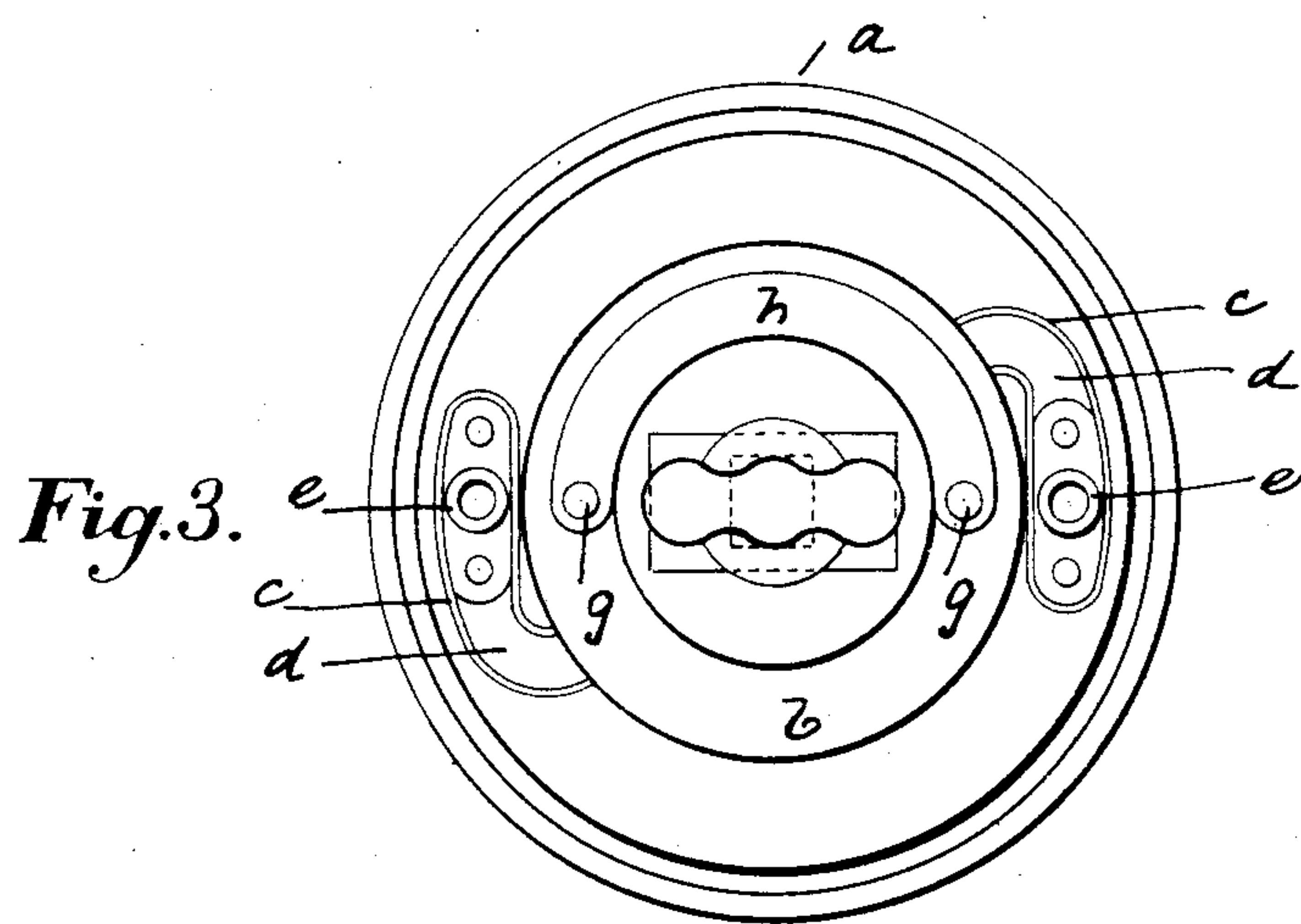
