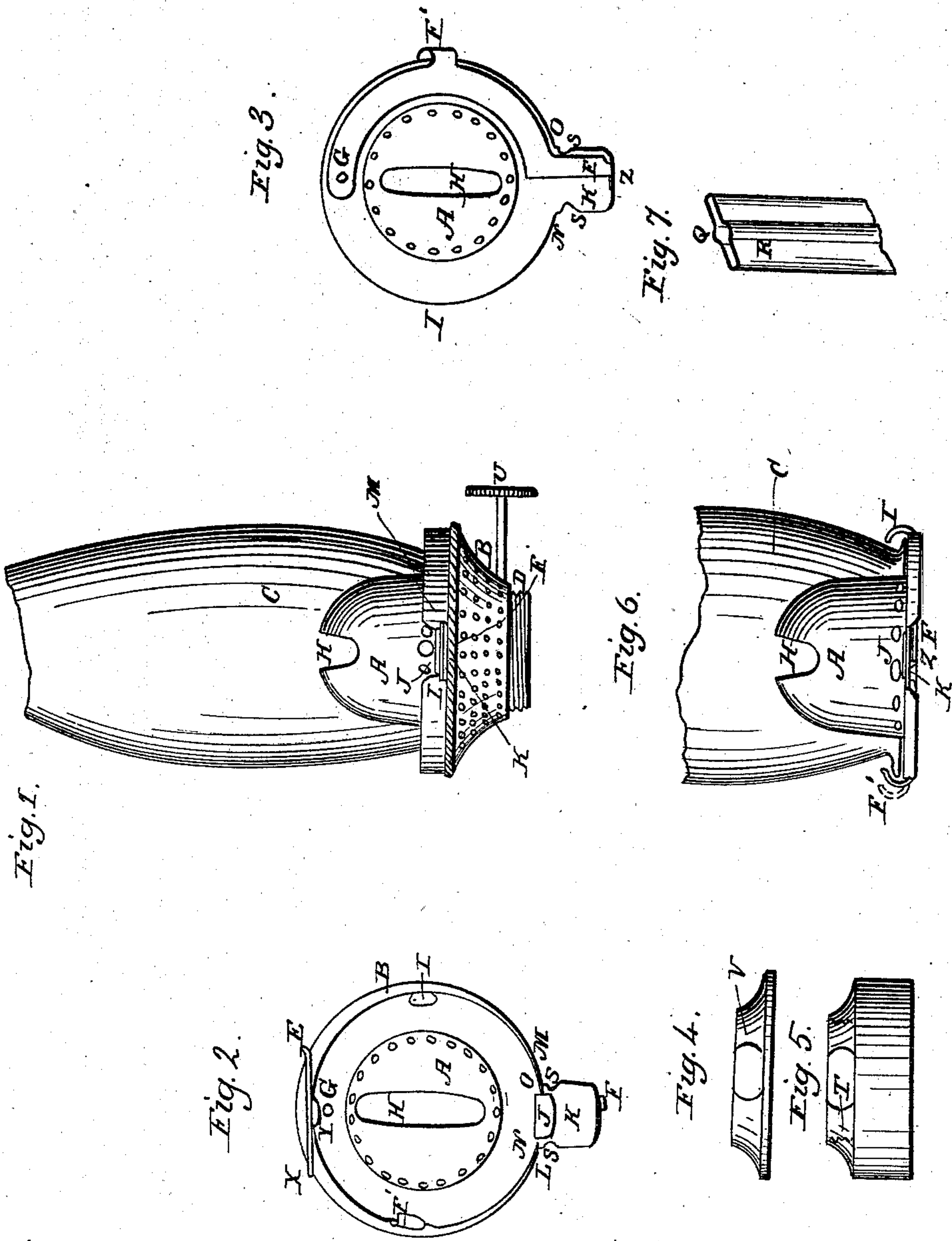


J. & A. W. SANGSTER.
Lamp Chimney Fastening.

No. 36,802.

Patented Oct. 28, 1862.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES SANGSTER AND AMOS W. SANGSTER, OF BUFFALO, NEW YORK.

IMPROVEMENT IN LAMP-CHIMNEY FASTENINGS.

Specification forming part of Letters Patent No. 36,802, dated October 28, 1862

To all whom it may concern:

Be it known that we, JAMES SANGSTER and AMOS W. SANGSTER, of Buffalo, in Erie county, and State of New York, have invented certain new and useful Improvements in Coal - Oil Burners; and we do hereby declare that the following description of our method of constructing the same is sufficiently clear and exact to enable others skilled in the art to make and use our invention.

In the accompanying drawings, which form a part of this specification, the same letters in Figures 1, 2, 3, 4, 5, 6, and 7 represent similar parts in each.

