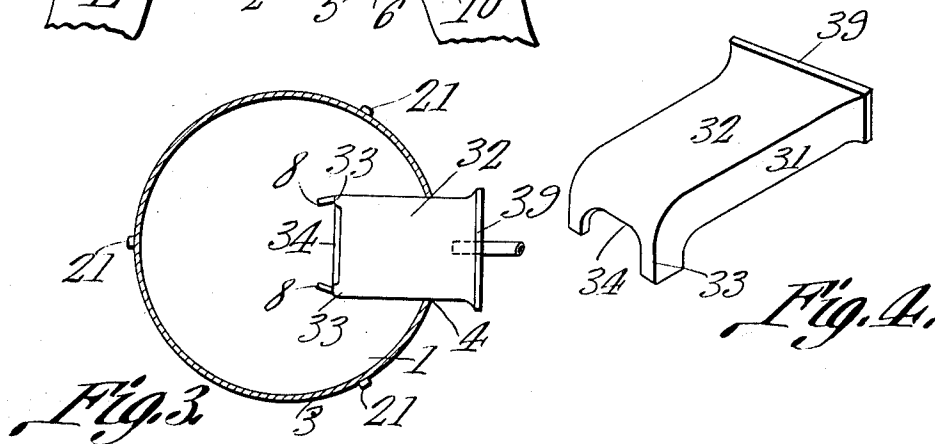
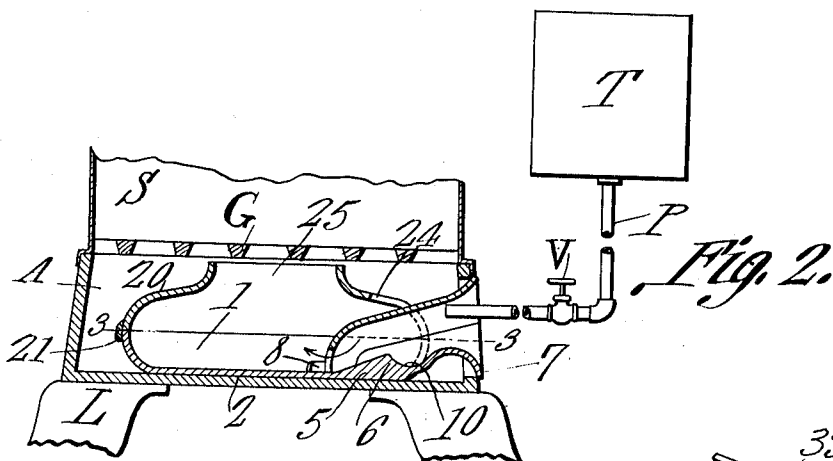
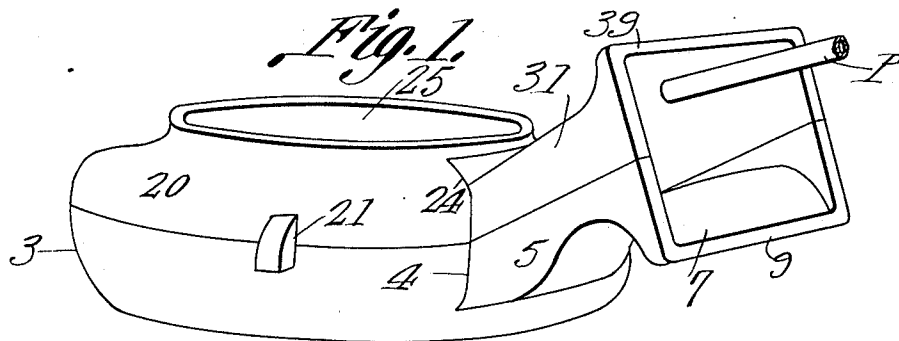


W. LAIZURE.
OIL BURNER.
APPLICATION FILED DEC. 13, 1910.

1,004,040.

Patented Sept. 26, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM LAIZURE, OF SILVER CITY, TERRITORY OF NEW MEXICO.

OIL-BURNER.

1,004,040.

Specification of Letters Patent. Patented Sept. 26, 1911.

Application filed December 13, 1910. Serial No. 597,020.

To all whom it may concern:

Be it known that I, WILLIAM LAIZURE, a citizen of the United States, residing at Silver City, in the county of Grant and Territory of New Mexico, have invented a new and useful Oil-Burner, of which the following is a specification.

This invention relates to liquid and gaseous fuel burners, and more especially to those employing a pan or tray; and the object of the same is to produce an extremely simple castiron device of this kind which may be readily inserted into the ash pit of an ordinary coal stove, or perhaps into the ash pit of a wood stove.

To this end the invention consists in the specific construction of parts hereinafter described and claimed, and as shown in the drawings wherein—

Figure 1 is a perspective view of my improved burner complete. Fig. 2 is a central longitudinal section through the burner inserted in the base of a stove. Fig. 3 is a horizontal section through the burner alone, taken on the line 3—3 of Fig. 2. Fig. 4 is a perspective detail of the deflector.

Referring to the drawings, the letter S designates an ordinary stove having an ash pit A below its grate G and supported on legs L; and the letter T designates an elevated tank for oil, from which leads a pipe P through a valve V into this burner, all these details forming no part of the present invention but being shown and described in connection therewith.

