

No. 692,701.

Patented Feb. 4, 1902.

W. A. PENFIELD.
LAMP BURNER.

(Application filed Jan. 15, 1901.)

(No Model.)

Fig. 1

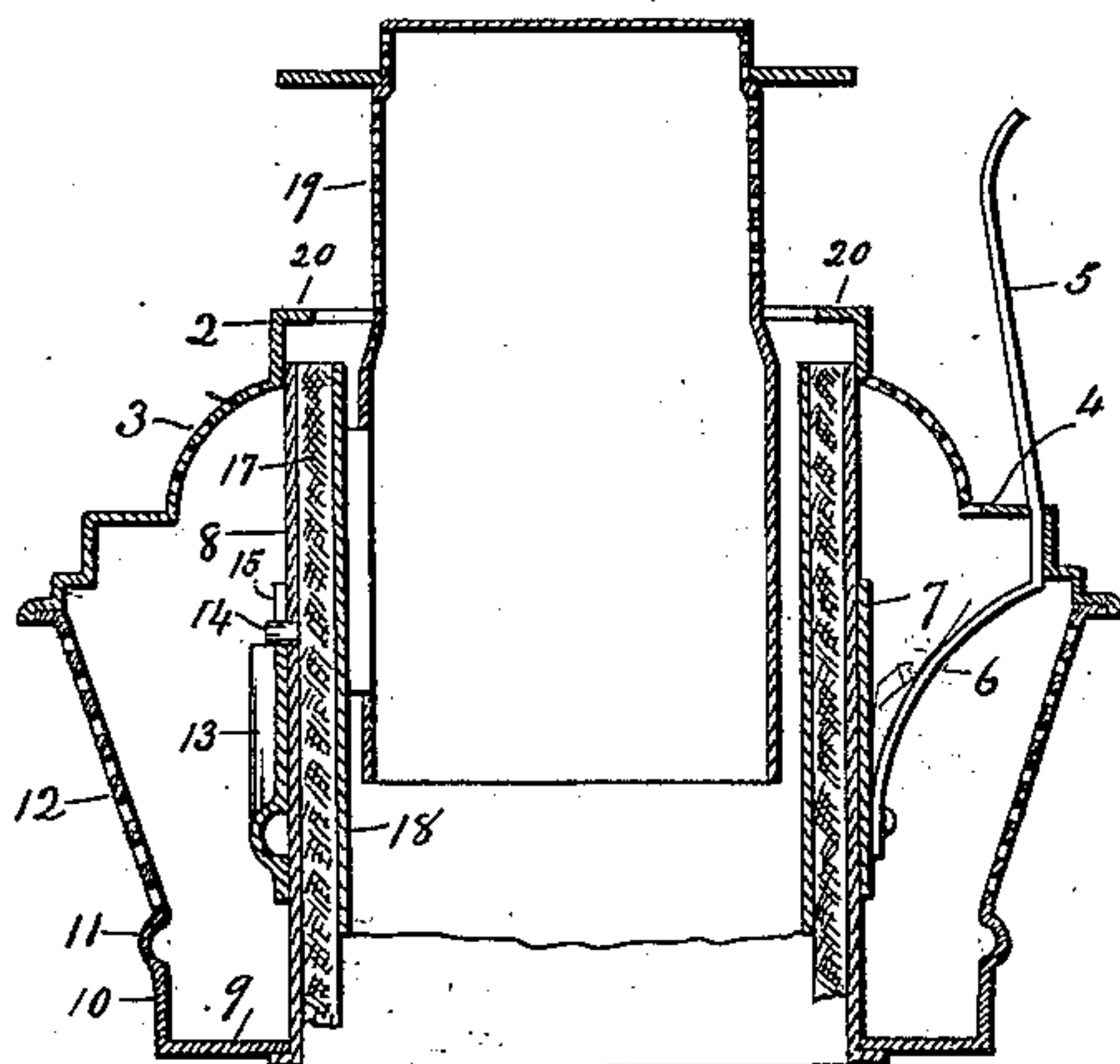


Fig. 3

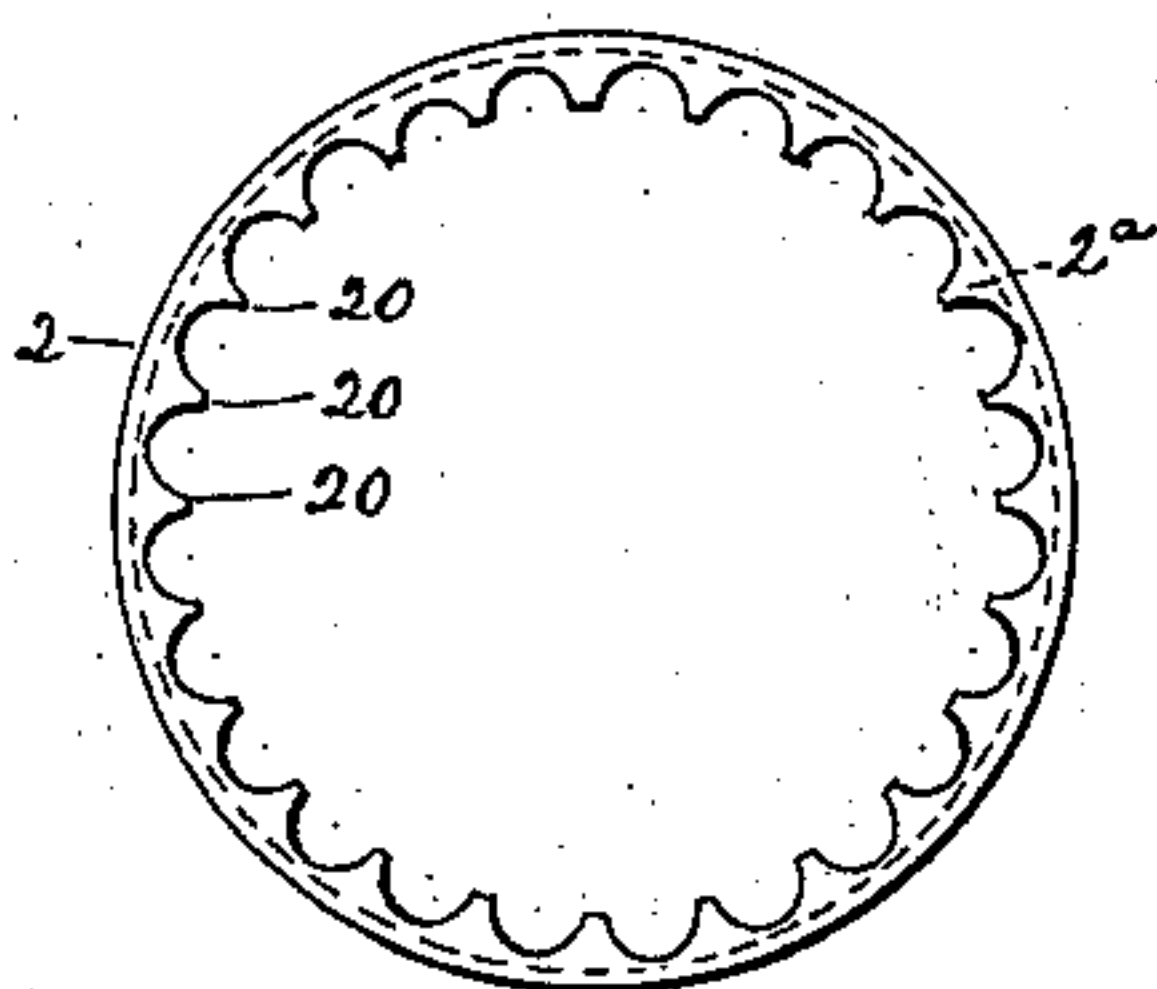


