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PATENTED NOV. 14, 1905.

C. A. CLARK & E. A. LA HAR.
SNAP SWITCH CONTACT MECHANISM.

APPLICATION FILED MAR. 25, 1904.

Fig. 1.

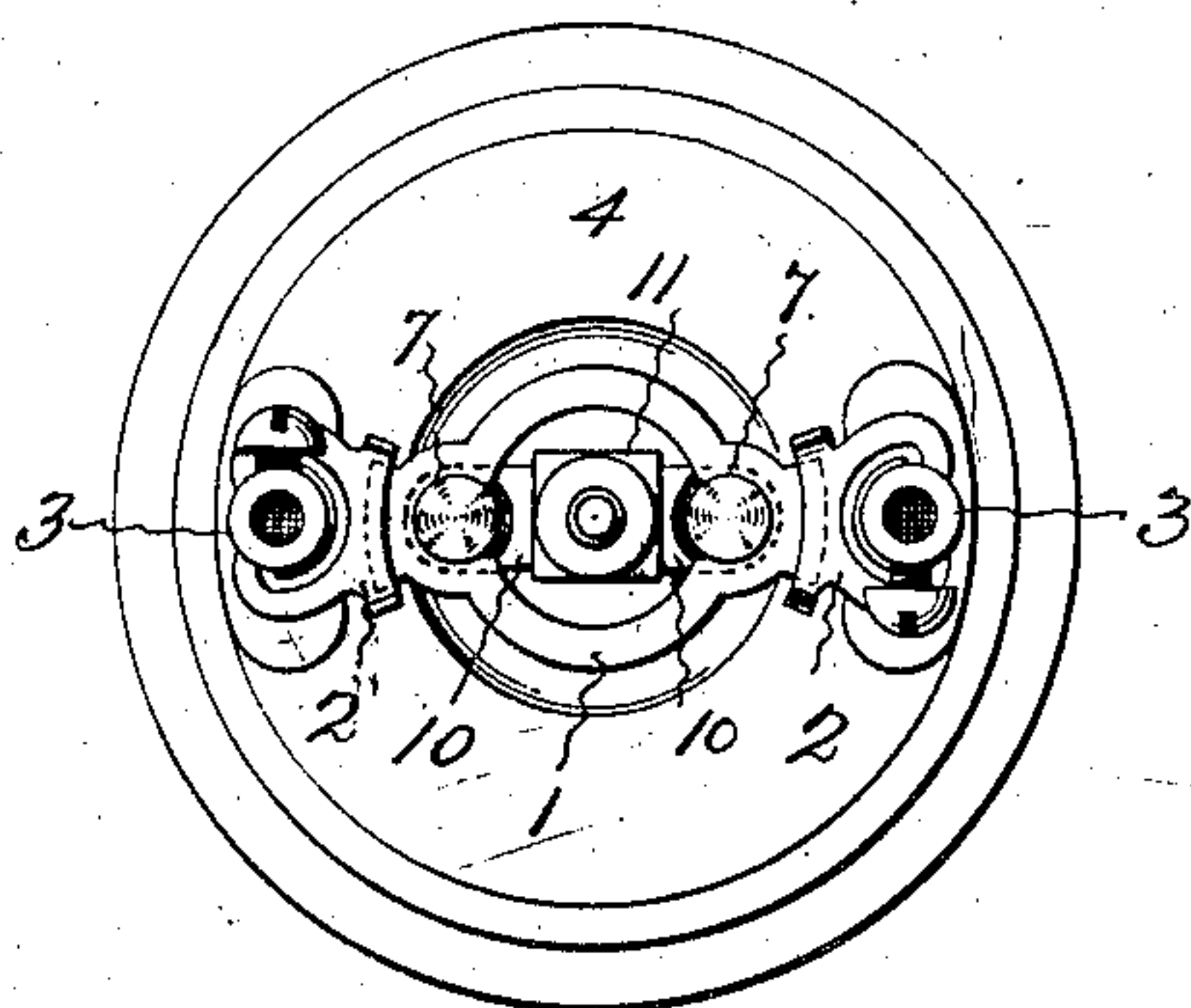


Fig. 2.

