

No. 720,466.

PATENTED FEB. 10, 1903.

H. OBERLIN.
BURNER.

APPLICATION FILED MAR. 14, 1902.

NO MODEL.

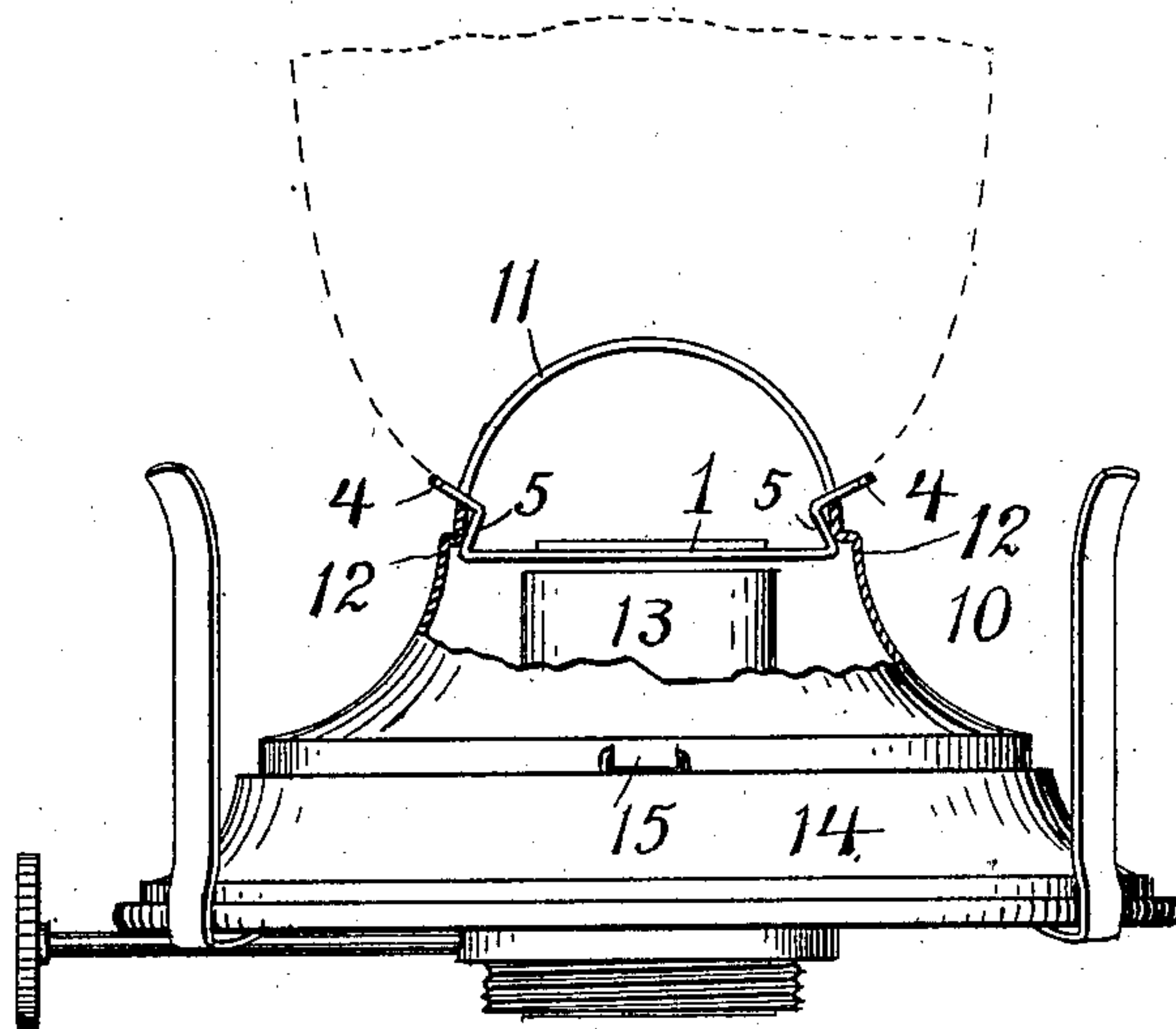


Fig. 1

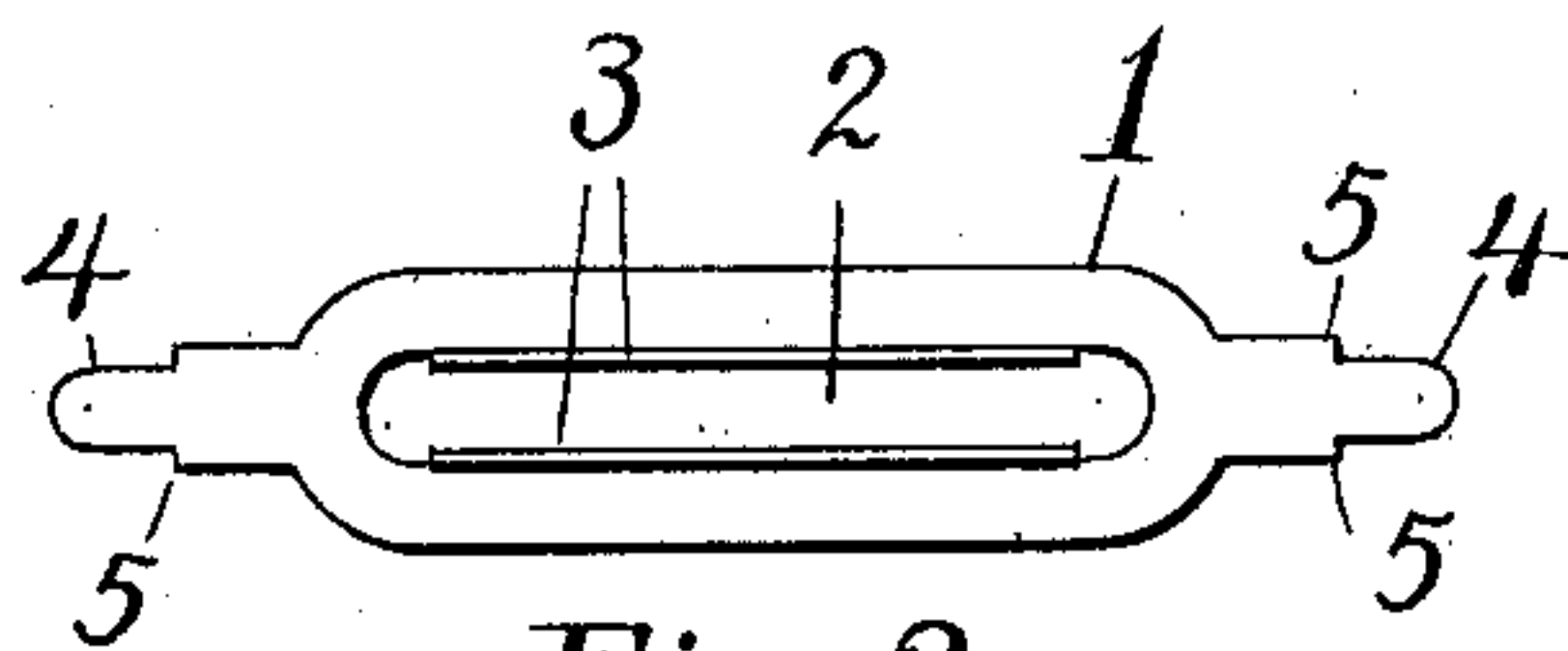


