Aug. 24, 1926. 1,596,973

P. I. HOLLMAN

BURNER SUPPORT

Filed April 16, 1925

Fig. 1.

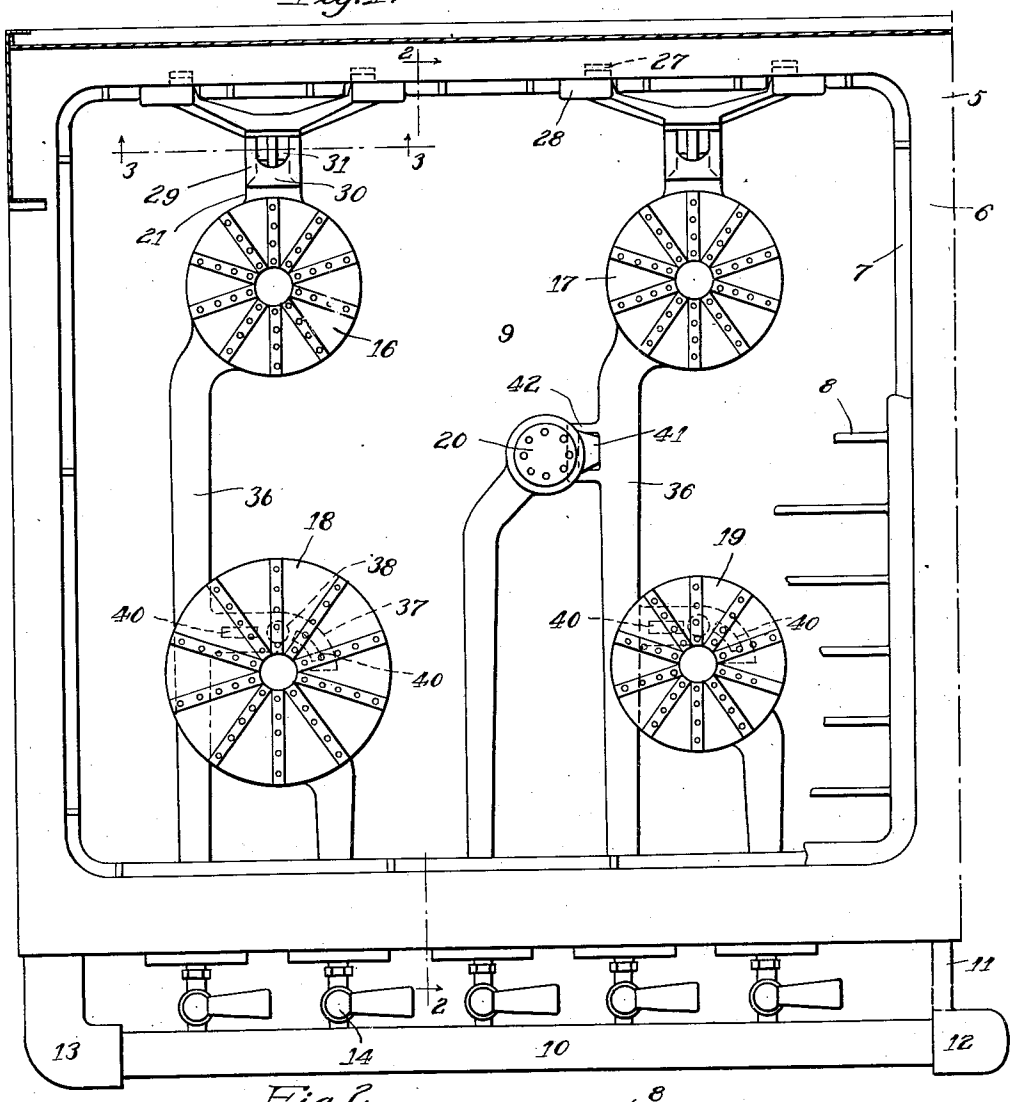


Fig. 2.

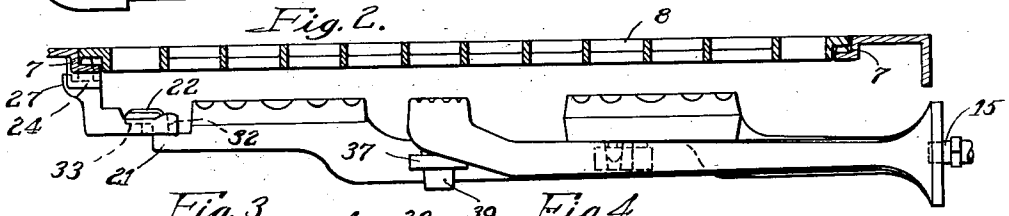


Fig. 3.