Coming now to my present invention, shown in perspective in Fig. 1, and in section in Fig. 2, the same comprises a lower portion or base 1 which is preferably circular or pan-shaped in contour, and has a flat bottom 2 with a raised surrounding wall 3 which latter is notched or cut away as at 4 at what will be the front side of the complete burner. Projecting from the front of the burner and preferably cast with the walls of the burner base around said opening 4 is what I call the hearth 5 which is made rather thick at its bottom as shown at 6 in Fig. 2, and has at its front end a lip 7 curving downwardly and outwardly so as to admit the air without obstruction, the lip having a cup 10 in its upper side. Cast within this base portion 1 of my burner are lugs 8.

The numeral 20 designates the top portion of the burner, also preferably cast in

one piece and having ears 21 cast with it to engage the base so that the two parts shall be centered and held assembled when they are placed together. The whole is preferably round in contour and rather flat as best seen in Fig. 1 so that it may be inserted into the ash pit of an ordinary stove, and in this case the ears 21 may be three in number as indicated in Fig. 3. The top 20 has a rectangular notch 24 at its front adapted to register with a notch 4 in the base, and its upper portion or top is open as shown at 25 and stands beneath the grate of an ordinary stove S, as indicated at G.

The third part or member of my burner is the deflector best seen in Fig. 4, which also by preference is an iron casting. This comprises upright sides 31 adapted to rest upon the sides of the hearth 5, a top 32 inclined to the rear and downward so as to pass through the notch 24 in the upper member 20, downwardly projecting feet 33 at its extreme inner end adapted to rest against the lugs 8 within the lower member or base 1, and a flaring mouth 39 at its front end and preferably shaped to complement the flaring mouth 9 at the front end of the hearth 5 as best seen in Fig. 1.

By preference all parts are of cast-iron or other metal so that they may be cheaply made and yet will be durable. They are assembled by engaging the ears 21 of the top member 20 with the side wall 3 of the base member 1, and then inserting the deflector into the opening 24 at the front end of the top member and resting its feet 33 against the lugs 8; and the entire burner is then inserted into the ash pit A of the stove S as indicated in Fig. 2. The tank T will be supported at an elevation and preferably at a distance in any suitable manner, and the pipe P will lead into the mouth 39 about as indicated in Fig. 1.

In operation the valve V is opened slightly and the oil allowed to flow. A little of it is permitted to drip into the cup 10 formed just in rear of the lip 7, and is lighted by a match so as to warm the parts. The oil is then turned on and flows through pipe P toward the top plate 32. The warmth of the parts will vaporize it, and after the burner is started in the well known manner the gas will burn between the top 32 and sides 31 of the deflector plate and over the hearth 5, drawing air inward over the lip 7, and the blaze will be directed out

the opening 34 between the feet 33 and thence upward about as indicated by the arrow in Fig. 2. Thus it will be seen that I have produced an extremely cheap and durable burner for oil which may be inserted into the ash pit of an ordinary stove by removing the front door thereof or by leading the pipe P into the ash pit in any suitable manner.

10 What is claimed as new is:—

1. The herein described oil burner comprising a pan-shaped base, an integral hearth projecting from its front and having side walls, a top member fitting removably upon the base and notched in its front over said hearth, ears on one member detachably engaging the walls of the other, a deflector passing through said notch with its inner end turned downward and provided with an opening and its sides registering with the side walls of said hearth, and means for directing liquid fuel under the front end of said deflector.

2. The herein described oil burner comprising a pan-shaped base having an integral hearth projecting from its front, the hearth being thickened at its bottom, having an outwardly curled lip at its front, and a cup between the thickened portion and lip, a top member fitting removably upon the base and notched in its front over said hearth, ears on one member detachably engaging the walls of the other, a deflector passing through said notch with its inner end turned downward and provided with an opening and its sides engaging the edges of said hearth, its front end being enlarged into a mouth standing above the lip of said hearth, and a liquid fuel pipe leading into the front end of said deflector and directed toward

the under side of its top wall at a point above said cup in the hearth.

3. The herein described oil burner comprising pan-shaped base, an integral hearth projecting from its front and having side walls, a top member fitting removably upon the base and notched in its front over said hearth, a deflector passing through said notch with its inner end turned downward and provided with an opening and its sides depending into contact with said hearth, feet at opposite sides of said opening, lugs within said base against which the feet rest, and means for directing liquid fuel under the front end of said deflector.

4. The herein described oil burner comprising a pan-shaped base having an integral hearth projecting from its front, the hearth being thickened at its bottom, having an outwardly curled lip at its front, and a cup between the thickened portion and lip, a top member fitting removably upon the base and notched in its front over said hearth, a deflector passing through said notch with its inner end turned downward and provided with an opening, its front end being enlarged into a mouth standing above the lip of said hearth, feet at opposite sides of said opening, lugs within said base against which the feet rest when the mouth of the deflector is disposed above said lip, and means for directing liquid fuel into the front end of said deflector.

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

WILLIAM LAIZURE.

Witnesses:

H. W. VAIL,
F. G. LATHAM.