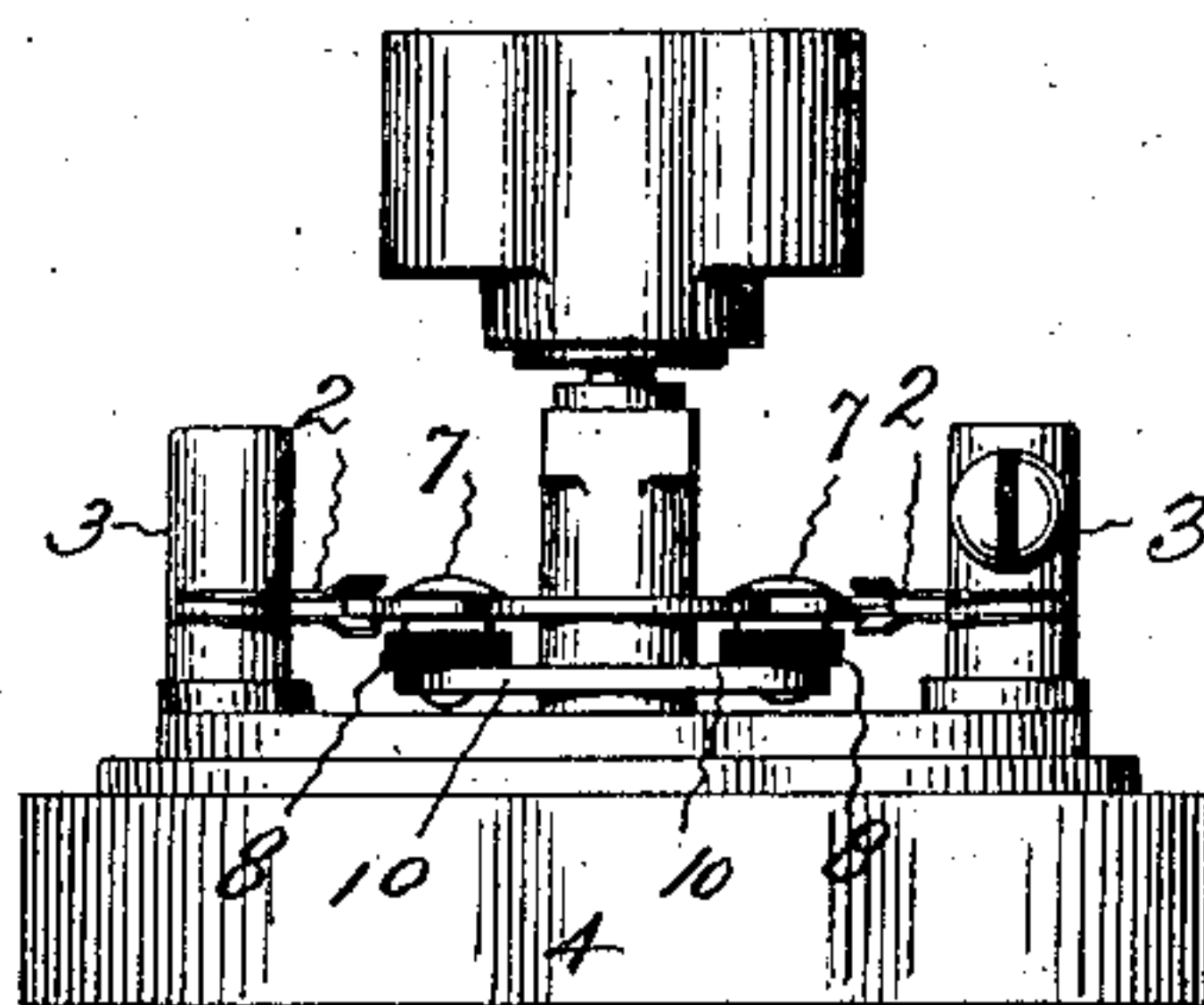


Fig. 3.

