No. 715,254. Patented Dec. 9, 1902.

F. B. GARRETSON.

PROTECTOR FOR ELECTRIC LAMPS.

(Application filed Nov. 29, 1901.)

(No Model.)

Fig. 1.

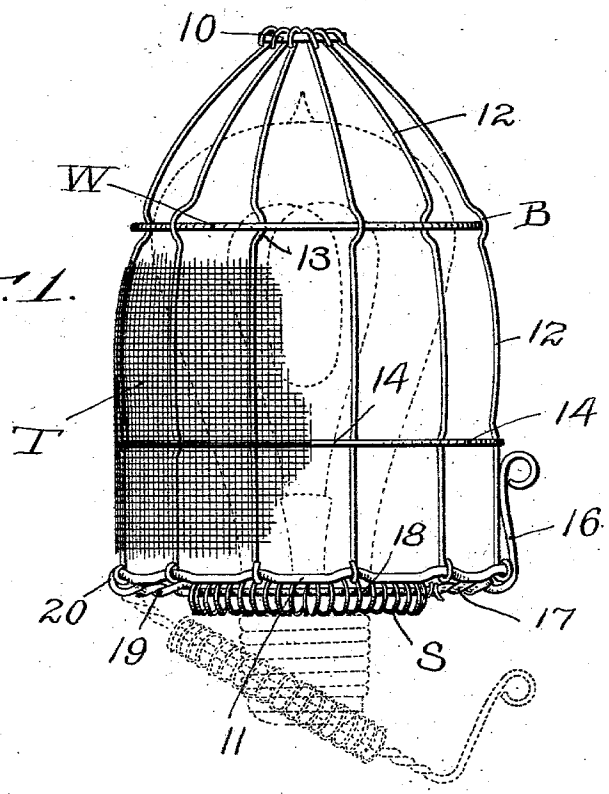
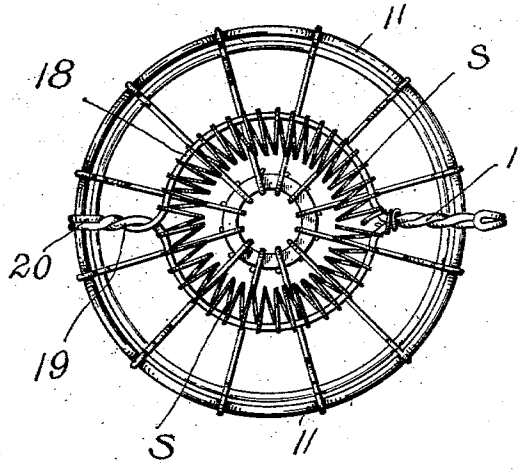


Fig. 2.



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UNITED STATES PATENT OFFICE.

FRANK B. GARRETSON, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND WILLIAM J. GINDELE, OF WORCESTER, MASSACHUSETTS.

PROTECTOR FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 715,254, dated December 9, 1902.

Application filed November 29, 1901. Serial No. 84,156. (No model.)

To all whom it may concern:

Be it known that I, FRANK B. GARRETSON, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Protector for Electric Lamps, of which the following is a specification.

This invention relates to a protector for preventing the breaking of incandescent electric-light globes; and the especial object of this invention is to improve and strengthen the form of protector for electric lamps which is shown, described, and claimed in United States Letters Patent No. 656,840, granted jointly to myself and William J. Gindele August 28, 1900.

To these ends this invention consists of the protector for electric lamps and of the combinations of parts therein, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a side view of a protector for electric lamps constructed according to my invention, the position of the electric lamp being indicated in dotted lines; and Fig. 2 is a bottom plan view of the same.

To protect the fragile and easily-fractured globes of electric lamps, a number of different forms of wirework protecting-frames have been devised.

Prior to the form of protector shown in the United States Patent No. 656,840, before referred to, it was usually customary to support the protecting-frame from the lamp-bracket or from some other fixed support, so that care had to be exercised to see that the protecting-frame was carefully adjusted, so as not to bear upon the electric-light globe, or otherwise instead of affording protection for the globe the wire framing itself would render the lamp-globe even more liable to break than if it was left without a surrounding frame.

