

T. HIPWELL.
LAMP.

No. 477,366.

Patented June 21, 1892.

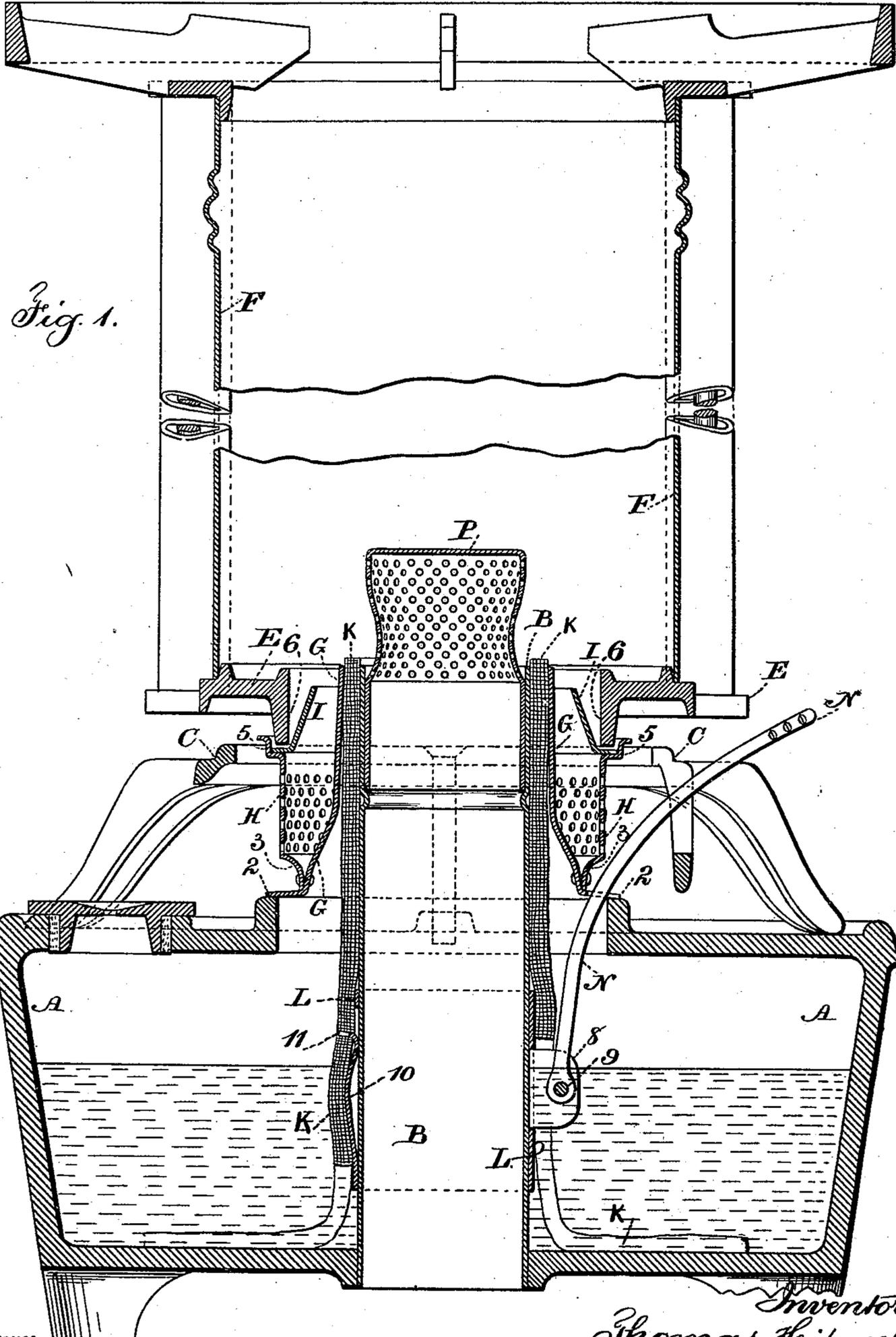


Fig. 1.

