No. 615,239. Patented Dec. 6, 1898.

G. S. BARROWS.

ANTIVIBRATION LAMP FOR INCANDESCENT LIGHTS.

(Application filed May 4, 1896.)

(No Model.)

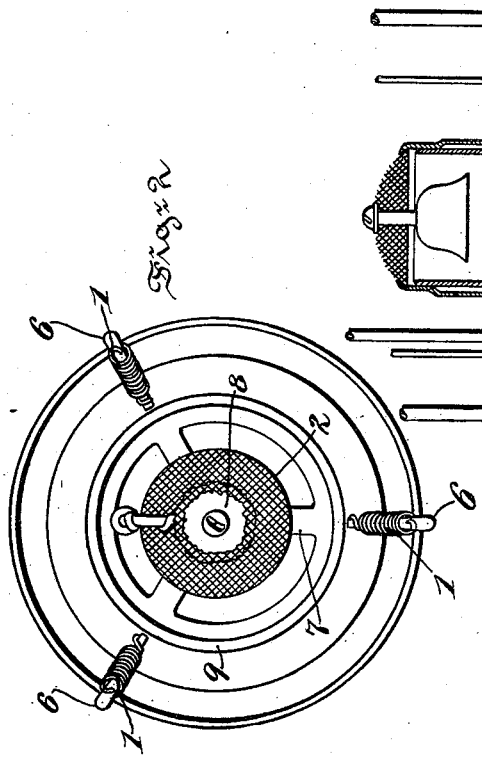

Fig. 2.

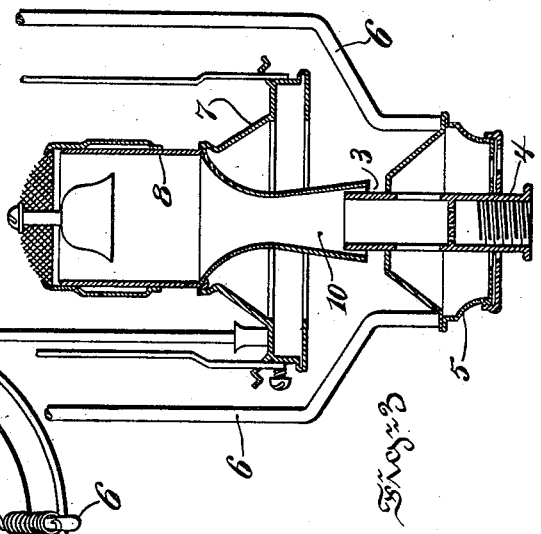

Fig. 3.

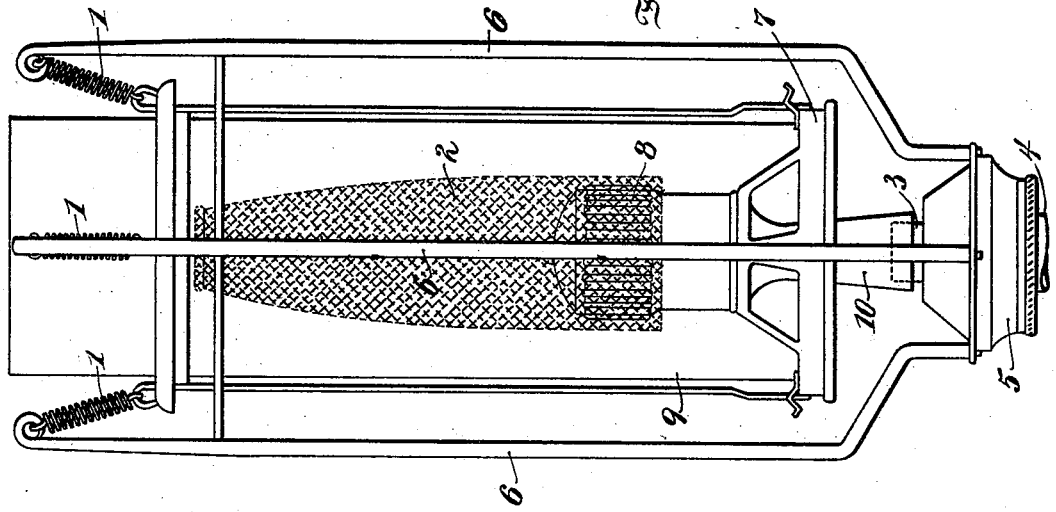

Fig. 1.

Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE S. BARROWS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE WELSBACH LIGHT COMPANY, OF GLOUCESTER CITY, NEW JERSEY.

