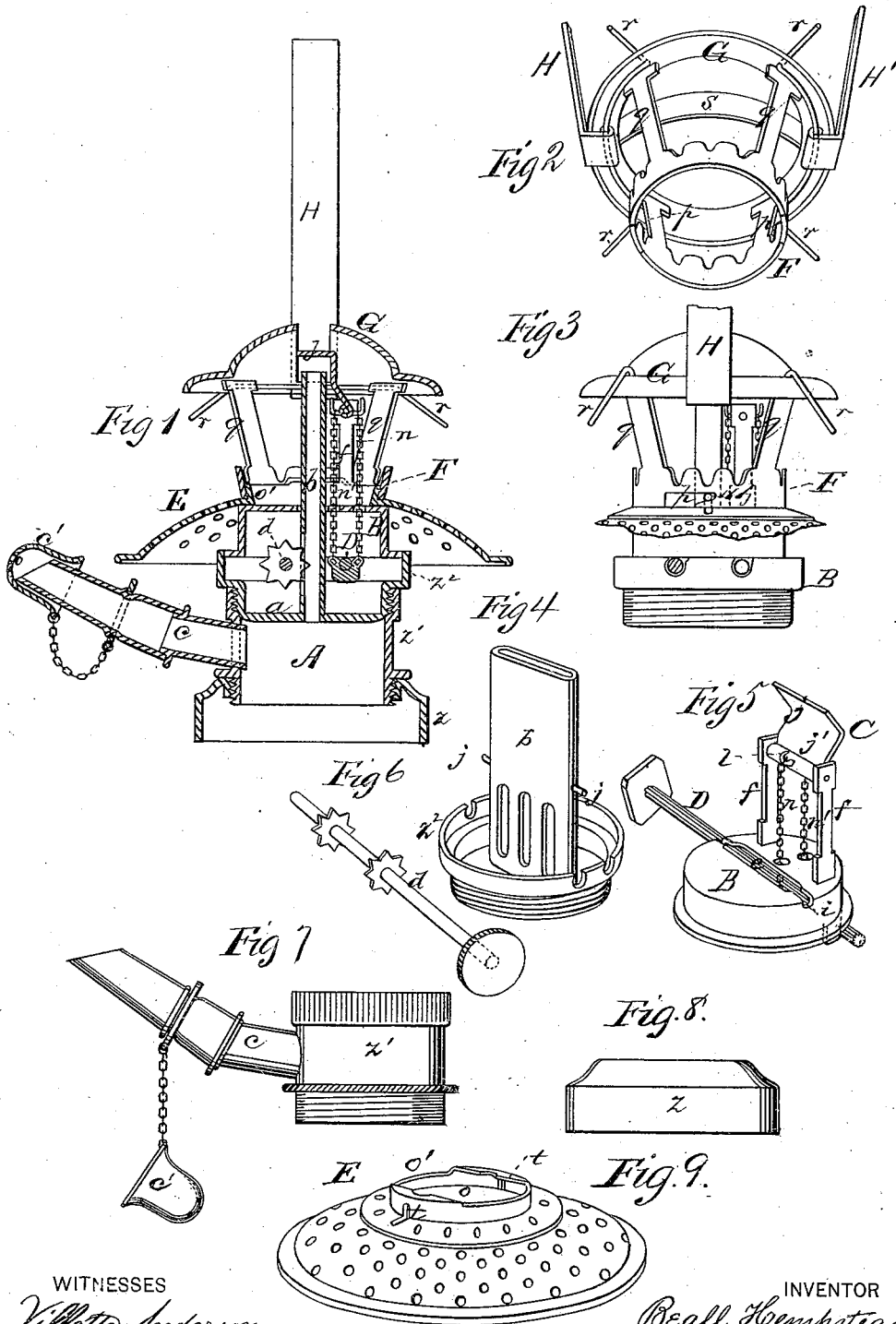


B. HEMPSTEAD.
LAMP-BURNER.

No. 191,141.

Patented May 22, 1877.



WITNESSES
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BEALL HEMPSTEAD, OF LITTLE ROCK, ARKANSAS.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **191,141**, dated May 22, 1877; application filed February 24, 1877.

To all whom it may concern :

Be it known that I, BEALL HEMPSTEAD, of Little Rock, in the county of Pulaski and State of Arkansas, have invented a new and valuable Improvement in Lamp-Burners; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section view of my improved lamp-burner; and Figs. 2, 3, 4, 5, 6, 7, 8, and 9 are detail views of the parts thereof.

