

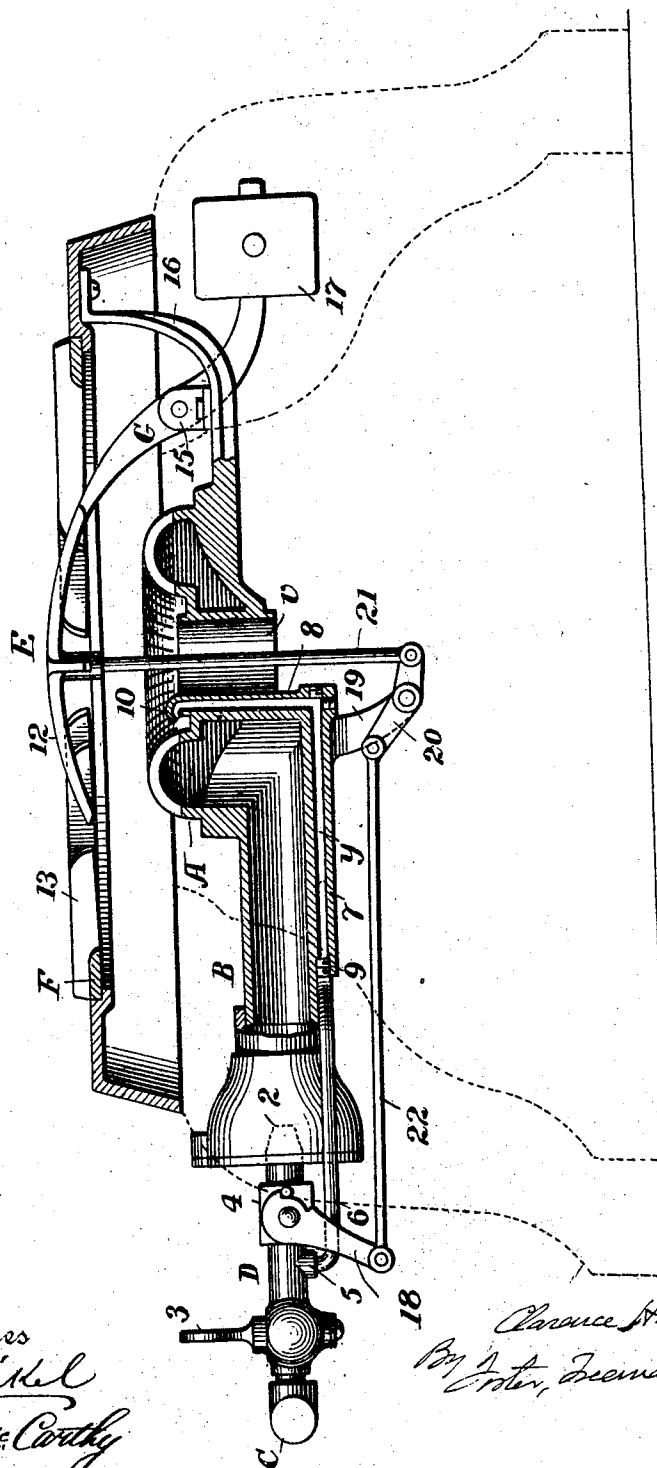
C. H. HERR.
GAS STOVE REGULATOR.
APPLICATION FILED MAR. 10, 1908.

929,090.

