UNITED STATES PATENT OFFICE.

EDWARD RAYMOND KELLEY, OF ASHTABULA, OHIO.

BUNSEN-BURNER ATTACHMENT.

No. 802,454.


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To all whom it may concern:

Be it known that I, EDWARD RAYMOND KELLEY, a citizen of the United States, residing at Ashtabula, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Bunsen-Burner Attachments, of which the following is a specification.

My invention relates to improvements in gas-burners and attachments for burners of that class that is used for illuminating or cooking purposes.

The special object of my improvements is to provide a device of this class that can be used in connection with a suitable lamp for illuminating purposes or with slight changes may be converted into a heating device adapted to hold small vessels.

A further object is to provide a device of this kind in which the principles of a Bunsen burner may be utilized and the draft controlled.

A still further object is to provide a device that will be ornamental as well as useful and that in whole or in part may be readily moved about from place to place.

Having the aforesaid special objects and others of general utility in view, I have invented the burner and attachment illustrated in the accompanying drawings, which form a part of this application, and in which—

Figure 1 is an elevation of a lamp constructed according to my invention and having a Bunsen tube connected therewith. Fig. 2 is a similar view with the Bunsen tube and its attachments removed. Fig. 3 is an elevation of the Bunsen tube and its attachments. Fig. 4 is an elevation of the element used for connecting the Bunsen tube with the lamp proper. Fig. 5 is a top plan view of the portion shown in Fig. 4. Fig. 6 shows in elevation another application of my improved device when used for cooking or heating purposes. Fig. 7 is an elevation showing the Bunsen burner and a regulating-shutter for same. Fig. 8 is a top plan view of the parts shown in Fig. 7, showing the shutter open. Fig. 9 is a similar view showing the shutter closed. Fig. 10 is an elevation of a modified form of lamp and attachment, and Fig. 11 is a vertical section of the lower part of the device shown in Fig. 10 in elevation.

Referring to the drawings in detail, A represents a circular convex metal shell, through which are formed circular openings a' and with which is connected a gas-pipe a, having an orifice a and having its upper end projecting into a collar a', formed on the outer face of the shell. The outer end of the pipe a may be suitably connected with a gas-supply pipe by the usual flexible tube, as indicated in Figs. 6 and 7. As shown in Figs. 1, 7, 8, and 9, there is applied to the shell A a shutter B, which conforms to the shape of the shell, so as to fit closely thereover, and is provided with a series of scallops b, in its periphery and with openings b', which are adapted to register with the holes e in the shell, and is also formed or provided with a collar b, which fits around the collar a' on the shell. It will be apparent that by turning the shutter the holes a' in the shell may be partially or entirely blanked by the unperforated portions of the shutter.

For some purposes I may use a supplemental shutter or cap C, consisting of a metal disk adapted to fit over the shutter B and provided with holes e, a collar e, fitting closely the collar a', and a threaded stem e, upon which may be screwed the tubular stem of the lamp D, thereby serving as a connection or coupling between the shutter B and the lamp D, so that when assembled the several parts will form a suitable standard for a gas-lamp, as shown in Figs. 1 and 2. It will be understood that the gas-pipe a extends through the shell and has its inner end bent upwardly to form a burner-tip, or it may have a suitable tip secured thereto.

In the use of the device as shown in Fig. 6 the shutter B is inverted and forms a support for a vessel, it being understood that the upper end of the pipe a serves to project the flame against the under side of the vessel.

In the modification shown in Figs. 10 and 11 in order to provide a more ornamental standard for the lamp D and one that will prevent the latter from being accidentally knocked over I apply to the lower portion of the tubular stem a bell-shaped base E, having portions fitting over the shutter B and shell A and having secured to its inner wall lead or other suitable weighting material, as at e'. In this use of my device the bell may or may not be secured to the shutter, and it is immaterial as to whether the openings a or register or not. The lamp, including the bell-base, may be lifted from the pipe a and shell A, or the pipe may be disconnected from the flexible gas-conducting tube and moved with the lamp.
Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the character described, a gas-pipe, a shell secured to said pipe and having openings therethrough, a shutter detachably secured to said shell and having openings therethrough adapted to register with the openings in the shell and having other portions adapted to blank the openings in the shell, said shutter also adapted to be inverted in its relation to said shell.

2. In a device of the character stated, a gas-pipe, a shell secured thereto and having openings therethrough, a shutter fitting over said shell and having openings therethrough adapted to register with the openings in the shell, a coupling-plate having openings therethrough adapted to register with the openings in the shell and shutter aforesaid and provided with means for attaching a lamp.

3. In a device of the character described, a perforated shell mounted on said pipe and forming a base, a scalloped disk fitting over said shell and invertibly mounted on said pipe.

4. In a device of the character described, a perforated shell, a gas-pipe passing through the center of said shell and having an air-inlet opening therein, a scalloped and perforated disk fitting loosely over said shell and invertibly mounted on said pipe.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD RAYMOND KELLEY.

Witnesses:

J. F. MUNSELL,
T. E. HOYT.