R. G. JAMISON.

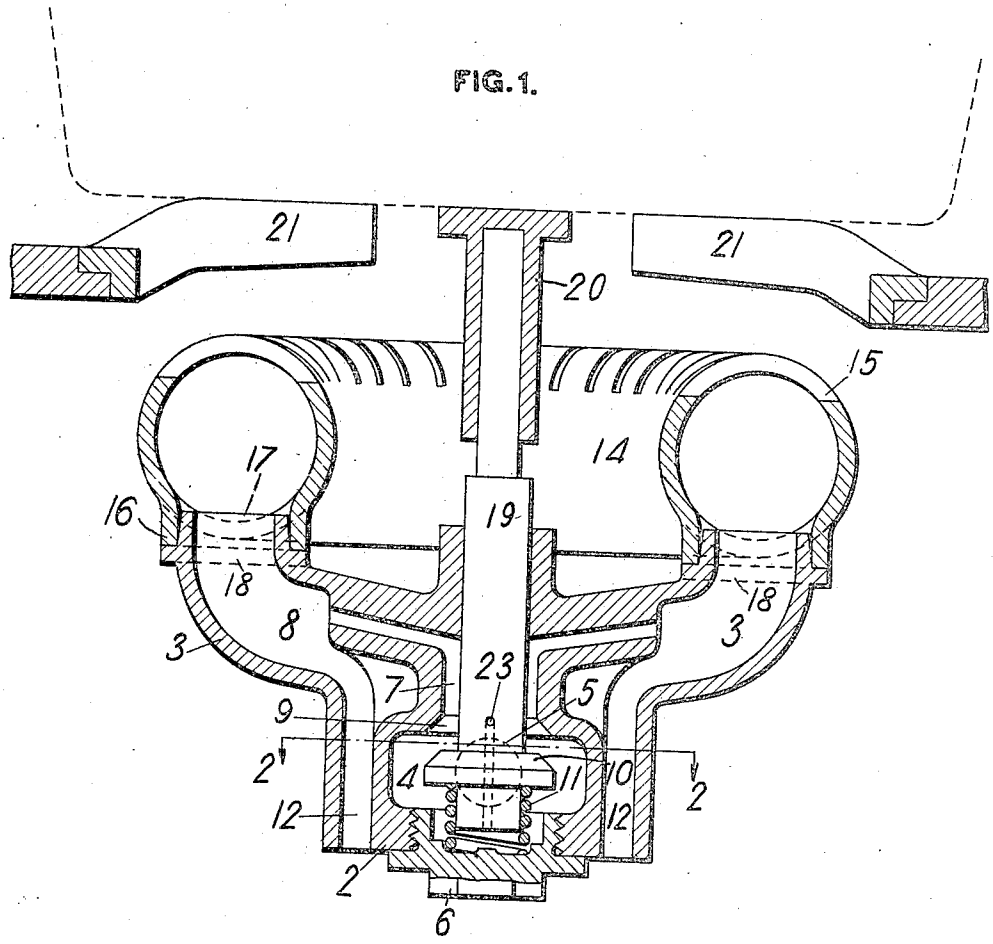
AUTOMATIC GAS BURNER.

APPLICATION FILED MAR. 17, 1909.

957,342.

Patented May 10, 1910.

FIG. 1.



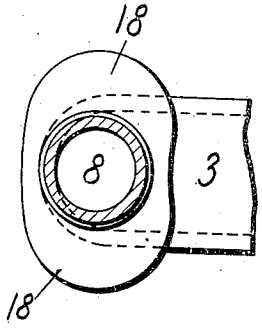


FIG. 3.

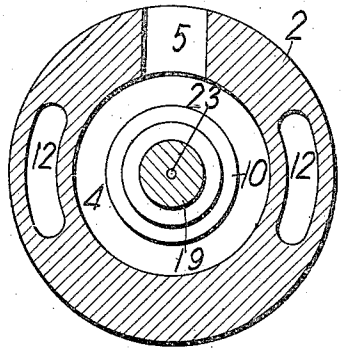


FIG. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

ROBERT G. JAMISON, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CHARLES M. PATTERSON, OF PITTSBURG, PENNSYLVANIA.

AUTOMATIC GAS-BURNER.

957,342. Specification of Letters Patent. Patented May 10, 1910.

Application filed March 17, 1909. Serial No. 484,001.

To all whom it may concern:

Be it known that I, ROBERT G. JAMISON, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Automatic Gas-Burners, of which the following is a specification.

This invention relates to gas cooking stoves, and more particularly to a burner therefor so arranged that the quantity of gas flowing to the burner is increased and decreased by the mere placing of the cooking utensil on or taking the same off the burner.

