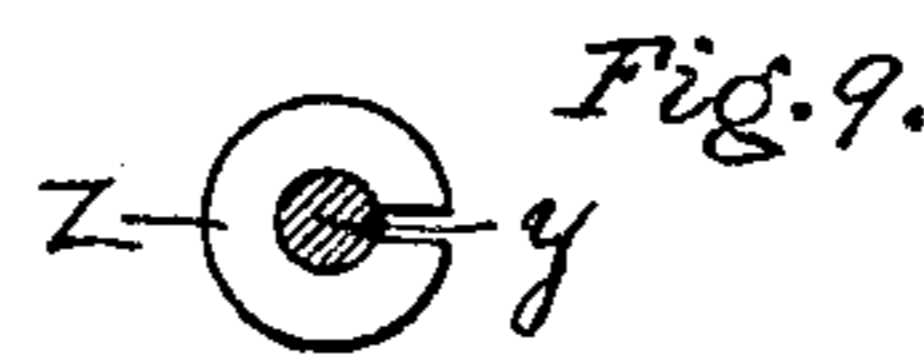
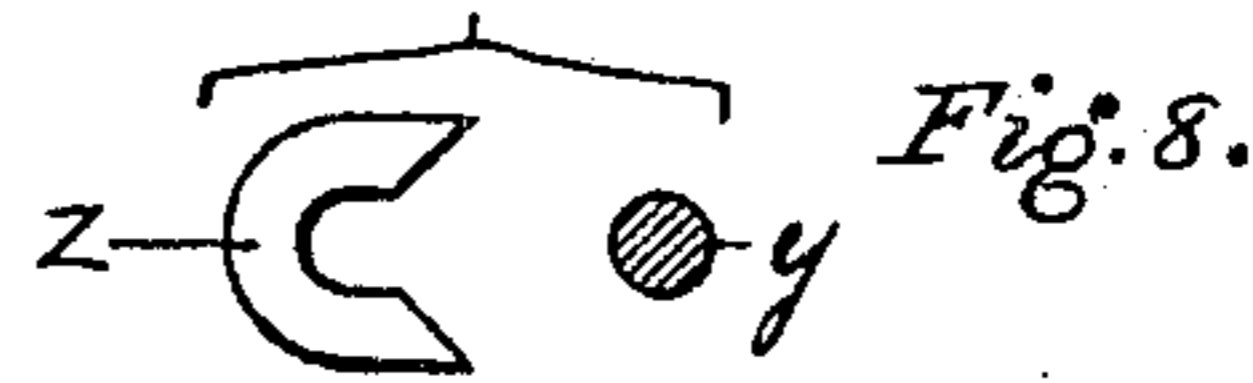