Witnesses
 Charles Smith
 J. Strait

Inventor
 Thomas Hipwell.
 per Lemuel W. Terrell

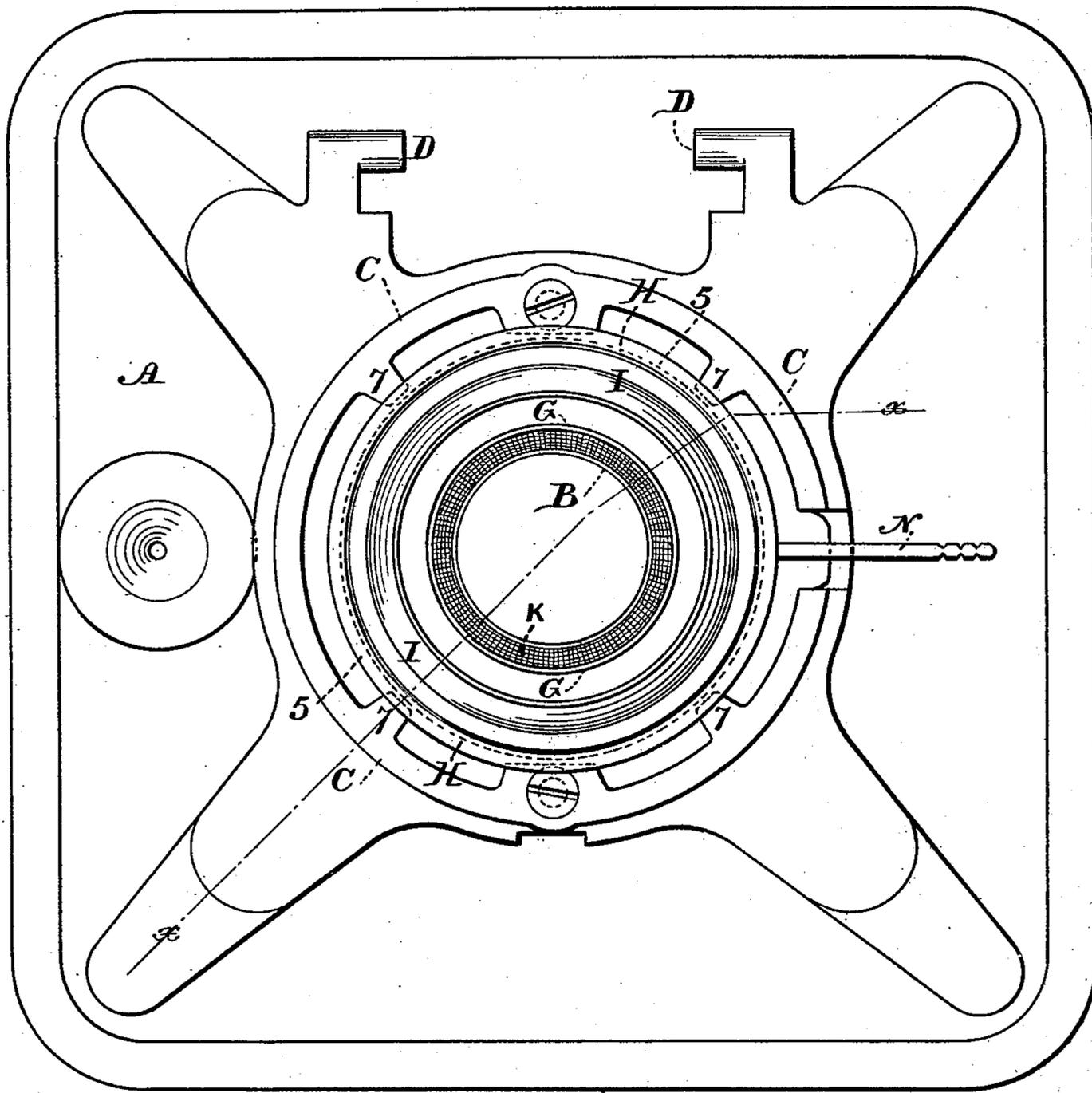
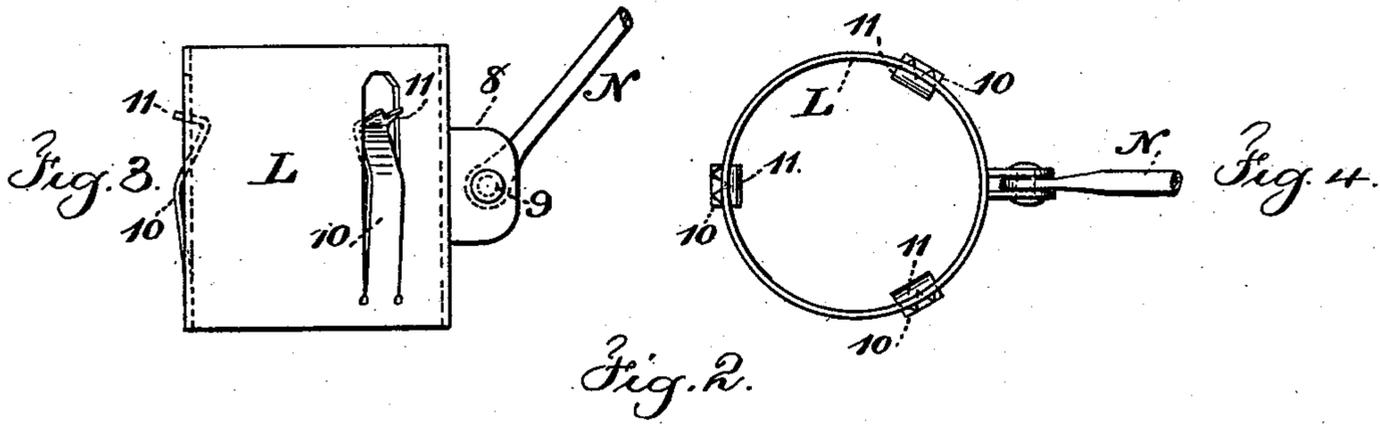
(No Model.)

