

Sept. 4, 1928.

1,683,514

J. W. WYATT
ELECTRIC LAMP HOLDER
Filed March 15, 1926

Fig. 1.

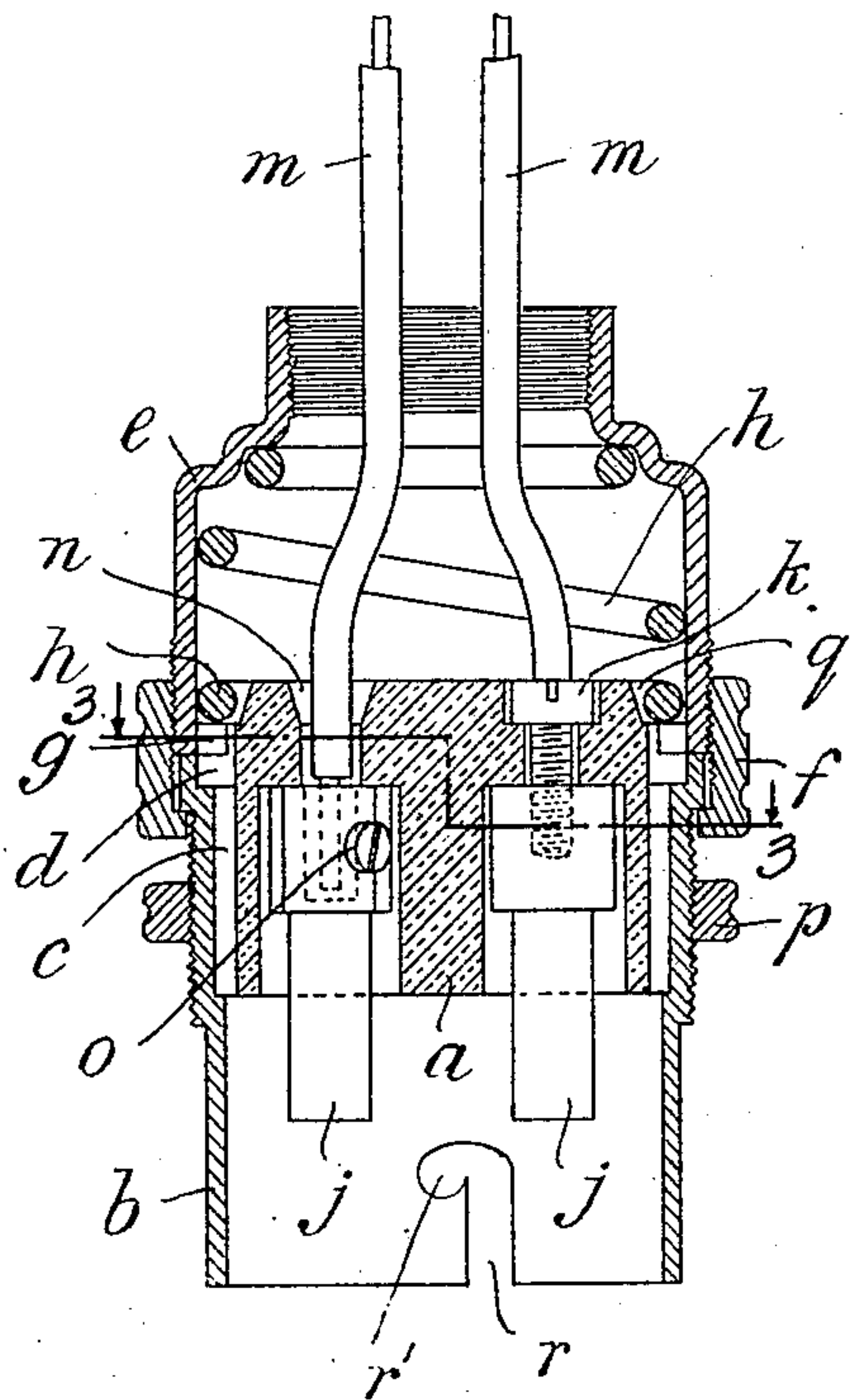
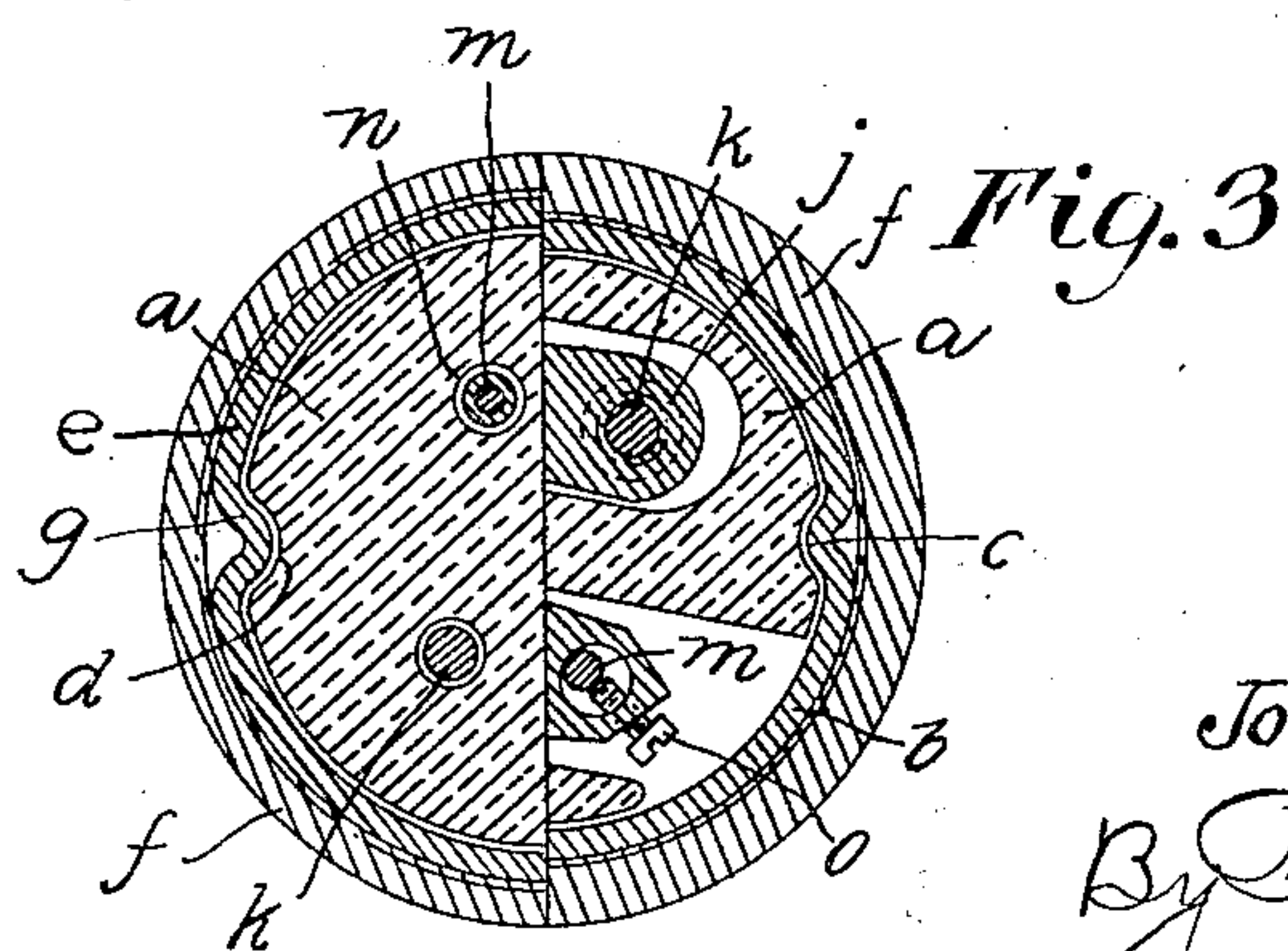
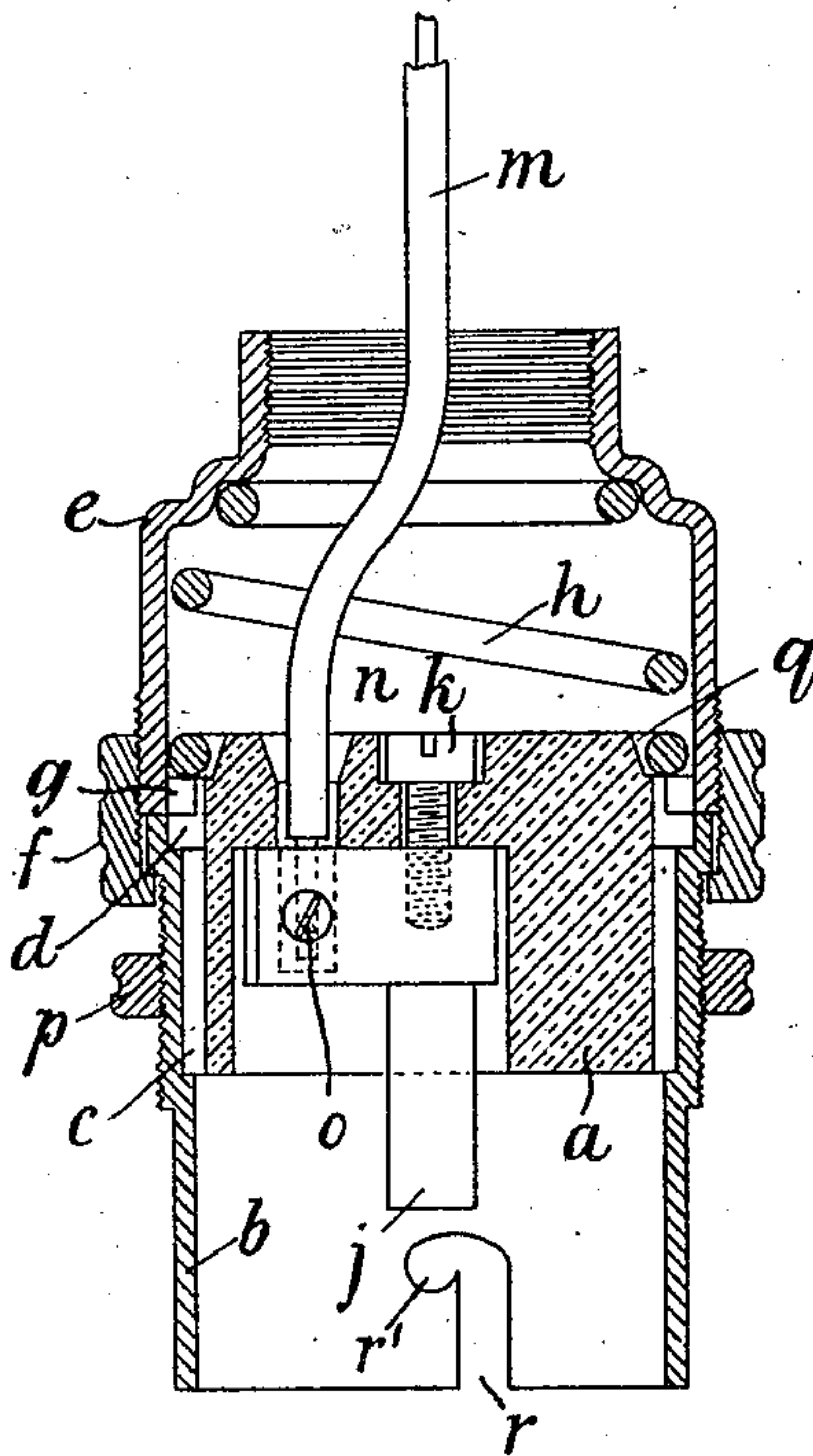


