

C. RISLEY.
CRUDE OIL BURNER.
APPLICATION FILED DEC. 18, 1909.

980,838.

Patented Jan. 3, 1911.

Fig. 1.

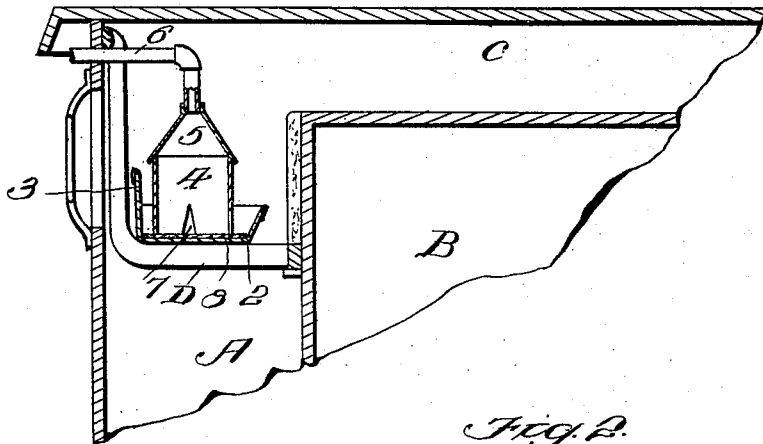


Fig. 2.

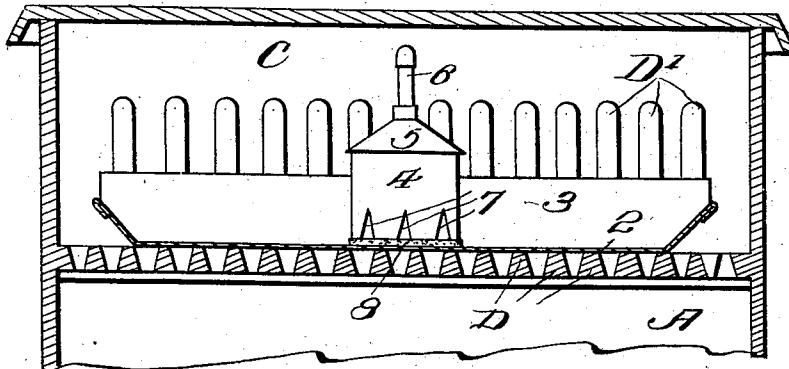


Fig. 3.

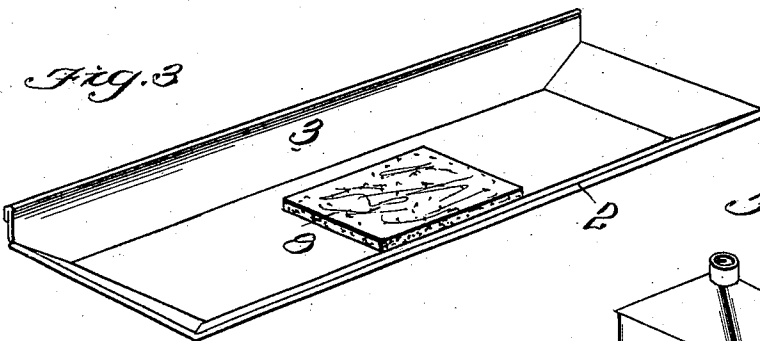
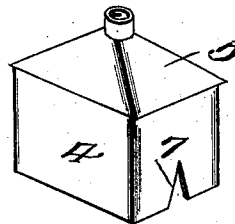


Fig. 4.



Inventor

Witnesses
W. H. Hordern
Juana M. Fallin

By

C. Risley.

Attorneys

UNITED STATES PATENT OFFICE.

CAROLILE RISLEY, OF CLARENDON, TEXAS.

CRUDE-OIL BURNER.

980,838.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed December 18, 1909. Serial No. 533,779.

To all whom it may concern:

Be it known that I, CAROLILE RISLEY, citizen of the United States, residing at Clarendon, in the county of Donley and State of Texas, have invented certain new and useful Improvements in Crude-Oil Burners, of which the following is a specification.

This invention relates to devices designed to be used in the fire-pots or grates of common stoves or heaters for the purpose of burning petroleum oils or other liquid fuel, the object being to provide an exceedingly simple burner adapted to be placed upon the grate of an ordinary stove, and so constructed as to direct the flames from the burning oil away from the grate front of the stove and toward the oven side of the stove and the top of the stove.