Fig. 6

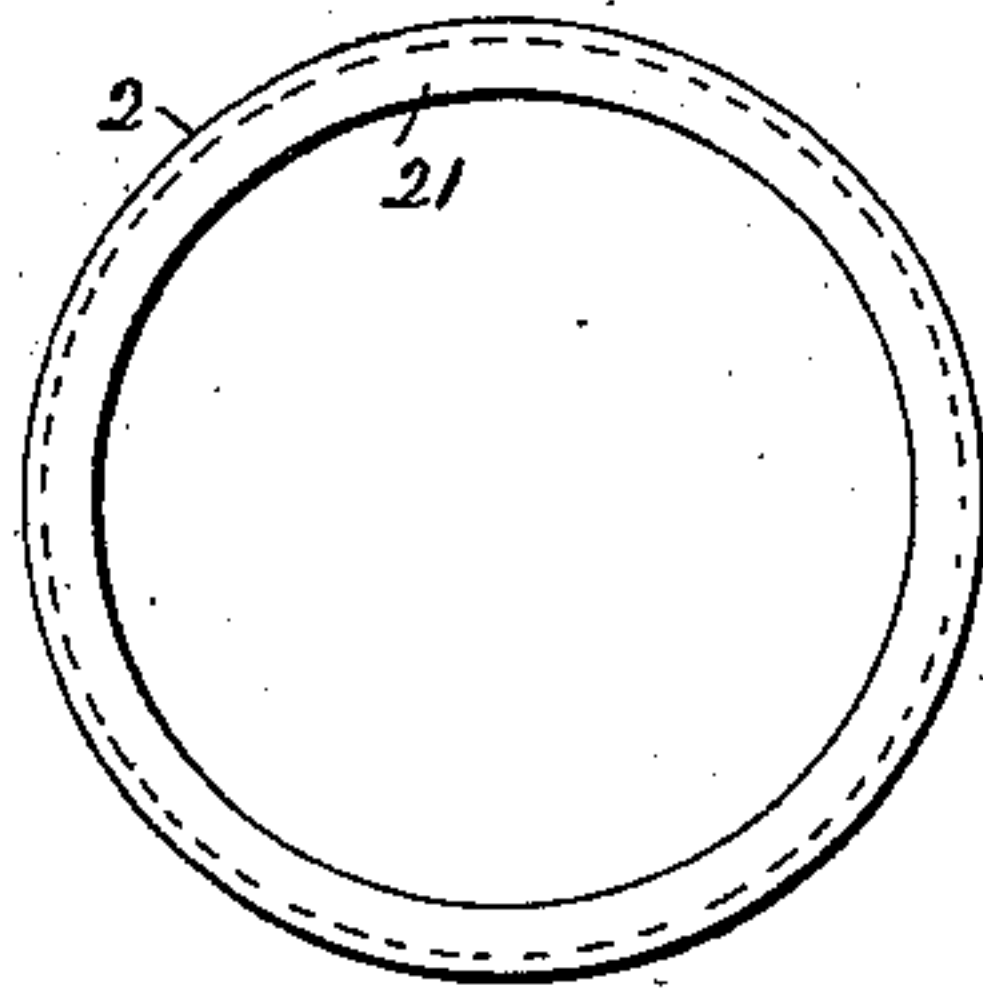


Fig. 4

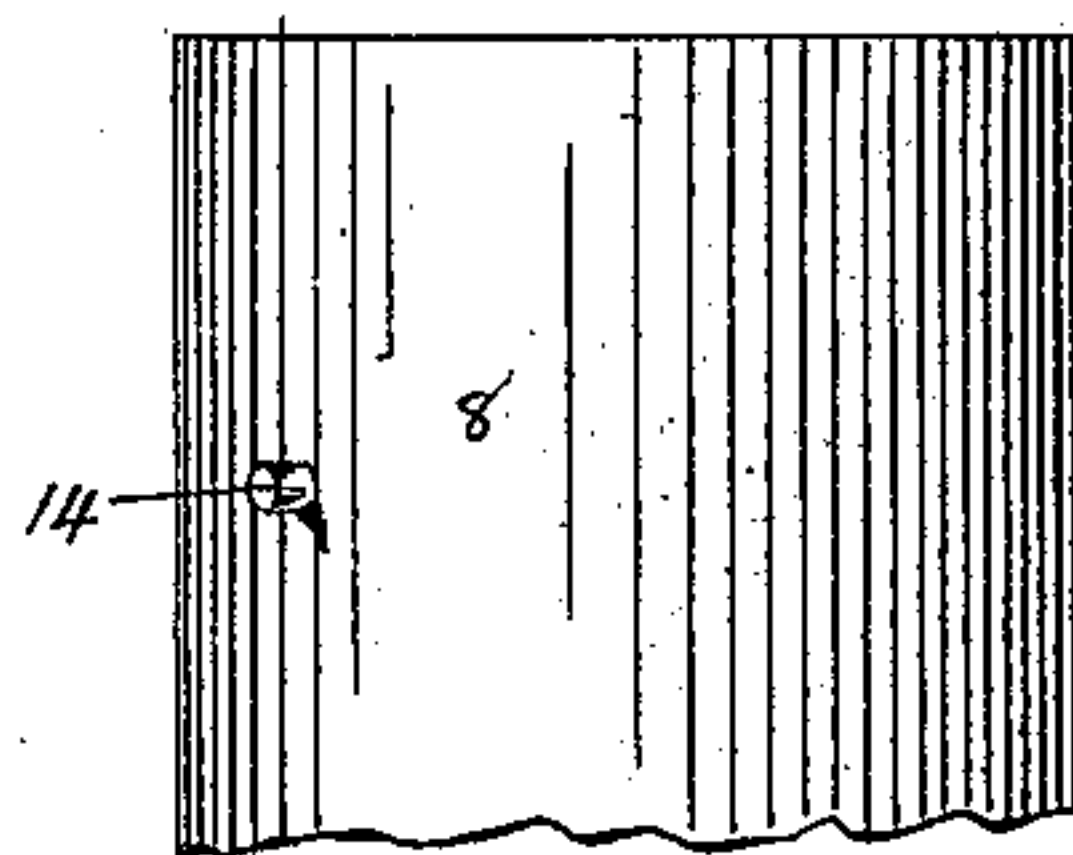