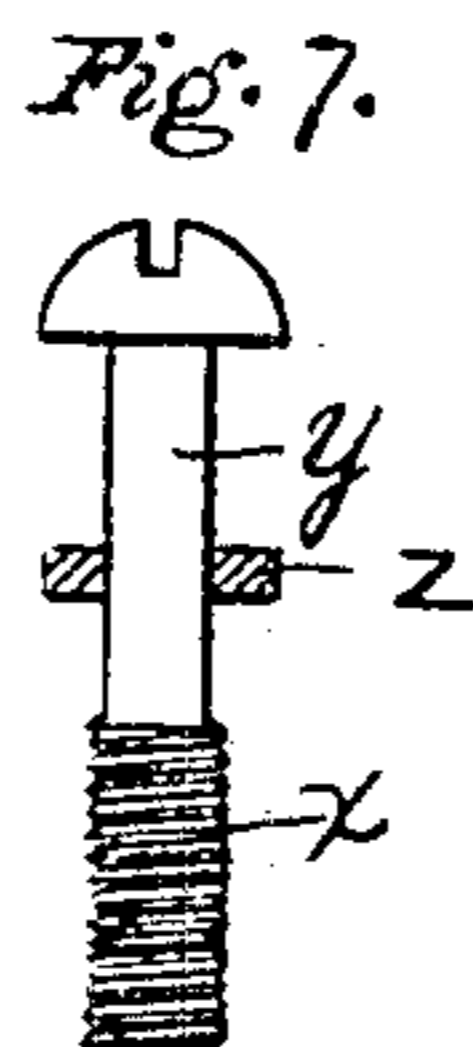
