

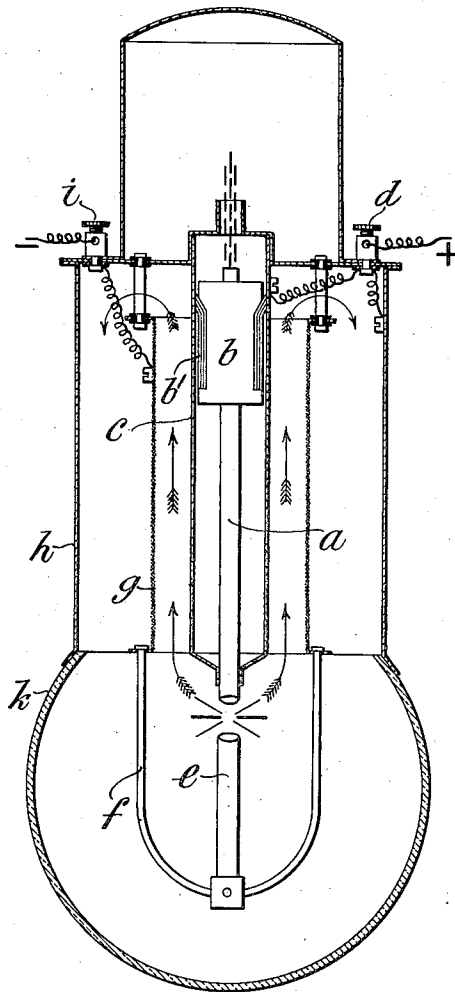
M. KÖRTING.

ARC LAMP.

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994,261.

Patented June 6, 1911.



Witnesses.

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MAX KÖRTING, OF LEUTZSCH, NEAR LEIPZIG, GERMANY, ASSIGNOR TO KÖRTING & MATHIESEN AKTIENGESSELLSCHAFT, OF LEUTZSCH, NEAR LEIPZIG, GERMANY.

ARC-LAMP.

994,261.

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To all whom it may concern:

Be it known that I, MAX KÖRTING, a subject of the German Emperor, residing at 22 Bahnhofstrasse, Leutzsch, near Leipzig, Germany, have invented a new and useful Arc-Lamp, of which the following is a specification.

It is exceedingly difficult to prevent deposit on the globes of arc lamps especially when the electrodes contain materials adapted to cause deposit. This is prevented according to this invention by leading the gases produced by the arc past a surface or body or surfaces or bodies possessing electric potential. For example two metal cylinders insulated from each other may be employed, one cylinder being positively charged and the other negatively charged. The particles emanating from the electrodes may already possess a positive or negative charge and therefore attach themselves to the positive or negative surfaces. If the particles do not already possess a positive or negative charge, they receive a charge during their passage past the lower portion of the surface and therefore become attached to such surface at a later period. Any source of tension may be employed for the production of the continuous current pressure used to charge the surfaces or bodies and with continuous current arc lamps it may be the terminal pressure of the lamp. The arrangement of the surfaces or bodies and their shape and material will depend upon the special lamps for which they are intended, but preferably they are rough thus serving both to support the deposit mechanically and to facilitate the formation thereof electrically. Wire gauze is also suitable for the purpose.

The accompanying drawing illustrating the invention shows a continuous current arc lamp.

a is an upper positive electrode, *b* the holder of the same.

c is a metal tube or cylinder within which the holder *b* slides; the electrode *a* receives current from the metal tube *c* through

brushes *b'*, the tube *c* being connected with the positive terminal *d*.

e is the negative electrode carried by a metal bracket *f* in electrical connection with a metal cylinder *g* which surrounds the cylinder *c*. The cylinder *g* is insulated in the lamp casing and is in electrical connection with the negative terminal *i*.

h is the lamp casing and *k* the globe.

The two concentric metal cylinders *c* and *g* will be oppositely charged, the cylinder *c* positively and the cylinder *g* negatively. The lamp casing *h* may also if desired be connected with the positive terminal *d*. Gases charged with particles pass as shown by the arrow between the cylinders *c* and *g* and the particles according as they are positively or negatively charged deposit on the outer wall of the cylinder *c* or the inner wall of the cylinder *g*.

What I claim is:—

1. An arc lamp provided with a depositing surface supplied with electric potential.

2. An arc lamp provided with a plurality of depositing surfaces supplied with electric potential.

3. An arc lamp provided with a plurality of depositing surfaces, some supplied with a positive charge and some with a negative charge of electricity.

4. An arc lamp provided with a rough depositing surface supplied with electric potential.

5. A continuous current arc lamp provided with a plurality of depositing surfaces, one of which is connected with one terminal of the lamp and one with the other terminal thereof.

6. An arc lamp provided with a depositing surface supplied with electric potential past which gases charged with particles are caused to pass.

MAX KÖRTING.

Witnesses:

RUDOLPH FRICKE,
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