

G. UNSEER & G. WARNER.

OIL BURNER.

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1,055,840.

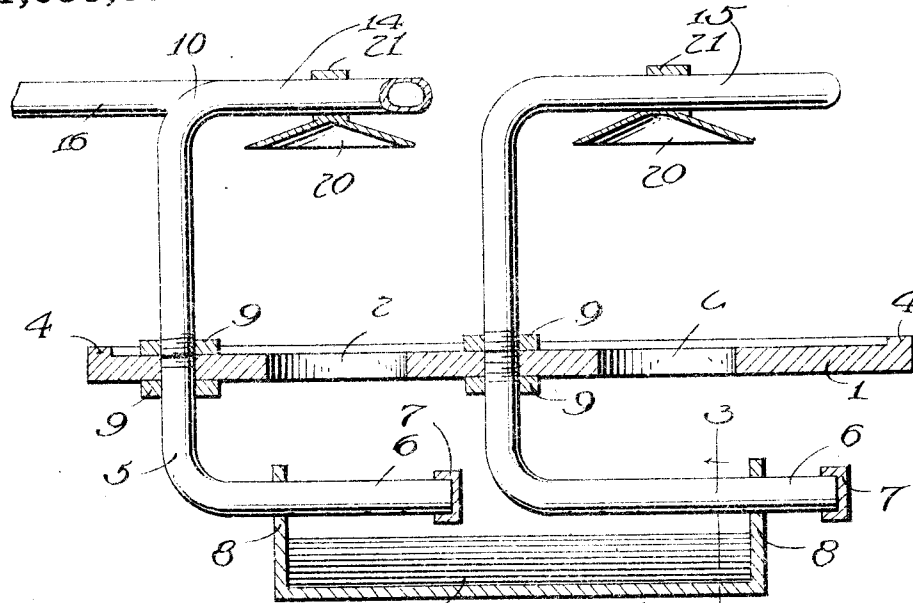


Fig. 2

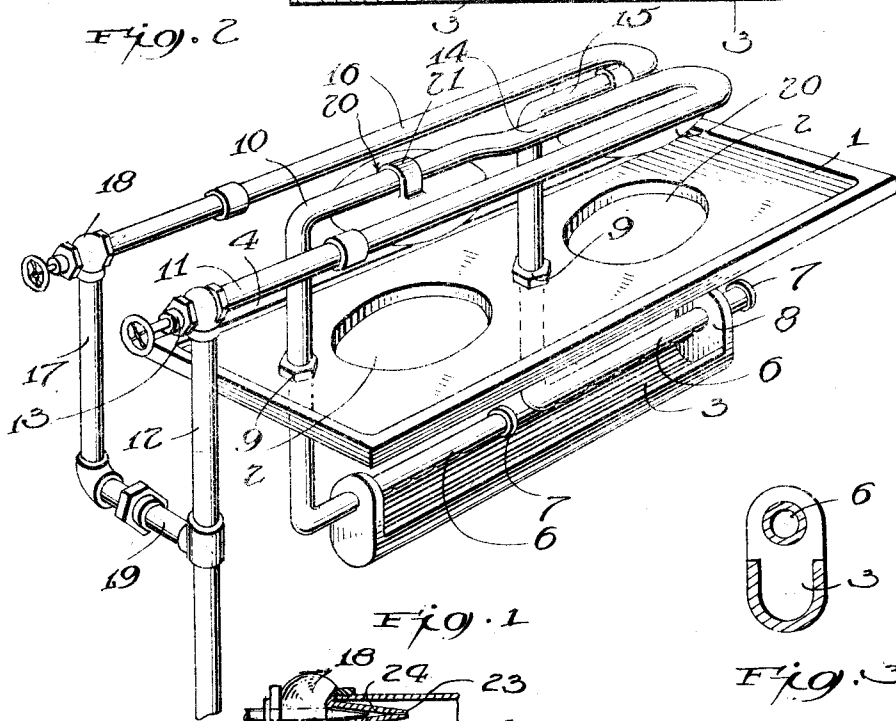


Fig. 1

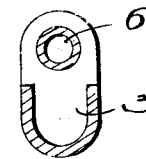


Fig. 3

WITNESSES

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Fig. 4

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UNITED STATES PATENT OFFICE.

GEORGE UNSER AND GLEN WARNER, OF BUCKLIN, KANSAS.

OIL-BURNER.

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Specification of Letters Patent.

Patented Mar. 11, 1913.

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To all whom it may concern:

Be it known that we, GEORGE UNSER and GLEN WARNER, citizens of the United States, residing at Bucklin, in the county of Ford and State of Kansas, have invented certain new and useful Improvements in Oil-Burners, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to oil burners and has particularly for its object the production of an efficient oil burner for causing the oil to be thoroughly vaporized, as the same passes through the oil feeding pipes to the
15 burners.