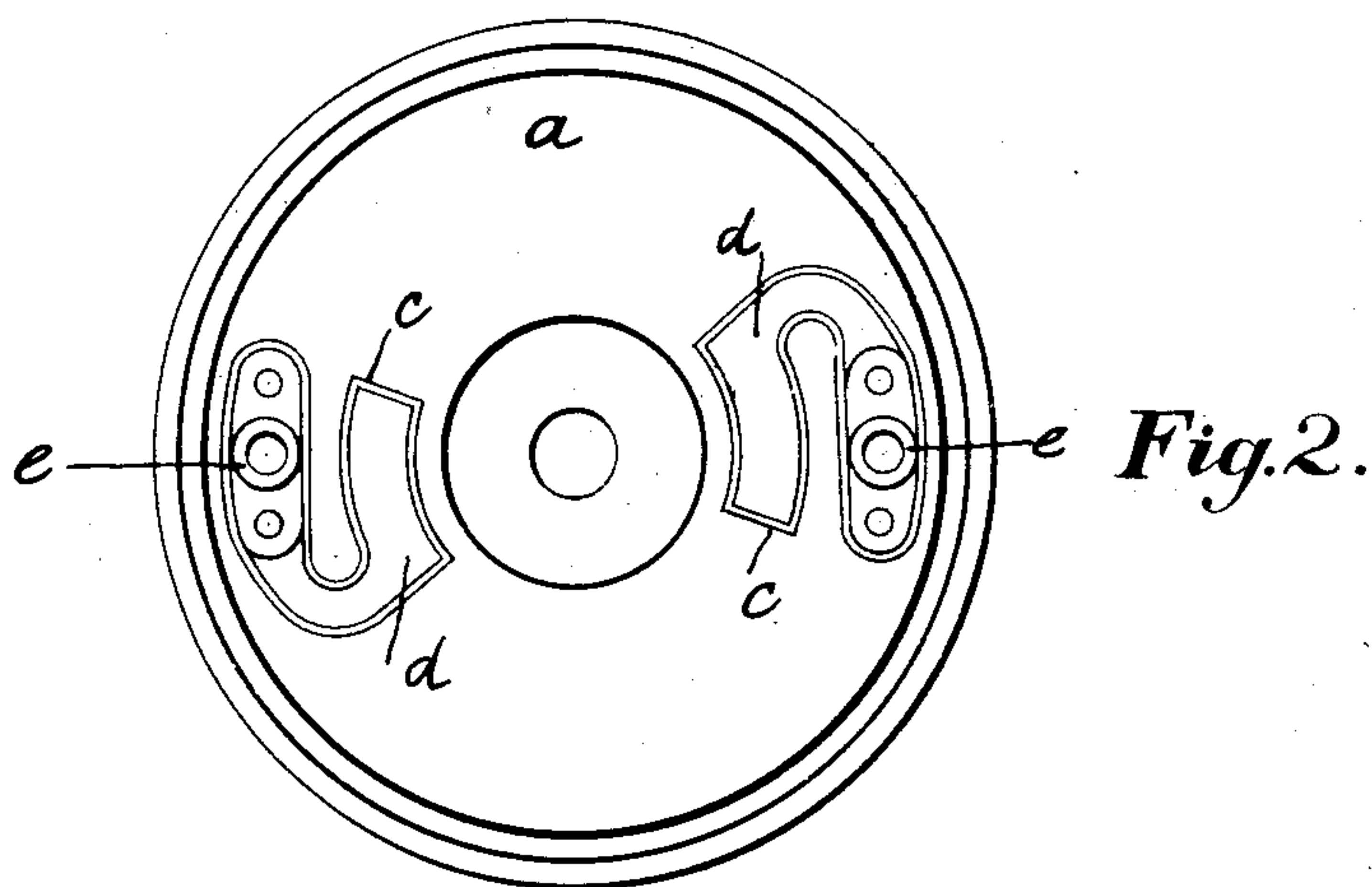