ANTIVIBRATION LAMP FOR INCANDESCENT LIGHTS.

SPECIFICATION forming part of Letters Patent No. 615,239, dated December 6, 1898.

Application filed May 4, 1896. Serial No. 590,123. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. BARROWS, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Antivibration Lamp or Burner for Welsbach and other Incandescent Lights, of which the following is a specification.

The principal object of my present invention is to provide a neat, attractive, comparatively inexpensive, and efficient burner the mantle of which is protected against breakage due, for example, to vibrations, shocks, and the like, whereby the burners may be used in mills, shops, factories, railway and street cars, and other like locations, thus securing in such places the benefits to be derived from the so-called "Welsbach" or other incandescent system of lighting; and to this end my invention consists of the improvements hereinafter described and claimed.

The nature, characteristic features, and scope of my invention will be more fully understood from the following description taken in connection with the accompanying drawing, forming part hereof, and in which—

Figure 1 is an elevational view of a burner or lamp embodying features of my invention. Fig. 2 is a top or plan view of the same; and Fig. 3 is a central sectional view of the lower portion of the burner, showing a loose lap connection for supplying gas.

In the drawings, 1 is a spring-support constructed to carry the mantle 2 and prevent lateral and vertical vibrations thereof.

3 is a loose lap connection for supplying gas without interfering with the action of the spring-support, because it constitutes a universal joint or arrangement by which one part is made to move freely in all directions in relation to the other.

In the embodiment of my invention selected for the purposes of this specification, 4 is a Bunsen tube constructed for attachment to a gas-fixture, bracket, or the like.

5 is an air-shutter fitted to the Bunsen tube.

6 are standards, uprights, posts, or carriers (of which the number is not material, three being shown in the drawings) connected with the Bunsen tube through the intervention of the air-shutter 5. The gallery 7 carries the burner cap or tip 8, the mantle 2, and chimney 9 and is suspended from the parts 6 by the spring-supports 1. This burner-cap 8 is provided with an opening, into which the Bunsen tube 4 is loosely fitted, so as to afford play between the parts. As shown in the drawings, the opening above referred to is formed in a funnel or bell 10, depending from the cap 8, and suspended over the upper end of the Bunsen tube 4, so as to clear the same and afford considerable play between the parts.

The mode of operation of a lamp or burner embodying features of my invention may be described in connection with the accompanying drawings as follows: A shock or jar, either vertical or lateral, imparted to the Bunsen tube 4 or parts such as the bracket or gas-fixture connected therewith is not transmitted to the mantle 2, because it is compensated for by the spring-supports 1, and the loose lap connection 3 supplies gas to the burner tip or cap 8 without interfering with the described action of the spring-supports, because the parts 4 and 10 afford freedom of motion both vertically and laterally and constitute, as it were, a universal joint.

It will be obvious to those skilled in the art to which my invention appertains that modifications may be made in details without departing from the spirit thereof. Hence I do not limit myself to the precise construction and arrangement of parts hereinabove set forth and illustrated in the accompanying drawings; but,

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination in an incandescent gas-burner of a spring-support constructed to carry the mantle and prevent lateral and vertical vibrations thereof, with a loose lap connection constituting a universal joint and supplying gas without interference with the described action of the spring-support, substantially as described.

2. The combination in an incandescent gas-burner of a spring-support for the burner-cap

constructed to prevent vertical and lateral vibrations of the mantle, and a Bunsen tube loosely fitted to an opening in the cap and constituting a universal joint for supplying gas without interference with the described action of the spring-support, substantially as described.

3. The combination in an incandescent gas-burner of a Bunsen tube provided with standards, a gallery carrying a mantle, a burner-cap carried by the gallery and provided with an opening into which the Bunsen tube is loosely fitted, and springs interposed between the gallery and standards, substantially as described.

4. The combination in an incandescent gas-burner of a Bunsen tube provided with standards, a gallery carrying a mantle and burner-cap, a funnel depending from the cap and receiving the Bunsen tube, and springs interposed between the gallery and standards, substantially as described.

5. The combination in an incandescent gas-burner of a Bunsen tube provided with an air-shutter, standards attached to the shutter, a gallery carrying a mantle and burner-cap, a funnel depending from the cap and receiving the Bunsen tube, and springs interposed between the gallery and standards, substantially as described.

In testimony whereof I have hereunto signed my name.

GEORGE S. BARROWS.

In presence of—

GEORGE S. PHILLER,

F. H. MACMORRIS.