The object of the invention is to provide a simple, durable and economical burner for this purpose.

In the accompanying drawing Figure 1 is a vertical section through the burner; Fig. 2 is a horizontal section on the line 2—2, Fig. 1; and Fig. 3 is a plan view of an end of an arm with the burner ring removed.

The burner comprises a suitable casting having the lower substantial circular body portion 2 and oppositely arranged hollow arms 3 projecting therefrom. Two such arms are shown but obviously any number may be employed. The body 2 is recessed from the lower side to provide a chamber 4 with which communicates the gas inlet port 5. The chamber 4 is closed on the bottom by a cap nut 6 and from the top thereof an opening 7 communicates with the passages 8 in the hollow arms 3. Around the opening 7 is a valve seat 9 with which coöperates a valve 10 which is held normally on the seat by spring 11 interposed between the valve and the cap 6. Air ports 12 are formed through the casting 2 on opposite sides of chamber 4 and communicate with the passages 8 of arms 3.

The air and gas are distributed by means of a burner ring 14 provided in its top surface with the usual perforations or slits 15. This ring is provided on its lower face with openings 16 for receiving the ends 17 of the hollow arms 3. Said ring is readily detachable from the arm 16, merely resting upon ledges or projections 18 formed on the sides of the hollow arms, so that said ring can be readily removed when necessary for cleaning and the like.

The stem 19 of valve 10 projects up through an opening in the casting and at its upper end carries a cast iron cap 20 which, when the valve is closed, projects slightly above the top surface of the stove plates which are indicated at 21, so that when a kettle or other utensil is placed over the burner the valve stem is depressed against the tension of spring 11 to open valve 10. A small pilot port 23 is formed either through the valve 10 or through the casting itself, so as to admit a small supply of gas to the burner to maintain a small or pilot flame. When valve 10 is open a larger amount of gas is supplied to the burner and this is controlled by the mere placing of the utensil on the stove or removing the same therefrom.

The burner described is of simple construction and composed of a minimum number of simple parts which cannot break or get out of order. The burner ring or gas distributing ring can be easily removed from the lower part of the burner for the purpose of cleaning whenever necessary. The spring for holding the valve closed is located in the lower part of the casting, away from the heat where its temper will not be affected.

I am aware that burners having valves which open and close by placing the utensil on and removing the same from the stove have heretofore been proposed for cooking stoves, but my improved burner is much simpler, cheaper to manufacture, and of more durable construction than prior devices of a similar character.

What I claim is:

1. In a gas cooking stove, a burner comprising a casting provided with a gas inlet chamber and with oppositely arranged hollow arms and with air ports communicating with said hollow arms, a hollow distributing ring resting on and communicating with said hollow arms, and a valve controlling a passage between the gas inlet chamber and said hollow arms and provided with actuating means projecting above the burner.

2. In a gas cooking stove, a burner comprising a casting provided with a gas inlet chamber and oppositely arranged hollow arms and with air ports communicating with said hollow arms, a hollow distributing ring resting on and communicating with said hollow arms, a valve controlling communication between the gas chamber and the hollow arms and provided with a stem pro-

jecting above the burner, and a spring in the lower part of said casting and arranged to close said valve.

3. In a gas cooking stove, a burner comprising a casting provided with a gas inlet chamber and with oppositely arranged hollow arms, a burner ring resting on and communicating with said hollow arms, a valve controlling communication between the gas chamber and said hollow arms and provided with a stem projecting above the burner, a spring in the lower part of the casting arranged to close the valve, and a constantly open port affording communication between the gas chamber and said hollow arms.

4. In a gas cooking stove, the combination of a casting provided with a gas inlet chamber and with oppositely arranged hollow arms and with air ports communicating with said hollow arms, a hollow burner ring resting on ledges on the ends of said arms and removable therefrom and communicating with said hollow arms, and a valve controlling communication between the gas chamber and said hollow arms and provided with actuating means projecting above the burner.

5. In a gas cooking stove, the combination of a casing provided with a gas inlet chamber and oppositely arranged hollow arms and with air ports communicating with said hollow arms, a hollow distributing ring resting on said arms and communicating with the passages therein, a valve controlling communication between the gas chamber and said hollow arms and provided with an upwardly projecting stem, a cast metal cap on the upper end of said stem, and a spring in the lower part of the casting arranged to close said valve.

In testimony whereof, I have hereunto set my hand.

ROBT. G. JAMISON.

Witnesses:
HOWARD NEELY,
F. W. WINTER.