

E. H. KUHR.
BURNER.

APPLICATION FILED SEPT. 25, 1912.

1,064,918.

Patented June 17, 1913.

FIG. 1.

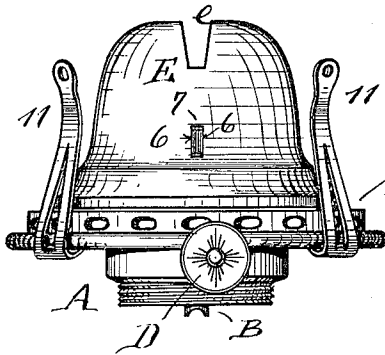


FIG. 2.

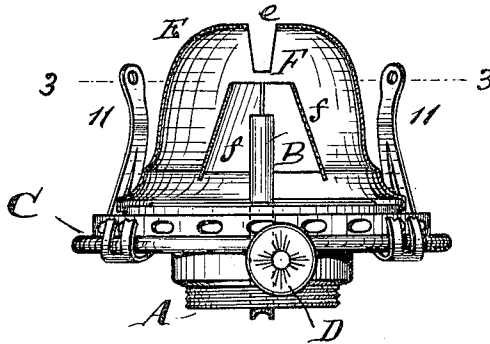


FIG. 3.

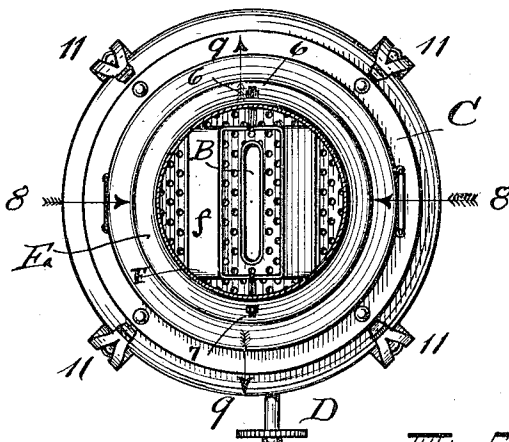


FIG. 4.

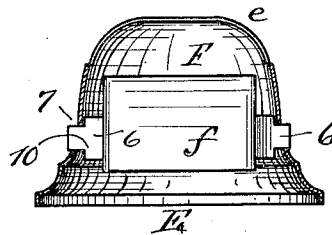
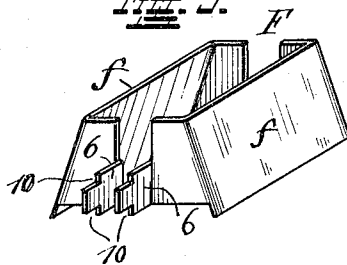


FIG. 5.



Witnesses.

W. Bohrer
T. LeBeau

Inventor.

Emil H. Kuhr
by C. Spengel atty

UNITED STATES PATENT OFFICE.

EMIL H. KUHR, OF CINCINNATI, OHIO, ASSIGNOR TO THE DAYLIGHT BURNER CO.,
OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

BURNER.

1,064,918.

Specification of Letters Patent.

Patented June 17, 1913.

Application filed September 25, 1912. Serial No. 722,184.

To all whom it may concern:

Be it known that I, EMIL H. KUHR, a citizen of the United States, and a resident of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Burners; and I do declare the following to be a clear, full, and exact description of the invention, attention being called to the drawing which accompanies this application and forms a part thereof.

This invention relates to improvements in burners where a flame is produced within a chimney or globe by means of a wick which feeds a hydrocarbon to the point of combustion. Such burners consist substantially of means for guiding the wick and for moving it to the point of combustion, of means for supplying air to this point and of means for seating a chimney or globe.

My improvements relate more particularly to the construction of the means for supplying air as aforesaid and which is so as to affect the size and form of the flame generated in a manner to produce superior illuminating effects. This construction is furthermore designed in a manner permitting manufacture within reduced expense limits.