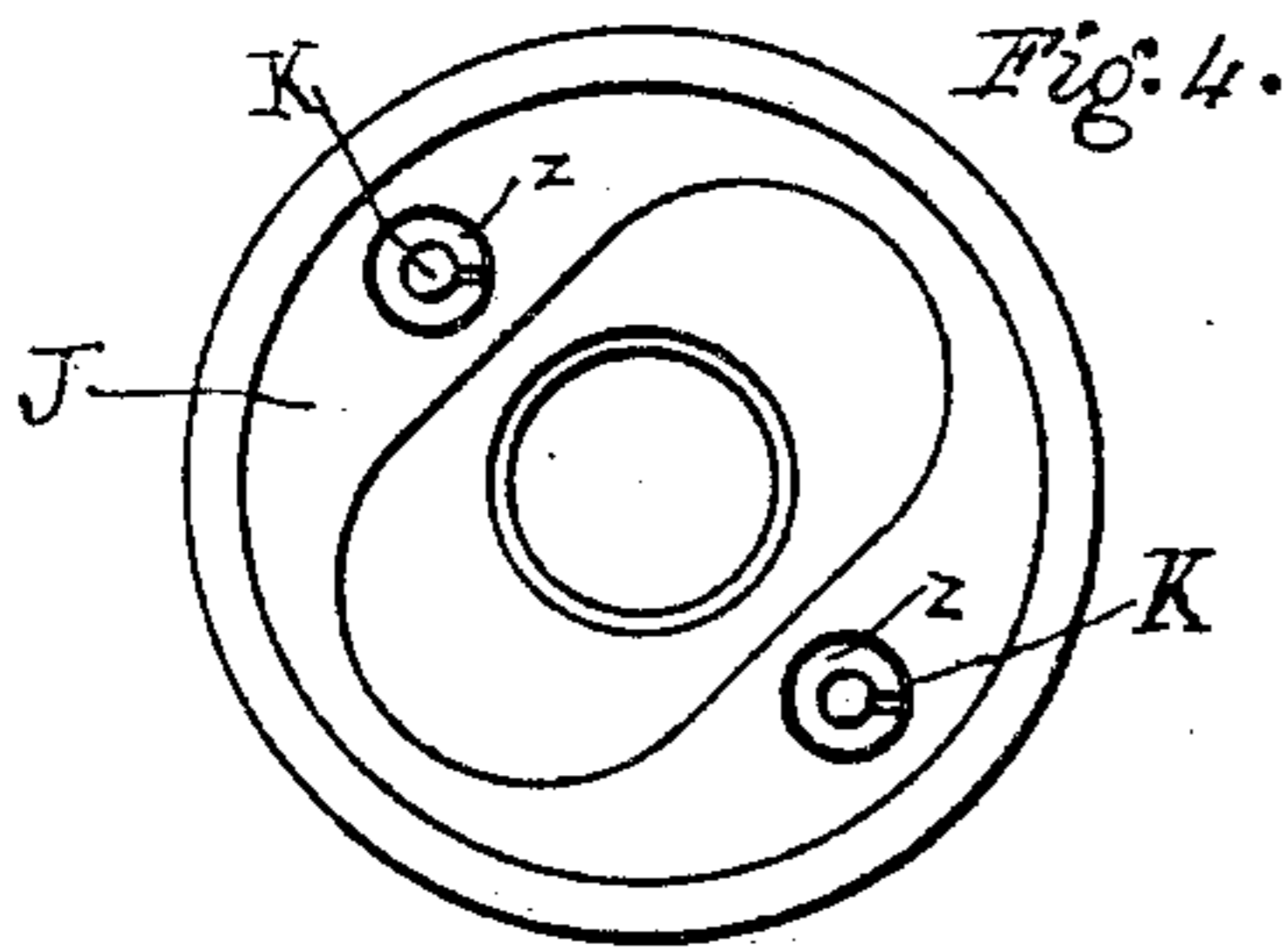
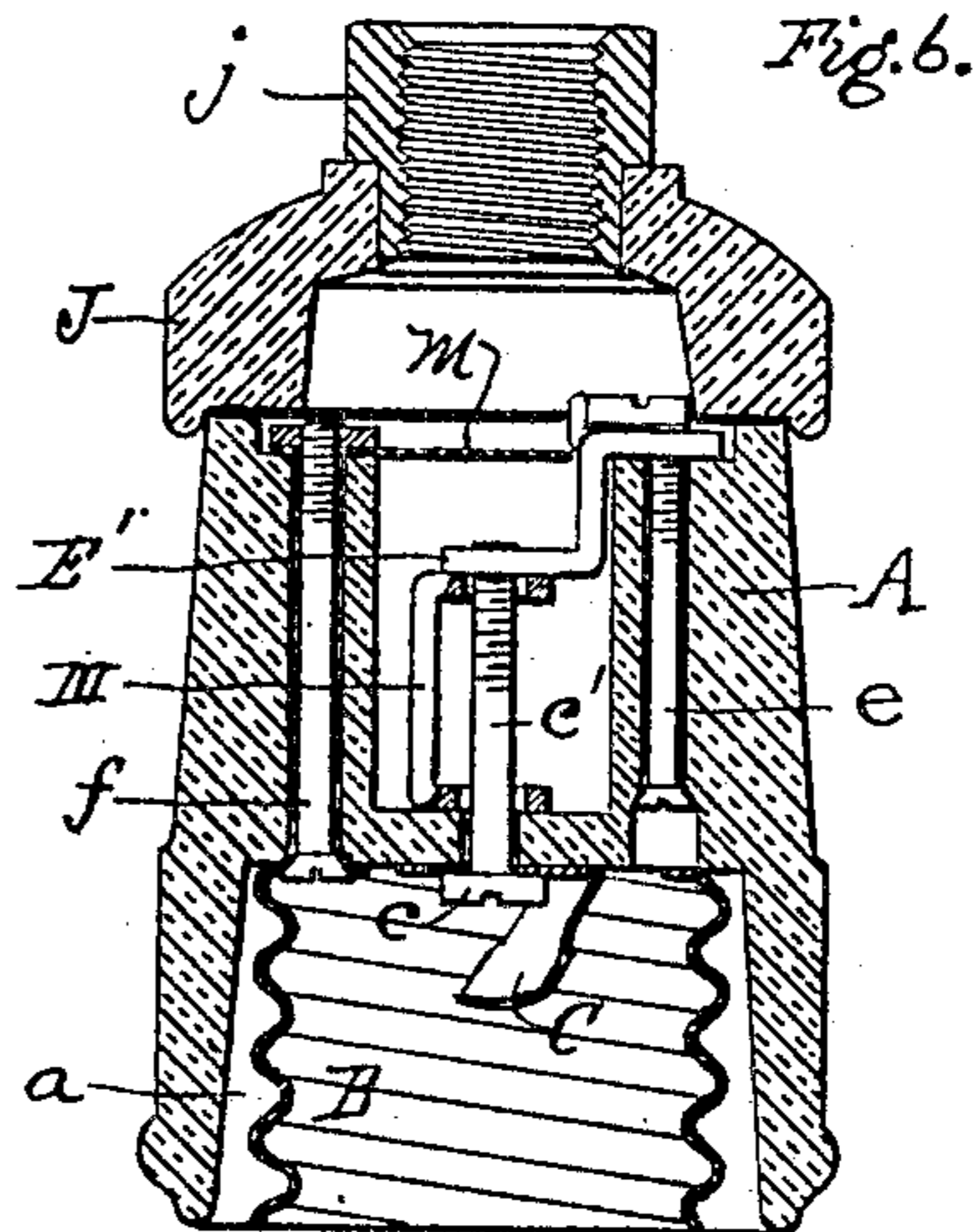