Patented July 27, 1909.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

J. J. McCarty

Inventor

Clarence H. Herr
By J. J. McCarty, Attorney

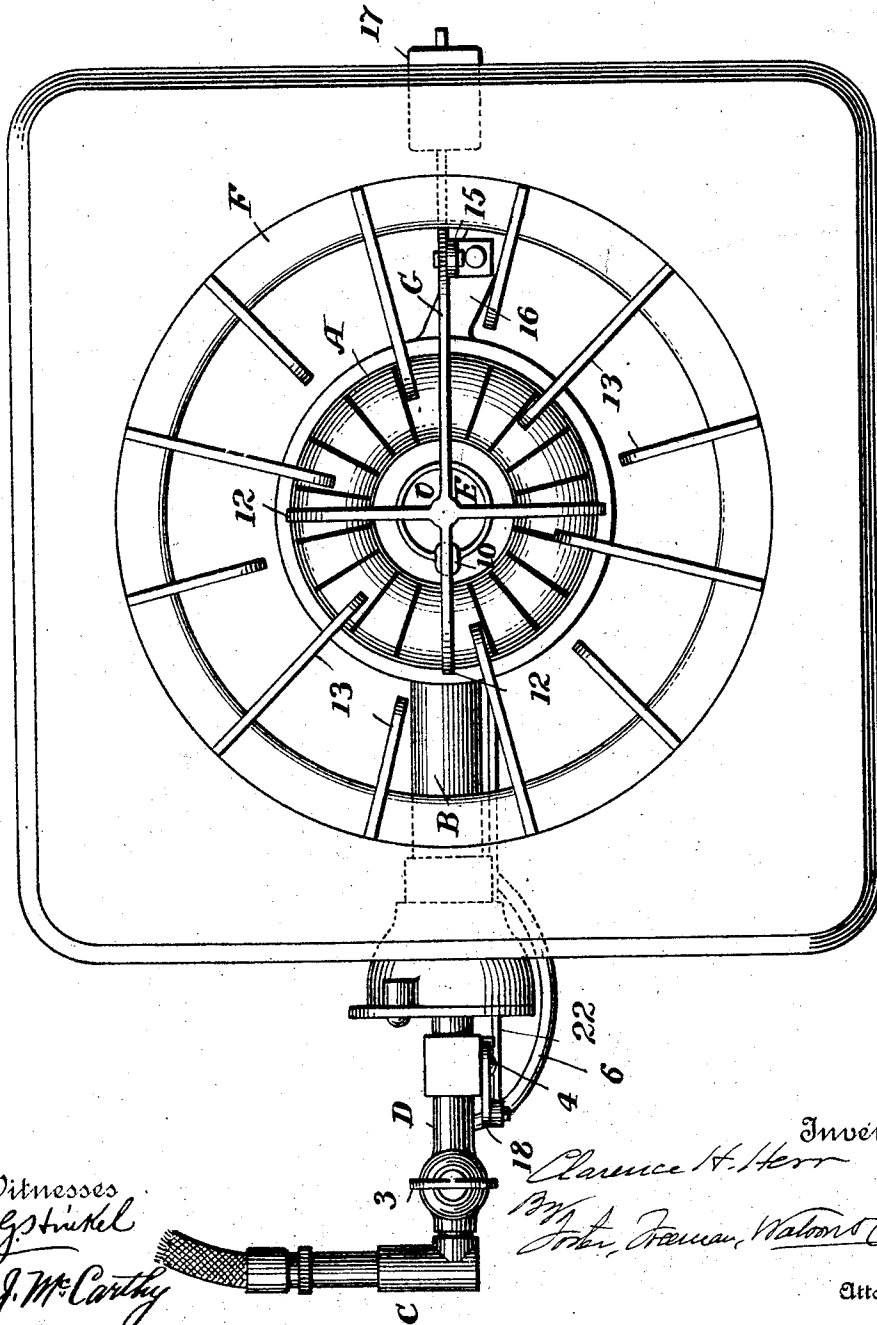
Attorney

C. H. HERR.
GAS STOVE REGULATOR.
APPLICATION FILED MAR. 10, 1908.

929,090.

Patented July 27, 1909.
2 SHEETS—SHEET 2.

Fig. 2.



Witnesses
J. J. Stinkel
J. J. McCarthy

Inventor
Clarence H. Herr
John A. Freeman, Watson & Co.
Attorneys

UNITED STATES PATENT OFFICE.

CLARENCE H. HERR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-EIGHTH TO HENRY P. BRIDGES, OF BALTIMORE, MARYLAND, AND WILLIAM F. BROOKES, JR., OF ALEXANDRIA, VIRGINIA, AND ONE-EIGHTH TO WILLIAM J. CONLEN AND ONE-FOURTH TO VICTOR J. HAMILTON, BOTH OF PHILADELPHIA, PENNSYLVANIA, AND ONE-HALF TO UNIVERSAL GAS IMPLEMENT COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF DELAWARE.

GAS-STOVE REGULATOR.

No. 929,090.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed March 10, 1908. Serial No. 420,262.

To all whom it may concern:

Be it known that I, CLARENCE HOFFMAN HERR, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain new and useful Improvements in Gas-Stove Regulators, of which the following is a specification.

My invention relates to that class of stoves in which there is a support for a burner supplied with a proper combustible mixture and where it is necessary to reduce or extinguish the flame when utensils are not on the stove, and to this end my invention consists of means whereby the control cock is shifted from a controller supported by a counterweight, as fully set forth hereinafter and as illustrated in the accompanying drawing, in which:

Figure 1 is a sectional elevation of a gas stove embodying my improvement; and Fig. 2 a plan view.