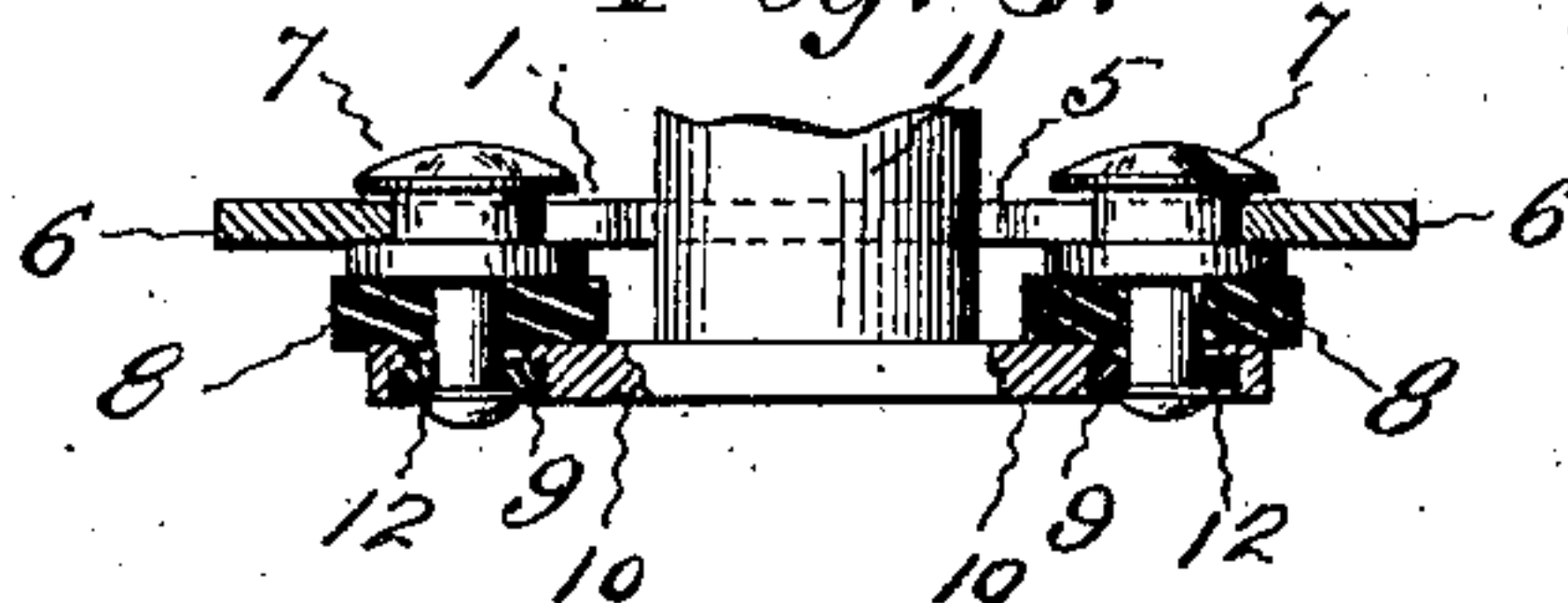


Fig. 4.