Fig. 2.



Inventor
Joseph William Wyatt,
By Paulmin Paulmin,
Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH WILLIAM WYATT, OF REDCAR, ENGLAND.

ELECTRIC-LAMP HOLDER.

Application filed March 15, 1926, Serial No. 94,904, and in Great Britain April 17, 1925.

This invention relates to an electric lamp holder adapted to hold lamps of the bayonet-cap type, and particularly to such holders of the type in which contact-making pins corresponding in position with the contact pieces on the plug of the lamp are rigidly secured on a spring-actuated insulating support adapted to move as a whole longitudinally of the holder. It has for its object an improved holder of the type referred to.

In bayonet-cap lamp holders of the type as at present in general use, the connections between the supply wires and the lamp terminals are made through spring-pressed plungers in the holders, the springs being adapted to keep the plungers pressed into contact with the lamp terminals and also to retain the lamp cap secure in the bayonet socket of the holder. It frequently happens that the heat, generated by the passage of the current from the lamp holder terminals through the springs to the plungers, destroys the elasticity in the springs and consequently when the plungers are pressed into the holder body whilst the lamp is being inserted in the holder, the springs fail to act and do not press the plungers out again so that a complete connection is not made with the lamp terminals. Especially is this the case when half-watt lamps are used, or where portable hand lamps are supplied through an adaptor and are fitted with carbon filament lamps. It has therefore been proposed to provide a lamp holder with contact-making pins, corresponding in position with the contact pieces on the plug of the lamp, rigidly secured on a spring-actuated insulating support adapted to move as a whole longitudinally of the holder, said contact-making pins being in direct contact, or forming part of, terminals embedded in the insulating support. In such a lamp holder, the insulating support, while capable of longitudinal movements inside the holder, is provided with suitable means preventing it from rotating in the holder, and is pressed towards the mouth of the holder by a suitable spring disposed between the said body and the upper portion of the casing of the holder, said spring being insulated from the current passing through the lamp.