3 Sheets—Sheet 2.

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Witnesses
 Char. H. Smith
 J. Staib

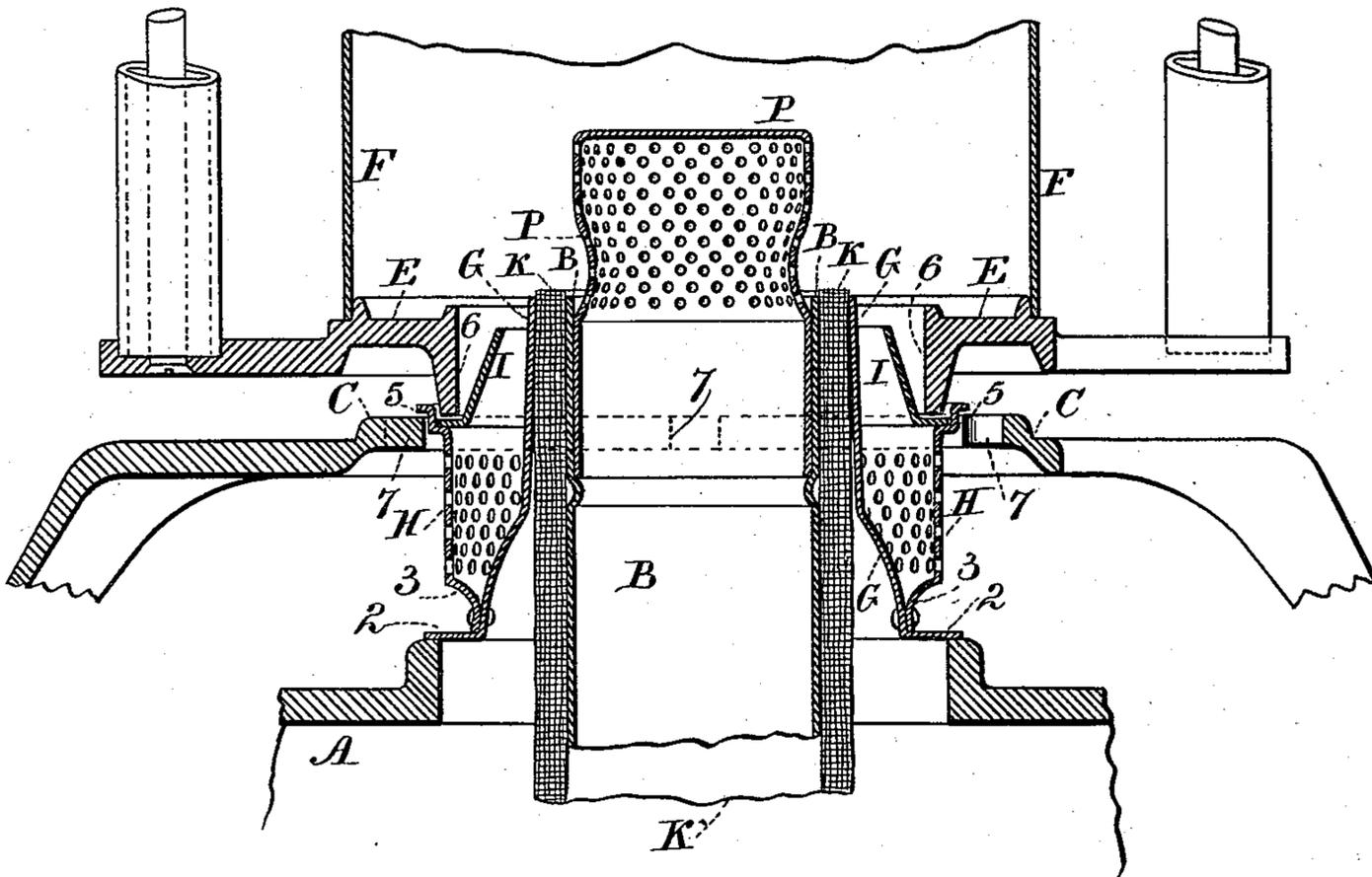
Inventor
 Thomas Hipwell
 per Lemuel W. Serrell
 atty.