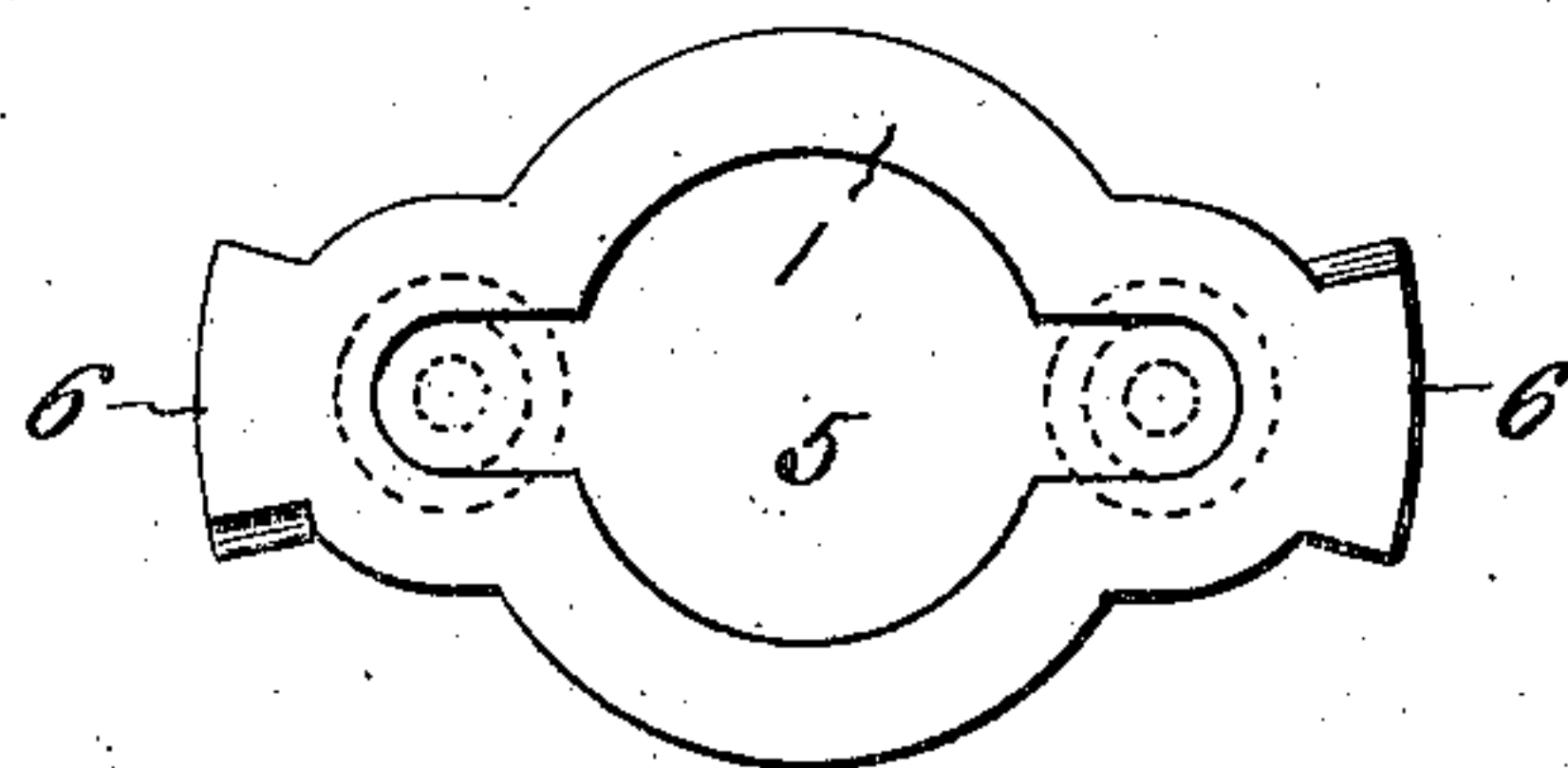


Fig. 5.



Witnesses:
Ethel M. Lowe
Daniel Weston

Inventors:
Charles A. Clark
Ella A. La Har
By their Attorney
Harry P. Williams

UNITED STATES PATENT OFFICE.

