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CONTACT MECHANISM

Filed Sept. 25, 1928

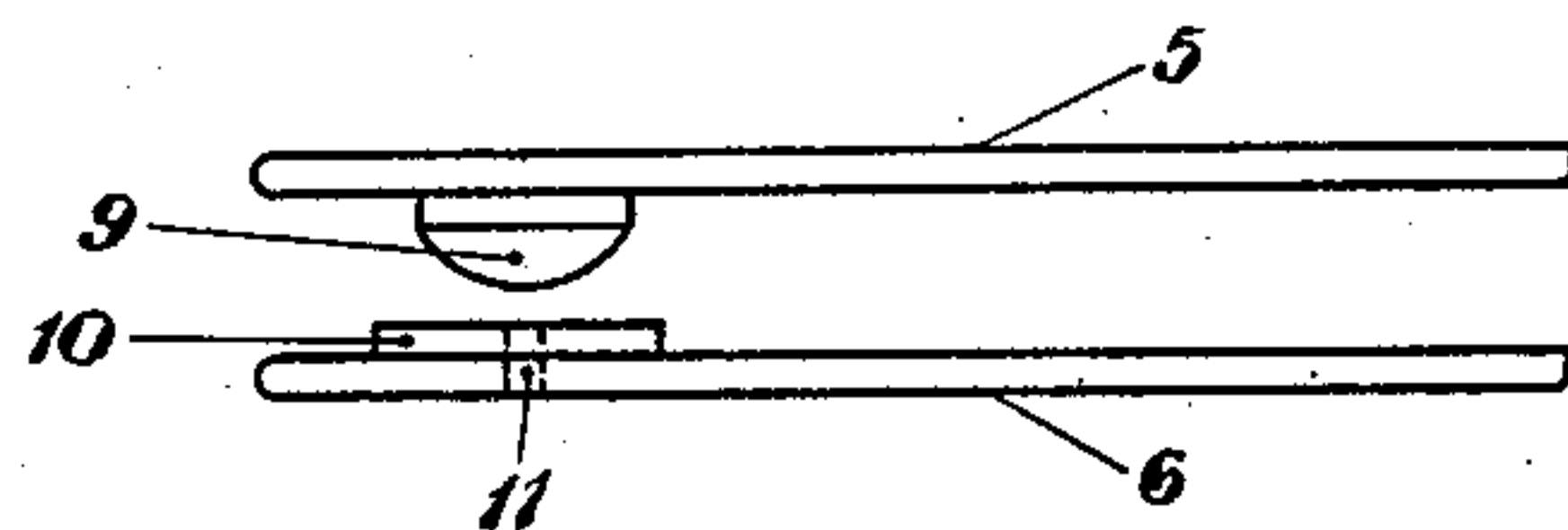


Fig. 1

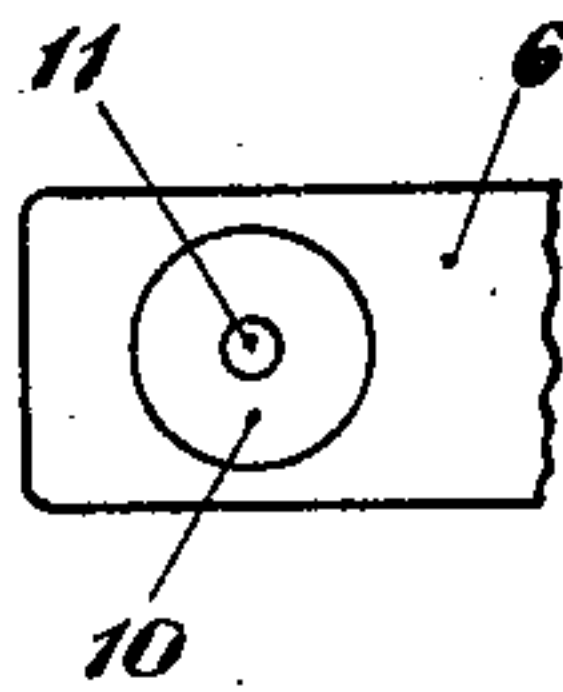


Fig. 2

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CONTACT MECHANISM

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This invention relates to electromechanisms, and more particularly to the contact elements thereof.

The springs of electromechanisms, such as jacks, keys, relays and the like, are provided with contact elements. These contact elements usually consist of a contact disk formed on one spring and a contact point formed on a companion spring. In the operation of the electromechanism these elements are brought together to close an electric circuit. In practice, it has been found that dirt and foreign particles adhere to the contact disks, and cause their surfaces to become roughened or pitted after they have been in service for a time. This roughening or pitting of the contact disks increases as time goes on, and the amount of foreign matter on said disks increases correspondingly. This impaired condition of the contact elements has been found in practice to be the cause of considerable circuit trouble as it prevents proper contact between the contact elements so that an electrical circuit cannot be completed there-through.

It is an object of this invention to obviate this deterioration of the contact elements in a simple and inexpensive manner and to provide elements which will effect a reliable contact with each other.

The invention will be more fully understood when considered in connection with the accompanying drawings, in which one embodiment thereof is illustrated.

Referring to the drawings, Figure 1 is a side elevation of a pair of contact springs equipped with the improved contact elements in accordance with this invention, and Fig. 2 is a fragmentary plan view of the lower contact spring with the improved contact applied thereto.

In Fig. 1 the contact springs 5 and 6 have their flat surfaces lying parallel with each other, and are provided with contact elements 9 and 10, respectively. The element 9 is commonly referred to as a contact point and the element 10 a contact disk. These elements which are positioned near the ends of the springs are brought together into contact

with each other to close an electrical circuit in a manner well understood in the art.

In accordance with this invention, as illustrated in Fig. 1, the spring 5 is equipped with a special contact point 9. In the present instance, this contact point is shown as having a flat circular base with an extended portion of substantially semi-spherical formation. This configuration of course may be changed as desired.

The contact disk 10 associated with the spring 6 may be substantially the same formation as the present well known contact disk. The present disk, however, consists of a flat circular plate of suitable dimensions to correspond to the dimensions of the point 9 so that it may make proper contact therewith. A perforation 11 is provided through the approximate center of the contact disk 10, and this perforation also extends through the spring 6. The perforation 11 of the disk 10 lies substantially in alignment with the central portion of the contact point 9 so that when contact is made between these elements their central portions lies in coincident relation to each other. The provision of the perforation 11 through the contact disk 10 and its associated spring 6 prevents dirt or foreign particles from collecting on said disk at the point where the contact 9 and disk 10 meet.

The contact point 9 and contact disk 10 may be formed integral with their respective springs 5 and 6 or may be welded or otherwise attached thereto in any suitable manner.

While the arrangements of this invention have been illustrated as embodied in a certain specific form, which has been deemed desirable, it will be understood that they are capable of embodiment in many and widely varied forms without departing from the spirit of the invention as defined in the following claim.

What is claimed is:

A contact mechanism including a pair of springs and an element associated with each spring adapted to directly contact with an element on the other spring, one of said elements including a projecting member of substantially semi-spherical formation and the other of said elements including a disk, said

disk having an opening therethrough and
extending through its associated spring to
prevent the adherence of foreign particles
on said disk at the point where said projecting
5 element and disk element contact with each
other.

In testimony whereof, I have signed my
name to this specification this 21st day of
September, 1928.

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LEON D. BARROWS.

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