In the United States Patent No. 656,840, before referred to, a form of protector is shown, described, and claimed which instead of being supported from the lamp-bracket or other support is fitted directly upon and supported by the lamp-globe itself. This protector consists, essentially, of a top washer or ring, a bottom wire ring, with spring-wires connecting the top and bottom rings, and the body portion as thus formed is provided with a catch engaging the neck of an electric-light globe, so that by opening the catch the protector can be secured upon a lamp and the lamp afterward screwed into its socket. In the construction disclosed in the patent the spring-wires were held in place by a single stiffening-wire. To strengthen and improve upon this construction and to more efficiently protect the end of the lamp-globe, I have provided a construction in which a portion only of the spring-wires, preferably every alternate one, is provided with a bent-in portion for engaging the lamp-globe, while the remaining wires are provided with bent-out portions, which are soldered or otherwise secured to a supplemental spreading-ring, which not only strengthens the construction, but also affords additional protection for preventing the transmission of impacts or blows directly to the electric-light globe. As a further protection for the neck of the electric-light globe instead of employing a plain wire loop for engaging this portion of the lamp I preferably provide a construction in which a coiled-wire spring is mounted upon the catch which engages the neck of the globe, so as to form an efficient cushion for this end of the lamp.

For use in special locations—for example, for use in foundries, machine-shops, stone-yards, &c.—it is desirable to provide a form of electric-lamp protector which will efficiently protect a lamp-globe from flying chips or pieces. I have found in practice that by combining a lamp-protector of my construction with a wire-cloth covering I am enabled to provide an efficient construction for this purpose.

Referring to the accompanying drawings and in detail, the protector for electric lamps constructed according to my invention as herein illustrated comprises a top washer or ring 10, a wire ring 11, spring-wires 12, connecting the top ring 10 and wire ring 11 to form the body portion of the protector. A portion of the spring-wires 12, preferably every alternate one, is provided with a bent-in section 13 for

engaging upon an electric lamp, as shown. The spring-wires 12 are held in position by a spreading-ring 14. Hinged onto the ring 11 is a catch for engaging the neck of the lamp. As herein shown, this catch is formed from a single piece of wire bent to form a latch 16, a central ring 18, having twisted portions 17 and 19 at each side, and a hinged section 20. These parts may be of substantially the construction shown in the Patent No. 656,840, before referred to.

To strengthen the body portion of the protector and more efficiently protect the outer end of the lamp, the spring-wires 12, which are not bent in to engage the lamp, as at 13, are preferably provided with outwardly-projecting bends B and are soldered or otherwise connected to a spreading or protecting wire W.

To more efficiently cushion the central ring of the catch which engages the neck of the lamp, I provide the central ring with a spiral spring S, coiled thereon by means of special appliances, so that its ends E are twisted or secured substantially together.

When one of my electric-lamp protectors is to be used in a foundry, machine-shop, or similar location, as before referred to, the frame of the protector may be inclosed in an enveloping covering of wire-cloth T, a portion of which is shown in Fig. 1, and by combining one of my ordinary wire-frame protectors with the wire-cloth envelop W, I have found in practice that I am enabled to provide a lamp-covering which will furnish absolute protection for the lamp from flying chips or pieces.

I am aware that changes may be made in my improved protector for electric lamps by those who are skilled in the art without departing from the scope of my invention as expressed in the claims. I do not wish, therefore, to be limited to the construction I have herein shown and described; but

What I claim, and desire to secure by Letters Patent of the United States, is—

1. As an article of manufacture, a protector for electric lamps comprising a frame having spring-wires, every alternate one of which is provided with a bent-in portion for engaging an electric-lamp globe, and the remainder of which are provided with bent-out portions, a spreading-ring connected to the bent-out portions, and a catch hinged to the frame and having a socket for engaging the neck of the electric-lamp globe.

2. As an article of manufacture, a protector for electric lamps, comprising a body portion having spring-wires, every alternate one of which is bent in to engage the electric-lamp globe, and the remainder of which are bent out and secured to a spreading-ring, and a catch hinged to said body portion, and having a socket for engaging the neck of the electric-lamp globe, which socket is surrounded by a spiral spring, substantially as described.

3. As an article of manufacture, a protector for electric lamps comprising a frame having spring-wires, every alternate one of which is provided with a bent-in portion for engaging an electric-lamp globe, and the remainder of which are provided with bent-out portions, a spreading-ring connected to the bent-out portions, a covering of woven-wire cloth carried by the frame, and a catch hinged to the frame, and having a socket for engaging the neck of an electric-lamp globe.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FRANK B. GARRETSON.

Witnesses:
LOUIS W. SOUTHGATE,
PHILIP W. SOUTHGATE.