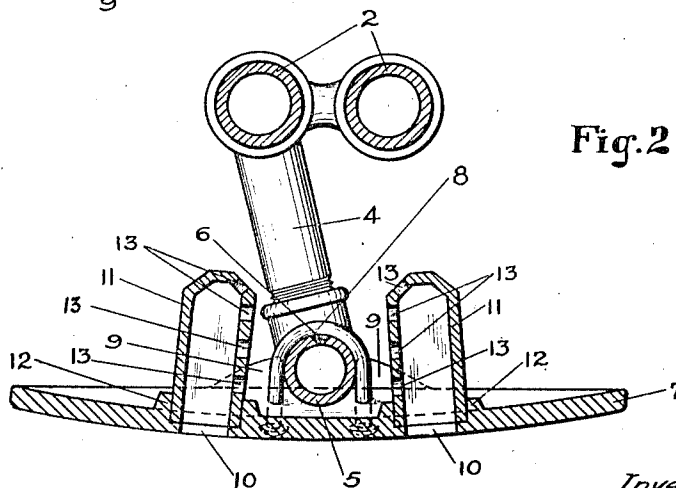
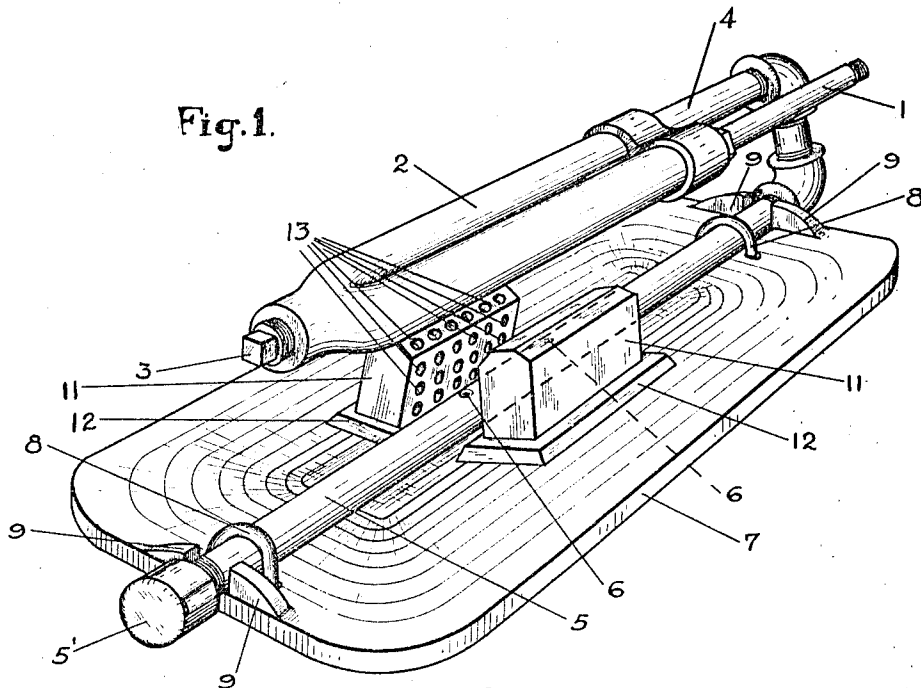


L. E. AMBROSE.
OIL BURNER.
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1,048,478.

Patented Dec. 31, 1912.



Witnesses

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LYCURGUS E. AMBROSE, OF MENA, ARKANSAS.

OIL-BURNER.

1,048,478.

Specification of Letters Patent.

Patented Dec. 31, 1912.

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To all whom it may concern:

Be it known that I, LYCURGUS E. AMBROSE, a citizen of the United States, and a resident of the city of Mena, county of Polk, and State of Arkansas, have invented certain new and useful Improvements in Oil-Burners, of which the following is a specification.

My invention relates to oil burners and more particularly to devices of this character in which the oil is evaporated or vaporized and mixed with air previous to ignition, and has for its object the production of an oil burner in which the parts will be so assembled and connected as to permit of ready detachment or disconnection of the parts for cleaning.

A further object is the production of an oil burner, as mentioned, which will be of durable and economical construction and efficient in use.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing, forming a part of this specification, and in which,

Figure 1 is a perspective view of an oil burner embodying my invention, and Fig. 2 is a vertical, transverse section thereof.

The preferred form of construction as illustrated in the drawing comprises an oil supply pipe 1, which, when in use, may communicate with any suitable source of oil or fuel supply. The pipe 1 communicates with the vaporizing chamber 2 of the burner which is of U-shaped form, the pipe 1 communicating with one end of said chamber. At the bight of said chamber is provided a screw plug 3 which may be readily removed in order to gain access to the interior of the vaporizing chamber to effect cleaning thereof. The opposite end of chamber 2 communicates by means of a pipe 4 with the pipe 5 which forms the vapor chamber of the burner, said vapor and vaporizing chambers being disposed parallel with each other, as shown. The outer end of vapor chamber 5 is closed, as shown by a screw cap 5', the only avenues of escape from said pipe being through vapor escape openings 6 which are arranged medially of the ends thereof and extending upwardly. The vapor escape openings 6 are counter-sunk of of outwardly

diverging form in order to facilitate the insertion of a pointed tool, such as a needle, or the like in cleaning the same.

