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FLINT LIGHTER FOR GAS STOVES

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FIG. 1

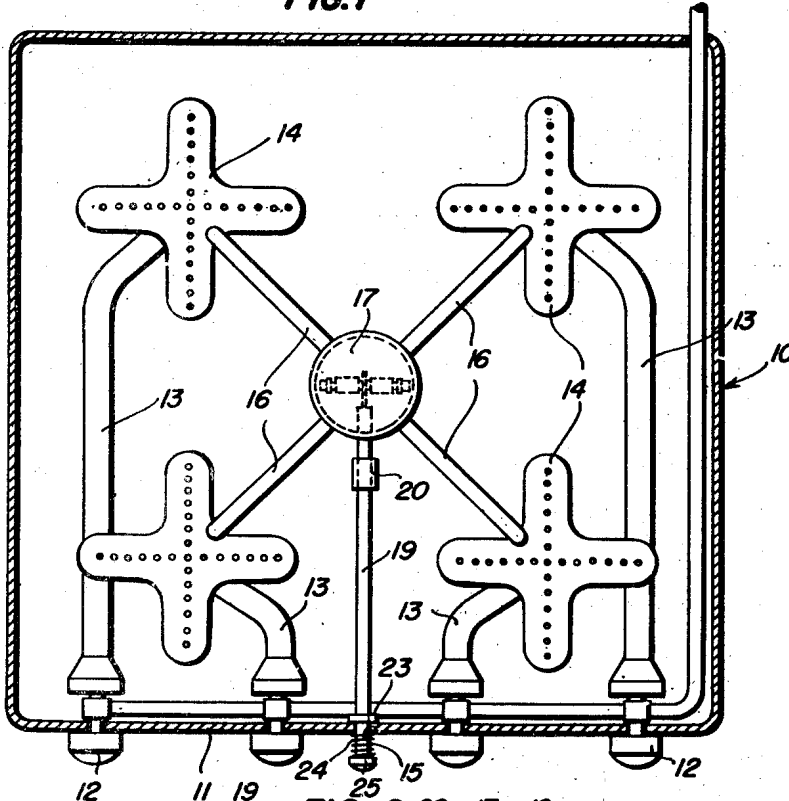
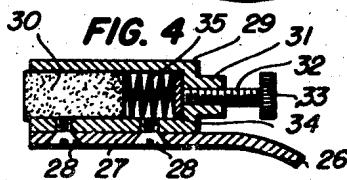
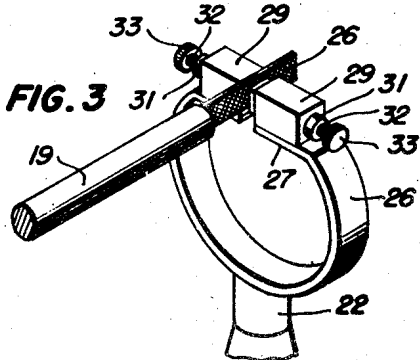
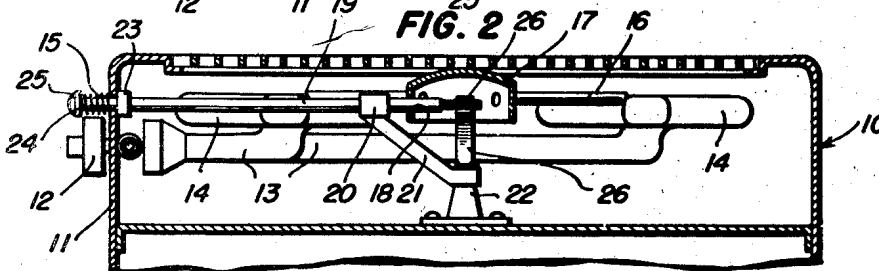


FIG. 2



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FLINT LIGHTER FOR GAS STOVES

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4 Claims. (Cl. 126—39)

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This invention relates to an igniter and more particularly to an igniter for use on domestic gas ranges. The primary object of the invention is to ignite the burner or burners of a gas range when the flow of gas to said burner or burners is established.

Another object is to avoid the expense ordinarily involved through the use of pilot lights or the like.

A further object is to facilitate the conversion of an ordinary gas range having no igniter into an igniter equipped range with a minimum of labor and expense.

The above and other objects may be attained by employing this invention which embodies among its features a standard adapted to be attached to a gas range beneath a hood to which a combustible mixture is conducted from each burner, a pair of opposed flint holders carried by the standard beneath the hood, a guide sleeve on the standard, a push rod slidable in the guide sleeve, a rasp on the push rod and operable between the flint holders and flints in the flint holders yieldingly engaging the rasp whereby when the push rod is advanced the rasp will strike a spark through contact with the flints and ignite the gas beneath the hood.

In the drawings:

Figure 1 is a horizontal sectional view through a domestic gas range equipped with an igniter embodying the feature to this invention.

Figure 2 is a transverse sectional view through Figure 1.

Figure 3 is a fragmentary perspective view showing the flint holders and rasp in detail, and Figure 4 is a longitudinal sectional view through one of the flint holders.

