C. D. HUDDLE.

ATTACHMENT FOR LAMP CHIMNEYS.

APPLICATION FILED JAN. 15, 1910.

965,523. Patented July 26, 1910.

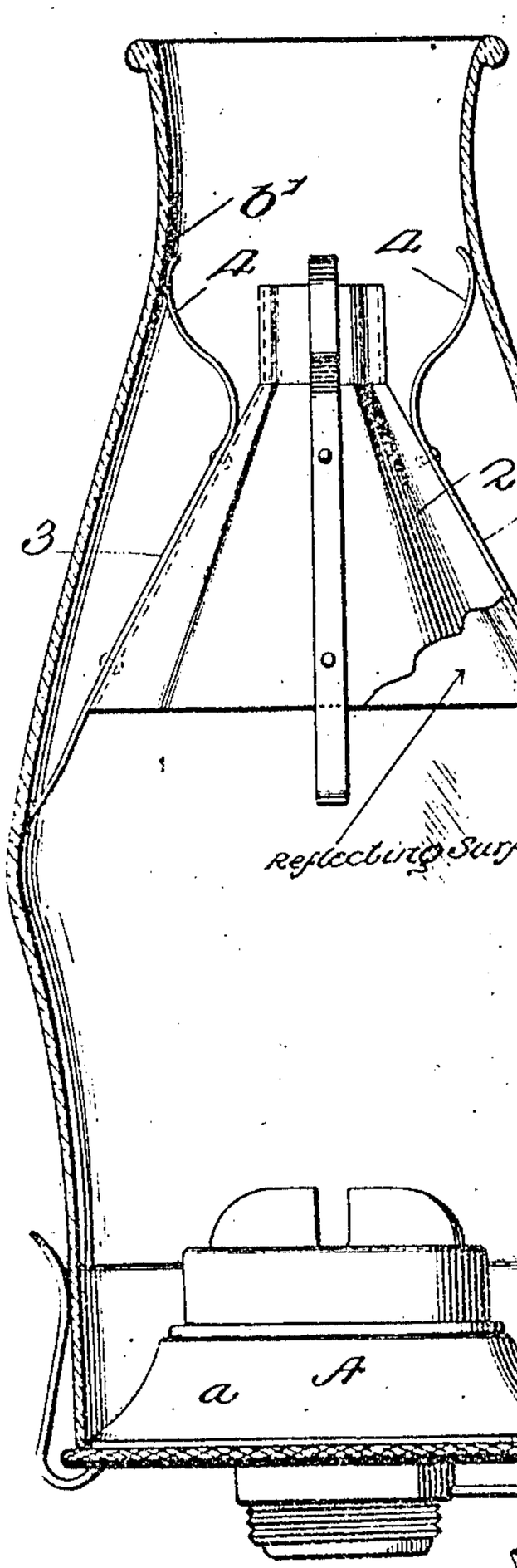

FIG. 1.

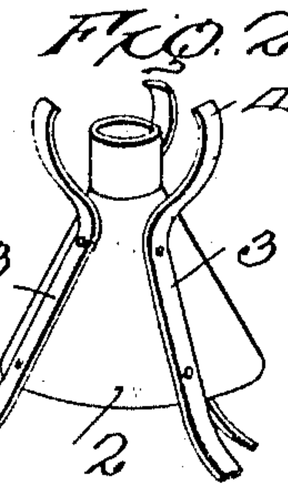

FIG. 2.

