July 10, 1923. 1,461,663

J. KEMMER

GAS BURNER

Filed Oct. 27, 1921

Fig. 1.

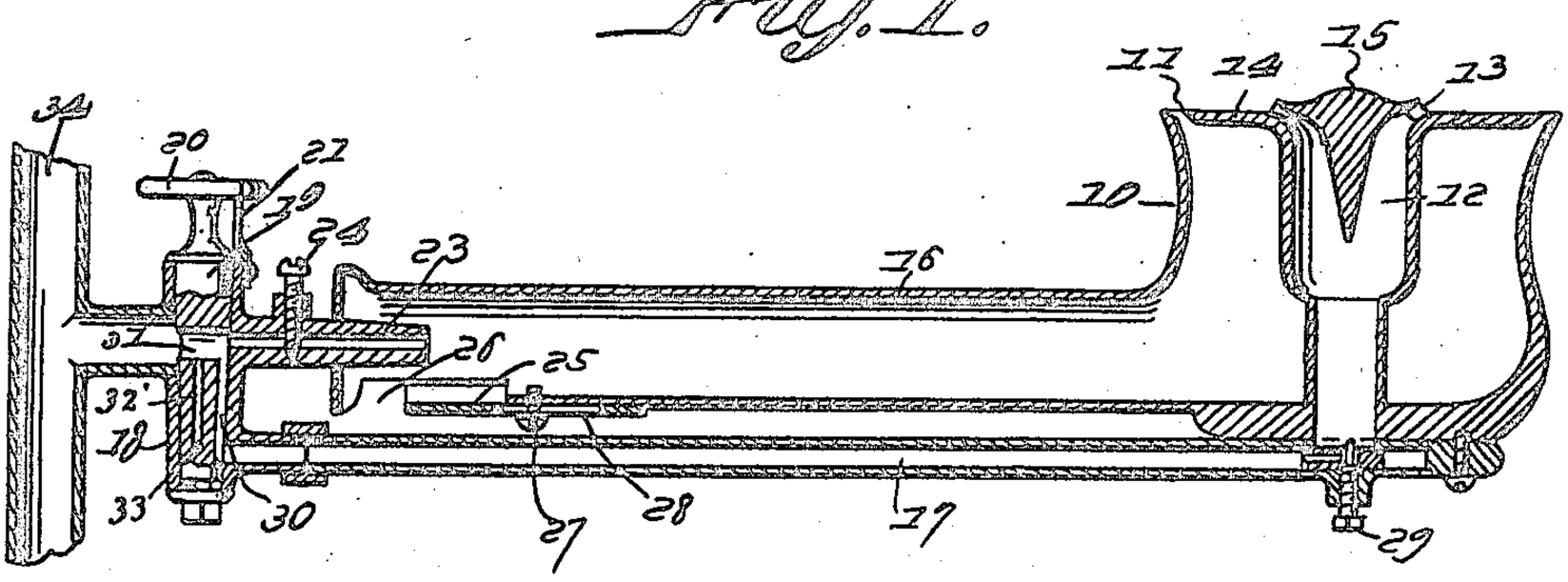


Fig. 2.

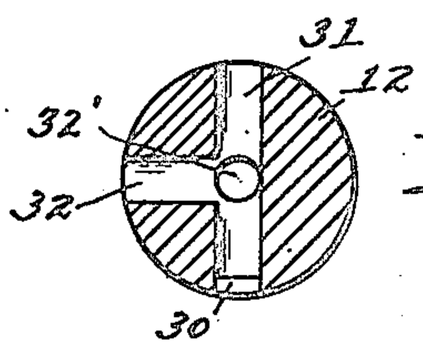


Fig. 5.

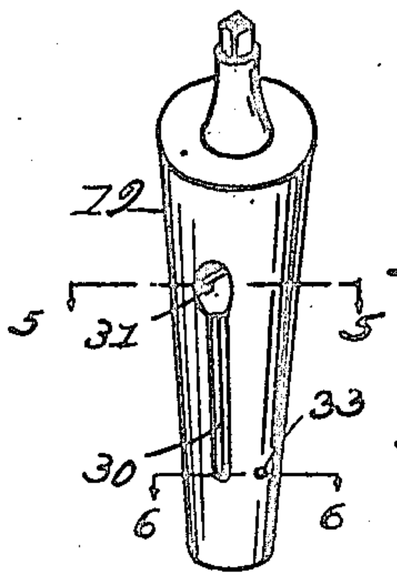
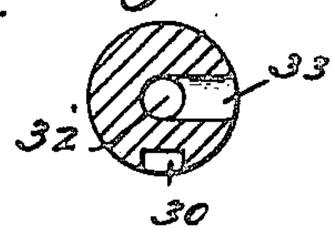


Fig. 6.



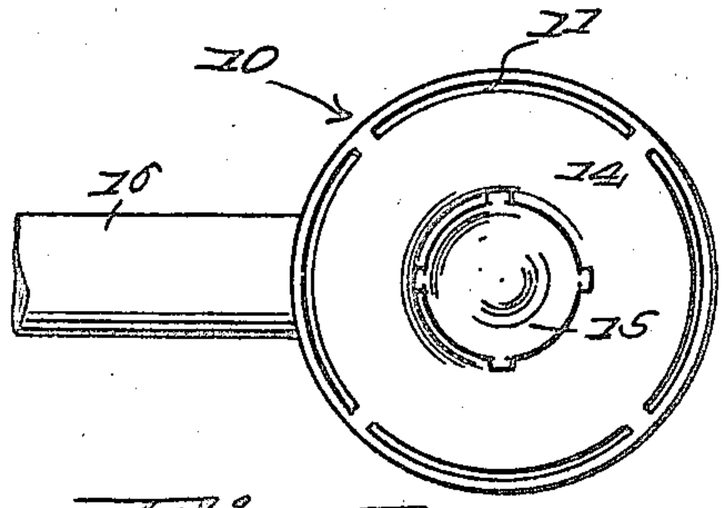


Fig. 3.