Arranged at the under side of vapor chamber pipe 5 is a shallow oil pan 7 secured to the former by means of U-shaped straps or fasteners 8, the ends of pan 7 being provided with lugs 9 for effecting centering of the pipe 5 relative to said pan. Formed substantially centrally in the pan 7 at either side of pipe 5 are openings 10. Arranged above said openings are hollow substantially rectangular members 11, the open lower ends of which register with openings 10, seats 12 being provided for engagement by the lower ends of members 11 for maintaining the same in registration with openings 10. Formed in the adjacent walls of members 11 are perforations 13 through which the air admitted to said members 11 through the openings 10 may escape to mix with the vapor issuing from openings 6 to produce a combustible mixture.

In using the device, the oil is first allowed to pass through the oil pipe so as to overflow into the pan 7 where the same is lighted. The heat of this combustion will convert the oil in the oil pipe into vapor which will escape through the openings 6 in the vapor chamber pipe 5. The vapor thus escaping will mix with the air directed toward the same by the members 11 and the mixture will burn directly under the vaporizing chamber with the effect of vaporizing the oil therein. Through the provision of the members 11 provided with laterally positioned air openings, an effectual mixing of the oil vapor with the air will be secured, with the result of a thorough combustion and hence maximum utilization of the fuel. By reason of the removable mounting of the members 11, cleaning of the same may be readily effected and access readily gained to the vapor escape openings 6 for also effecting the cleaning thereof. By reason of the U-shaped construction of the vaporizing chamber pipe, a thorough vaporization of the oil passing therein will be secured and the possibility of oil passing therethrough without being vaporized, when the burner is in use, obviated.

The burner is simple and economical in construction, and hence may be manufactured at a low cost, and the same is not susceptible to readily becoming inoperative.

While I have illustrated and described the

preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. An oil burner comprising an oil pan; an oil pipe constituting a vapor chamber and a vaporizing chamber arranged above said pan with said vaporizing chamber positioned above said vapor chamber, there being vapor escape openings leading from said vapor chamber; and hollow members projecting upwardly from said pan having air inlet openings at their lower ends and air outlet openings in their adjacent lateral walls for directing air toward the vapor issuing from said vapor escape openings, substantially as described.

2. An oil burner comprising an oil pan; an oil pipe constituting a vapor chamber and a vaporizing chamber arranged above said pan with said vaporizing chamber positioned above said vapor chamber, there being vapor escape openings leading from said vapor chamber, said oil pan being formed with openings arranged at opposite sides of said vapor chamber; and hollow members registering with and projecting above said pan openings having air inlet openings at their lower ends and air outlet openings in their adjacent lateral walls for directing air toward the vapor issuing from said vapor escape openings, substantially as described.

3. An oil burner comprising an oil pan; an oil pipe constituting a vapor chamber and a vaporizing chamber arranged above said pan with said vaporizing chamber positioned above said vapor chamber, there being vapor escape openings leading from said vapor chamber, said oil pan being formed with openings arranged at opposite sides of said vapor chamber; and members removably arranged upon said pan in registration with said openings thereof for directing air toward the vapor issuing from said vapor escape openings, substantially as described.

4. An oil burner comprising an oil pan; an oil pipe constituting a vapor chamber and a vaporizing chamber arranged above said pan with said vaporizing chamber positioned above said vapor chamber, there being vapor escape openings leading from said vapor chamber, said oil pan being formed with openings arranged at opposite sides of said vapor chamber; and hollow members open at their lower sides removably arranged upon said pan with said open sides registering with said pan openings, the adjacent walls of said members being perforated for directing air toward the vapor issuing from said vapor escape openings, substantially as described.

5. An oil burner comprising an oil pan; an oil pipe constituting a vapor chamber and a vaporizing chamber arranged above said pan with said vaporizing chamber positioned above said vapor chamber, there being vapor escape openings leading from said vapor chamber, said oil pan being formed with openings arranged at opposite sides of said vapor chamber; seats surrounding said openings; and hollow members having their lower sides open and removably seated in said seats, the adjacent walls of said members being perforated for directing air toward the vapor issuing from said vapor escape openings, substantially as described.

6. An oil burner comprising a shallow oil pan; an oil pipe constituting substantially parallel superposed vapor and vaporizing chambers arranged above said pan with said vapor chamber arranged adjacent and secured to said pan, there being vapor escape openings provided in the upper side of said vapor chamber, said oil pan being formed with openings arranged at opposite sides of said vapor chamber; and hollow members having open lower ends registering with and projecting above said pan openings at opposite sides of said vapor chamber and perforated adjacent lateral walls for directing air toward the vapor issuing from said vapor escape openings, substantially as described.

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

LYCURGUS E. AMBROSE.

Witnesses:

W. I. GREEN,
W. NANCE.