

(No Model.)

G. B. M. KEPLER & S. R. BASHORE.
LAMP BURNER.

No. 563,930.

Patented July 14, 1896.

Fig. 1.

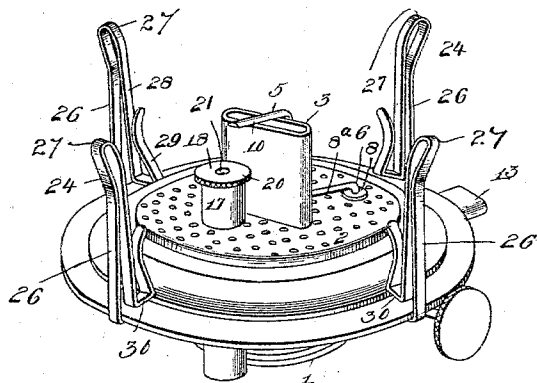


Fig. 2.

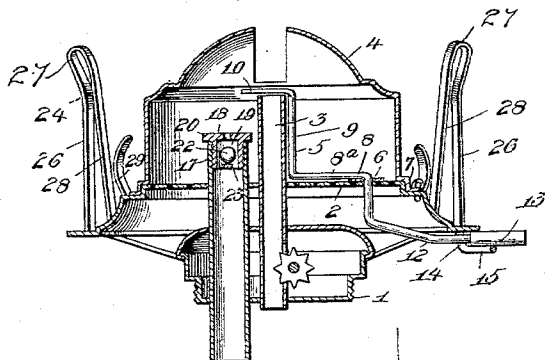


Fig. 5.

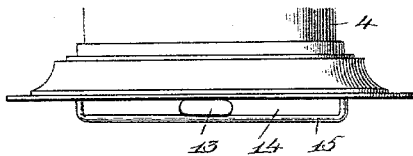


Fig. 4.

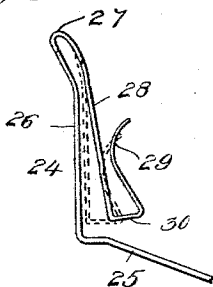
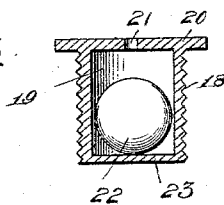


Fig. 3.



Inventors

Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE B. M. KEPLER AND SAMUEL R. BASHORE, OF PORT ROYAL,
PENNSYLVANIA.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 563,930, dated July 14, 1896.

Application filed August 29, 1895. Serial No. 560,918. (No model.)

To all whom it may concern:

Be it known that we, GEORGE B. M. KEPLER and SAMUEL R. BASHORE, citizens of the United States, residing at Port Royal, in the county of Juniata and State of Pennsylvania, have invented a new and useful Lamp-Burner, of which the following is a specification.

Our invention relates to lamp-burners, the object thereof being to provide a burner that can be evenly scraped free of incrustated wick without removing the burner-cap or the chimney, that will permit the free escape of gas, but prevent the escape of oil in case the lamp should be upset, and that will hold the chimney in place, firm and steady, and not allow it to be knocked off or moved about on the burner.

With these and other objects in view our invention consists of the novel features and details of construction and the combinations of parts thereof, as hereinafter specified by description and claims.

In the accompanying drawings, Figure 1 is a perspective view of our improved burner with the ordinary dome or cap removed. Fig. 2 is a central vertical section of the complete burner. Fig. 3 is a detail view of the gas-vent valve-cap. Fig. 4 is a side elevation of the spring chimney-holder, showing in dotted lines the position when engaging the chimney. Fig. 5 is a detail view showing the guide-slot for the wick-trimmer.

Reference-numeral 1 designates the usual screw-threaded neck connection to be screwed into the flanged neck of the lamp-bowl or oil-reservoir. The usual perforated base or chimney-support 2 and the centrally-extending wick-tube 3, covered by the hinged dome or cap 4, complete the well-known elements of the common burner, to which my improvements are made.

The tube-cleaner and wick-trimmer 5 is vertically pivoted at 6, opposite the middle portion of the wick-tube extension and adjacent to the dome-flange 7. A bearing-surface 8 is provided on the upper side of the base 2, and the trimmer-wire is bent flat against the same and parallel to the base to form a carrying-arm 8^a to extend nearly into contact with the wick-tube at its middle portion. The trimmer is then bent upwardly at 9 and again

bent over horizontally to form the scraper or trimming-knife 10, which is flattened and sharpened on either edge and adapted to swing over the end of the wick-tube, flush therewith at every point. Beneath the base 2 said trimmer is bent outwardly to form an operating-arm 12, provided at its end with a button or thumb-piece 13, extending slightly beyond the base-rim and arranged to swing back and forth in slot 14, formed by the base-rim and a guide-rod 15 below the same secured parallel thereto.

