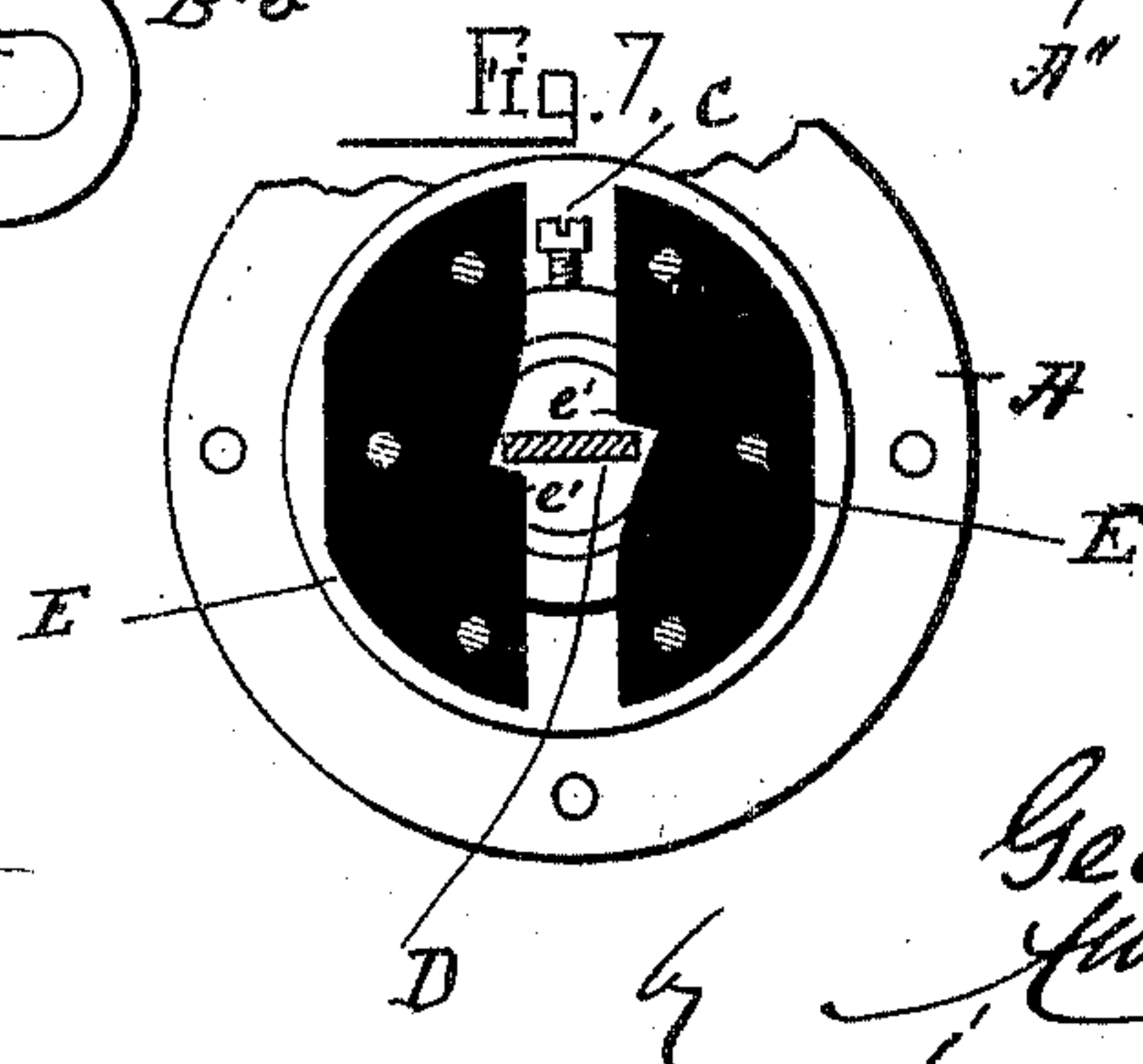