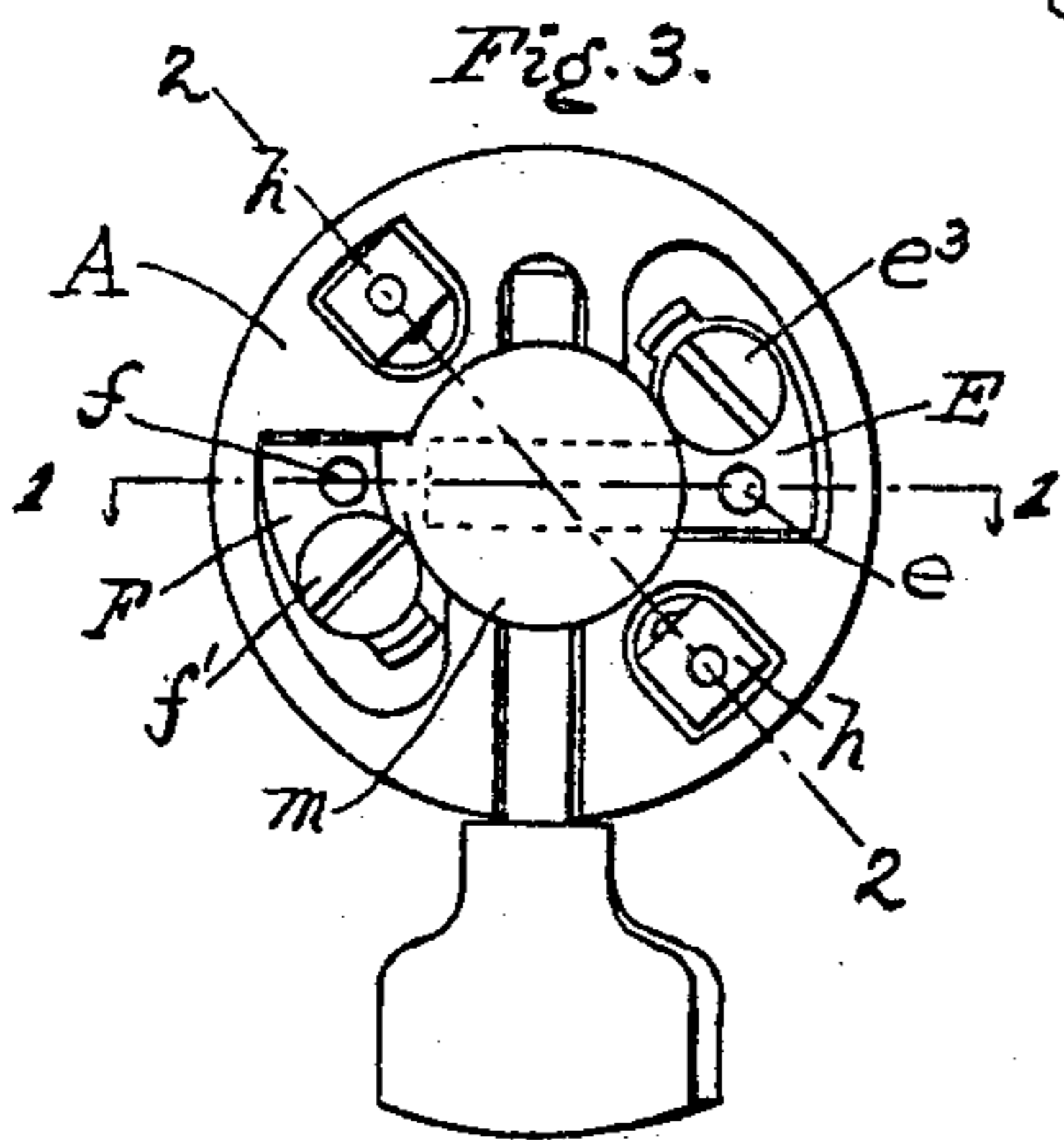