To clean the ashes off the wick or scrape the crust therefrom, thumb-piece 13 is grasped between the thumb and finger and swung back and forth in slot 14. This movement correspondingly reciprocates scraper 10 in reverse directions and the knife-edge thereof completely cleans the projecting end of the wick and the upper edges of the tube.

Instead of the simple vent-hole for gas usually found in the common burners we provide a safety-valve gas-tube. This is arranged adjacent to the wick-tube 3, opposite to the wick-trimmer 5, and comprises a tube 17, extending from within the lamp-bowl to slightly above the perforated base 2. At its outer end tube 17 is internally threaded to receive the safety-valve cap 18, which consists of a chamber 19, whose vertical walls are externally threaded to fit the tube 17, and a flanged cover-plate 20, milled on its edges and provided with a central perforation or gas-vent 21. Within the chamber 19 a ball-valve 22 of lead or any solid material is provided, somewhat less in diameter than the chamber. This ball-valve is retained within the chamber by means of a cross-pin 23, secured to or through the lower end of the valve-chamber. Thus the gas is perfectly free to escape from the oil-reservoir; but the moment the lamp is upset and the oil begins to flow out of the vent-tube 17 it carries the ball-valve 22 into snug contact with the valve-seat at the inner end of the vent-hole 21 and prevents any further escape of oil.

Our improved chimney-holders or retaining-clips 24 are attached to the base in the usual manner by a bottom extension 25. These clips are formed of spring-wire of any suitable cross-section, but preferably of a flat wire or strap, so as to give more surface-bear-

ing contact. At their outer portions, adjacent to the rim of base 2, the retaining-clips or holders are bent up vertically to provide a stiff back brace 26, flared outwardly slightly at its upper end to form a receiving-lip 27, and then bent downwardly at 28 substantially parallel to the back brace, but divergent therefrom at the lower end, bent again parallel to and adjacent to the upper face of the base-rim, and curved back on itself at 29 toward the middle portion of member 28, and finally bent out again to form receiving-lip 29, opposed to lip 27. Thus a U-shaped spring-clasp 30 is formed within the back brace, and this is free to spring slightly against and away from said back brace. Any requisite number of these spring-holders 24, preferably four, are secured radially on the rim of the burner to retain the chimney.

The chimney is crowded down within the receiving-lips 27, and presses along the inside of straight portions 28 until it is clamped in at the bottom of the clasp 30. This movement brings the straight member 28 into frictional contact along the entire width of the chimney-flange and not merely at one single point as in the ordinary chimney-holders. Furthermore, the chimney cannot shift from side to side of the burner for the reason that clasps 30 hold it both inside and outside; also, it cannot be easily knocked off from the burner, because, when struck sidewise to topple it over, the spring-clasps 30 yield laterally by swinging on the upper end of 28 at the lip 27, and hence bind on one side against the back brace and go with the chimney inwardly on the other side.

Many variations in details may be made without departing from the spirit and scope of our invention.

What we claim is—

1. The combination with a lamp-burner, of a wick-cleaner consisting of a wire vertically pivoted in the burner-base opposite the middle portion of the wick-tube, and having its upper portion bent and sharpened upon opposite sides to sweep across the end of the wick-

tube and cut the wick from opposite directions, and having the lower portion of the wire bent outwardly and projecting slightly beyond the rim of the base, and a guide-rod secured at its ends to the base and forming therewith a guide-slot in which operates the outer projecting portion of the wick-cleaner, substantially as shown and described.

2. The combination with a lamp-burner, of a plurality of spring-holders, each comprising a stiff back brace extending vertically, and an inner clasp depending from the upper end of said back brace and arranged to spring relatively thereto, substantially as described.

3. The combination with a lamp-burner, of a plurality of spring-holders, each comprising a stiff back brace extending vertically, and an inner U-shaped clasp depending from the upper end of said back brace with its lower closed end adjacent to the upper face of the burner-base, and provided with an inwardly and outwardly curved upwardly-projecting receiving-lip, said clasp being arranged to spring relatively to said back brace, substantially as described.

4. A chimney-holder or retaining-clip, consisting of a piece of flat wire, bent so as to form a vertical back brace, a U-shaped spring-clasp adjacent thereto at the lower inner side, and a straight portion extending from the upper end of the back brace to the outer side of the clasp, the meeting ends of said brace and straight portion being curved outwardly and the inner upper end of the clasp curved inwardly to form receiving-lips to guide the chimney-flange, said holder being adapted to be secured at the lower end of the back brace to the rim of a lamp-burner, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

GEORGE B. M. KEPLER.
SAMUEL R. BASHORE.

Witnesses:

H. H. SNYDER,
C. E. STIMMEL.