In the following specification and particularly pointed out in the claim at the end thereof, will be found a full description of my invention, together with its operation, parts and construction, which latter is also illustrated in the accompanying drawing, in which:—

Figure 1, shows my improved burner in side elevation. Fig. 2, is a vertical cross-section of the upper part of the same. Fig. 3, is a horizontal section of it on line 3—3 of Fig. 2. Fig. 4, is a vertical longitudinal section of the upper part of the burner detached. Fig. 5, in a perspective view shows detached the complementary parts of a certain member of the burner, viz. an internal deflector.

My invention is illustrated in connection with a conventional burner adapted to be used on a lamp, lantern, or similar illuminating device intended to burn coal oil.

In the drawing, letter A indicates the attaching nipple of the burner whereby the same is connected in position. B is the wick-tube and C is the base of the burner,

all three members being connected to each other.

D is the handle of the wick-moving means, which are contained in the nipple and may be of a well known type requiring no further description.

E is the hollow burner-top, made of a shell substantially dome-shaped and seated upon the base. It is provided with a slot *e* above the upper end of the wick-tube to accommodate the flame. The base below this top is multi-perforated to permit air to pass into the burner, which air is directed by the shell of the top to pass into the base of the flame.

In order to intensify the combustion, there is an internal deflector F adapted to guide air directly to the point of combustion at the upper edge of the wick-tube. This deflector consists of four sides, the two longer ones of which are inclined toward each other, while the shorter ones are parallel. It is made up of two complementary sections *f*, one exactly like the other and each embodying one of the longer, inclined sides and one half of each of the shorter sides at each end of this longer side. From the free edge of each half of each of these shorter sides, there projects outwardly a flange 6, which flanges are all alike as to shape, size and location so that, when the two sections are juxtaposed, two flanges at each end of the deflector meet and contact. The deflector is held in place by these flanges 6 when they so contact and occupy upright slots 7 provided diametrically opposite each other in the top, two contacting flanges in each one of these slots, the distance between the free ends of the flanges of a section, being greater than the diameter of the top where slots 7 are located thereon. The deflector is placed by being sprung into position, the top being temporarily somewhat compressed between these slots and as indicated by arrows 8 in Fig. 3, to elongate it in a direction indicated by arrows 9—9 in same figure. While the top is thus held distorted, the deflector is inserted so that the two flanges at each of its ends, one flange of each of its sections, occupy each slot, after which the top is permitted to assume its normal shape. Both corners of each flange are notched out to form stops 10, and only the portions of the flanges between

these stops occupy slots 7, as best shown in Fig. 4. These stops, by bearing against the inside of the top, prevent the deflector sections from shifting and hold the deflector 5 firmly in place and in a central position with reference to the wick-tube. 11, are guards which serve to hold a chimney or globe in position upon the base of the burner. It will now be seen that the mere 10 placing of these two sections $f-f$, simultaneously within the top and with their contacting flanges into the slots therein, causes them to be also held in proper position with reference to each other to form the de- 15 flector complete so that complete formation of the deflector before insertion into the top is entirely dispensed with. Held so assembled, these sections are also held at the same time in proper position with relation to the wick- 20 tube, without requiring special means for this purpose, so that, as will now be seen, the connection to each other of the deflector sections, to form the deflector complete, and the positioning of the complete deflector are 25 carried out in one operation and accomplished by the same means.

Having described my invention, I claim as new:

30 In a burner of the kind described, the combination of a wick-tube, a perforated base, a top seated upon this base provided with a flame slot above the upper end of

the wick-tube and with two upright slots in its side located diametrically opposite each other and in a plane coincident with a 35 plane passing longitudinally through the center of the wick-tube and of the flame slot respectively, a four-sided internal deflector adapted to direct air admitted through the perforated base against the upper edge of 40 the wick-tube and positioned between this latter and the inner side of the top and so as to be spaced from each, said deflector being composed of two comple- 45 mentary sections, which are fitted to each other so as to meet in the plane above referred to and each of which sections has two flanges, the flanges being adapted to contact when the sections are juxtaposed, those of one section with the flanges of the other 50 section so that, when said contacting flanges occupy the slots in the top in the manner shown, the deflector sections are held properly assembled with relation to each other to form the deflector complete, holding this 55 latter also in proper position within the wick-tube.

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

EMIL H. KUHR.

Witnesses:

C. SPENGEL,
T. LE BEAU.