Fig. 5

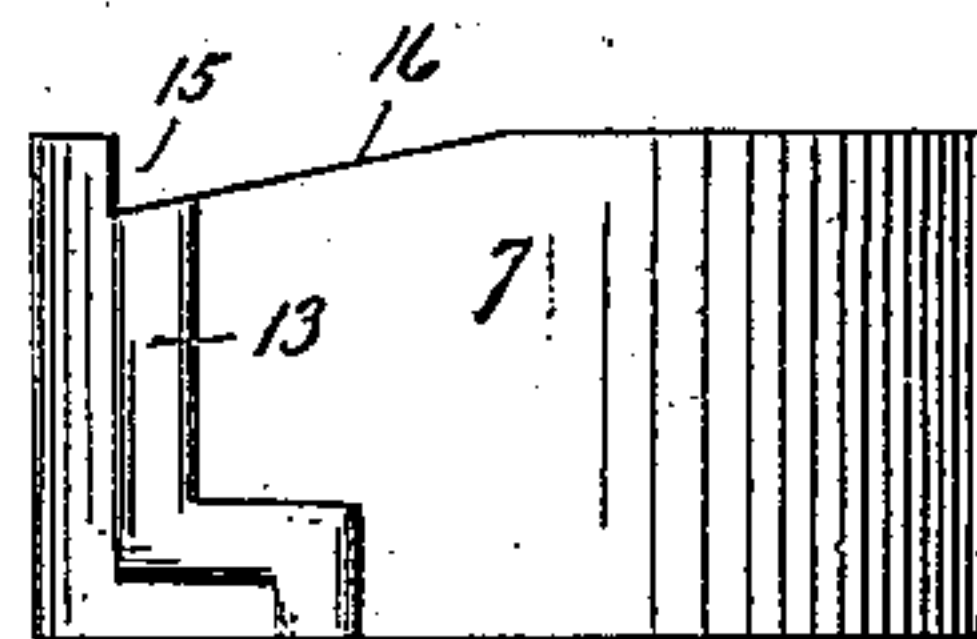
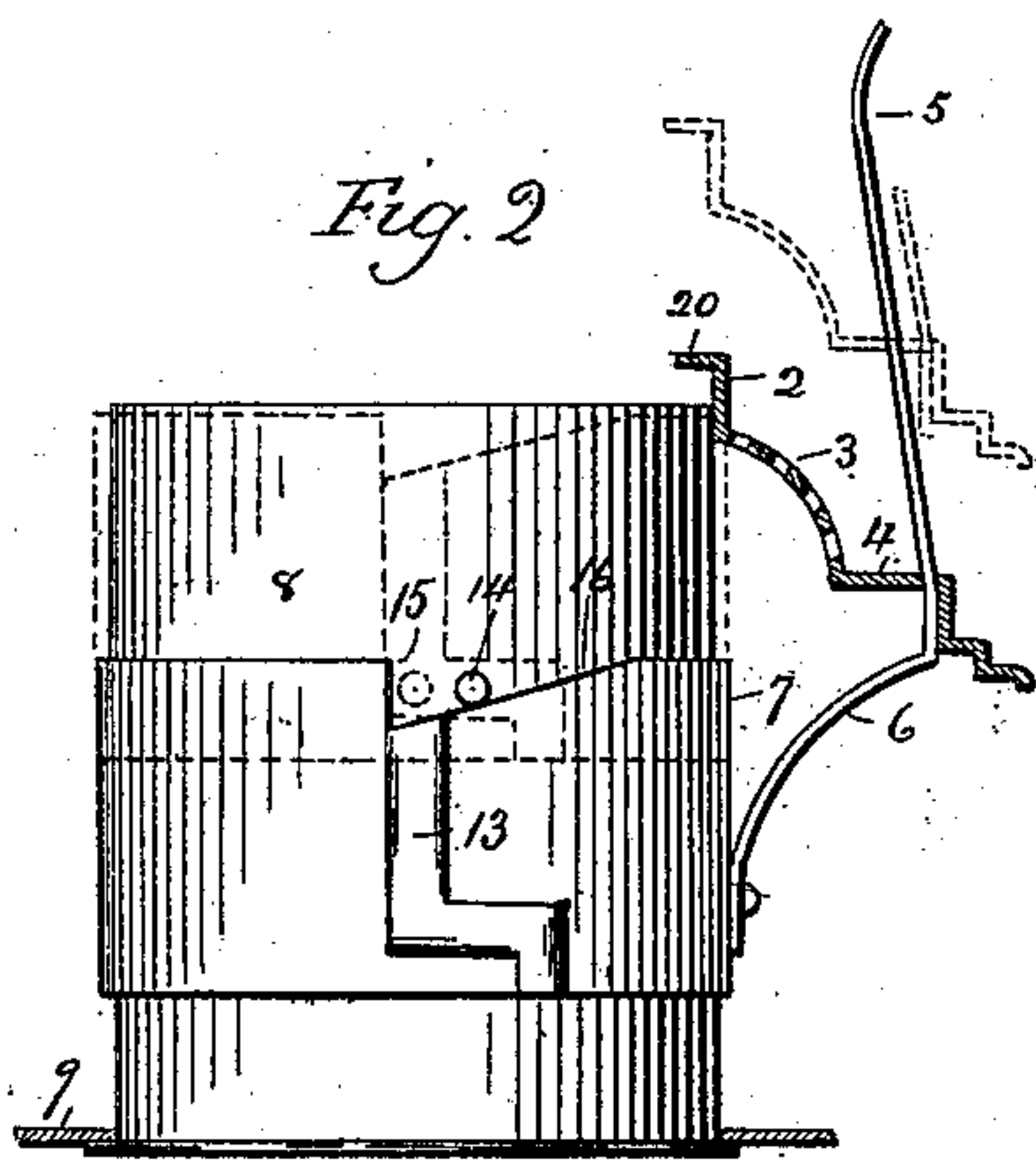


Fig. 2



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UNITED STATES PATENT OFFICE.

