating dial or shutter.

Figure 1 of the accompanying drawings shows a side elevation, with the base cut in central section, of a switch embodying this invention. Fig. 2 shows a similar view looking from another side. Fig. 3 shows a plan of the pole carrying plate and the poles. Fig. 4 shows a side elevation of the pole carrying plate with a pair of movable contacts and the means for insulating them, cut in section. Fig. 5 shows a plan of the pole carrying plate. Fig. 6 shows a side view of the pole carrying plate. Fig. 7 shows a side elevation of the pole carrying plate with a single movable contact.

The base 1 which is shown, is preferably made circular in outline of porcelain or a similar insulating material. Mounted in a recess in the base is the usual stop ratchet 2 and supported by this ratchet and the base in the common manner is the spindle 3 that is provided with the ordinary turn button or handle 4.

Loosely mounted on the spindle is the lock plate 5 with its locking stud 6 arranged to engage and coöperate with the projecting teeth of the ratchet plate in the usual manner for holding the pole plate stationary until the spring has been placed under sufficient tension to quickly throw the pole plate. Loose on the spindle above and connected in the ordinary manner with the lock plate is the pole carrying plate 7. This pole carrying plate is stamped to shape, preferably of steel, and when formed its side edges are bent upwardly at right angles to the plane of the plate so as to form arms 8. When the handle is turned, the spring 9 is placed under tension by reason of the engagement of its upper end with the shoulder on the washer 10 that is fastened to the spindle and the engagement of its lower end with one of the arms that are turned up from the plate. After the stop plate has been disengaged from the ratchet teeth by any common means, the pole carrying plate is thrown violently by the spring.

In the form of the invention first shown the movable poles consist of a pair of thin spring metallic plates 11. In mounting these it is preferred to first slip a metallic washer 12 upon each of the arms, then place an insulating washer 13 on the metal washer, then the plates with the bushing 14 which prevents metallic contact are slipped upon the arms, after which an insulating washer 15 and a metallic washer 16 are placed on the arms above the plates. After these pieces are in position, the arms are expanded or given a blow with an instrument to cause them to slightly spread and secure the parts together. As shown in Fig. 7, the movable contact or pole can be formed of a single plate 17 instead of a pair of plates, if desired. In this case the plate is mounted the same way upon the arms that project up from the pole plate. The insulating washers and bushings can be omitted if it is not desired to insulate poles from the pole carrying plate.

The arms which project from the pole plate are preferably made of sufficient length to extend upwardly and engage an indicating dial or shutter 18 of common form as indicated in dotted lines in Fig. 2. If the dial or shutter is not to be used the arms could of course be made shorter, but it is preferred to have them of full length so that the dial can be used, if desired.

The invention claimed is:

1. The combination with the actuating mechanism of an electric snap switch, of a pole carrying plate having integral arms upturned from diametrically opposite edges,

perforated pole plates slipped upon said arms, and means for holding the pole plates thereon, substantially as specified.

2. The combination with the actuating mechan sm of an electric snap switch, of a pole carrying plate having integral arms upturned from diametrically opposite edges, perforated pole-plates slipped upon said arms, insulation interposed between said pole plates and the arms, and means for holding the pole plates in place thereon, substantially as specified.

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