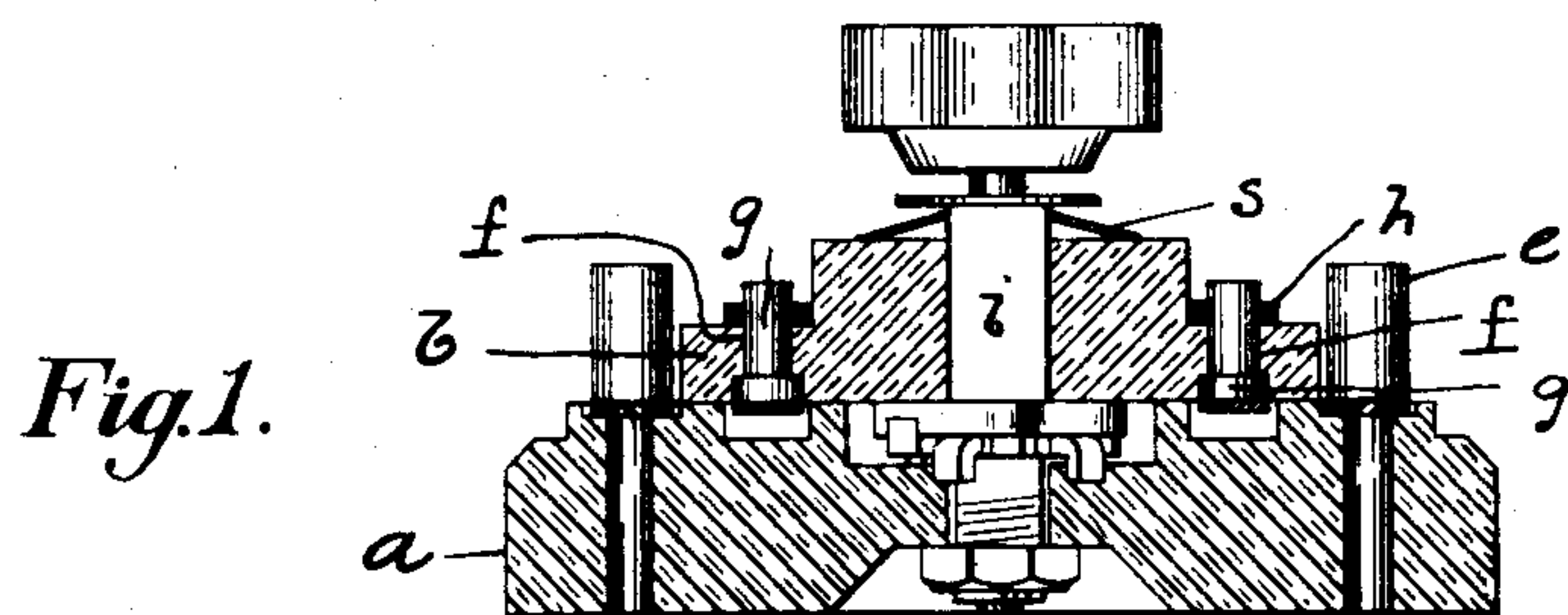


