(No Model.)

N. S. WHITE.

METHOD OF PROTECTING INCANDESCENT ELECTRIC LIGHTS.

No. 314,208. Patented Mar. 17, 1885.

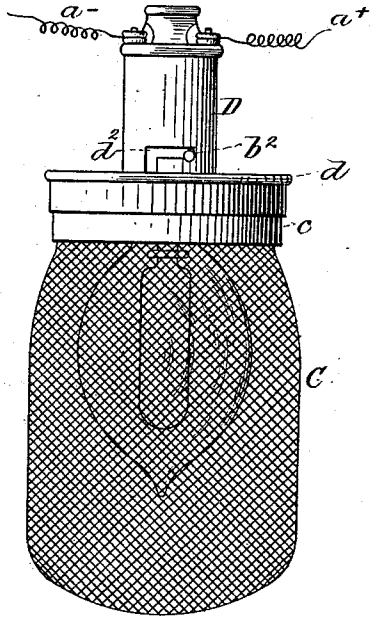


Fig. 1.

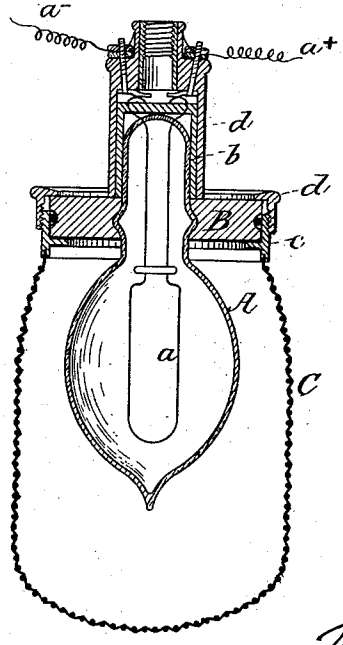


Fig. 2.

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N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

NELSON S. WHITE, OF CANTON, MASSACHUSETTS.

METHOD OF PROTECTING INCANDESCENT ELECTRIC LIGHTS.

SPECIFICATION forming part of Letters Patent No. 314,208, dated March 17, 1885.

Application filed October 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, NELSON S. WHITE, of Canton, in the county of Norfolk and State of Massachusetts, a citizen of the United States, have invented a certain new and useful Improvement in Electric Lighting Apparatus, of which the following is a full, clear, and exact description.

This invention relates to the method of protecting incandescent electric lights by wire-gauze guards. It is desirable to do this in factories where alcohol, naphtha, or other volatile and inflammable liquids are used, because, if the glass receiver breaks, the explosive atmosphere may ignite; and the invention relates, first, to the method of applying the wire-gauze guard; second, to the preparation of the wire-gauze; third, to its proper relations to the receiver and the contained filament.

In the drawings, Figure 1 is an elevation, and Fig. 2 is a vertical section, of this improvement.

A is the exhausted glass receiver. a is its inclosed filaments. a^+ and a^- are the electric conducting-wires. D is the fixture to which are attached the wires, and into which the neck b of the receiver fits, and to which the said neck is fastened by the pin b^2 and bayonet-slot d^2, or in any other usual and proper way. B is a flange or disk, which is affixed to the neck b. These parts (except flange or disk B) or their equivalents are common to most forms of incandescent electric lights.

A wire-gauze shield, C, is firmly fastened to a neck, c, which fits the outside of the flange or disk B, and a flanged collar, d, adapted to hang on the edge of flange or disk B, engages by a screw-thread or other suitable fastening with the neck c of the gauze shield C.

The wires of the shield C should be tinned or nickeled, or otherwise made of a bright light-colored surface, so as to reflect light, and if so treated the light will be about as great in quantity and more diffused and soft than with a naked globe. It will be well also to make a reflecting-surface on the bottom of flange or disk B, which may be done with tin-foil glued on, or in any other proper way.

I find that if the shield is set out about as far from the receiver as the filament is set in, the danger of breakage is lessened and the light is little impaired in quantity, and I recommend this as the best proportion for the distance of parts.

I have contemplated, also, the plating of the wire gauze and flange or disk B with glass, or making said disk or flange B entirely of glass to enhance the illuminating power, and the manner of doing this will form the subject of further application.

It is obvious that the neck c may be screwed or pinned or otherwise fastened to the flange B without using the collar d.

The disk or flange B is of greater diameter than the bulb A, and the neck c of the guard C, which engages with said disk B, is hence large enough to pass readily over the globe A. This is a great convenience, as the breakage of the globe can be more readily repaired in such a case than if the gauze envelope be drawn more nearly to conform to the shape of the glass globe A, as in my former patent.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The flanged collar d, neck c, and guard C, in combination with the flange B applied to an incandescent electric-light fixture, substantially as described.

2. A wire-gauze screen for an incandescent electric lamp disposed around the glass bulb thereof and of greater diameter than said glass bulb, the wires of which screen have bright reflecting-surfaces of light color, whereby the intensity of the light is reduced, its diffusion enhanced, and its illuminating value retained, substantially as described.

NELSON S. WHITE.

Witnesses:
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