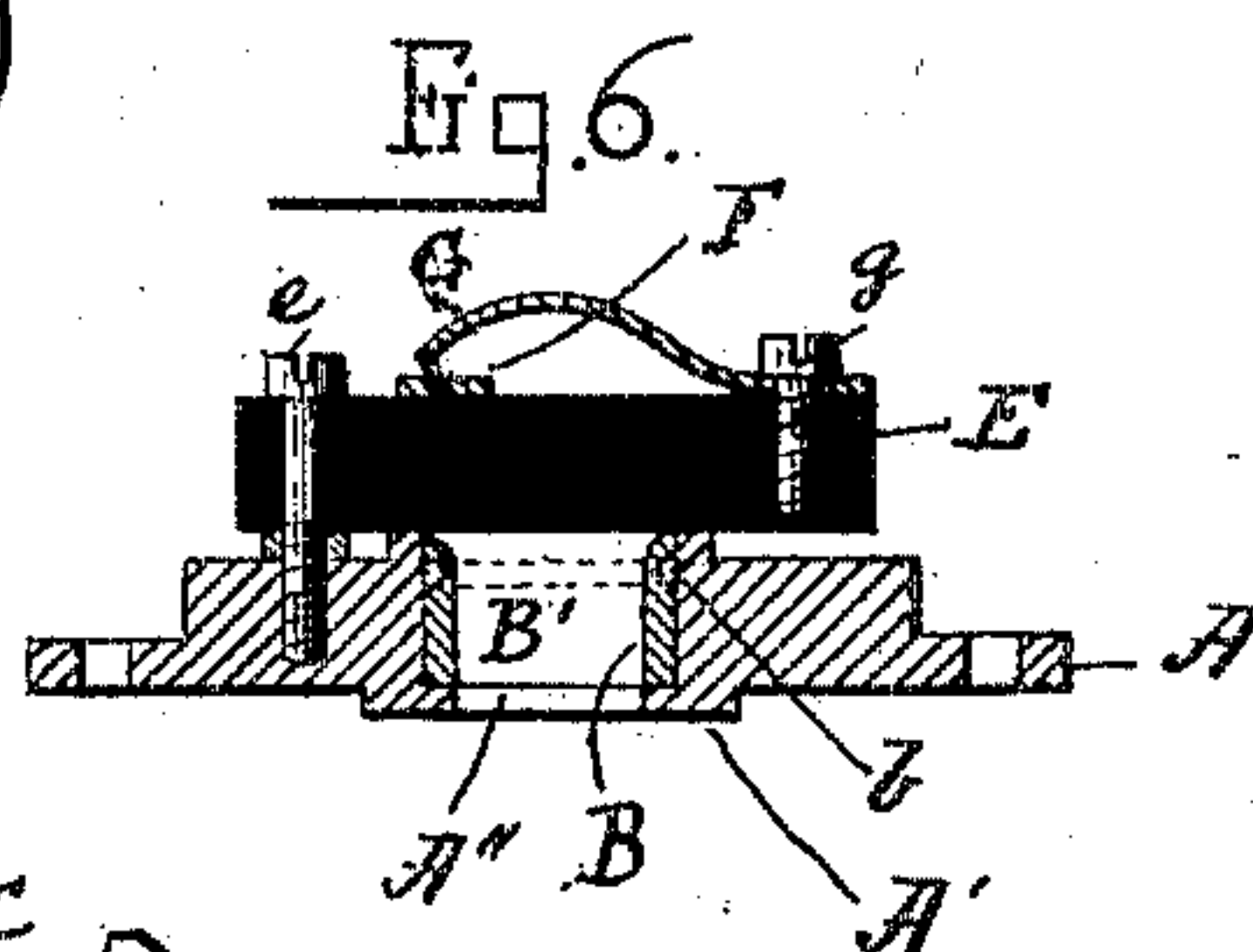
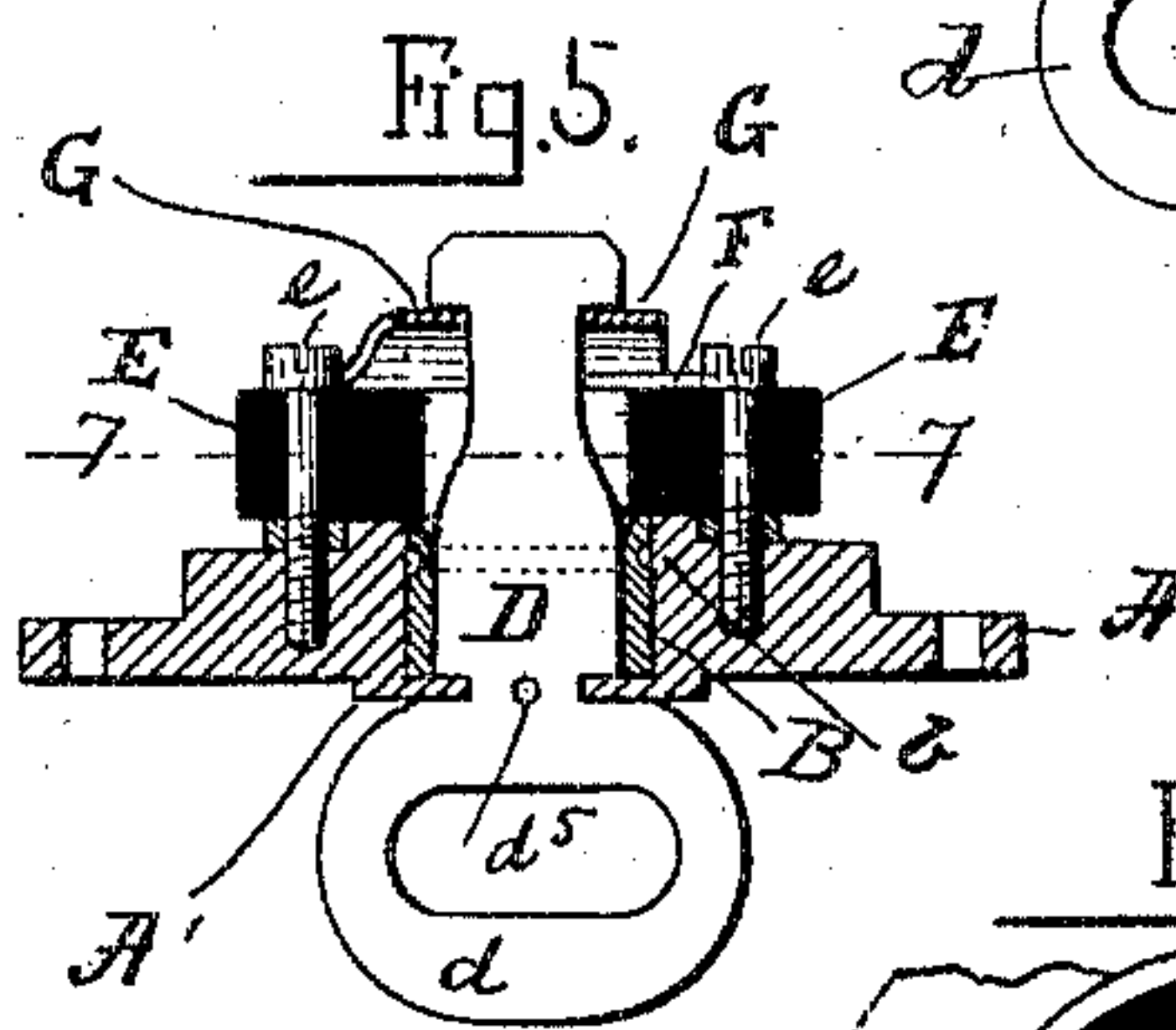