Another object of this invention is the production of a simple and efficient burner, the burners of which carry a drip pan in such a position as to cause the oil when first
20 lighted to readily act upon the pipes to cause an efficient vaporization of the oil.

With these and other objects in view, this invention consists of certain novel constructions, combinations and arrangements of
25 parts, as will be hereinafter fully described and claimed.

In the drawings:—Figure 1 is a perspective view of the burner. Fig. 2 is a central longitudinal section thereof. Fig. 3 is a section taken on line 3—3 of Fig. 2. Fig. 4 is
30 an enlarged section through one of the valves which control the oil supply through the circulating pipes.

Referring to the drawings, it will be seen
35 that a supporting pan 1 is employed, which pan is provided with a pair of apertures 2 for allowing the flame from the drip pan 3 to pass therethrough. A rim or flange 4 is formed around the edge of the supporting
40 pan 1 as indicated in Figs. 1 and 2. A pair of angle burner pipes 5 are suspended from the supporting pan 1 and each of these angle pipes is provided with a laterally extending portion 6, which carries at its outer end a
45 sealing plug 7. The drip pan 3 is suspended from the laterally extending end 6 of the burner pipes 5, and this drip pan is provided with upwardly extending ends 8,
50 which fit over the laterally extending portion 6 of the burner pipes 5. The angularly extending portions 6 of the burner pipes 5 are perforated so as to allow the oil to be discharged therefrom. A clamping nut 9 is

placed upon the upper end of the pipe 5 for clamping the pipe 5 in engagement with the
55 supporting pan 1.

A feed pipe 10 is carried by the pan 1, and is of a substantially U-shape provided with a rearwardly extending portion 11 connected to a vertically extending feed pipe 12. A
60 valve 13 is employed to control the flow of fuel through the pipe 11. The pipe 10 is offset intermediate its end as indicated at 14 for allowing the same to extend parallel to the supporting pipe 15. The supporting
65 pipe 15 is provided with a rearwardly extending portion 16 which in turn is connected to a vertically extending feed pipe 17, which pipe is connected at its upper end to the pipe 16, by means of a valve 18. The
70 feed pipe 17 is connected to the feed pipe 12 by means of a transversely extending pipe 19.

Deflector plates or disks 20 are suspended from the pipes 10 and 15 in such a manner as to overhang the apertures 2 formed in the
75 supporting plate 1. These deflector plates carry bands 21 for supporting the deflector plates upon the pipes 10 and 15.

As illustrated in Fig. 3, it will be seen that the drip pan is substantially U-shaped
80 in cross section, and by being supported by the vertically extending ends 8, the oil will flow from the pipes 6, and be discharged into the drip pan 3.

From the foregoing description, it will be
85 seen that when it is desired to light the burner, the oil will be permitted to flow through the pipes and discharged through the apertures formed in the pipes 6 into the
90 drip pan 3. The oil will then be lighted in the drip pan which will cause a thorough vaporization of the oil in the pipes 6, and as the oil is continued to be discharged through the apertures in the laterally extending ends
95 6 of the pipe 5, the flame, of course will shoot upwardly through the apertures 2 in the supporting pan 1, and strike the deflectors 20, which deflectors will cause the flame to spread around so as to engage the pipes 16 and 11
100 extending on each side of the deflectors 20.

As illustrated in Fig. 4 the valve 18 carries near its discharge end a discharge plug
22, which plug tapers toward its forward end, as illustrated at 23. An aperture 24 is
105 formed in the plug 22 for allowing the liquid, oil, or other fuel to be discharged into

the pipes 11 and 16 in a fine spray and also prevent the return of the heated oil back into the delivery pipes 12 and 17.

By means of the plug 22 it will be seen
5 that the oil will be discharged into the pipes 16 and 11 in very fine streams and therefore allow the oil to be readily vaporized.

What is claimed is:—

10 An oil burner of the class described comprising a supporting plate, a plurality of burner pipes carried by said supporting plate, each burner pipe provided with a laterally extending end, a drip pan provided
15 with upwardly extending ends, said laterally extending ends of said burner pipes passing through said upwardly extending ends of said drip pan, oil supply pipes positioned above said supporting plate and com-

municating with said burner pipes, said oil supply pipes each bent to form a substan- 20 tially U-shaped structure, said supporting plate provided with a plurality of apertures, deflector plates carried by said supply pipes and overhanging said apertures formed in said supporting plate for causing the blaze 25 from said burner pipes to be spread over said supply pipes, and means for controlling the flow of oil to said burner pipes.

In testimony whereof we hereunto affix our signatures in presence of two witnesses. 30

GEORGE UNSER.
GLEN WARNER.

Witnesses:

C. R. BLURTON,
W. L. MATTHEWS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."