The nature of our invention consists in an improvement by which the chimney can be attached and detached with ease and facility, and a new arrangement by which a lamp can be filled without the necessity of taking off the burner; also a new method of giving vent to the burner.

Fig. 1 is a side elevation representing the burner and chimney, and an end view of the handle (which forms a part of the deflector) by which the deflector and chimney may be attached and detached to or from the burner; also two shoulders which project from the burner partly over each side of the handle. Fig. 2 is a plan view of the burner, representing the deflector and a spring, which, in connection with the handle, holds the deflector to its place on the burner; also the parts which hold the chimney to its place on the deflector. Fig. 3 is a view of the deflector inverted, showing a lever by which the chimney may be attached or detached to or from the deflector. Figs. 4 and 5 represent the collar to which the burner is screwed, and a cap which fits exactly over the top of said collar. There is also represented an aperture in the collar and the cap. These apertures are used for filling the lamp without the necessity of taking the burner off the lamp. Fig. 6 is a side elevation representing part of the chimney and the deflector, and showing the way in which the chimney is attached to or taken from the deflector. Fig. 7 represents the wick-tube, with the grooves through which the gas forming in the lamp may escape near the light to be burned, instead of escaping outside and producing an unpleasant odor.

The burner is constructed of brass or any

other suitable metal (but brass is best) by the machinery commonly used for that purpose.

C represents the chimney; A, the deflector; H, the flame-aperture.

B is the part of the burner which is perforated for ventilation, and to which the wick-tube is attached.

D is the part of the burner which screws into the collar.

U is the thumb-piece by which the wick is turned up or down by means of the toothed wheels now in common use.

K is a thumb-piece or handle, which is attached to and forms part of the deflector. It is made narrower at the points S S.

L and M are two shoulders, which project over each side of the thumb-piece far enough to hold it and the deflector in their place. Those projections L and M are a part of burner B.

J is a piece either raised up or put on to the thumb-piece, the sides of which fill up the space between the shoulders L and M, so that the thumb-piece K cannot move sidewise.

F represents a lever, which moves upon a joint at G.

F' is a lip forming a part of said lever, which is bent up and projects inward and just far enough over the base of the deflector to catch and hold the chimney. Of course, this lip and lever are made movable.

I is another lip, which is stationary, and is a part of the deflector. This lip is also bent up and inclines over far enough to catch the flange at the base of the chimney.

E is a spring, which is fastened at the point X and works easily through an aperture at the opposite end.

The burner is operated as follows: The chimney is first fastened to the deflector, which is done by moving the lever F to the left, which brings the lever and the lip F' into the position indicated by the dotted lines in Fig. 6. The flange at the back of the chimney is then slipped under the piece i, as shown in said Fig. 6, and then the lever F is moved back until it slips over the notch Z, which keeps it in its place. This brings the lip F' over the chimney-flange on the opposite side. The chimney is now held firmly to its place on the deflector. The next operation is to fasten the deflector to the perforated part of the burner.

This is done as follows: The deflector and chimney are held by the thumb-piece K, and the opposite side of the base of the deflector and chimney-flange are slipped under the lip Y on the spring E in Fig. 2. The deflector is then pressed against said spring E until the narrow parts of the thumb-piece, which are represented by the letters S S, are brought opposite to the shoulders L and M. The thumb-piece is then pressed downward, when the spring E forces the deflector forward and brings the wider parts to the thumb-piece N and O under the shoulders L and M. This fastens the deflector to its place on the perforated cap. The burner is then screwed fast to the collar shown at Fig. 5, after the cap, Fig. 4, is placed upon it. This brings the cap, Fig. 4, between the collar, Fig. 5, and the burner. The collar, Fig. 5, is cemented to a lamp in the usual way by plaster-of-paris. When it is found necessary to fill the lamp with oil, the cap, Fig. 4, is moved around until the aperture V is opposite to aperture T in collar, Fig. 5. The lamp can now be filled. The aperture is closed by turning the cap until the said apertures V and T are brought past each other. The cap may

be made tight by screwing the burner down against it, and it is made to turn around easily by slightly unscrewing the burner. As the wick is worked in this burner as in all burners in common use, the operation need not be described here.

The lever F is riveted at the point G, so as to lie close to the bottom of the deflector and spring up against it when forced below the tooth or piece Z.

We do not claim securing the chimney to the movable deflector and both of them to the lamp-cap by means of a spring, as that has been long in common use.

Having thus described our machine, what we claim, and desire to secure by Letters Patent, is—

The stationary lip I, the movable lip on the lever F, the spring E, the thumb-piece K, and the aperture V, arranged in the manner and for the purpose herein set forth and described.

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Witnesses:

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