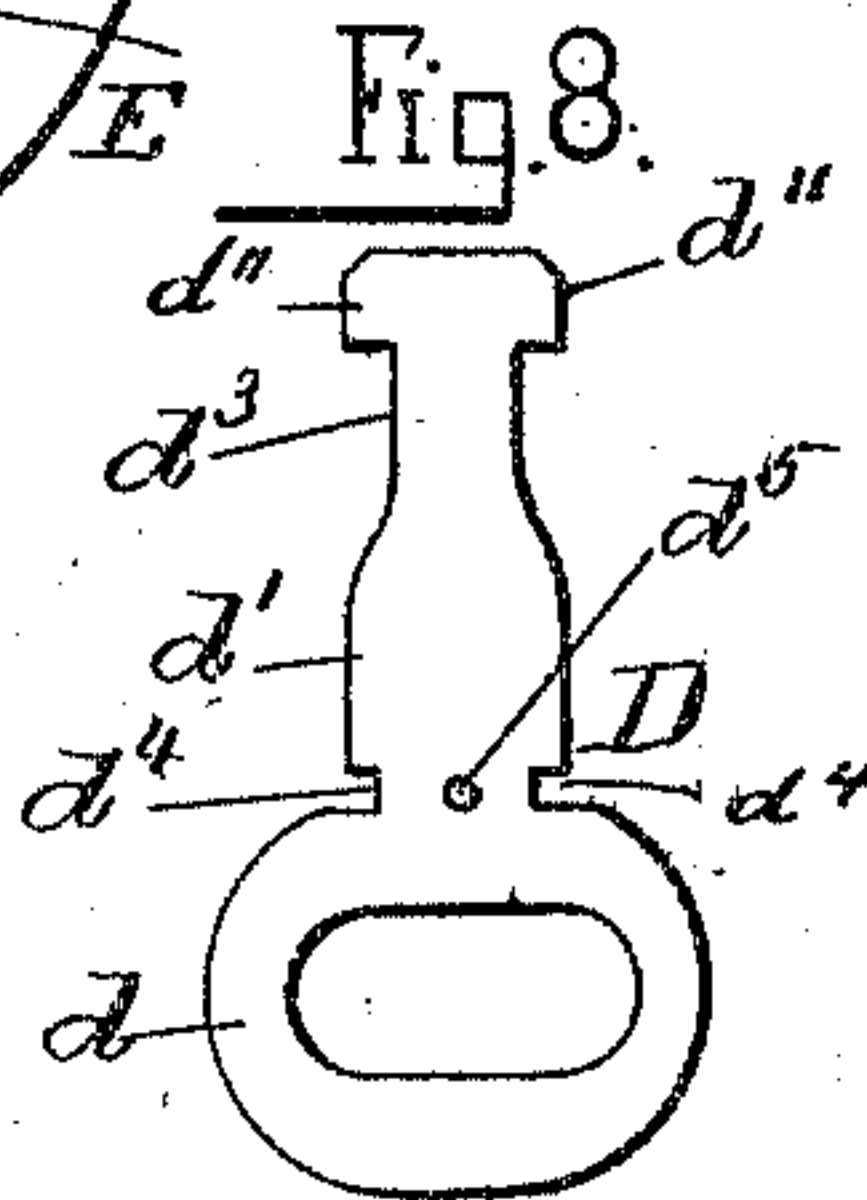