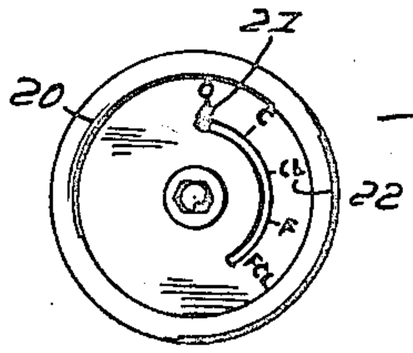


Fig. 4.

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By Thurman Talbert

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Patented July 10, 1923. 1,461,663

UNITED STATES PATENT OFFICE

JEAN KEMMER, OF ILION, NEW YORK.

GAS BURNER.

Application filed October 27, 1921. Serial No. 510,696.

To all whom it may concern:

Be it known that JEAN KEMMER, a citizen of Luxemburg, residing at Ilion, in the county of Herkimer and State of New York, has invented new and useful Improvements in Gas Burners, of which the following is a specification.

The object of the invention is to provide a simple and efficient gas burner for use in connection with cook stoves and the like whereby a flame of varying intensity, volume and area may be provided by the manipulation of a single valve under the control of the operator, to the end that an economy in the consumption of fuel may be effected while securing the results sought by the operator; and with these objects in view the invention consists in a construction and combination of parts of which a preferred embodiment is shown in the accompanying drawings, wherein:—

Figure 1 is a longitudinal sectional view of a burner embodying the invention.

Figure 2 is a detail view of the controlling valve.

Figure 3 is a plan view of the burner tip.

Figure 4 is a top plan view of the grip or handle of the valve, showing the indicator used in connection therewith.

Figure 5 is a transverse section taken on the line 5—5 of Figure 2.

Figure 6 is a transverse section taken on the line 6—6 of Figure 2.

The device embodies a burner tip of composite construction comprising a main burner member 10 provided with an orifice 11 adapted for discharging an amount of fuel sufficient to form a flame of large volume and area and a supplemental or inner member 12 enclosed by the main burner member and provided with an orifice 13 for discharging an amount of fuel only suitable for supporting a flame of small area and volume, such as is used in cooking operations for example as a means of maintaining a vessel in a heated condition or in warming the same or when the slow cooking operation is required. The burner members embody chambers fitted at their outlet ends with suitable spreaders 14 and 15 and are in communication respectively with fuel conductors 16 and 17 of which the latter is of reduced capacity as compared with the former, and both of which are in communication with the casing or seat 18 for a controlling valve which in the construction illustrated embodies a rotary plug 19 fitted with a grip or handle 20 and an indicator 21 for traversing a scale 22 to serve as a means of disclosing to the operator the extent of flame which is being produced at the burner tip and thereby facilitate the adjustment of the same.

The communication between the valve seat or casing and the major conductor 16 is effected preferably by means of a nozzle 23 which in turn may be fitted with a regulating needle valve 24, the admission of air to the said conductor to provide a properly combustible mixture being controlled by a gate 25 disposed in operative relation with an air inlet 26 and held in place by a guide screw 27 engaging a slot 28. The reduced or pilot conductor 17 which communicates with the auxiliary burner chamber 12 may also as illustrated be provided with a regulating needle valve 29.

The plug of the regulating valve is provided with a composite passage 30 adapted to establish communication between the supply pipe 31 and both of the gas conductors when the full effect of both burner members is desired, and also with a passage or channel 32 having an inlet 32′ and outlet 33 for establishing communication only with the pilot conductor 17, and by varying the rotary position of the plug, or its angular adjustment in accordance with the indicating scale above described, the extent of opening or communication may be modified or regulated so as to enable the operator to produce a flame of any degree of intensity or volume between the extreme capacity of the combined burner members and a relatively small pilot flame at the auxiliary burner tip.

Having described the invention, what is claimed as new and useful is:—

A device for the purpose indicated comprising concentric main and auxiliary burners of which each is provided with a chamber and suitable spreaders at the top thereof, a pair of fuel conductors arranged in superimposed relation of which the upper is in communication with the main burner chamber and the lower in communication with the auxiliary burner chamber, a valve casing having means for connection to a source of fuel supply and in operative connection with both of said fuel conductors, a valve mounted in said casing and ported to admit fuel into both conductors simul-

taneously or into the conductor in communication with the auxiliary burner chamber, depending on the position of the valve, and an air control means mounted on the fuel conductor in communication with the main burner chamber and consisting of a gate for sliding movement longitudinally of said conductor to more or less open an air inlet in the bottom of said conductor adjacent its point of communication with the valve casing, said gate being slotted longitudinally, and a screw threaded into said conductor and passing through said slot, the head of the screw bearing on the gate for the purpose specified.

In testimony whereof he affixes his signature.

JEAN KEMMER.