Referring to the drawings in detail, a range designated generally by the numeral 10 is provided with the usual front apron 11 which is pierced at spaced intervals to receive the burner control handles 12 by means of which a combustible mixture of gas and air is introduced through feed pipes 13 to conventional gas burners 14. The structure so far cited is of conventional form and forms no part of this invention.

Formed in the front wall or apron 11 substantially midway between its ends is an opening 15 the purpose of which will be more fully hereinafter explained.

Supported on tubular conduits 16 which rest on the burners 14 is a hood 17 having an opening 18 in its side wall the purpose of which will be more fully hereinafter explained. The conduits 16 are arranged to receive a portion of the com-

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bustible mixture from any one of the burners which may be turned on and to conduct it to the interior of the hood in a manner well known and in common use with ranges equipped with pilot light igniters.

The opening 18 in the hood 17 is disposed toward the front of the range and aligns with the opening 15 in the apron 11 to receive a push rod 19 which is slidably mounted in a sleeve 20 carried by a bracket arm 21 attached to the upper end of a standard 22 which is secured to the range 10 directly beneath the hood 17. A stop collar 23 is carried by the push rod 19 near the end which projects through the opening 15 in the apron 11 and surrounding the projecting end of the rod is a compression coil spring 24 the outer end of which bears against a knob 25 carried by the extreme outer end of the rod while the inner end of the coil spring 24 bears against the outer face of the apron 11 so as normally to hold the rod retracted as illustrated in Figures 1 and 2. A rasp 26 is carried by the end of the rod 19 opposite the knob 25 and is disposed between flint holders to be more fully hereinafter described.

Secured to the upper end of the standard 22 is a yoke 26 the upper end of the legs of which are bent inwardly in opposed relation as at 27 and attached as by screws 28 to these inwardly bent portions 27 are flint holders 29 which take the form of open-ended sockets in which flints 30 are received. The ends of the sockets 29 opposite their open ends are provided with internally screw threaded sleeves 31 for the reception of the shanks of adjusting screws 32 the heads 33 of which are disposed outwardly to facilitate turning of the screws. The inner ends of the screws bear against pressure plates 34 which in turn bear on compression coil springs 35 which are disposed behind the flints 30 so as yieldingly to urge the flints out of the open ends of the sockets 29. Since the rasp 26 is disposed between the adjacent open ends of the sockets 29 it will be obvious that the flints 30 will be yieldingly urged against the rasp 26 so that when the latter is moved a spark will be struck.

In operation it will be understood that when one of the burner control members 12 is turned to open the gas valve a combustible mixture will flow through the pipe 13 to its respective burner 14 and will be conducted from the burner through one of the tubular members 16 into the hood 17. Upon applying pressure to the knob 25 the push rod 19 will move the rasp 26 and through the yielding engagement of the flints 30 with the rasp a spark will be struck. Upon releasing the

pressure on the knob 25 the spring 24 will restore the parts to initial position ready for a repeat operation.

From the foregoing it will be obvious that a simple and efficient igniter is provided which may readily be attached to conventional gas ranges so as to add materially to their convenience of operation.

While in the foregoing there has been shown and described the preferred embodiment of this invention it is to be understood that minor changes in the details of construction, combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

What I claim:

1. The combination with a gas stove having a front apron, a plurality of burners, a hood and tubular gas conduits establishing communication between the burners and the hood, a standard supported on the stove beneath the hood, a pair of oppositely disposed flint holders on the standard and located within the hood, a rasp slidable between the flint holders, flints in the holders, means within the holders to urge the flints into yielding contact with opposite sides of the rasp and means operable through the front apron for sliding said rasp and striking a spark.

2. The combination with a gas stove having a front apron, a plurality of burners, a hood and tubular gas conduits establishing communication between the burners and the hood, a standard supported on the stove beneath the hood, a pair of oppositely disposed flint holders on the standard and located within the hood, a guide sleeve on the standard, a rod slidable through the guide sleeve and the apron, a rasp on the rod slidable between the flint holders, flints in the flint holders and means within the holders to urge the flints into yielding contact with the rasp whereby when the rod is moved a spark will be struck beneath the hood.

3. An igniter for a gas range having an igniter hood and a gas conduit leading from each burner to the hood comprising a standard adapted to be attached to the range beneath the hood, a pair of opposed flint holders carried by the standard, a guide sleeve on the standard, a push rod slidable in the guide sleeve, a rasp on the push rod and operable between the flint holders, flints in the flint holders and means in the holders to urge the flints into yielding engagement with the rasp whereby when the push rod is advanced toward the standard the rasp will strike a spark through contact with the flints.

4. An igniter for a gas range having an igniter hood and a gas conduit leading from each burner to the hood comprising a standard adapted to be attached to the range beneath the hood, a pair of opposed flint holders carried by the standard, a guide sleeve on the standard, a push rod slidable in the guide sleeve, a rasp on the push rod and operable between the flint holders, flints in the flint holders and means in the flint holders to urge the flints into yielding engagement with the rasp whereby when the push rod is advanced toward the standard the rasp will strike a spark through contact with the flints and yielding means to retract the push rod and rasp.

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