No. 713,701. Patented Nov. 18, 1902.

V. H. SLINACK.

INCANDESCENT GAS BURNER.

(Application filed July 5, 1902.)

(No Model.)

Fig. 1.

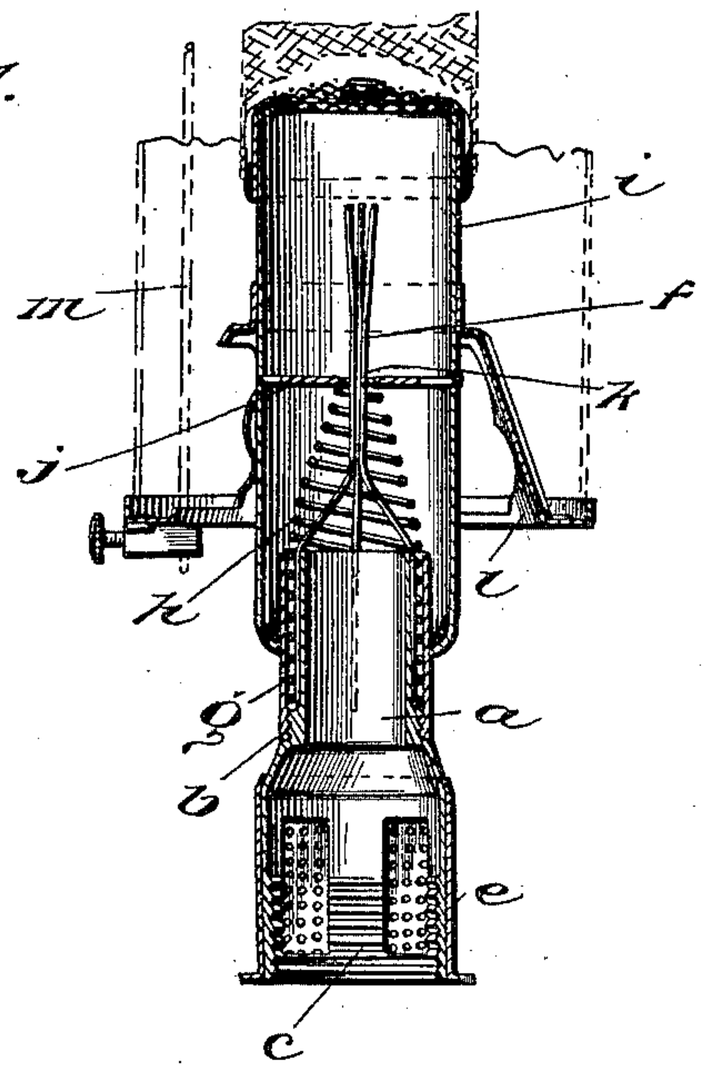


Fig. 2.

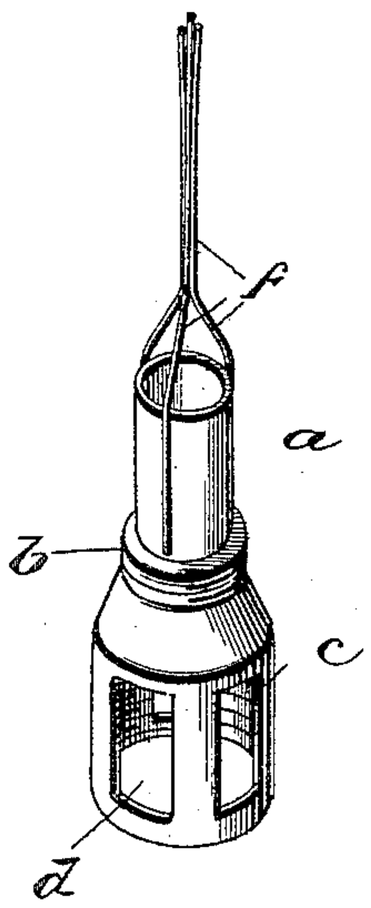


Fig. 3.

