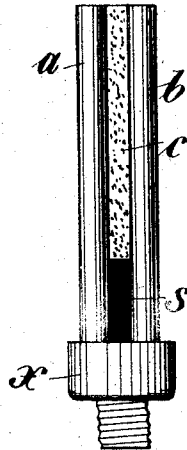


W. RÜHLING.
ELECTRIC ARC LAMP.
APPLICATION FILED APR. 11, 1911.

1,042,375.

Patented Oct. 22, 1912.



WITNESSES

L. H. Grote

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INVENTOR

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UNITED STATES PATENT OFFICE.

WALDEMAR RÜHLING, OF BERLIN, GERMANY, ASSIGNOR TO HERMANN MALACHOWSKI,
OF BERLIN, GERMANY.

ELECTRIC-ARC LAMP.

1,042,375.

Specification of Letters Patent.

Patented Oct. 22, 1912.

Original application filed November 15, 1909, Serial No. 528,176. Divided and this application filed April 11, 1911. Serial No. 620,407.

To all whom it may concern:

Be it known that I, WALDEMAR RÜHLING, a subject of the King of Prussia, and residing at Berlin, Germany, have invented a certain new and useful Improvement in Electric-Arc Lamps, of which the following is a specification.

The present invention relates to arc lamps and particularly to candle lamps of the type in which the electrodes are arranged in parallel and mounted upon a base through which the current is led to the electrodes.

The special object of my invention is to provide suitable means for automatically extinguishing the arc before the electrodes are completely consumed, thus protecting the base from injury.

The present application is a division of my co-pending application Serial No. 528,176, filed November 15th, 1909.

In the accompanying drawing a lamp of the type mentioned, in which my invention is embodied, is shown in side elevation.

The lamp illustrated comprises a base X adapted to be screwed into an ordinary incandescent lamp socket and through which the current is led to the electrodes *a* and *b* mounted in parallel on the base. Between the electrodes and throughout the greater portion of their length is interposed a fusible insulating barrier comprising materials which upon the extinction of the arc form a conducting bridge uniting the electrodes and serving as a means for rekindling the

arc when the lamp circuit is reestablished. Below the substance *c* I mount upon the base a heat resisting and nonconducting barrier *s* between the electrodes to serve as an automatic extinguisher of the arc before the latter has sufficiently closely approached the base to injure the latter.

The operation of the lamp is readily understood. If the lamp is burned after the electrodes *a* and *b* have been consumed down to a point on a level with the upper edge of the barrier *s*, the arc is gradually lengthened, since in its passage from one electrode to the other, it must bridge the barrier *s*. As the electrodes are further consumed, the length of the arc is necessarily increased, with the final result that the arc resistance becomes excessive and the lamp circuit is thereby automatically broken.

I claim as my invention:

In an arc lamp, a base, electrodes parallel throughout their length adjacently supported thereon, and a stationary heat-resisting non-conductor arranged between said electrodes adjacent the base and serving to automatically extinguish the lamp by lengthening the arc.

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

WALDEMAR RÜHLING.

Witnesses:

HENRY HASPER,
RICHARD GOETZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."