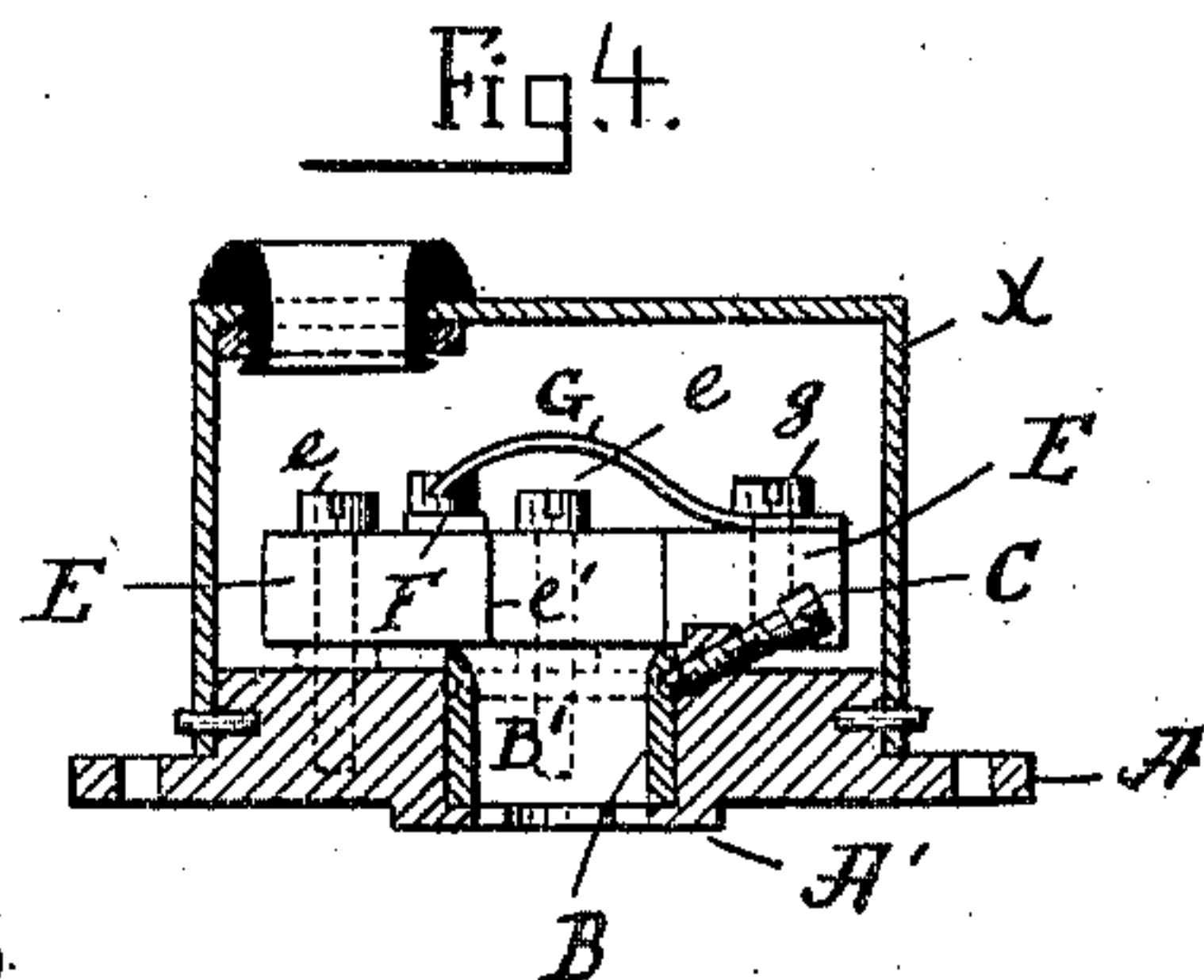