WILLIAM ALLEN PENFIELD, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE
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LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 692,701, dated February 4, 1902.

Application filed January 15, 1901. Serial No. 43,348. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ALLEN PEN-
FIELD, of Meriden, in the county of New Ha-
ven and State of Connecticut, have invented
5 a new Improvement in Lamp-Burners; and
I do hereby declare the following, when taken
in connection with the accompanying draw-
ings and the figures of reference marked there-
on, to be a full, clear, and exact description
10 of the same, and which said drawings consti-
tute part of this specification, and represent,
in—

Figure 1, a view in vertical section of one
form which a lamp-burner constructed in ac-
15 cordance with my invention may assume;
Fig. 2, a detail view, partly in elevation and
partly in vertical section, for the illustration
of the locking-sleeve of the chimney-gallery
in its elevated or lighting position as well as
20 in its depressed and locked position; Fig. 3,
a detached plan view of the wick-stop collar
of the chimney-gallery; Fig. 4, a broken view
of the upper end of the outer wick-tube, show-
ing its bayonet-lock pin; Fig. 5, a detached
25 view, in side elevation, of the locking-sleeve,
showing its bayonet-lock groove and locking-
notch; and Fig. 6, a detached plan view of one
of the modified forms which the wick-stop col-
lar may assume.

30 My invention relates to an improvement in
that class of central-draft lamp-burners which
are constructed with particular reference to
preventing the wick from being lifted high
enough to cause the lamp to smoke, the ob-
35 ject being to secure these results by extremely
simple and effective means.

With these ends in view my invention con-
sists in certain details of construction and
combinations of parts, as will be hereinafter
40 described, and particularly recited in the
claims.

In carrying out my invention as herein
shown I locate a wick-stop collar 2 at the up-
per end of the perforated chimney-gallery
45 cone 3. As shown, the said collar is made
integral with the said cone; but that is not
essential, as it might be made independent
thereof and secured thereto. The said cone
rises from the chimney-gallery ring 4, which
50 is provided with the usual upwardly-project-
ing spring chimney-holding fingers 5, the

lower ends of which are extended through the
ring 4 to form arms 6 to carry the locking-
sleeve 7, which rides up and down upon the
outer wick-tube 8, the lower end of which is 55
secured to a horizontal flange 9, turned in-
wardly from the imperforate lower band or
ring 10, which is separated by the annular stop-
bead 11 from the slightly-tapering burner-
skirt 12, the upper end of which is shaped to 60
form a seat for the outer edge of the gallery-
ring 4. It will be observed by reference to
Figs. 1 and 2 of the drawings that the inter-
nal diameter of the wick-stop collar 2 is only
just large enough to permit the same to ride 65
down over the extreme upper end of the outer
wick-tube 8, of which the said collar virtu-
ally forms an extension when the gallery is
in its depressed or operating position. The
locking-sleeve 7 is struck up from the inside 70
to form the groove member 13 of a bayonet-
lock, the pin 14 of which projects from the
outer wick-tube 8, as shown in Fig. 5. The
upper end of the groove 13 opens, as seen
in Fig. 6, into a notch 15, formed in the up- 75
per edge of the sleeve 7 and having an in-
clined locking edge 16, which rides under the
pin 14 when the gallery is turned from right
to left after it has been allowed to descend
into its normal position from its elevated or 80
temporary position, into which it is lifted, as
shown by the broken lines in Fig. 2, for the
purpose of lighting the lamp. If desired,
the notch 15 might be replaced by an in-
clined groove struck up from the inside of 85
the sleeve in the same way as the groove mem-
ber 13 of the bayonet-lock is formed. In the
event of the adoption of that construction,
which seems too obvious to require illustra-
tion further than that afforded by the groove 90
member 13, the sleeve would be made longer
or extended at its upper end, which is the
same thing.