Fig. 2

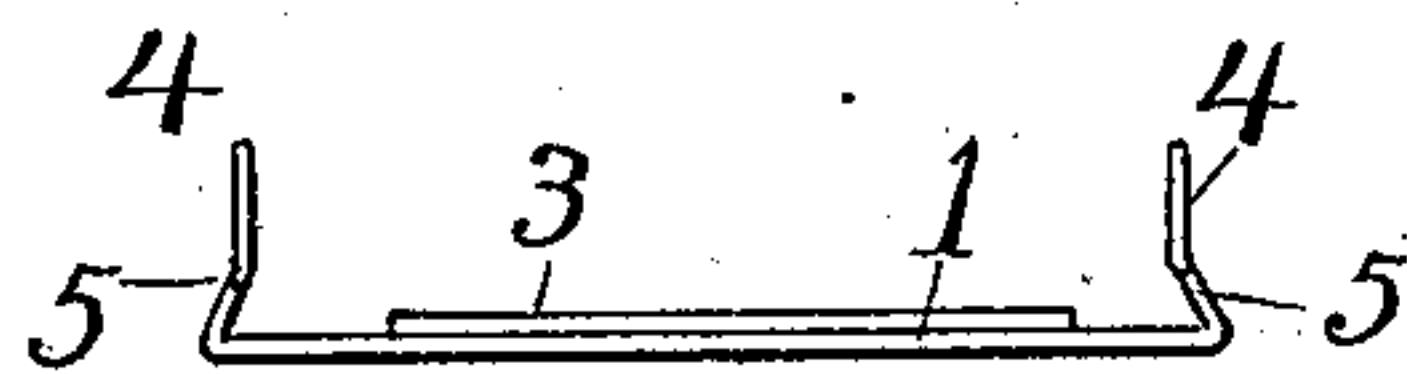


Fig. 3

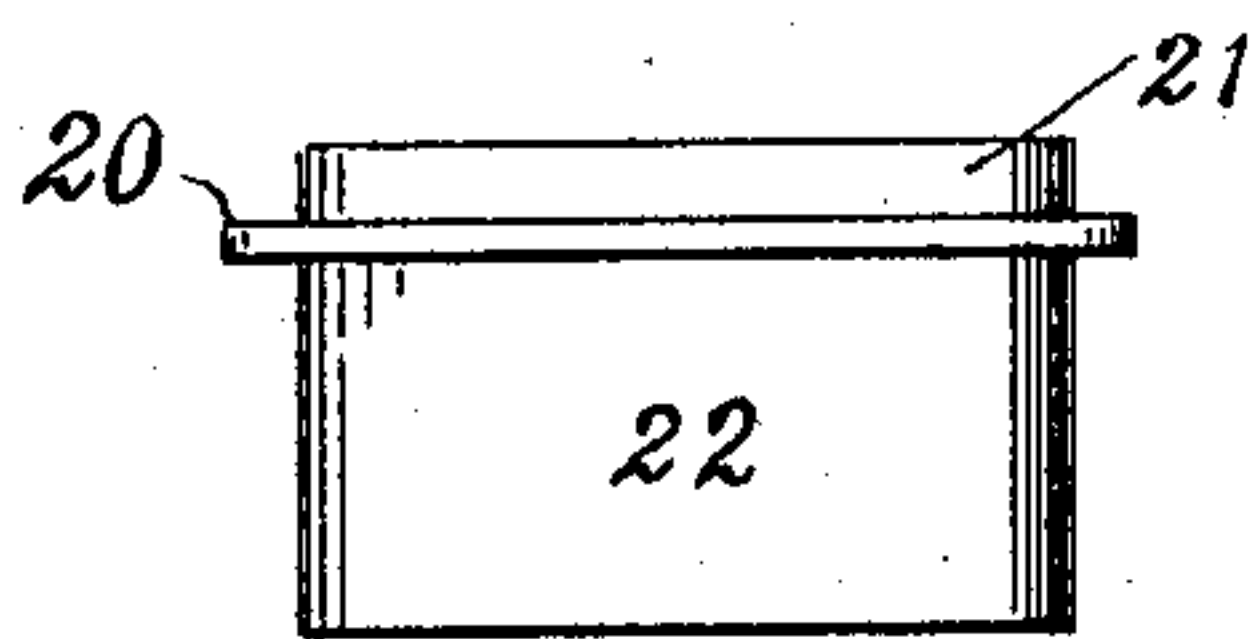


Fig. 4

Witnesses;

Lowell M. Maxham

Margaret L. Gait

Inventor,

Hazen Oberlin;

By *A. B. Gham,*
His Attorney.

UNITED STATES PATENT OFFICE.

HAZEN OBERLIN, OF JAMAICA PLAIN, MASSACHUSETTS, ASSIGNOR TO
CHARLES A. PHELPS, OF BOSTON, MASSACHUSETTS.

BURNER.