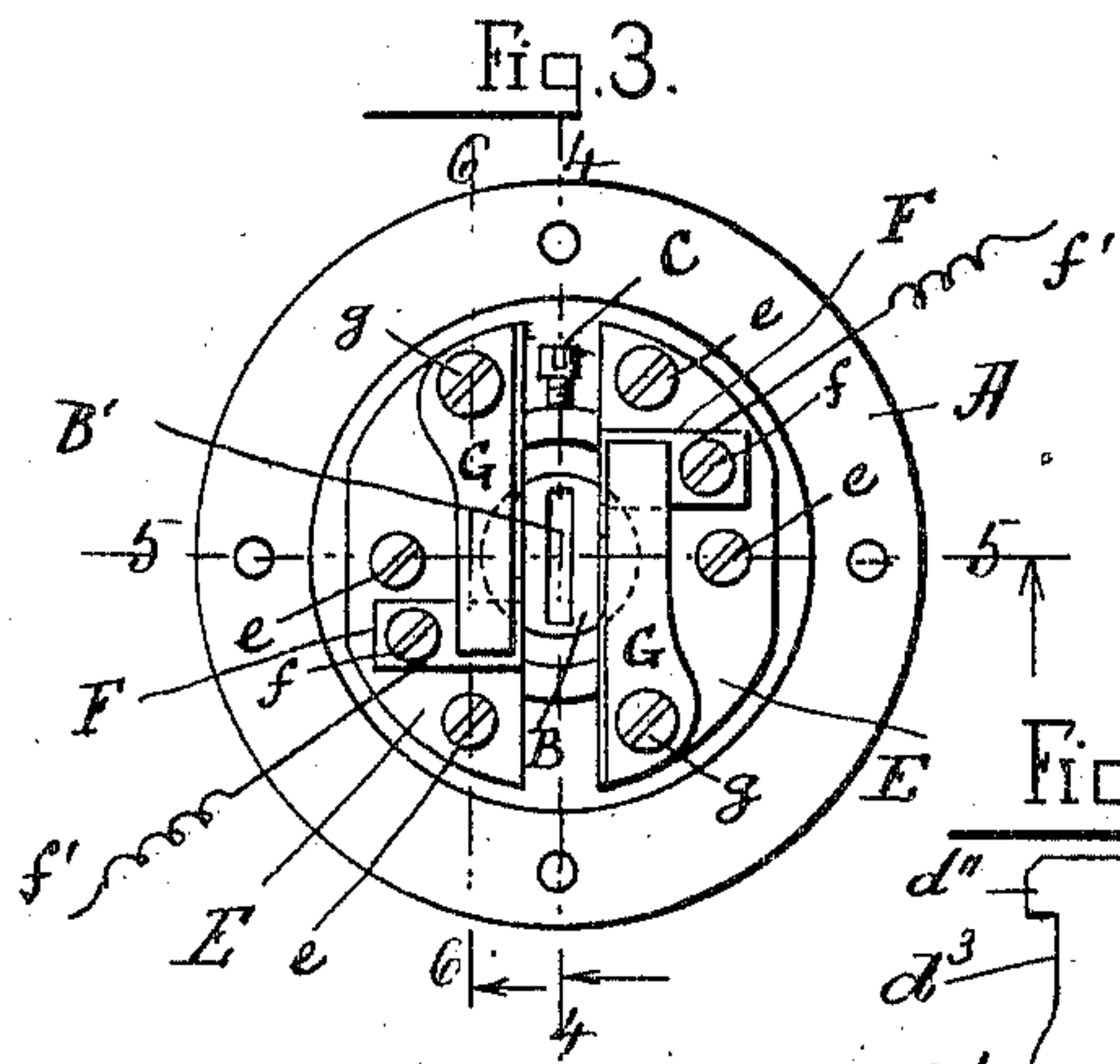
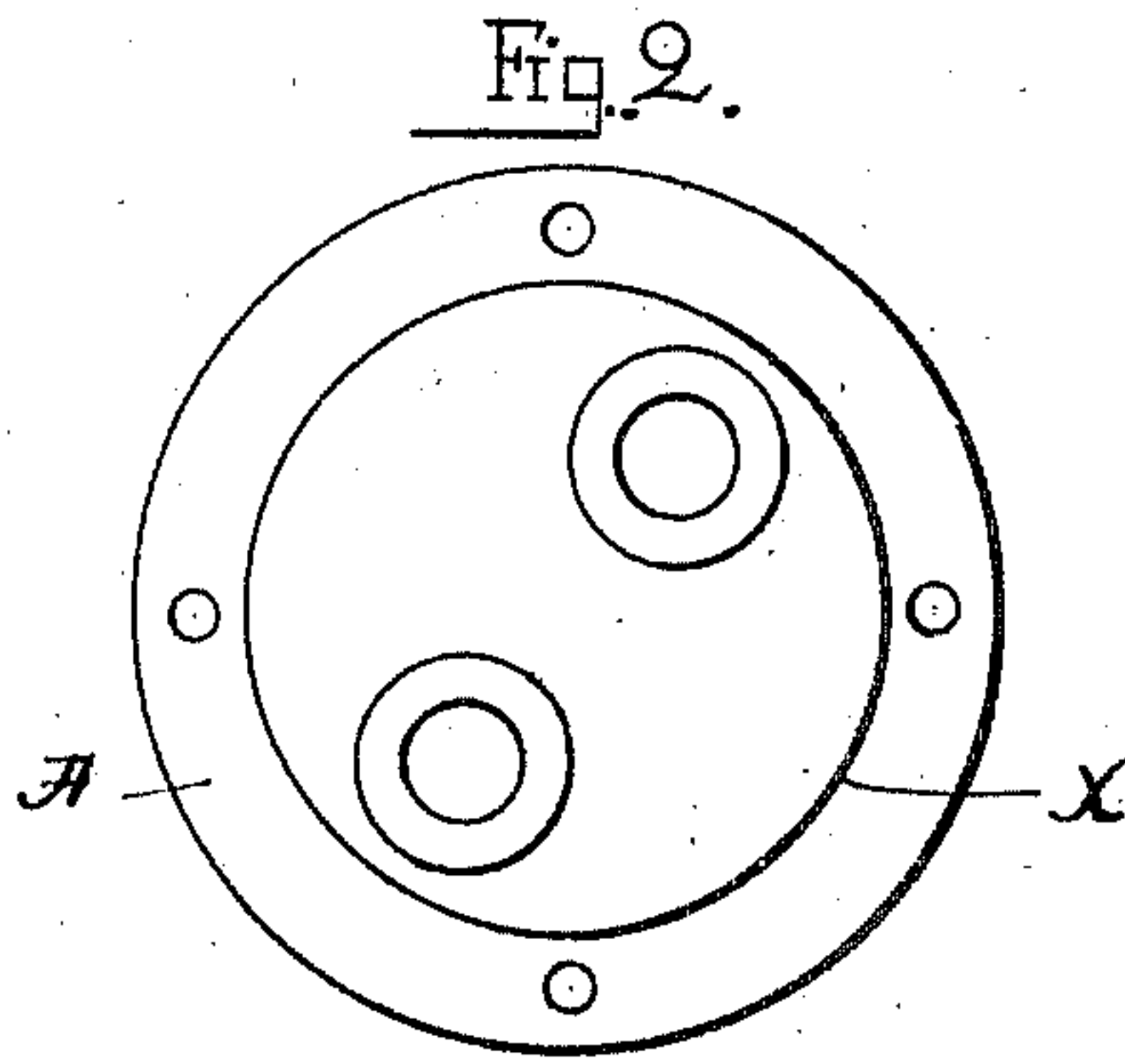
