A. W. WAITE.

STOVE BURNER.

APPLICATION FILED SEPT. 30, 1912.

1,053,457. Patented Feb. 18, 1913.

FIG. I

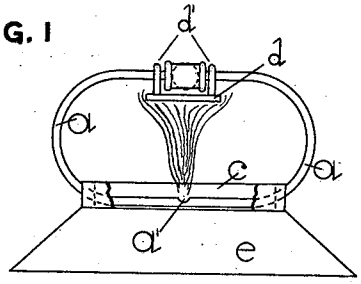


FIG II

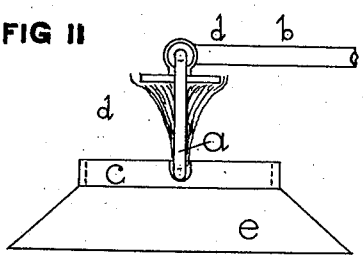


FIG. III

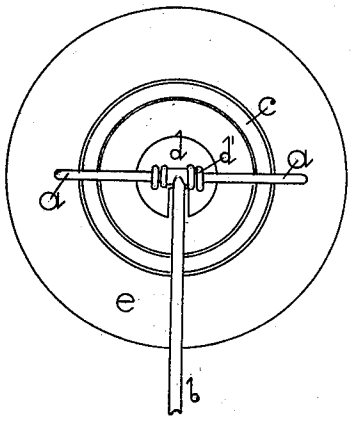
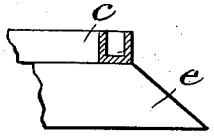


FIG. IV.



Witnesses:

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ANDREW W. WAITE, OF GUELPH, ONTARIO, CANADA.

STOVE-BURNER.

1,053,457. Specification of Letters Patent. Patented Feb. 18, 1913.

Application filed September 30, 1912. Serial No. 723,219.

To all whom it may concern:

Be it known that I, ANDREW WASHINGTON WAITE, a subject of His Majesty King George V of Great Britain, residing at Guelph, in the county of Wellington, Province of Ontario, Dominion of Canada, have invented a new and useful Stove-Burner, of which the following is a specification.

My invention relates to improvements in fuel oil stove burners in which one or more burners are placed in the fire boxes of domestic stoves and consists in arrangements for gasifying the fuel oil and in spreading and deflecting the resultant flame so as to get the utmost benefit from the same. I attain these objects by the mechanism illustrated in the accompanying drawings in which;

Figure I is a front view of my new or improved stove burner. Fig. II is a side view of the same, Fig. III is a top view or plan of the same. Fig. IV is a sectional elevation of part of the base of my new or improved stove burner, showing in section the U shaped horizontal collar.

Similar letters of reference indicate similar parts in all the drawings.

The burner consists of a single vertical coil *a* resting in recess cut in opposite sides of the circular collar *c* which in turn is carried by the base *e* resting on the bottom of the fire box of the stove; it is fed by the feed pipe *b* Figs. II and III which joins the upper loop of the coil *a* and preferably at right angles to the same. Directly below its point of juncture with the upper loop of the coil, and on the upper side of the lower loop of the coil is the vent hole or orifice *a'* through which the gas escapes. The horizontal collar *c* is trough or U shaped and carries a bed or wick of absorbent material for the purpose of starting the burner.

Immediately below the point of juncture of the feed pipe *b* with the upper loop of the heating coil *a* a circular deflector plate *d* is suspended by means of links or loops *d'* from the upper loop of the heating coil, this plate is slotted or cut away immediately below the feed pipe *b* so as to allow of its being tipped or tilted, thus throwing the flame in any desired direction, this deflector plate *d* also spreads the flame so that it impinges in all directions, heating the feed pipe just before its junction with the upper loop of the coil and also heating the coil on each side of said junction.

In operation a small quantity of oil or hydrocarbon is placed on the absorbent material in the collar and is ignited in the usual manner the flame thus created heats the pipes above gasifying the oil and finally dies out while the burner now in action continues until the supply of oil is exhausted or shut off.

I claim:

The new or improved fuel oil burner for stoves comprising in combination an annular trough or collar U-shaped in cross section and horizontally disposed, a ring of absorbent material within said trough, a vertical heating coil resting on said trough, a feed pipe communication with said coil at its highest point, said coil provided with a vent or orifice in its lower portion immediately below the point of junction of the feed pipe with the upper portion of the coil, and an adjustable deflector plate suspended above the vent or orifice for the purpose of spreading and deflecting the heating flame, substantially as set forth.

Signed at Guelph, county of Wellington, Province of Ontario, this 23rd day of September A. D. 1912.

ANDREW W. WAITE.

Witnesses:
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