May 21, 1940. L. R. POSCHADEL 2,201,501

IGNITER

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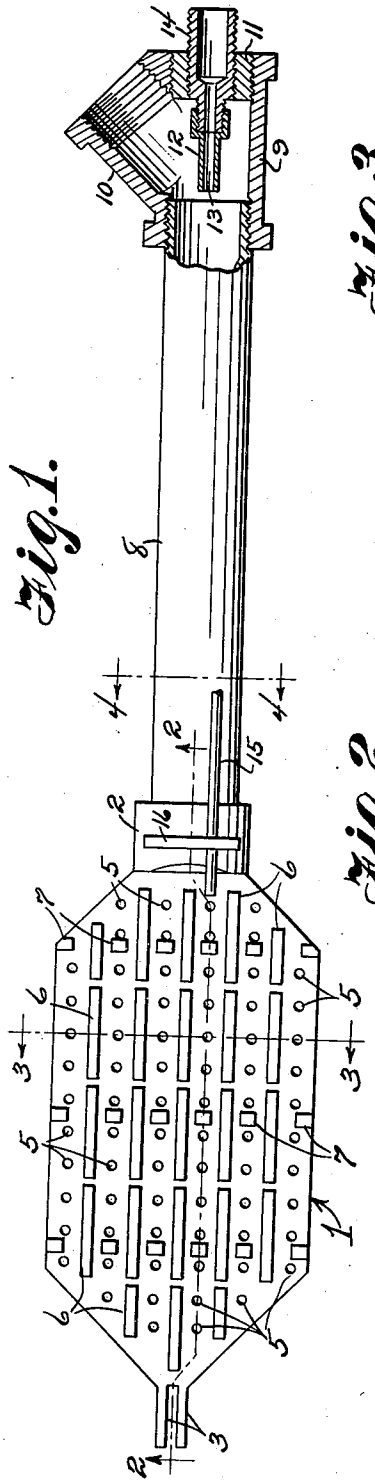

Fig. 1.

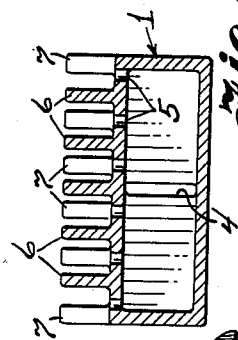

Fig. 3.

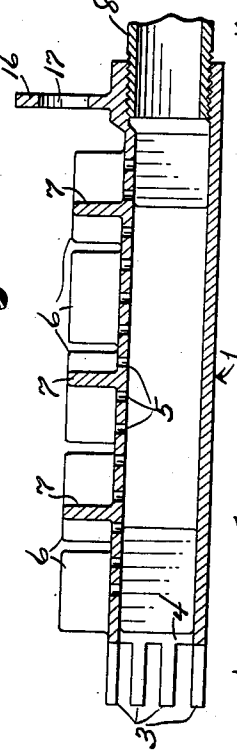

Fig. 2.

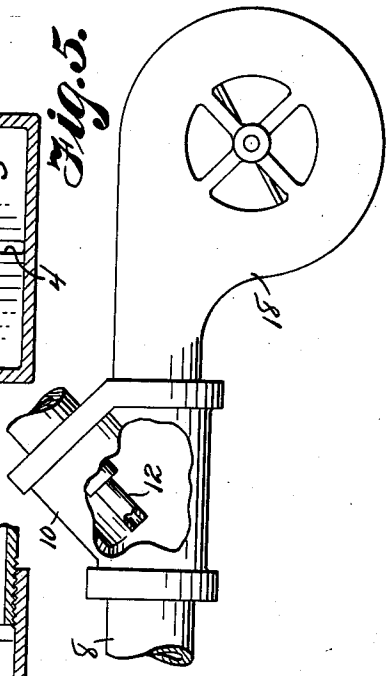

Fig. 5.

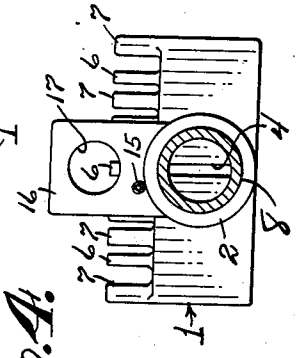

Fig. 4.

Leonard R. Poschadel
INVENTOR

BY Victor J. Evans & Co.
ATTORNEYS

Patented May 21, 1940 2,201,501

UNITED STATES PATENT OFFICE

2,201,501

IGNITER

Leonard R. Poschadel, Milwaukee, Wis.