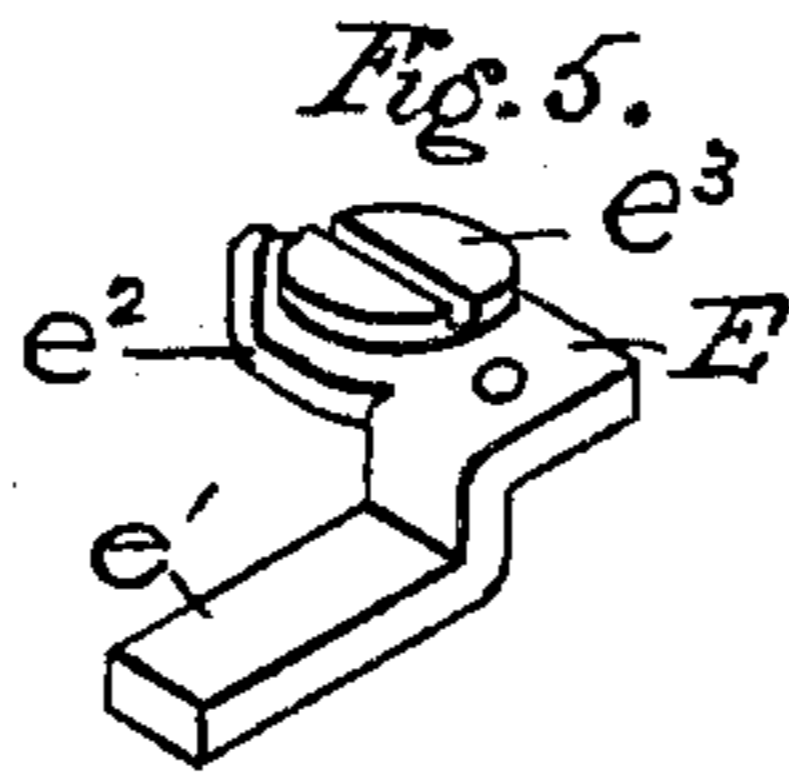
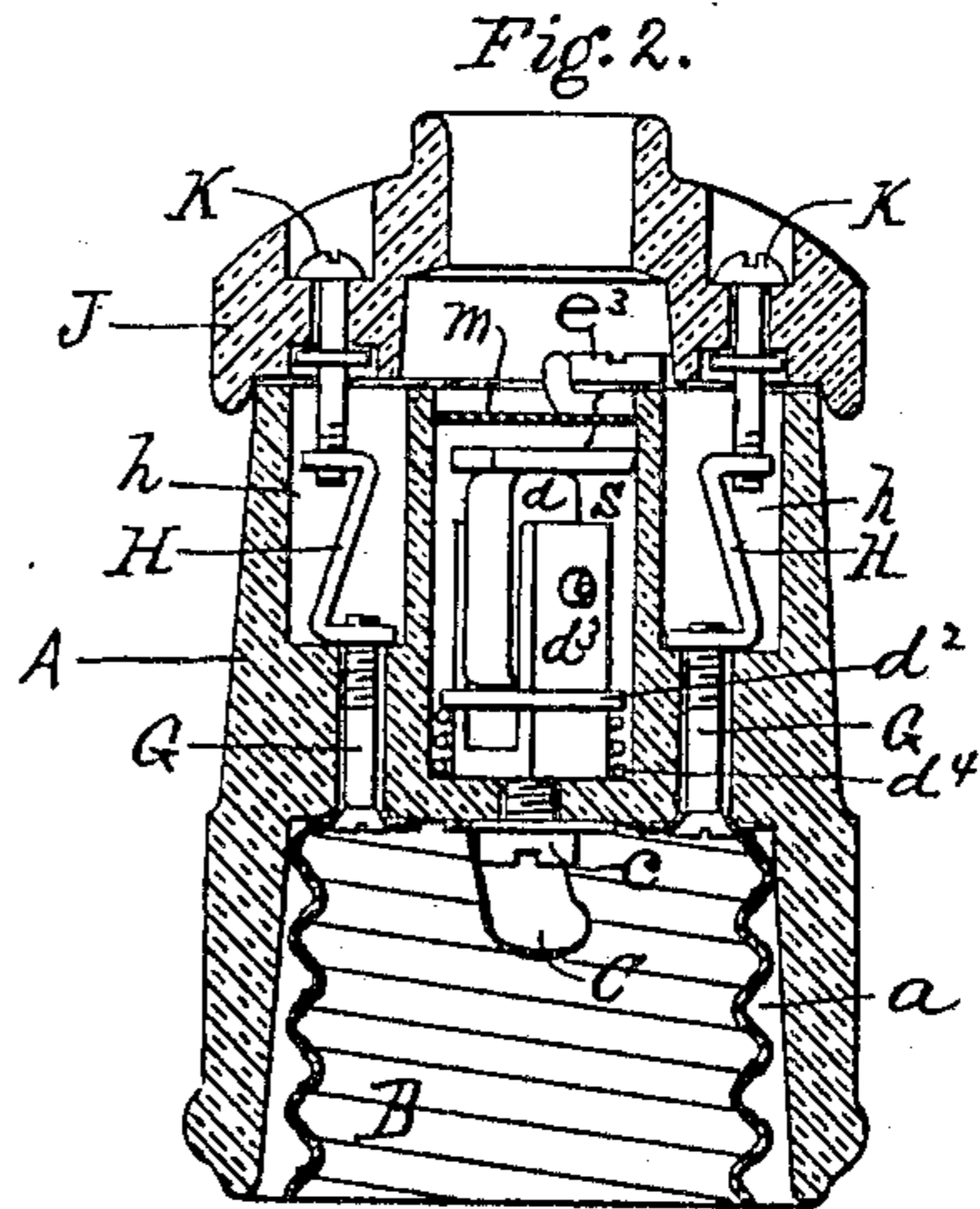