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Fig. 5.



Witnesses

Chas. N. Smith
Geo. T. Pinckney

Inventor

Thomas Hipwell
per Lemuel W. Serrell
Atty.

UNITED STATES PATENT OFFICE.

THOMAS HIPWELL, OF LONG ISLAND CITY, ASSIGNOR TO THE MANHATTAN BRASS COMPANY, OF NEW YORK, N. Y.

LAMP.

SPECIFICATION forming part of Letters Patent No. 477,366, dated June 21, 1892.

Application filed September 24, 1891. Serial No. 406,629. (No model.)

To all whom it may concern:

Be it known that I, THOMAS HIPWELL, a citizen of the United States, residing at Long Island City, (Astoria,) in the county of Queens and State of New York, have invented an Improvement in Lamps, of which the following is a specification.

This invention is especially intended for large Argand burners, such as are made use of in lamp-stoves; but some portions of this improvement may be used with other Argand burners.

In oil-stoves and lamps difficulty has arisen in consequence of the wick slipping down by the concussion or jar to which the lamp is often subjected, and in such cases the flame frequently passes down into the fountain, and the oil being in a more or less heated condition becomes ignited, and dangerous accidents often ensue.

By my present invention the wick is grasped and held very firmly by the wick-raiser, and there is a friction applied to this wick-raiser upon the air-tube, so that the risk of the wick dropping down is obviated, and I make the upper portion of the burner, which rests upon the oil-fountain, so that but little heat is conducted to such fountain, and this is especially available where the chimney of the lamp is used for heating purposes.

In the drawings, Figure 1 is a vertical section of the present improvements as applied to an oil-stove. Fig. 2 is a plan with the chimney removed. Fig. 3 is a detached elevation of the wick-raising device. Fig. 4 is a plan of the same; and Fig. 5 is a section of the burner at the line *x x*, Fig. 2.

The reservoir or oil-holder A is of any desired character. In the drawings it is represented as a square box supported by feet, and the air-tube B passes vertically through the bottom and rises above the top of the reservoir, there being an annular opening in the top of the reservoir around the air-tube, as usual in this class of lamps, and I have represented a chimney-support C, having legs that are fastened to the top of the reservoir and provided with hinge pivots or catches at D for the bottom plate E of the chimney F. This chimney is represented as adapted to heating purposes, and the support, bottom

plate, and chimney are of the usual character in lamp-stoves, and the slip-hinge connection at D on the chimney-support which engages downward projections on the bottom plate E of the chimney is well known in the trade.