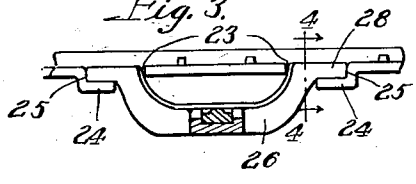


Fig. 4.



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Patented Aug. 24, 1926. 1,596,973

UNITED STATES PATENT OFFICE.

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BURNER SUPPORT.

Application filed April 16, 1925. Serial No. 23,511.

This invention has reference to gas stoves and more especially to novel means for supporting the burners thereof.

In gas stoves or ranges, it has been customary to provide an open top and to support the burners on cross bars or other means which extend across the stove beneath the open top and burners. Such construction is objectionable owing to the obstruction of the space between the top of the oven or catch plate therebeneath, which forms the bottom of the open top section, and prevents free access to the parts therebeneath, for cleaning purposes. Moreover, such supports are positioned beneath the open top and burners and catch food stuffs, grease and dirt or other foreign matter so as to require constant cleaning in order to keep the parts in a clean and sanitary condition.

The present invention provides novel means for supporting the burners, including the simmerer, which obviates the above objections by having the means of support positioned at the back of the top or top frame of the stove or range so that the same will not be clogged up by grease or other foreign matter collecting thereon, while free access may be had therebeneath for cleaning purposes.

The invention also comprehends burner supporting means which considerably simplifies the construction as well as facilitates and reduces the cost of manufacture while at the same time improving the appearance of the stove.

Other objects and attendant advantages will be appreciated by those skilled in this art as the invention becomes better understood by reference to the following description when considered in connection with the accompanying drawings, in which—

Figure 1 is a plan view partly broken away and in section of a gas range the open top of which is equipped with burners supported in accordance with the invention.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1, and

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 3.

Referring to the drawings in detail wherein I have illustrated an embodiment of the invention and in which similar reference characters designate corresponding parts throughout, 5 designates a gas range having an open top or top frame 6 provided at its inner edge with a recess or rabbet 7 designed to take the usual open top sections or portable top grates 8, and beneath which a bottom plate 9 is arranged in spaced relation and in such manner to form the top of the oven in certain types of stoves or ranges. A manifold 10 is supported at the front of the stove in any suitable manner but preferably by an end bracket 11 having a cap 12 and at the other end by an elbow 13 from which the gas supply pipe from the main may extend rearwardly beneath the adjacent side of the open top or frame 6. The manifold 10 supports a plurality of valves 14 having connection thereto and including the valve means for admitting primary air for combustion as usual in the Bunsen type of burners, as well as the nipples or inwardly extending nozzles 15 which extend into and support the forward ends of the burners 16, 17, 18, and 19 and the simmerer 20 through the medium of the usual tubular portions or pipe extensions thereof.

In lieu of supporting the burners upon cross bars or other supporting means extending across the opening of the open top section or frame of the stove, the rear burners 16 and 17 are supported at the back of the frame and the front burners 18 and 19 and the simmerer 20 are supported by the tubular portions of the burners 16 and 17. For this purpose, the rear burners or usual perforated circular or otherwise formed castings thereof are provided with integral rearwardly extending lugs 21 having rearwardly extending and upwardly offset or angular portions 22, forming in effect angular lugs with upwardly and rearwardly extending legs. These lugs are located rearwardly in line with the axes of the burners, and the back of the frame 6 at the bottom of the seat or rabbet 7 and the inwardly extending bottom flange produced thereby, is provided with openings 23 equidistantly spaced at either side of the angular lugs and axes of the burners, and inwardly extending depressed portions 24 beneath the

outer portions of said openings forming shoulders 25.

Separable supporting elements or castings 26 are provided for connecting the lugs to the back of the frame or form a means of support for the burners and to facilitate assemblage and disassemblage. These elements are in the form of depressed arcuate castings as seen more particularly in Fig. 3 and have the ends of the arms thereof provided with rearwardly extending angular lugs 27 and outwardly extending lugs 28. The central portion of the casting is provided with a forwardly extending lug 29 having an up-pressed or raised arcuate front portion 30, the arcuate bottom recess of which is adapted to accommodate and fit a lug 21. Each lug 29 is provided with an opening 31 tapered forwardly and having a forwardly inclined front wall 32 to fit the adjacent side of an angular lug or extension 22. The back of the opening is provided with a shoulder or ledge 33 and an adjacent recess or depression on which the rear end of the lug 22 is seated and rests.