It is, of course, essential that such a holder should be free from any liability to surface leakage. The object of the invention is to provide a holder of the type referred to which is free from risks of "flash-over".

According to this invention, I provide a lamp holder of the type described, characterized in that the movable insulating support is constituted by the standard S-shaped vitreous insulating support, which is already provided with recesses for preventing rotation, enabling it to move longitudinally of the holder and in that the spring forcing the insulating support towards the mouth of the holder fits close to the wall of the upper portion of the casing so as to be free from risk of accidental contact with current-carrying parts or with the conductors, the spring being held in the upper portion of the casing by the internal projections usually provided thereto to engage the said recesses of the insulating support.

It will be seen therefore that a lamp holder constructed according to this invention retains every removable element of the existing standard bayonet-cap lamp holder, which can be fitted to the holder proper, according to this invention, without any alteration. This is a particularly important advantage from the point of view of facility and cheapness of manufacture.

In the accompanying drawings:

Fig. 1 shows a form of lamp holder made in accordance with my invention illustrated partly in section and partly in elevation.

Fig. 2 is a like view illustrating an alternative form, and

Fig. 3 is a section taken on the line 3—3 of Fig. 1 and looking in the direction of the arrows.

a is a vitreous porcelain body of the usual type, fitted into the lower member *b* of the holder proper and prevented from rotating therein by internal projections *c* on the member *b* engaging with grooves *d* on the insulating support *a*, but which allow of vertical movement of the insulating support *a* in the member *b*. The upper member or cap portion *e* of the holder is secured to the lower member *b* in the known manner by means of the locking ring *f*. Internal projections *g* on the member *e*, engaging with the grooves *d*, prevent circular movement of said member relatively to the insulating support *a*. A helical spring *h* is disposed between, and bearing against, the top of the insulating support *a* and the underside of the top of the member *e* so as to normally press the body down into the member *b*. Two pins *j j*, of brass or the like, are disposed in the recesses formed by the

design of the insulating support *a* and are rigidly secured therein by set screws *k* passed through the top of the support. The two service wires *m m* are passed through the threaded opening in the top of the holder member *e* and are connected to their respective pins *j* by being passed through holes *n* in the insulating support *a* and secured to the pins by set screws *o*. The holder member *b*, together with the slots *r* therein, provides the usual bayonet socket for the lamp. *p* is the shade ring. The spring *h* rests in a recessed portion *q* of the porcelain body *a* so that said spring is prevented from making contact with the "live" metal parts of the holder.

When a lamp is inserted in the socket, the terminals on the bayonet-cap thereof will make contact with the pins *j j*. The porcelain support *a* will be pressed upwards in the holder against the spring *h*. When the lamp has been turned in the bayonet socket of the holder, the spring *h* will press the porcelain support *a* down so as to retain the pins *j j* in contact with the terminals on the lamp cap, and it will also lock the projecting pins on the lamp cap in the portions *r¹* of the slots *r*. By this arrangement any heating of the "live" portions of the holder will not affect the spring *h*.

As the spring inserted inside the upper member *e* of the holder fits close to the wall, it is kept in position inside the upper member by the internal projections *g* provided in the standard holder for the purpose of engaging the grooves *d* of the insulating support, and is retained therein so that it is prevented from falling out when the lower member of the

holder and the insulating support it contains are removed.

It will be seen that this invention may be applied to various types of lamp holders adapted to hold bayonet-cap lamps, for example, to portable hand lamp fittings with or without a wire cage and/or a glass globe. In this case the holder member *b* will be provided with a flanged top and secured to the hand lamp body, which may be of wood or porcelain, by clamping the flanges between the body and wood ring or the like, studs fixed in the lamp holder body passing through the ring and having nuts on their outer ends. The porcelain body *a* is disposed in the holder member *b* as before and the spring *h* is disposed between the porcelain *a* and the top of a recessed portion in the hand lamp holder body.

What I claim and desire to secure by Letters Patent is:—

A lamp holder of the class described comprising a cap member, a spring member, lugs on said cap member for supporting said spring member, an insulating support having grooves, a lower member having means for connection to said cap member, lugs on said lower member, contact making pins mounted on said insulating member, said lugs on said cap and lower member entering said grooves on the insulating member whereby relative rotative movement is prevented between said insulating member, cap member and lower member.

In testimony whereof, I affix my signature.

JOSEPH WILLIAM WYATT.