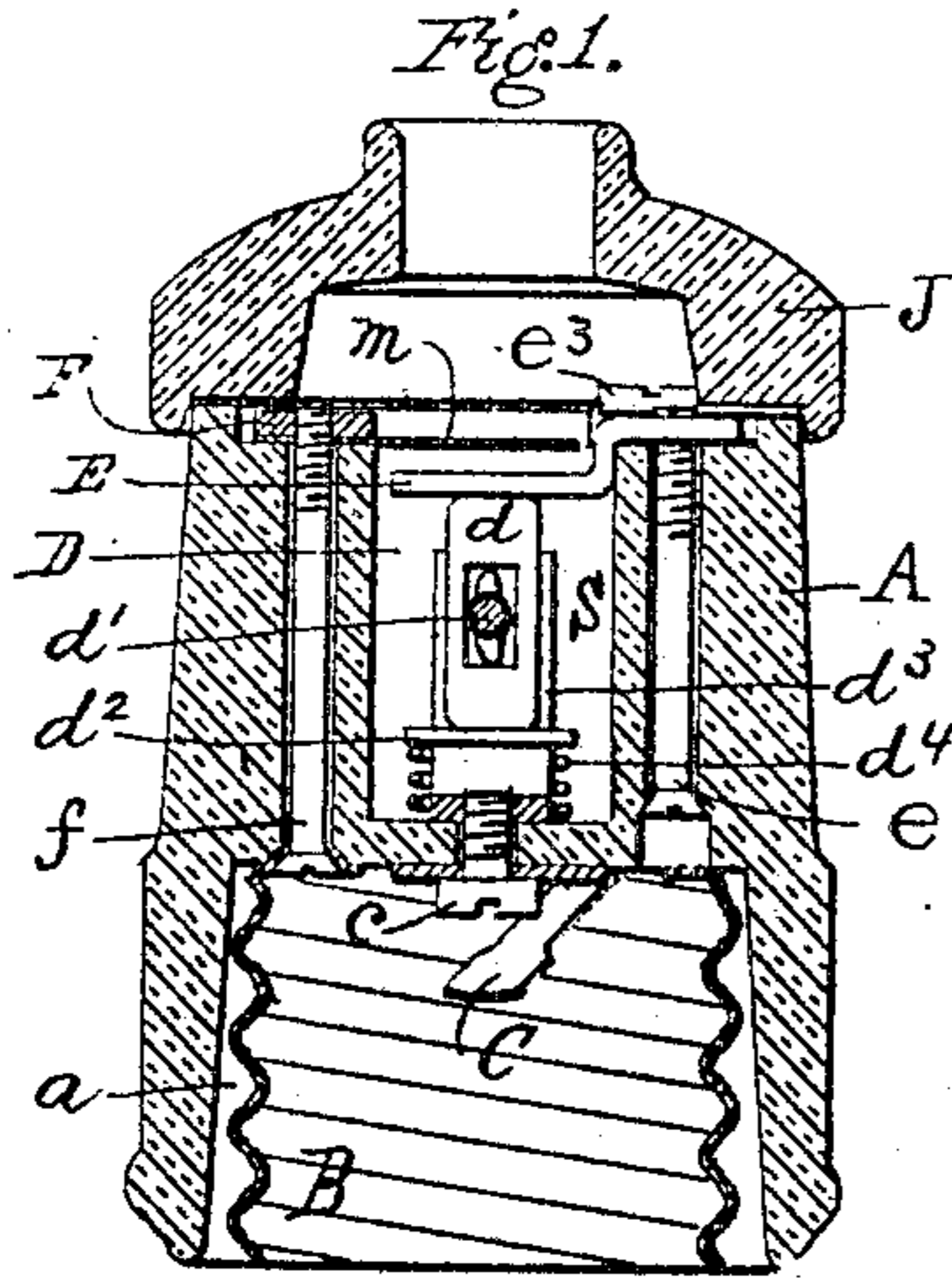