My invention has relation to improvements in lamp-burners which are designed to be employed in connection with coal or other inflammable and explosive oils.

The objects sought to be obtained in my improved burner are, mainly, to prevent the breaking of the globe or chimney by shielding it from the contact of the flame; to render the parts most liable to be burned or worn out readily detachable from those which, from their positions, are not so liable, so that the injured or worn parts may be replaced; to render the cleaning of the parts of easier attainment, by connecting them detachably together; and, finally, to compass the filling of the lamp-body without danger to life or property from explosions.

The nature of my invention will be fully understood from the following description.

In the annexed drawings, the letter A designates the base of my improved burner, composed of three sections, z z^1 z^2 , and having at its lower end the usual means of attachment to the oil-receptacle of the lamp. Below the diaphragm *a*, which carries the wick-tube *b*, is a tube, *c*, extending out a sufficient distance and curving slightly upward. This tube opens into the base A, and through it the oil is introduced into the lamp without disturbing the burner or exposing the vapor of volatilization from the oil to be fired by the flame in the chimney. The induction end of this tube will be hermetically closed by a metallic cap, *c'*, fitting thereon snugly. The wick-tube will have two or more vertical slots, through which

the usual toothed wheels of the wick-raiser will project into it, and, by seizing upon the wick, raise or lower the same. The shaft *d* of the wick-raising attachment has its bearings in the upper edge of the base, and is maintained in position by a removable cap, B, having a diametric slot, *e*, by means of which it is passed over the wick-tube. It has also, at each end of the slot *e*, a reduced slotted extension, *i*, for the passage of a spur, *j*, projecting horizontally outward from the edges of the wick-tube. The object of these spurs I will hereinafter explain.

f represents two spaced standards erected upon cap B, extending upward to a point slightly below the upper end of the wick-tube, and affording bearings in their upper ends for a vertically-vibrating extinguisher-plate, C. This plate is L-shaped in cross-section, and in a certain position overhangs the wick-tube with one arm, *j*, while the other, *j'*, is parallel to the sides of the wick-tube. Plate C, at its lower edge, has two eyes, *l*, projecting out at right angles thereto, on opposite sides thereof.

To each of these eyes is rigidly secured a chain or rod, *n n'*, which extend down through cap B, the one being secured upon one side, and the other to the other side, of a shaft, D, through the rotation of which the extinguisher-plate is vibrated away from, or thrown over upon, the end of the wick-tube, for the purpose of cutting off the air-supply from the flame. E represents a perforated metallic plate, having a central circular opening, *o*, surrounded by an annular flange, *o'*, and having slots *t* formed at the edge of the opening, for the passage of the spurs *j* on the wick-tube. This plate is designed to support the chimney in the customary manner, and admits air to the flame through its perforations. F represents an annular metallic ring, which fits snugly over annular flange *o'* of the plate E, and is provided, upon its lower edge, with L-shaped slots *p*. These slots, together with spurs *j* on the wick-tube, form the usual well-known bayonet-catch, and serve to secure both the cap and plate removably to the base. From this ring the usual slotted tip or flame-shaping plate G is sustained by means of arms *q*, and the chimney is supported in a fixed upright position by means of radial spring-arms

r, extending out from the edges of the tip, as shown.

H H' represent adjustable metallic plates arranged diametrically opposite each other, one at each end of the slot *s* of the tip-plate G. These plates are of a width about equal to that of said slot, and guard the chimney from direct contact with the flame when passed into the chimney, as the latter is fastened on the burner. These strips are hinged to the tip at their lower ends, and will bear at their free ends against the chimney-walls.

I may sometimes form the plate E and slotted tip G together—that is, non-detachable. In this case the bayonet-catch slot will be formed in the flange *o'* of the former, and the arms *q* will project directly from said flange.

What I claim as new, and desire to secure by Letters Patent, is—

1. The lamp-burner consisting of the base A, having wick-tube *b*, the detachable cap B,

carrying the extinguisher C, the detachable chimney-supporter E, and detachable tip or flame-former G, combined, arranged, and operating substantially as specified.

2. In a lamp-burner, the combination of the base A, having wick-tube *b*, with spurs *j*, the detached cap B, and chimney-supporter E, with the tip-plate G, having L-shaped slots *p*, engaging with the said spurs, substantially as specified.

3. The lamp-burner consisting of the base A, having tube *b*, the cap B, chimney-supporter E, and tip G, detachably secured together, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

BEALL HEMPSTEAD.

Witnesses:

JNO. C. PEAY,
SAM. CHURCHILL.