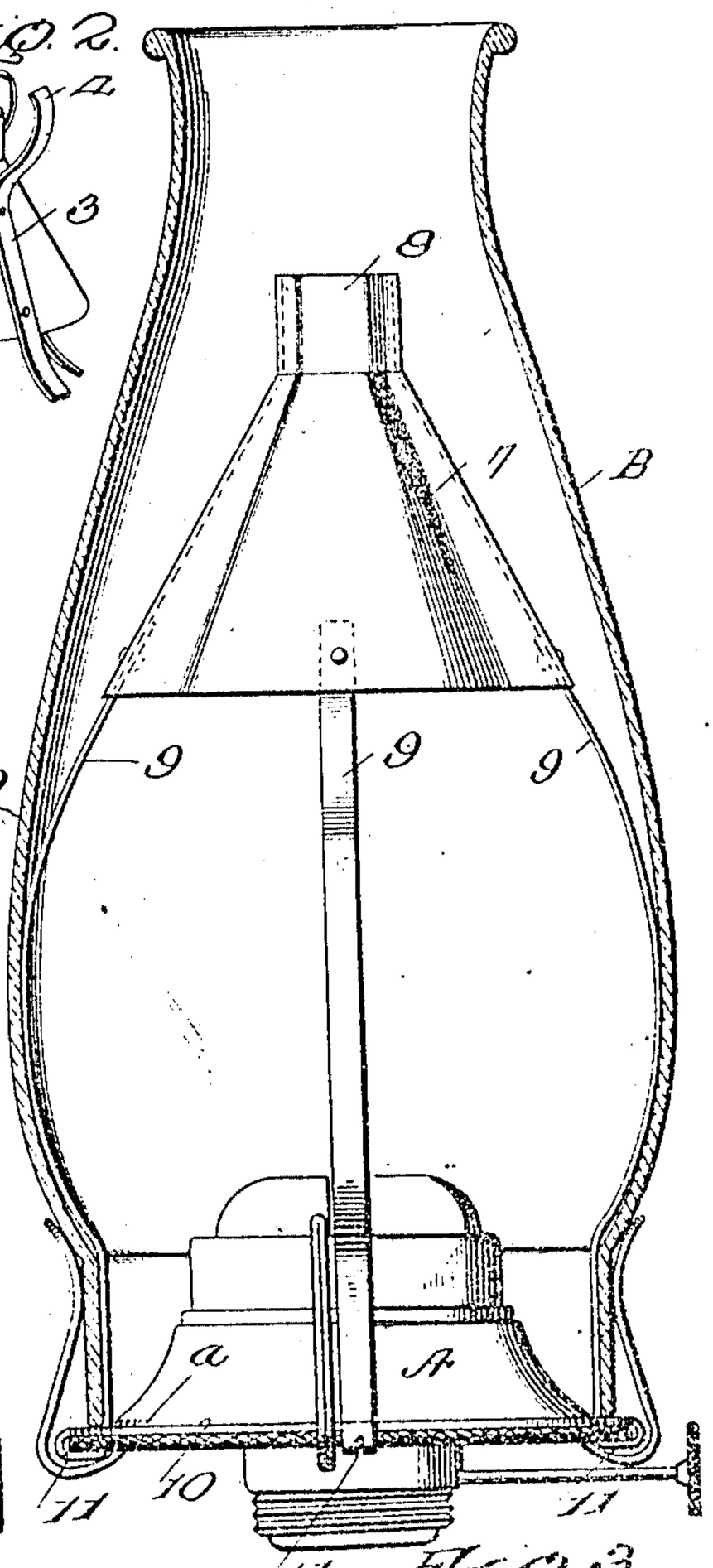

FIG. 3.

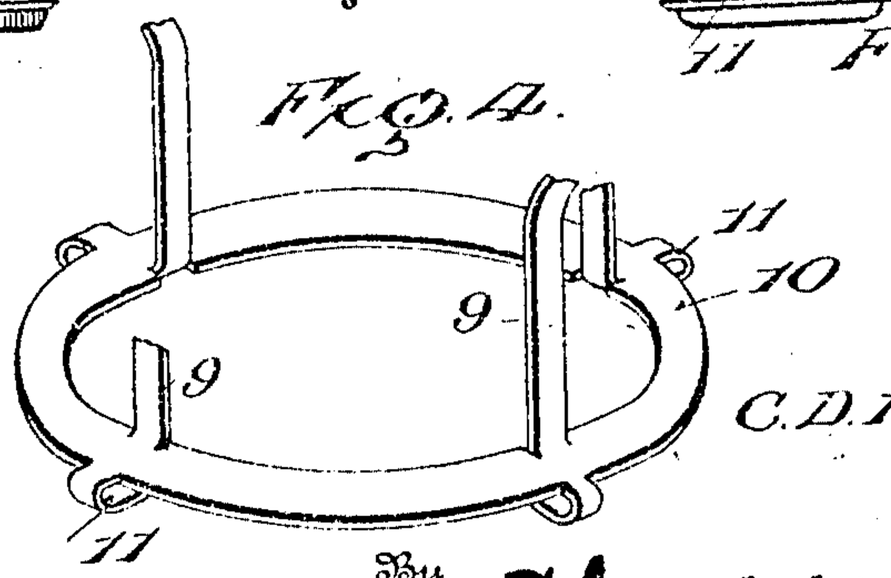

FIG. 4.