CHARLES A. CLARK, OF HARTFORD, AND ELLSWORTH A. LA HAR, OF
NEW BRITAIN, CONNECTICUT, ASSIGNORS, BY MESNE ASSIGNMENTS,
TO THE PERKINS CORPORATION, OF HARTFORD, CONNECTICUT, A
CORPORATION OF CONNECTICUT.

SNAP-SWITCH CONTACT MECHANISM.

No. 804,381.

Specification of Letters Patent.

Patented Nov. 14, 1905.

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To all whom it may concern:

Be it known that we, CHARLES A. CLARK, residing at Hartford, and ELLSWORTH A. LA HAR, residing at New Britain, in the county of Hartford and State of Connecticut, citizens of the United States, have invented a new and useful Snap-Switch Contact Mechanism, of which the following is a specification.

This invention relates to the manner of supporting and attaching the pole-plate, which is thrown into and out of engagement with the stationary contacts of a rotary snap-switch. In a switch of this character it is necessary to insulate the pole-plate, which makes connection with the stationary contacts from its support, so that current cannot pass from the pole-plate to the throwing mechanism of the switch, and it is desirable to allow the pole-plate a little play flatwise so that it may adjust itself to the level of the stationary contacts.

The object of the invention is to provide a very simple and cheap method of loosely but firmly connecting the pole-plate with and insulating it from its support.

Figure 1 of the accompanying drawings shows a plan of a part of a rotary snap-switch with the pole-plate attached to its support according to this invention and engaging the stationary contacts. Fig. 2 shows a side elevation of the parts shown in Fig. 1 with the handle added. Fig. 3 shows on larger scale a section of the pole-plate and its support. Fig. 4 shows a plan of the pole-plate. Fig. 5 shows one of the attaching-studs.

The pole-plate 1 of conducting material is arranged so that its ends, when the handle is turned, will pass into the grasp of and out of the grasp of the spring-contacts 2, that are attached to the binding-posts 3, which are fastened to the insulating-base 4. The pole-plate is preferably stamped to shape from sheet-brass or similar metal with a central opening 5 and contacting ends 6. The central opening is shaped near each contact end to receive the head of a stud 7. The ends of the opening are made to fit the vertical walls of grooves in the heads of the studs, so as to secure the plate firmly edgewise; but the grooves are of such width that the plate may tip or move slightly flatwise.

The studs are provided with insulating-washers 8, preferably mica, slightly larger than the diameter of the head, and they are also provided with insulating-washers 9, preferably mica, which fit openings in the ends of the arms 10, that project from the sleeve 11. A small washer 12 is placed upon the end of the stem of each stud and then the end of the stud is headed over to hold the parts together.

The plate is easily stamped to shape and the fastening parts, consisting only of the stud and washer, are simple screw-machine products. The stud is thoroughly insulated by the most approved insulation in a very simple manner, so that no current can pass from the plate to its support and to the switch-operating mechanism. A plate held in this manner has a slight movement flatwise; but it is held firmly edgewise so that it will be stiff in the direction the strains are brought upon it.

A single pole-switch has been shown; but of course this invention is applicable to a double pole-switch.

The invention claimed is—

A snap-switch contact mechanism having a pole-plate with a central opening and narrow openings extending therefrom longitudinally of the pole-plate, a rotatable sleeve with a pole-plate support extending therefrom, studs composed of large heads having integral annular flanges and integral reduced shanks, the heads loosely occupying the narrow openings in the pole-plate with the flanges projecting above and below these openings and the shanks extending through openings in the pole-plate support, said openings being larger at the bottom than at the top, insulating-washers between the under flanges of the stud-heads and the upper face of the pole-plate support, insulating-washers encircling the stud-shanks and occupying the larger portions of the openings in the pole-plate support through which the shanks of the studs extend, and metallic washers held on the end of the shanks of the studs, substantially as specified.

CHARLES A. CLARK.

ELLSWORTH A. LA HAR.

Witnesses:

ETHEL M. LOWE,

HARRY R. WILLIAMS.