

C. L. WAGANDT.
 FLAME SPREADER FOR OIL BURNERS.
 APPLICATION FILED MAY 15, 1911.

1,043,484.

Patented Nov. 5, 1912.

Fig. 1.

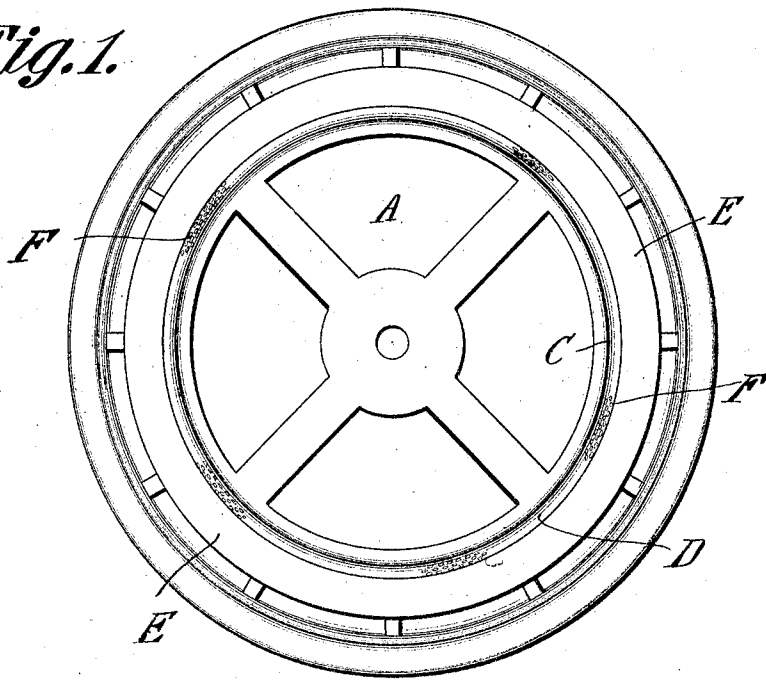
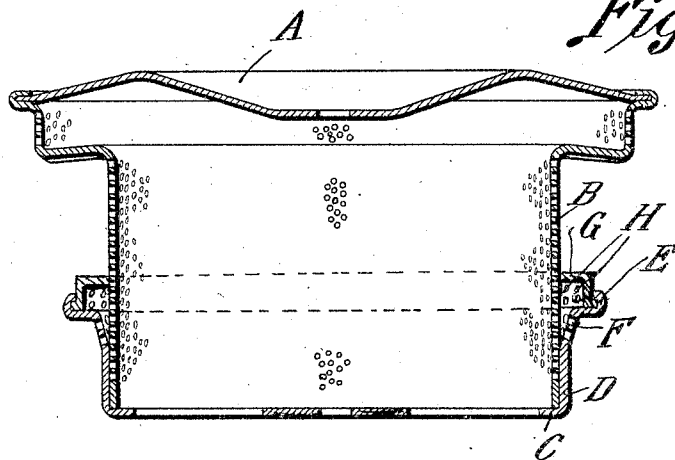


Fig. 2.



Witnesses

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FLAME-SPREADER FOR OIL-BURNERS.

1,043,484

Specification of Letters Patent.

Patented Nov. 5, 1912.

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To all whom it may concern:

Be it known that I, CHARLES L. WAGANDT, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented a new and useful Flame-Spreader for Oil-Burners, of which the following is a specification.

This invention relates to improvements in flame spreaders for oil burners, and the primary object of the invention is the provision of a flame spreader, having a wick ring provided with an outwardly projecting wick flange which is provided with perforated portions above and below the ring to provide a mixing chamber and cooling chamber annularly of the flame spreader sleeve.

A further object of the invention is the provision of a flame spreader having a cylindrical perforated body adapted to fit in and carry the wick ring, said wick ring being provided with an outwardly formed recessed or beaded portion terminating in a centrally imperforate outwardly extending wick flange, the portion above and below said wick flange being perforated to provide, when the sleeve of the spreader proper is within the ring, an annular cooling and mixing chamber above and below the wick flange.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a bottom plan view of the flame spreader. Fig. 2 is a vertical central sectional view thereof taken on the line X—X, of Fig. 1.