The sheet-metal burner usually provided in this class of stoves has been soldered together and is liable to come apart in consequence of the great heat to which it is exposed. To obviate this difficulty, I make the wick-tube G flaring at the lower end and provided with a horizontal flange 2, resting upon the top of the reservoir, and the perforated air-distributor H surrounds the wick-tube at a suitable distance therefrom, and it is contracted at its lower end, as shown at 3, to set closely around the flaring portion of the wick-tube G, and the two parts are connected by rivets or similar devices—such as teats—struck up in the metal. There is a flange and rim 5 at the upper end of the air-distributor H, upon which is received a conical deflector I, the upper edge of which is slightly below the top end of the wick-tube G, and upon the bottom plate E of the chimney is a downwardly-projecting cylindrical flange 6, which comes above the flange of the conical deflector I, so that neither the deflector I nor the wick-tube or air-distributor can become displaced, because such flange 6 is within the rim of the flange 5, but does not quite touch the deflector or its flange. Hence the parts are retained in position and the bottom plate E of the chimney is held firmly in its elevated position by the hinge and catch by which it is connected to the chimney-support C, and the slight space that is left between the lower edge of the flange 6 and the flange of the deflector I prevents the heat of the chimney from being conducted down to the wick-tube and reservoir, and thus the oil does not become as much heated as heretofore usual, and the conical deflector I, being separate from the air-distributor H, can be easily lifted off for cleaning the interior of the air-distributor.

It will be observed in Fig. 2 that the chimney-support C is in the form of a ring where it surrounds the air-distributor; but the interior of such ring is considerably larger than the air-distributor, and there are fingers 7, (see

Fig. 2,) projecting inwardly to aid in guiding the wick-tube and air-distributor and holding them centrally in position upon the lamp, and when the lamp is to be trimmed or cleaned the wick-tube, air-distributor, and deflector are easily lifted away from the reservoir, and this gives free access to the wick K upon the central air-tube for adjusting or renewing the same.

Wick-raising devices have heretofore been made in which there are claws that engage with the wick for raising and lowering the same. I employ a cylinder L, which is of a size to slide freely upon the air-tube, and there are projecting flanges 8, between which is received the wick-raising rod N, the parts being connected by a rivet 9, and this cylinder L is cut vertically to produce the spring-tongues 10, that are bent inwardly at their upper ends to form friction-springs upon the air-tube, so that the wick and its cylinder L can be moved up and down upon the air-tube; but the spring-tongues hold the same at any place to which it may be moved, and the extreme upper ends of the tongues 10 are bent outwardly to form claws 11, which penetrate the wick-tube; and it will be now understood that when the cylinder L is raised, so that its upper end comes above the top of the air-tube B, the spring-tongues 10 draw inwardly, and the claws 11 are not in the way of applying the wick around this cylinder L, and such wick can be drawn down and adjusted properly in its position, and it is usually preferable to slit the lower end of the wick, so that such wick extends outwardly in the oil and will draw up oil to the flame until the wick has been nearly burned up, and as soon as the cylinder L is pressed downwardly, carrying with it the wick, the claws 11 are forced outwardly into the wick by the air-tube, which operation is simultaneous with the springing outwardly of the tongues, so as to cause them to exert the proper friction for holding the wick-cylinder and wick in position.

I have represented a perforated thimble P at the upper end of the air-tube to direct the air into the flame. This, however, does not form any part of my present invention.

The flange 2 of the wick-tube is notched at one side for the passage of the wick-raising rod N.

I claim as my invention—

1. The combination, with the air tube and reservoir in a lamp-stove, of a wick-tube flaring outwardly at its lower end and having a flange resting upon the reservoir, a perforated air-distributor having a flange and rim at its upper end and contracted at its lower end to set closely upon the wick-tube and permanently connected thereto, and a separate deflector, the flange of which rests upon the flange of the air-distributor, and a stationary surrounding chimney-support with inwardly-projecting fingers to hold the removable parts of the burner in position, substantially as set forth.

2. The combination, with the air-tube and reservoir in a lamp-stove, of a wick-tube flaring outwardly at its lower end and having a flange resting upon the reservoir, a perforated air-distributor having a flange and rim at its upper end and contracted at its lower end to set closely upon the wick-tube and permanently connected thereto, a separate deflector, the flange of which rests upon the flange of the air-distributor, a chimney having a bottom plate with a downwardly-projecting flange over the flange of the conical deflector, and a stationary surrounding chimney-support with inwardly-projecting fingers to hold the removable parts of the burner in position, substantially as set forth.

Signed by me this 17th day of September, 1891.

THOMAS HIPWELL.

Witnesses:

JOHN J. WRENN,
CHAS. J. COLLINS.