SPECIFICATION forming part of Letters Patent No. 720,466, dated February 10, 1903.

Application filed March 14, 1902. Serial No. 98,142. (No model.)

To all whom it may concern:

Be it known that I, HAZEN OBERLIN, a citizen of the United States, residing at Jamaica Plain, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Burners, of which the following is a full, clear, and exact description.

The object of this invention is the construction of an improved attachment by means of which an ordinary kerosene-burner shall have its power of illumination considerably augmented, shall have a malodorous emission of vapor wholly prevented, shall have its liability to explosions eliminated, and the flame of which shall be instantly extinguished by simply turning down the wick.

Referring to the drawings forming part of this specification, Figure 1 is a side elevation of an ordinary kerosene-burner having my attachment applied thereto, the upper portion of the burner being represented as broken away in order to show the attachment. Fig. 2 is a plan view of the attachment laid flat. Fig. 3 is a side view of the attachment, and Fig. 4 of an inserting device.

Said attachment consists of a thin narrow metal plate 1, having a longitudinal slot 2 therein, corresponding in dimensions to the wick-tube 13. Preferably this plate is about three times the width of said slot and is substantially equal in length to the diameter of the burner dome or deflector 11, such proportions causing that the width of metal inclosing the slot 2 shall be approximately equal to the width of the said slot. This plate 1 is designed to be secured to the burner-walls slightly above the upper end of the wick-tube 13, the difference being preferably not far from a sixteenth of an inch and the slot 2 being in alinement with the wick-tube. The lateral edges of the slot 2 are usually provided with upturned lips 3, as shown in Figs. 2 and 3. To secure said plate in position, I form at its ends the shoulders 5 and ears or spreaders 4, said shoulder-sections being bent inward to make an obtuse angle with the plate, as shown in Fig. 3, and with the ears 4 vertical, the latter being designed to be ultimately bent outward through the slot in the dome 11 and so fasten the plate in place.

To accurately place the attachment, I swing

the upper part of the burner 10 away from the lower or base section on the hinge 15, with which such burners are formed. I then drop the attachment into the dome, with the ears 4 entering the slot in said dome, the attachment being now in the shape shown in Fig. 3. Next a jig or guide is inserted within the wick-tube, the same comprising a plug 22, fitting somewhat closely the interior of the wick-tube and having a shoulder 20 resting upon the upper end of the tube. The dome 11 is now turned back down upon its base-section and the plate 1 fitted about the upper end 21 of the guide and upon the shoulder 20. The ears 4 being bent outwardly to the position shown in Fig. 1, while the bases of the shoulder-sections 5 press outwardly beneath the shoulders 12 of the dome, the plate 1 is firmly secured in position with its slot alining with the wick-tube and itself at the proper distance above the same. The dome-section of the burner can now be swung open again and the guide removed, leaving the burner in condition for use.

In addition to the function above described—that of fastening plate 1 in place—the ears 4 perform the work of spreading the flame arising from the wick, and thereby so increasing the area of the same as to materially augment its illuminating power. The reason for this spreading of the flame is that said ears or spreaders 4 not only prevent the air from rushing in through the lower ends of the slot in the dome 11, but act to force outwardly the uprushing currents and so carry with the latter the edges of the flame to a farther distance from the burner, thereby widening and spreading the flame.

What I claim as my invention, and for which I desire Letters Patent, is as follows, to wit:

1. The combination with the burner having the usual flame-slot in its dome, of the plate having the slot coinciding with the wick-tube and the ears bent up from its edges at substantially right angles with its surface, and each ear bent at an intermediate point out through an end of the flame-slot, substantially as described.

2. The combination with the burner having the usual flame-slot in its dome, of the plate

having the slot coinciding with the wick-tube
and the ears bent from its edges at substan-
tially right angles with its face, and each ear
being formed with a shoulder at an interme-
5 diate point and being bent at such point out
through an end of the flame-slot, substan-
tially as described.

In testimony that I claim the foregoing in-
vention I have hereunto set my hand this 12th
day of March, 1902.

HAZEN OBERLIN.

Witnesses:

A. B. UPHAM,

LOWELL M. MAXHAM.