With reference now to the wick-stop collar
2 its upper edge is turned inward over the 95
path of the wick 17, which is raised and low-
ered in the annular space between the outer
wick-tube 8, before mentioned, and the inner
wick-tube 18, which is secured by its lower
end to the lamp-fount and the upper end of 100
which receives the flame-spreader or air-dis-
tributer 19, which may be of any approved

construction. As shown in Figs. 1 and 3, the upper edge of the wick-stop collar 2 is turned inwardly at a right angle to form a horizontal flange 2^a, which is formed with an annular series of short teeth or points 20, which while they are in position to be engaged by the wick, so as to limit the upward movement thereof, do not cover enough of it to prevent it from burning freely. In constructing the burner the said teeth will be arranged to stop the lifting of the wick after the upper edge of the same has been lifted to the point beyond which it cannot be lifted without causing the lamp to smoke. The teeth 20 may be increased or decreased in number, the object being to afford a uniform stop for the wick, by which is meant a stop which will evenly limit its upward movement and prevent one portion from being pushed sensibly beyond another portion. They constitute extensions of the wick-stop collar, and their number and specific form are immaterial as long as they are adapted to perform their wick-stopping functions without preventing the wick from burning.

In the modification shown by Fig. 6 of the drawings the upper edge of the collar 2 is turned inward to form a continuous wick-stop flange 21, which constitutes, in effect, a single extension of the wick-stop collar 2.

When the wick is lifted into engagement with the wick-stop teeth 20 of the collar 2, it will exert an effort to lift the entire burner-gallery up, and that effort will be resisted by the locking means already described. Other locking means might also be employed. In using my improved burner, therefore, it will be necessary before lifting the gallery to light the lamp, to rotate the gallery, so as to unlock it, and then to again rotate it correspondingly in the opposite direction, so as to lock it in its normal or down position. The locking device employed for this purpose, whatever its character, should work enough easier than the means employed for securing the burner to the lamp within it so as not to disturb that connection.

In view of the modifications described and shown and of others which may obviously be resorted to I would have it understood that I do not limit myself to the exact form illus-

trated, but hold myself at liberty to make such variations therefrom as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A lamp-burner having a vertically-movable chimney-gallery formed with a wick-stop collar adapted to be engaged by the wick to limit the upward movement thereof, whereby the wick is prevented from smoking, and formed with a plurality of teeth which are engaged by the wick and between which the wick burns, and said gallery being constructed to be locked in its depressed or normal position against the lifting action of the wick.

2. A lamp-burner having a chimney-gallery comprising a perforated gallery-cone, a gallery-ring, a locking-sleeve carried by the said ring, and adapted to ride up and down upon the outer wick-tube of the burner, a wick-stop collar located at the upper edge of the gallery-cone and formed with an extension into the path of the wick, the upward movement of which it limits.

3. In a lamp-burner, the combination with a vertically-movable and rotatable chimney-gallery having its cone provided with an inward extension into the path of the wick, the upward movement of which is thereby limited, and carrying a locking-sleeve formed with a bayonet-lock groove and with a locking-notch intersected by the upper end of the said groove; of a burner-skirt and an outer wick-tube connected therewith and provided with a pin coacting with the said bayonet-lock groove, and with the inclined lower edge of the said notch, whereby the said edge by riding under the said pin when the gallery is rotated, locks the same in its normal or depressed position against the lifting power of the wick when the same impinges against the said extension of the gallery-cone.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM ALLEN PENFIELD.

Witnesses:

W. A. HALL,
GEORGE D. SEYMOUR.