The gas burner A, of suitable construction, has combined therewith a mixing tube B, opposite to which is any suitable form of nozzle 2, to which gas is supplied through a main pipe C. This nozzle is part of a fixture D, which includes the seat for a cock 3 used for turning the gas on and off the burner, and an auxiliary valve 4, which is shifted by the action of a controller E, so that when the controller is in one position the gas is turned on to the main burner, and in another position the gas is cut off therefrom. Intermediate the valves 3, 4, there is a port 5, with which to connect a pilot-light pipe 6, the latter extending to or communicating with a channel extending to a point adjacent to the main burner, and as this port 5 is back of the valve 4 and in constant free communication with the main pipe, when the cock 3 is open the gas will always flow through the pilot-light channel, and the pilot light may be constantly maintained. In order to effectively construct these parts I prefer, as before stated, to provide the fixture D with the seats for both valves so that this fixture may be applied in connection with ordinary forms of mixing tubes and arrangement of main pipes, and to prevent as far as possible any possibility of breaking the pilot-light connection I pre-

fer to extend the channel *y* through enlargements or ribs 7, 8, cast upon the casing which includes the burner and main section of the mixing tube, and to bore or otherwise form the channel in these portions, the forward end of the channel being threaded or socketed at 9 for the reception of the free end of the pipe 6.

To prevent the extinguishing of the pilot-light by a draft of air through the central opening *v* of the burner, and also to prevent the small opening of the pilot-light becoming clogged by the dropping of grease I cover the pilot-light channel by means of a cap 10, preferably formed by so constructing the parts that the channel is curved downward at the upper end as shown. The arrangement of this channel also inside the burner and adjacent to the latter insures that the portion of the channel where the opening is situated shall be submitted to an intense heat so that any particles of food or other matter dropping onto the burner at this point will be certain to be consumed and prevent any possible extinguishing of the pilot light, thereby preventing the results which would arise in case the light was extinguished without turning off the gas.

The controller E is centrally arranged and has radial arms 12, which are curved downward from the center and the parts are so supported and arranged that the ends of these arms shall not project above the inward projecting arms 13 of the grid F, and as a result of this construction the deposit of any vessel upon the stove, either directly downward or by shoving it laterally will have no tendency to strike and deflect and break the controller. The controller is wholly supported on and guided by lever G, pivoted to a support 15, adapted for attachment to the bracket 16, which usually supports the burner in stoves of this character, and has at the outer end a counterweight 17, sufficient to counter balance the part E and to normally maintain it in its lifted position and also to operate the valve 4, when the vessel is removed from the controller. Suitable connections extend between the controller and the valve. As shown the valve is provided with an arm

18, and an arm 19 extending from the burner casing supports the pivot of a lever 20, one arm of which is connected to a rod 21 on the upper end of which rests the hub at the center of the controller E, while the other arm is connected by a rod 22 to the end of the arm 18 of the valve 4. These parts are so arranged that when the controller is in the normal position shown in the drawing, it is held therein by the weight 17, and the valve 4 is closed, the gas however passing freely to the pilot-light opening. When a vessel is placed upon the controller it is depressed and thereby swings the lever 20, and arm 18, and turns the valve 4, turning the supply of gas from the burner.

These parts, constructed as above described, have been devised with a view of meeting the exigencies of an apparatus of this class, the controller E being so supported without bearings or slides that in case it shall warp from the effects of heat, there will be no friction resulting upon its supports, while the connecting rod 21 is arranged so that it will be subjected to the flame, and any particles, such as bread or pieces of meat, which may drop downward will be burned and thus avoid interference with the operation of the controller, and there is in no case any clogging or obstruction of the operating parts. Further it will be seen that I have avoided the use of springs which experience has proved to be detrimental in any kind of control arrangement for gas stoves.

An important feature of my above described construction is the connecting of the controller and the arm of the valve 4, through the medium of a horizontal con-

necting rod 22, and adjuncts, as described. By this construction I am enabled to adapt the parts of my apparatus to the burners arranged at different points of the stove, simply by varying the length of the connecting rods 22, the parts connected with the burner at the back of the stove being precisely the same as those with the burner at the front, except that the connecting rod 22 in such case is longer.

It will be seen that the parts connected with the controller are all arranged below the supporting grid F, so as to be entirely out of the way of the cooking utensils, except to the limited extent to which the center of the controller is permitted to occupy a position above the grid.

Without limiting myself to the precise construction and arrangement of parts shown and described, I claim as my invention:

The combination with the grid burner and valve of a gas stove, of a controller arranged within the grid and above the burner and provided with downwardly extending curved arms, a lever pivoted below the grid and connected rigidly to the controller, a counterbalance for said lever, a rod extending centrally downward from the controller, and wholly supported thereby, and positive connections between the rod and valve.

In testimony whereof I affix my signature in presence of two witnesses.

CLARENCE H. HERR.

Witnesses:

CHARLES E. FOSTER,
ARTHUR L. BRYANT.