M. GUETT.
ELECTRIC SWITCH.
APPLICATION FILED NOV. 1, 1904.



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ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 793,066, dated June 27, 1905.

Application filed November 1, 1904. Serial No. 230,895.

To all whom it may concern:

Be it known that I, MONROE GUETT, a citizen of the United States of America, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Electric Switches, of which the following is a specification.

The object of the invention is to reduce the liability of an arc forming between the stationary contacts and the movable contacts when the latter are thrown from on to off position.

In the drawings, Figure 1 is a side elevation of a switch embodying my invention, showing the insulating-blocks in central vertical section. Fig. 2 is a plan view of the base. Fig. 3 is a plan view of the switch shown in Fig. 1.

In carrying out my invention I make use of two blocks of insulating material, preferably porcelain, whose opposing surfaces are flat and fitted so that they shall be in contact with each other over substantially their whole area. These blocks are indicated at *a* and *b* in the drawings.

The base-block *a* has the isolated recesses *c c*, in which are mounted the contacts *d d*, these contacts, as shown, being yieldingly supported and normally lying a little above the plane of the upper base-surface. By means of the binding-posts *e e* the contacts are connected with the line-wire. The rotary block *b* is recessed, as at *f f*, to receive the contact-posts *g g*, the recesses and posts being shouldered to maintain the bottom of the posts in the plane of the lower surface of the rotating block *b*. The recesses *f f* are isolated from each other; but the posts, as shown, project above the surface of the block *b* and are electrically connected by the ribbon *h*. Devices (indicated at *i*) provide means for moving the rotary member with a sharp snap action, as is customary in this type of switch. This constitutes no feature of my present invention. A spring *s* may be used to press the rotary block *b* down onto the base-block *a*.

The success of a device of this kind depends upon the complete insulation of the moving and stationary contacts immediately on the breaking of the circuit, thus interrupting any arc which may be inclined to follow the moving contacts. In my device where the flat contacting surfaces of the insulating-blocks are closely fitted together it will be seen that when the posts *g g* move off of the contacts *c c* immediately the stationary contacts *c c* are covered by the block *b*, and the lower ends of the contact-posts *g g* are covered by the base-block *a*, with the substantial effect of embedding said contacts in insulating material. It is clear that in such a construction it is impossible for any arc to follow the moving contacts.

Porcelain blocks, such as are generally used for switches of this sort, are very liable to come from the molds warped or untrue, and careful grinding and fitting is necessary in order that the object of a device of this sort shall not be defeated. I am aware that cylindrical blocks fitting in cylindrical recesses have been proposed for use to accomplish an object similar to that of this invention; but from a practical and manufacturing point of view these devices are not wholly satisfactory. The simple shape of the coöperating parts of my device affords most favorable conditions for fitting them together so that they will work effectively and the saving of labor and material brings the cost of construction to a practical basis. A peculiarity of my device which distinguishes it from prior structures is that the natural action of the parts continually tends to wear them to a better and more efficient working condition, and continued use of the device will not in any way operate to defeat the object of the invention.

It is not material to my invention that one set of the contacts should be yieldingly supported nor that the yieldingly-supported contacts, if used, shall be mounted in the base. In fact, I am aware that such changes and arrangement of parts can be made without departing from the spirit of the invention.

I claim as my invention—

1. In an electric switch of the character described the stationary and rotary blocks of insulating material provided with flat opposing
5 surfaces held in contact with one another, cooperating contacts in said blocks located in isolated recesses, the contacts in one block being yielding-ly mounted and provided with binding-posts and the contacts in the other block being
10 electrically connected in such manner as to leave the active parts of said contacts isolated from each other, and means for imparting rotary motion to one of said blocks, substantially as described.
2. In an electric switch of the character described the base of insulating material having
15 a flat top, isolated recesses in the top of said base, contacts in said recesses having yielding supporting means, binding-posts for said
20 contacts, a block of insulating material rotarily mounted on said base and having a flat lower surface cooperating with the flat top of the base, isolated recesses in said rotary block, contact-posts having one end exposed in the
25 lower surface of the block and their upper ends electrically connected, substantially as described.
3. In an electric switch of the character described the stationary and rotary blocks of insulating material provided with flat opposing
30 surfaces, cooperating contacts in said blocks

located in isolated recesses, the contacts in one block being provided with binding-posts and the contacts in the other block being electrically connected in such manner as to leave
35 the active parts of said contacts isolated from each other, one set of said contacts being yielding-ly supported, and means for imparting rotary motion to one of said blocks, substantially as described. 40

4. In an electric switch of the character described the insulating-base having a flat top, and isolated recesses in said top, contacts yielding-ly supported in said recesses, binding-posts
45 for said contacts, a second block of insulating material rotarily mounted on said base and having a flat lower surface, and isolated recesses, shoulders in said recesses, shouldered contact-posts located in said recesses and projecting slightly above the upper surface of
50 said rotary block, a ribbon forming an electrical connection between the upper ends of said contact-posts, and means for imparting rotary motion to the second-named block, substantially as described and for the purposes
55 set forth.

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

MONROE GUETT.

Witnesses:

GEO. B. WARD,

D. S. KIEWENDAHL.