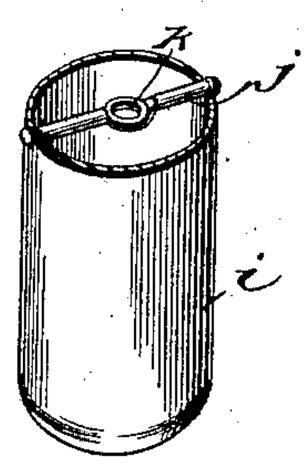
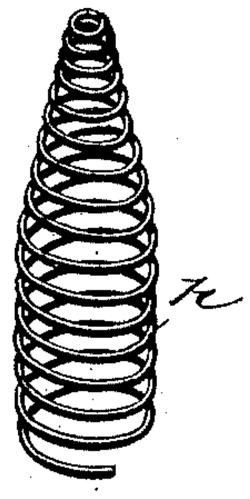


Fig. 4.



WITNESSES

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INCANDESCENT GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 713,701, dated November 18, 1902.

Application filed July 5, 1902. Serial No. 114,503. (No model.)

To all whom it may concern:

Be it known that I, VICTOR H. SLINACK, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Incandescent Gas-Burner, of which the following is a specification.

One object of the invention is to provide an incandescent or Bunsen burner so constructed as to prevent injury to the fragile incandescent mantle carried thereby due to shocks, jars, and steady or constant vibration.

A further object is to provide a burner of the character stated which shall be of simple construction and thoroughly efficient in operation with provision for economy in its manufacture.

The nature, characteristic features, and scope of the invention will be more clearly understood from the following description, taken in connection with the accompanying drawings, wherein—

Figure 1 is a vertical sectional view of a burner constructed in accordance with my invention. Fig. 2 is a detail, being a perspective view of the mixing-tube and the supporting-wires carried thereby. Fig. 3 is a sectional view of the burner-head, disclosing the transversely-extending support with its central aperture or eye for guiding and retaining the flexible supports or wires; and Fig. 4 is a perspective view of the conoidal spring.

Referring to the drawings, *a* is a Bunsen tube provided with a threaded shoulder *b* and with enlarged base *c*, the latter furnished with apertures *d* for the ingress of air, there being a shutter *e*, Fig. 1, arranged to turn on said base to admit more or less air to the Bunsen tube in a manner well understood. The Bunsen tube *a* is arranged to be attached to the ordinary gas fixture or bracket, as usual. Attached to the sides of the Bunsen tube, as clearly illustrated in Fig. 2, is a plurality of flexible wires *f*, which converge immediately above the mouth of said tube and extend in a vertical direction upward.

g is a tubular body or sleeve which screws on the shoulder *b* and constitutes an annular socket for the reception of a generally conoidal spiral spring *h*, which is penetrated and normally held vertical by the wires *f*.

i represents the burner-head, which is arranged to telescope the sleeve or tubular member *g*, and thus inclose the spring. Extending diametrically of the burner-head, about midway thereof, there is a rod or wire *j*, furnished with a central aperture or eye *k*, through which protrude the wires *f*, so that the apex of the spring *h* abuts said rod, and thus acts to yieldingly support the burner-head.

l represents the gallery, which is attached to and is directly supported by the burner-head and carries a mantle-support *m*.

It is thus apparent that I have produced a simple, compact, and attractive burner and that by supporting the spiral spring exteriorly of the Bunsen tube I avoid diminishing the velocity of the gas, and thereby obtain a higher incandescence of the mantle. The spiral spring in addition to its primary function as an antivibration device also acts to effect a more intimate mixture of the gas and air.

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

Having thus described the nature and objects of the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In an incandescent burner, the combination of a Bunsen tube provided with a socket arranged exteriorly thereof, a generally conoidal spiral spring having its base supported in said socket, flexible guide devices penetrating said spring and supported exteriorly of the Bunsen tube, and a burner-head having a cross arm or wire resting on the apex of the spring, with a central aperture or eye to accommodate the guide devices, substantially as described.

2. In an incandescent burner, the combina-

tion of a Bunsen tube, having an external annular socket, a burner-head carrying a gallery and mantle-support, and a generally conoidal spring having its base mounted in said socket and its apex within the burner-head, and arranged to support said burner-head with relation to the Bunsen tube, substantially as described.

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

VICTOR H. SLINACK.

Witnesses:
W. J. JACKSON,
JAS. A. RICHMOND.