No. 798,932.

PATENTED SEPT. 5, 1905.

G. B. THOMAS.
ELECTRIC LAMP SOCKET.
APPLICATION FILED MAR. 6, 1905.



WITNESSES

M. C. Keir

Walter Abbr

INVENTOR

George B. Thomas

Howman and Howman
ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE B. THOMAS, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE
BRYANT ELECTRIC COMPANY, OF BRIDGEPORT, CONNECTICUT, A COR-
PORATION OF CONNECTICUT.

ELECTRIC-LAMP SOCKET.

No. 798,932.

Specification of Letters Patent.

Patented Sept. 5, 1905.

Application filed March 6, 1905. Serial No. 248,630.

To all whom it may concern:

Be it known that I, GEORGE B. THOMAS, a citizen of the United States of America, residing in the city of Bridgeport, in the county of Fairfield, State of Connecticut, have invented an Improved Electric-Lamp Socket, of which the following is a specification.

My invention relates more particularly to that class of electric-incandescent-lamp sockets which are known as "all-porcelain" sockets and are without the outer metallic shell and cap employed in the large majority of sockets in commercial use.

The object of my invention is to provide a simple, strong, and efficient socket, particularly of the all-porcelain type.

In the accompanying drawings, Figure 1 is a vertical section through one of my improved sockets of the key type on the line 1 1, Fig. 3. Fig. 2 is a similar section on the line 2 2, Fig. 3. Fig. 3 is a plan view of the body of the socket with the cap removed. Fig. 4 is a view of the inner face of the cap. Fig. 5 is a perspective view of one of the terminal plates. Fig. 6 is a vertical section through a socket of the keyless type. Fig. 7 is an enlarged view of one of the cap-retaining screws, and Figs. 8 and 9 are views illustrating a detail in connection with this screw.

Referring to Figs. 1, 2, and 3, the body A of the socket may be made of porcelain or other suitable insulating material, and at its inner end it is formed with a cup-shaped chamber *a* to receive the socket-terminals for the lamp. In the drawings I have shown these terminals of the Edison type—namely, a screw-threaded shell B and central terminal C, this latter being shown in the present instance as a bent spring-plate secured by a central headed screw *c*. This latter passes through a central opening in the bottom of the chamber A and projects into a rear chamber D, open to the rear end of the socket-body A. In the key type of socket this chamber D receives the switch S.

Any suitable form of switch may be employed; but in the drawings I have shown the Perkins form of switch (Patent No. 626,927) with a tumbler *d*, having the key-stem *d'* passing through it with lost motion and acted on by a plate *d''*, guided vertically by a yoke *d'''* and pressed upward by a spring *d''''*.