Application July 13, 1938, Serial No. 219,088

1 Claim. (Cl. 158—10)

My invention relates to igniters and more particularly to igniters employed for the starting of fires within boilers, furnaces, stoves or the like and has for one of the principal objects thereof the provision of a device of the above described character which is simple in construction, highly efficient in operation, durable in use and easy of insertion within furnaces, stoves or the like.

Another object of my invention is to provide a device of the above described character equipped with means for supplying air under pressure to the fire box subjacent the fuel to be ignited therein whereby to promote the igniting of the fuel within a minimum amount of time.

A further object of my invention is to provide a device of the above described character so constructed and arranged that the ordinary draft within the boiler, furnace or stove may be utilized in connection with the device for igniting the fuel in lieu of a force draft.

Other objects and advantages will be apparent from the following description, appended claim and annexed drawing.

Referring to the drawing wherein like reference characters designate like parts throughout the several views:

Figure 1 is a top plan view of my invention, partly in section.

Figures 2, 3 and 4 are sectional views taken on the lines 2—2, 3—3 and 4—4 of Figure 1 respectively.

Figure 5 is a side elevation of a rear section of my invention illustrating the latter equipped with a blower.

In practicing my invention, in the preferred embodiment illustrated in Figures 1 to 4 inclusive, I provide a hollow burner head 1 of a substantially elongated configuration having fashioned on one end thereof a sleeve 2 and on the opposite end spaced groups of fins 3. Said opposite end is formed with an elongated slot 4 effecting communication between the interior of the head and the atmosphere between the groups of fins. The upper wall of the burner head is formed with a plurality of longitudinally extending rows of spaced discharge openings or ports 5 and dividing said rows are spaced upwardly extending fins 6. Also transversing said rows are transversely extending fins 7 which coact with the fins 6 to form a guard for the ports or rows 5 for a purpose hereinafter set forth.

Threaded into the sleeve 2 is the front end of a pipe 8, the rear end of which has threaded thereon a coupling 9 formed with a Y branch 10 as clearly illustrated in Figure 1. Mounted within the outer longitudinally extending end of the coupling 9 is an inlet connection 11 equipped on the inner face thereof with a centrally disposed nipple 12 having an orifice 13 extending therethrough, and on the outer face with a threaded section 14 adapted to receive thereon the discharged end of a flexible gas connection (not shown) whereby gas from a suitable source is introduced within the coupling 9 and mixed with air entering therein through the Y branch 10. The gas thus mixed discharges through the ports 5 and slot 4. When said burner head is inserted within the fire box of a stove, furnace or the like and the gas flowing through the ports 5 and slot 4 is ignited, fuel placed over and around said head will be ignited. The fins 3, 6 and 7 serve to maintain the fuel in spaced relation from the slot and ports 5, it being understood that the ordinary draft in the fire box coacts with the flame from the burner to effect combustion of the fuel.

A gas pilot pipe 15 is mounted in an upwardly extending plate 16 fashioned on the sleeve 2. When the gas flowing from the end of the pilot pipe adjacent the head 1 is ignited, it serves to ignite gas discharged from the head through the ports 5 and slot 4. A peep hole 17 is formed in the plate 16 through which the burner may be readily viewed.

In instances where it is desired to kindle or ignite the fuel in a minimum length of time, the inlet connection 11 is removed from the longitudinally extending end of the coupling 9 and positioned within the Y branch 10. Said longitudinally extending end is connected with a blower 18 as clearly illustrated in Figure 5 thereby providing a forced draft through the burner for quickly kindling the fuel. When the blower is thus used in connection with the head, the space within the head forms a mixing chamber for the air and gas introduced therein.

From the foregoing it will be apparent that I have provided a simple and efficient device adapted to be readily inserted in stoves or the like to ignite or kindle the fuel therein and that said device is so constructed and arranged that a forced draft may be supplied to promote the igniting of the fuel.

What I claim is:

A fire kindler of the character described, comprising, a head fashioned on one end with an elongated hollow member, said head having an upper face formed with discharge openings and with fins extending vertically therefrom and between said openings for guarding the latter from fuel overlying said head, said head having an end wall with converging sides oppositely disposed from said member and formed with a slot-like aperture at the junction of said sides, said end wall formed with vertical rows of spaced horizontal forwardly projecting fins on opposite sides of said aperture.

LEONARD R. POSCHADEL.