Witnesses
W. A. Woodcock
Juana M. Fallin

Inventor
C. D. Huddle

By H. A. Macy, Attorneys.

UNITED STATES PATENT OFFICE.

CALHOUN D. HUDDLE, OF DRAPER, VIRGINIA.

ATTACHMENT FOR LAMP-CHIMNEYS.

965,523. Specification of Letters Patent. Patented July 26, 1910.

Application filed January 15, 1910. Serial No. 538,299.

To all whom it may concern:

Be it known that I, CALHOUN D. HUDDLE, citizen of the United States, residing at Draper, in the county of Pulaski and State of Virginia, have invented certain new and useful Improvements in Attachments for Lamp-Chimneys, of which the following is a specification.

My invention relates to the burners and chimneys of oil lamps, and particularly to a device adapted to be supported above the lamp so as to direct the heated air and smoke toward the center of the space inclosed within the chimney, the object of the invention being to prevent smoking of the chimney, to prevent the chimney breaking because of the heat of the flame, to prevent the light being extinguished by down drafts, and to permit the flame to be turned up so that the lamp will give better light without danger of smoking.

The invention consists essentially in a conical hood supported within the lamp chimney and above the burner of the same, the small end of the hood being located upward, this hood acting to direct the heated air and the products of combustion toward the center of the space inclosed by the chimney and away from the chimney itself, the hood also acting to minimize down drafts and thus lessen the chance of the flame being blown out.

A still further object of the invention, in one of its forms as contemplated by me, is to minimize the chance of the chimney being accidentally disengaged from the burner or chimney base.

For a full understanding of the invention and the merits thereof, and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a longitudinal section of a lamp chimney, the burner being shown in elevation, with my invention shown in place therein; Fig. 2 is a perspective view of the conical hood detached from the burner; Fig. 3 is a side elevation of a burner, the chimney thereon being shown in section, with another form of my invention applied thereto; and, Fig. 4 is a fragmentary perspective showing the ring for supporting the hood upon the burner base.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to Figs. 1 and 2, in which the simplest form of my invention is shown; A designates a burner of any usual character, and B the chimney thereon, this chimney being formed with the usual enlarged portion *b* and the upper contracted neck *b'*. My invention consists in the use within the chimney of an inverted conical hood 2 which is smaller than the chimney itself and is therefore spaced therefrom, the upper and lower ends of this hood being open. The hood is supported above the burner in any suitable manner. As shown in the figures above referred to, the hood, which may be of metal or of any refractory substance, is provided with the supporting strips 3 which are attached to the hood in any suitable manner, the upper ends of the strips being bent outward, as at 4, to engage with the lamp chimney below the neck *b'* thereof, while the lower ends of the strips extend outward in line with the conical face of the hood and at their lower ends are slightly bent outward so as to engage the lamp chimney in the enlarged portion *b* thereof which is below that part of the bulge where the lamp chimney commences to contract. The supporting strips 4 are preferably resilient so that the hood 2 may be placed within any ordinary sized lamp chimney and will be held therein by the resilience of the strips 4. As shown, the strips 4 are riveted to the hood 2, but any desired means of attaching the strips may be used.

In Figs. 3 and 4 I show another form of my invention which, while it contains the essential features present in the form previously described, also provides means for preventing the detachment of the chimney from the burner. In these figures, A designates the burner and B the chimney. 7 designates the conical inverted hood, preferably of refractory material, the upper end of this hood being formed with a contracted neck 8. The lower end of the hood is attached to resilient supporting strips 9 forming standards which are curved outward to fit approximately the outward bulge or curve of the lamp chimney, the lower ends of the strips being engaged with or mounted upon the

base of the burner A. Preferably, in order to detachably support the strips 9 upon the burner A, I provide the lower ends of the strips 9 with the ring 10 which is of sufficient size to fit upon the base of the burner A which is outside of the shoulder *a*, and I also provide the ring 10 with clamps which are adapted to engage the base of the burner, these clamps preferably having the form of tongues 11 which are inwardly bent to engage the under side of the base when the attachment is placed upon the burner. By this means, I make my attachment detachable from the body of the burner, but it will be obvious that it might be permanently attached thereto.