Referring to the drawings, A designates the cap of the spreader which is provided with a downwardly projecting cylindrical perforated portion or sleeve B. The lower edge of the said sleeve B is adapted to rest upon the rim C of the collar D, the said collar being provided at its upper edge with the recessed or beaded portion which terminates in the outwardly projecting annular wick flange E. Below said wick flange E, in the inclined portion F which forms an annular recess or chamber about the body

of the spreader, are the perforations, while above said flange and projecting inwardly and parallel with the same but out of contact with the sleeve B, is an imperforate rim G, whose connecting portion with the flange E is perforated as at H to provide an outlet in the annular compartment formed by the flange E. and rim G, above the flange E and below the rim G, thereby providing an annular cooling chamber or compartment for the wick flange. By this construction it will be seen that the air coming through the air passage will enter the perforations of the sleeve B and into the chamber formed by the recess at the top of the ring D, thus forming a mixing chamber and permitting the air to pass through the perforations at F against the top of the wick under the flange E. Any air which passes upward and strikes the under side of the rim G will be deflected and forced through the openings H so as to provide a cooling means for the top of the wick flange E. By this means it will be seen that the mixing and cooling chamber is carried bodily by the ring which carries the wick flange and that the sleeve B is a plain cylindrical perforated sleeve.

By providing the perforations F in the collar D the gas formed by the high-temperature of the wick flange against the upper edge of the wick and upon the rear or inner side of the wick will be permitted egress through said perforations F into the mixing chamber formed by the annular portion of the collar and into the sleeve B, thus providing an even burning wick and at the same time preventing incrustation upon the upper edge thereof below the wick flange.

What is claimed is:

1. A flame spreader, having a perforated sleeve, and a collar surrounding and carried at the lower end thereof, said collar having an outwardly projecting annularly disposed and recessed upper end providing annularly parallel wick flange and ring, the portion of the collar above and below the wick flange being perforated.

2. A flame spreader, having a perforated sleeve open at its lower end, and a slip-on collar fitting upon the lower end exteriorly of the sleeve and having at its upper end an annularly recessed portion providing a lower wick flange and an upper ring parallel thereto.

3. A flame spreader, having a perforated

sleeve open at its lower end, and a slip-on collar fitting upon the lower end exteriorly of the sleeve and having at its upper end an annularly recessed portion providing a parallel lower wick flange and an upper ring, the collar being perforated above and below the wick flange.

4. A flame spreader, having a cylindrical perforated sleeve, and a collar carried by the lower end thereof provided with an outwardly projecting annularly disposed and recessed portion in its upper edge terminating in an imperforate ring at right angles to the sleeve, said recessed portion being provided with a wick flange and having perforations upon both sides of the flange, whereby a mixing chamber is formed annularly of the sleeve.

5. A flame spreader, having a perforated cylindrical sleeve with an open end, a collar carried thereby provided with an inturned upper edge and with an intermediate annularly disposed recessed portion, the inturned upper edge being imperforate, and a wick flange formed annularly and intermediate of the recessed portions, and circumferentially disposed with relation to the collar, a portion above and below the wick flange being perforated so as to permit air entering the recessed portion to be projected above and below the wick flange.

6. A flame spreader, having a perforated cylindrical sleeve, a collar carried at the lower end thereof and provided with an inturned upper edge and with an intermediate annularly projecting portion, the inturned upper edge being imperforate, and

a wick flange formed intermediate of the inturned upper edge and the annularly projecting portion, a portion above and below the wick flange being perforated so as to permit air entering the portion of the collar adjacent the sleeve to be projected above the wick flange, while the gas formed below the wick flange is permitted to enter the sleeve.

7. A flame spreader, having a perforated cylindrical sleeve, a collar carried at the lower end thereof and provided with an inturned upper edge and a lower parallel wick flange, the said upper edge and wick flange forming an annularly disposed mixing chamber about the sleeve, with gas relief means below the wick flange.

8. A flame spreader, having a perforated cylindrical sleeve, a collar carried at the lower end thereof and provided with an inturned upper edge and lower parallel wick flange, the portions of the collar between the edge and wick flange and below the wick flange being perforated, the said upper edge and wick flange forming an annularly disposed mixing chamber about the sleeve, while the perforations below the wick flange form gas relief means in communication with the sleeve.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES L. WAGANDT.

Witnesses:

JOSEPH SCHAPIRA,
HY. SCHUCHARDT, Jr.