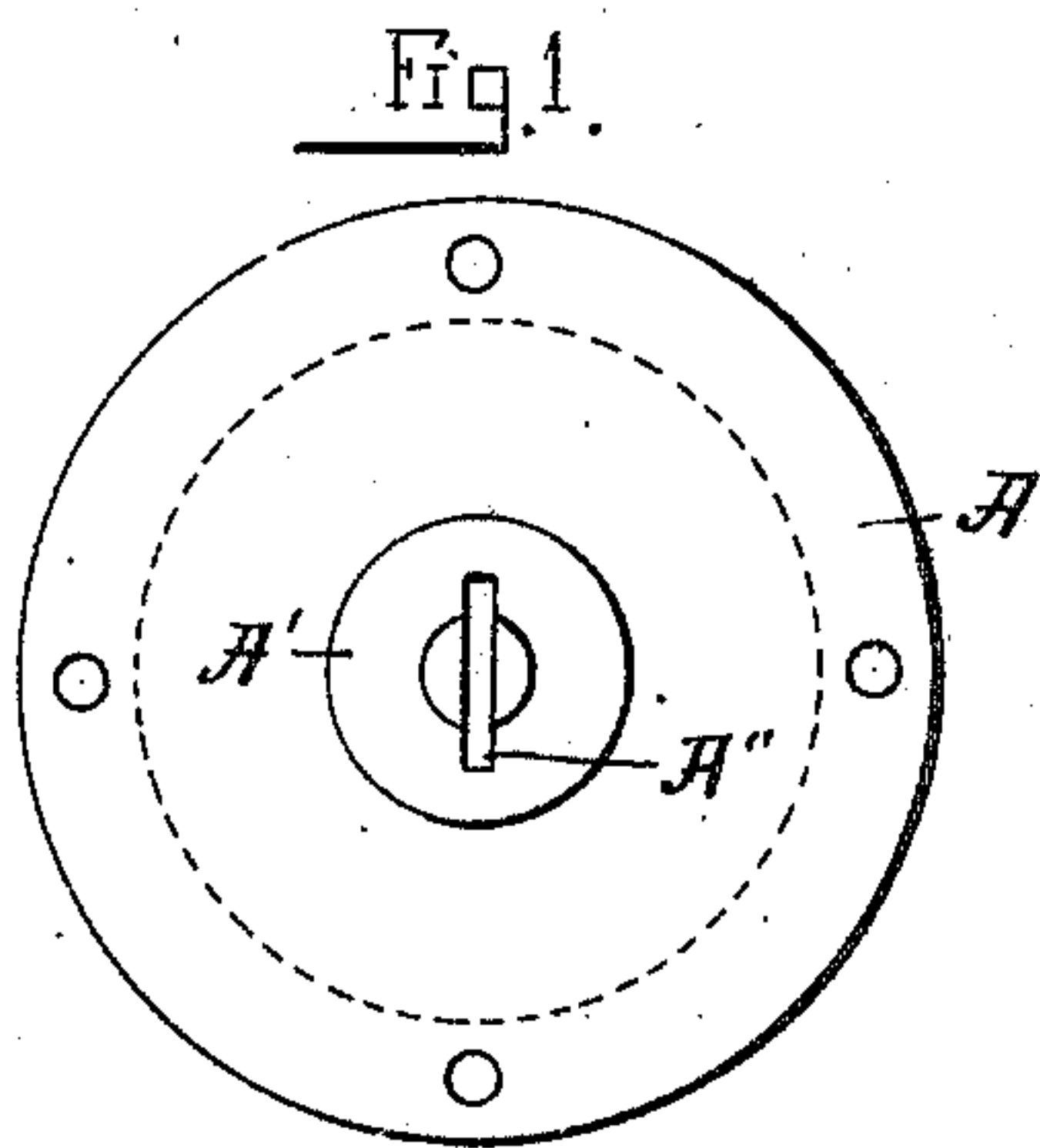