While I do not wish to limit myself to any particular material for the hood, it is preferably made of material having a reflecting inner surface, as such a surface acts to give an increased light.

The advantages of my invention are as follows: The inverted cone supported above the flame and in spaced relation to the chimney, prevents the smoking or smutting of the chimney. This is effected by reason of the hood being of sufficient size to entirely cover the flame. The heated products of combustion, however, rising from the flame, are directed by the hood inward so as to form a heated column of air rising through the center of the chimney and not coming in contact with the chimney itself. By reason of this fact that the heated products of combustion are kept away from the chimney, the light may be turned higher than with the ordinary chimney, and thus a larger flame may be used, resulting in a better light.

My attachment also decreases very materially the breakage of chimneys, due to the heat of the flame, by reason of the heat being directed toward the center of the chimney and being kept away from the walls of the chimney, thus the chimney remains cool at all times. Further, the cone prevents the extinguishing of the light by reason of strong gusts of air forced down the chimney, as when the lamp is being carried out of doors, or in places where there is a strong draft. It will be obvious that a down draft of air will be diverted toward the chimney, and only a relatively small proportion will pass down through the central opening and strike the flame.

With the construction shown in Fig. 3, an additional advantage is gained, in that the attachment secures the chimney to the burner in such a manner that the chimney cannot be displaced by any jar or blow. This is effected by means of the standards 9 which, bulging outward as they do, correspond to the outward curve of the chimney, and by reason of the spring therein, secure the chimney firmly in place, at the same time permitting the chimney to be lifted in order to light the lamp.

While I have shown what I believe to be the essential features of my device, and the best form thereof, I do not wish to be limited to these details of construction, as it is obvious that the principles of the invention might be embodied in a number of differing forms.

It will be obvious also that the device is adapted for use on all kinds of kerosene lamps and lanterns using chimneys, and that the attachment may be so shaped as to be adapted for use in any shape of chimney.

While I have described the hoods 2 and 7 as being made of metal and as preferably having a reflecting inner surface, I wish it understood that I may use any suitable material for this purpose, this material being preferably refractory, and that I may use for this purpose mica or other transparent refractory material.

Having thus described the invention, what I claim is:—

1. An attachment for lamp chimneys, including a conical hood open at both ends, and resilient strips outwardly extending from the lower portion of the hood and adapted to engage the inside face of a lamp chimney, said strips acting to support the hood and center the same.

2. The combination with a lamp burner, of a conical hood open at both ends, and downwardly extending strips attached to the margin of the hood and at their lower ends engaging with the burner to support the hood thereon, the intermediate portion of the strips being outwardly bowed for frictional contact with the inner face of the chimney along their whole extent.

3. An attachment for lamps, comprising a ring adapted to fit upon the base of a lamp burner, clamps on said ring, for engaging said base, upwardly extending supports on the ring and a conical hood mounted on the upper end of the supports.

4. An attachment for lamps, comprising a ring adapted to be attached to the base of a lamp burner, outwardly extending tongues on the ring adapted to be bent beneath the base of the burner, supports on the ring, and a conical hood mounted on the upper ends of the supports, the hood being open at both ends.

5. An attachment for lamps, comprising a ring adapted to fit over the base of a burner and having clamps for engaging said base, upwardly extending supports on the ring, a conical hood mounted on said supports and open at its upper and lower ends, and a contracted upwardly extending neck

on the upper end of said hood, said supports being resilient and outwardly curved to fit against the inner face of the chimney.

6. An attachment for lamp burners comprising outwardly bowed, resilient members adapted to have frictional engagement with the inside face of a lamp chimney, said members at their lower ends being formed with clamping tongues returned on themselves to engage with the edge of the base of a lamp burner, and a conical hood supported upon the upper ends of said strips and open at both ends.

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

CALHOUN D. HUDDLE. [L. S.]

Witnesses:
CHARLES JOHNSON,
HARRY C. PEDIGO.