A further object is to provide a burner of such exceedingly simple construction that it may be easily manufactured; easily put in place; readily removed; and in which the parts are capable of being easily cleaned without taking the various members of the burners apart.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a fragmentary section of a stove with my improved burner in place; Fig. 2 is a like section taken transverse to that in Fig. 1; Fig. 3 is a perspective view of the pan; and, Fig. 4 is a perspective view of the casing forming the burner.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to these figures, A designates a stove of any desired character, B, the oven thereof, C, the flue, and D, the grate, said grate extending upward in front as at D', as is usual in stoves of this character.

Supported upon the grate and within the fire-box of the stove, is the pan 2 which is of any desired material and shape, the front flange 3 of the pan extending higher than the other flanges, so as to act as a guard for the grate D' of the stove. Loosely supported within the pan 2 is the burner proper 4 which is rectangular in plan view, has four upwardly extending sides and has a frusto-pyramidal cap 5. An oil supply pipe 6

enters the front of the stove through a small opening and is connected to the apex of the cap 5 so that oil supplied from the pipe will flow down the inside of the burner to the bottom of the pan. The lower edges of three sides of the burner are cut away to form notches 7, in other words, there are notches on the rear of the burner and notches on the sides thereof, but no notches on the front plate of the burner, that plate which faces the grate D'. The space immediately beneath the burner upon the bottom of the pan is to be provided with an asbestos mat or wicking 8 which will act to collect and hold the fuel supplied by the pipe 6 and act as a wick for the burning of said fuel.

It will be seen that the oil will trickle down the inside face of the burner and will soak into the asbestos forming the bottom of the pan. Inasmuch as the edge of the burner will be in contact with the asbestos, except where the edge of the burner is notched, the flame will be confined to the notched portions of the burner, the flame extending upward around three sides of the burner so as to thoroughly heat the top of the stove, and also heat the rear of the stove face. No flames, however, will be formed between the front of the burner and the front of the pan. Thus the grate surface, D', is not exposed to flame, nor is the person using the stove and constantly passing in front thereof, exposed to danger, thus overcoming an objection common to most of the simple forms of oil stoves in which the flames project out at all sides of the burner and are liable to project through the grate bars of the stove and into contact with the person using the stove.

It will be seen that inasmuch as the burner is made in a separate piece from the pan it may be readily removed therefrom, so that the interior of the burner may be cleaned or the asbestos renewed, and that the pan and burner being made in separable parts permits them to be readily removed from the stove, readily packed for shipment, and easily repaired when any of the parts are broken, and also allows of such effective cleaning as will prevent the accumulation of soot within the burner and the consequent diminution in the size and heating power of the flames proceeding therefrom.

Having thus described the invention what is claimed as new is:

1. In a crude oil burner, the combination with a pan having upwardly extending sides,

of a hollow burner open at its lower end, a tapered cap closing the upper end of the burner, the lower edge of the wall of the burner being formed with notches, and a supply pipe entering the apex of the cap.

2. In a crude oil burner, the combination with a pan having upwardly extending sides and a layer of asbestos resting upon the bottom of the pan, of a hollow burner open at its lower end and resting upon said asbestos layer, the lower edges of the burner being notched, and a supply pipe entering the upper end of the burner.

3. In a crude oil burner, the combination with a pan having upwardly extending sides, of a many sided hollow burner open at its lower end, one wall of the burner being imperforate, the other walls of the burner being formed with notches on the lower edge thereof, a tapering cap closing the upper end of said burner, and a supply pipe connected to the apex of the cap.

4. In a crude oil burner, the combination with a pan having four sides, the side on the front of the pan extending higher than the other three sides, a rectangular, hollow burner open at its lower end and resting on the pan, the burner being imperforate on the

side toward the front of the pan, the other three sides of the burner being formed with notches at the lower edge of the burner, a frusto-pyramidal cap closing the upper end of the burner, and a pipe entering the apex of the cap.

5. In a crude oil burner, the combination with a rectangular pan having upwardly extending side walls, the side wall on the front of the pan extending higher than the other three side walls, and an asbestos layer disposed on the bottom of said pan, of a hollow burner rectangular in plan and open at its lower end and resting upon said asbestos layer, the three sides of the burner being provided with notches extending upwardly from the lower edge of the burner, the fourth side of the burner being imperforate, a frusto-pyramidal cap closing the upper end of the burner, and a supply pipe opening into the burner at the apex of the cap.

In testimony whereof I affix my signature in presence of two witnesses.

CAROLILE RISLEY. [L. S.]

Witnesses:

J. T. PARKER,

H. O. PARKER.