No. 776,522.

PATENTED DEC. 6, 1904.

G. B. LOW.
ELECTRIC SWITCH.
APPLICATION FILED MAY 23, 1904.

NO MODEL.



Witnesses.

Lauritz N. Miller
John J. Podolske.

Inventor.

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UNITED STATES PATENT OFFICE.

GEORGE B. LOW, OF NEWTON CENTER, MASSACHUSETTS.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 776,522, dated December 6, 1904.

Application filed May 23, 1904. Serial No. 209,170. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. LOW, a citizen of the United States, and a resident of Newton Center, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Electric Switches, of which the following is a specification.

This invention relates to an improved electric switch for making and breaking electric circuits, and it is particularly well adapted for use on automobiles or motor-vehicles, &c., for opening and closing the circuit of the sparking device, as may be required.

The invention is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 is a plan view as seen from the key-slot end of the device. Fig. 2 is a similar plan view showing the reverse end of Fig. 1. Fig. 3 is a view similar to Fig. 2, showing the cover X removed. Fig. 4 is a cross-section on the line 4 4 shown in Fig. 3. Fig. 5 is a cross-section on the line 5 5 in Fig. 3, showing the key in position for closing the circuit. Fig. 6 is a cross-section on the line 6 6 shown in Fig. 3, and Fig. 7 is a horizontal section on the line 7 7 shown in Fig. 5.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

The device consists of a metal base-plate A, adapted to be secured by screws or otherwise to the device for which it is to be used. In a cylindrical recess in said base-plate is journaled a key-receiving sleeve B, which is prevented from longitudinal movement in the recess of the base-plate preferably by means of a set-screw C, screwed through a projection on said base-plate and having its inner end fitting loosely in an exterior annular groove *b* on the sleeve B, as shown.