When the tumbler *d* is turned to the vertical

position shown, it makes contact with a terminal plate E to close the circuit through the plate *d''*, yoke *d'''*, and screw *c* to the plate C and the lamp-filament.

The terminal plate E is of the form best shown in Figs. 3 and 5 and is secured to the rear face of the socket-body A by a screw *e*, which is inserted from within the chamber *a* before the threaded shell B is put in place and so as to be free of contact with such shell. The plate E has one arm *e'* projecting across the rear open chamber D for the action of the switch-tumbler, while the other arm *e''* carries a binding-screw *e'''* to receive the bared end of the conducting-wire. The other terminal plate F, which carries a like binding-screw *f''* to receive the end of the other conducting-wire, is secured to the back of the body A of the socket by a screw *f'*, passed from the inside of the chamber *a*, but being in electrical connection with the threaded lamp-terminal B. This screw *f'* may, in fact, aid in mechanically holding the shell B in place by passing through the inwardly-turned flange at the base of the shell B, as shown in Fig. 1. I prefer, however, to rely upon screws G G, Fig. 2, which are not in the electrical circuit, to mechanically hold the shell B, these screws passing vertically through the body of the insulation and being threaded into brackets H H, which are placed in pockets *h h*, formed in the insulation, as shown in Fig. 2. Into the upper ends of these same brackets are threaded the screws K K, which pass through openings in the porcelain cap J, and when the parts are put together these screws hold the cap in place. By unscrewing these screws from the brackets H H the cap can be lifted from the body A or the latter can be withdrawn from the cap to get at the connection of the wires with the terminal plates E and F. I prefer to clamp under the plate F a sheet of mica *m*, Figs. 1 and 3, which projects over the arm *e'* of the terminal E to prevent short-circuiting by the free ends of the conductors. This arm *e'* is offset, as shown in Figs. 1, 2, and 3, (see also modification, Fig. 6,) to permit the mica sheet to lie over it.

In order to prevent the cap-securing screws K from dropping out of the cap and becoming lost when the cap is detached from the body A, I provide the construction which is illustrated on an enlarged scale in Figs. 7, 8, and 9. Only the outer end of the screw is

threaded, as at *x*, as shown in Fig. 7, and the neck or stem *y* back of the thread is made of smaller diameter than the threaded portion, and on this neck or stem I mount a split washer

5 Z. This is slipped onto the reduced neck or stem *y* when in the opened or horseshoe form (shown in Fig. 8) and after the screw K has been put through its opening in the cap. The split washer then is squeezed to the closed position, Fig. 9, around the reduced neck or stem. The washer cannot then come off, although it may be free to turn on the reduced neck of the screw, and it effectually holds the screw to the cap.

15 The socket shown in Figs. 1 and 2 is adapted for suspension by the conducting-wires.

In Fig. 6 I have shown how by the application of a threaded brass nipple *j* to the porcelain cap it may be adapted to be secured to a pipe fixture or bracket. In this modification, 20 Fig. 6, I have also shown how in the keyless form of my socket the switch is replaced by a fixed spacing-bracket M, through which passes an elongated screw *c'*, whose upper end is threaded into a threaded hole in an arm of the terminal plate E'.

I claim as my invention—

1. In an incandescent-lamp socket, the combination of an insulating-body having at one end a chamber and terminals therein for the lamp-base, with a central chamber in the other or rear face of the body, terminal plates on said rear face, one of said terminal plates having an offset arm projecting across said rear chamber, an insulating-sheet clamped under the other plate and lying over said offset arm, and an inclosing cap for said rear face.

2. In an incandescent-lamp socket, the combination of an insulating-body having at one end a chamber and terminals therein for the lamp-base, with terminal plates for the conductor-wires on the other or rear face of the body, two other chambers also in said rear face and brackets in these latter chambers, inclosing cap, screws passing through this cap into the brackets, and screws passing from the lamp-base terminal chamber into the brackets.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE B. THOMAS.

Witnesses:

G. W. GOODRIDGE,
M. A. BARRY.