In mounting the burners 16 and 17 in position, the detachable elements 26 are engaged with the lugs 22 through the openings 31 in the lugs 29, while the angular lugs 27 are engaged in the openings 23 and the transverse grooves 34 provided thereby receive depending flanges 35 of the back portion of the open top or frame 6. The lugs 28 rest upon the depressed portions 24 with the extremities thereof abutting the shoulders 25 and as the parts are thus engaged and swung downwardly they will be limited in their movements when in aligned horizontal position thereby supporting and sustaining the burners as clearly indicated in Figs. 1 and 2 of the drawings in the manner of bridge pieces.

In order to support the burners 18 and 19, the tubular portions 36 thereof are provided with laterally extending and forwardly curved lugs or arms 37 each having an opening 38 for taking a downwardly extending projection or pin 39 cast with the burners 18 and 19 in line with the axes thereof rearwardly. Ribs 40 also project up from the arms 37 on either side of the openings 38 to engage the bottom surfaces of the burners 18 and 19 and prevent the latter from tilting whereby they are maintained in a horizontal plane. The simmerer 20 has a laterally and downwardly extending lug 41 engaging in the opening of an apertured lug 42 cast integral with the tubular portion of the burner 17 and extending laterally and inwardly therefrom in an opposite direction to the direction of the extent of the lug 41. By having the lug 41 extending beneath the tubular portion 36, the small burner or simmerer is supported and held from tilting downwardly.

The above described construction permits convenient access to the burners and parts or corners therebeneath upon removing the grates 8 and eliminates the necessity of employing cross bars or rods extending between the sides of the open top or frame. It also adds to the attractiveness in the appearance of the stove and eliminates the necessity of employing screws, bolts or other securing means which have heretofore been necessary, thereby facilitating the assembling and disassembling of the parts, reducing the cost of manufacture and facilitating quantity production.

While I have described what I now consider to be the preferred embodiment of the invention, it is to be understood that the device is susceptible of wide changes and variations in the construction, arrangement and purposes of the parts as well as the materials used, without departing from the spirit and scope of the invention as will be hereinafter defined in the claims.

I claim:

1. In a burner support the combination with an open top of a stove, a burner, means for supporting the burner at the front of the top, means for supporting the burner at the back of the top, an apertured lug projecting from the burner and another burner also supported at the front of the stove and having a depending projection entering the aperture of said lug.

2. A burner support comprising in combination with an open top section of a stove, including a frame having an internal rabbet with spaced openings and depressed portions, supporting elements having opposite ends seated in the depressed portions and interlocking with the frame, an apertured lug projecting from each element, burners having angular lugs engaging with the apertured lugs, and means to support the opposite end of the burners.

3. A burner support comprising in combination with an open top section of a stove, including a frame having an internal recess forming a flange with spaced pairs of openings and adjacent depending flanges and depressed portions at the outer portions of the openings forming end shoulders, depressed supporting elements having opposite ends provided with outwardly extending angular lugs engaging and interfitting with the flanges, an apertured lug projecting from each element and formed with a back ledge, burners having upwardly offset angular lugs engaging and interfitting with the apertured lugs and resting on the ledges, a burner manifold, valves carried thereby, said burners having pipe extensions supported on the valves, integral supporting lugs projecting laterally from the pipe extensions, and other burners supported on said lugs.

4. In a gas stove the combination with a burner top section, of a plurality of burners therein forwardly and rearwardly disposed with respect to the front of said section, the rearward burner having a tubular extension leading to the front of said section and having means for supporting the same at said burner at the rear of said section and at the outer end of said tubular extension at the front of said section, an apertured lug projecting off the side of said tubular extension, and a projection provided on the forwardly disposed burner to seat in the aperture in said lug for the support of said burner.

5. In a gas stove as set forth in claim 4, a pair of forwardly disposed burners on opposite sides of the tubular extension of the rearward burner, and apertured lugs provided on opposite sides of said tubular extension to receive projections provided on said forwardly disposed burners to support the same.

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