Integral with the under side of the base-plate A is a perforated flange A', having a key-slot A'', as shown. Said flange serves as a support for the key-sleeve B, as shown. In the key-sleeve B is a thin key-slot B', registering with the slot A'' in the flange A' for the purpose of inserting therein the flat key D for operating the switch. I have shown in the

drawings said key as a thin flat sheet-metal one; but I may, if so desired, make such key fluted or corrugated, as is common in Yale or similar locks, without departing from the essence of my invention.

To the base-plate A are firmly secured, by means of suitable fastening-screws *e e*, blocks E E, made of hard-rubber fiber or other well-known insulating material. To such blocks E E are secured by screws *f f* the metal contact-plates F F, and to the latter are metallically connected the circuit-wires *f' f'*, leading to and through a battery or current-generator, and an alarm, if so desired. To opposite ends of the blocks E E are secured by screws *g g* the yielding spring-metal switch-plates G G, normally held out of contact with the plates F F, as shown in Figs. 3, 4, and 6.

The key D has a handle *d* for manipulating it. Above said handle is the shank *d'* of the same size as the keyhole-slot B'. At *d'' d''*, in the upper end of the key, are side projections, and intermediate the latter and the main shank portion *d'* is a reduced portion *d³*. At the junction of the handle *d* and the shank portion *d'* is arranged upon the latter cut-away portions or notches *d⁴ d⁴*, as shown in Fig. 8.

In using the switch for the purpose of closing the circuit the key is inserted into the keyhole B' and pushed inward until limited by a pin or projection *d⁵* on the key-shank coming to a stop against the inner end of the sleeve B, after which said key is turned with the said sleeve a quarter of a revolution to the position shown in Figs. 5 and 7, thereby causing the key lips or projections *d'' d''* to actuate the yielding switch-plates G G and force and hold their free ends metallically in contact with the plates F F, thus closing the circuit and holding it closed as long as the key is retained in such position. While the key is in such position it is prevented from being drawn out on account of its cut-away portions or notches *d⁴* engaging the flange A' on the base-plate A, as shown in Fig. 5, and cannot be withdrawn until turned a quarter of a revolution in an opposite direction until it coincides with the position of the slot A'' in the base-plate A. (Shown in Fig. 1.) The blocks

E E are secured at a suitable distance apart, as shown in Figs. 3, 5, and 7, and on their interior surfaces are made stop projections *e' e'* for preventing the turning of the key beyond the closed position represented in Fig. 7.

The device is particularly well adapted for use on automobiles or motor-vehicles, &c., as a thief-proof switch which cannot be fraudulently actuated by a wire, nail, &c., and requires for its operation a thin key of a particular shape and construction. Consequently the sparking-device switch cannot be closed when the owner or person in charge of the vehicle removes the key when necessary to leave the vehicle for any length of time on the street, road, or other place.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. In an electric-current switch, a base A, a pair of non-conducting blocks E, E, secured to said base at a proper distance apart, contact-plates F, F, secured to said blocks and electrically connected by circuit-wires, a pair of yielding metal switch-plates G, G, secured to the non-conducting blocks, and a rotatable key-slotted sleeve journaled in said base and a key having lips or projections at its end for engaging the switch-plates by the turning of said key when inserted in the key-slot, and

causing the switch-plates to engage the circuit-contacts and closing the circuit as set forth.

2. In an electric-circuit switch, a base-plate having journaled in a bearing, a sleeve, a key-slot in the latter, means for preventing longitudinal motion of said sleeve, non-conducting blocks secured to the base, yielding switch-plates secured to said blocks and a key having side projections at its end adapted to engage the free ends of said switch-plates for closing the circuit by the turning of the key as set forth.

3. In an electric switch, a base, non-conducting blocks secured to it, circuit-terminals and yielding switch-plates attached to said blocks, and a detachable key, a key-slotted rotatable sleeve mounted in the base, said key having projections for engaging the switch-plates to close the circuit when turned with such sleeve, means for preventing longitudinal movement of said sleeve and means for preventing longitudinal motion of said key when held in position for closing the circuit as set forth.

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

GEORGE B. LOW.

Witnesses:

EDW. EVERETT STONE,
FRANK H. HASKELL.