No. 747,474. PATENTED DEC. 22, 1903.

W. M. PARTRIDGE.

GAS STOVE.

APPLICATION FILED FEB. 21, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

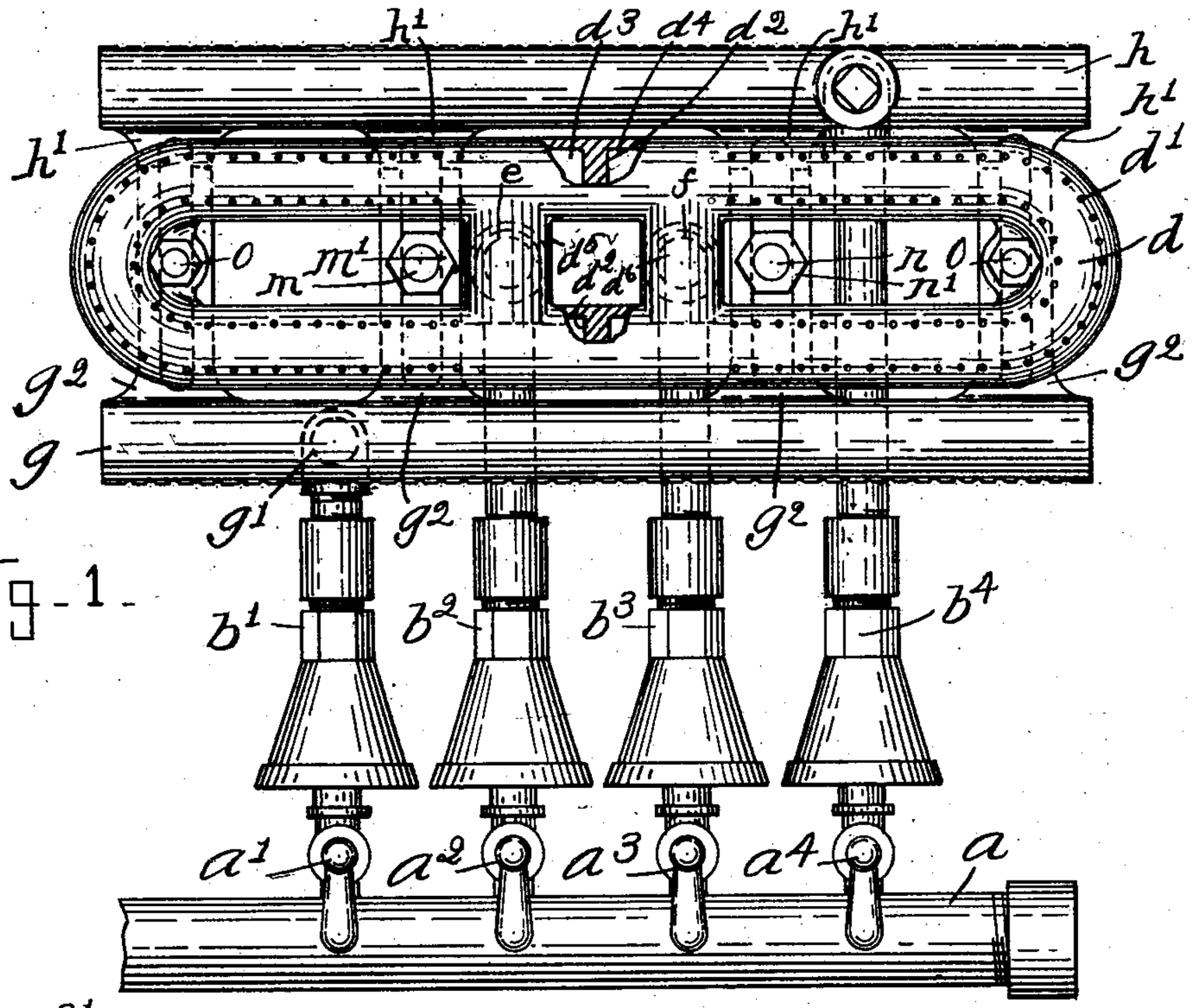
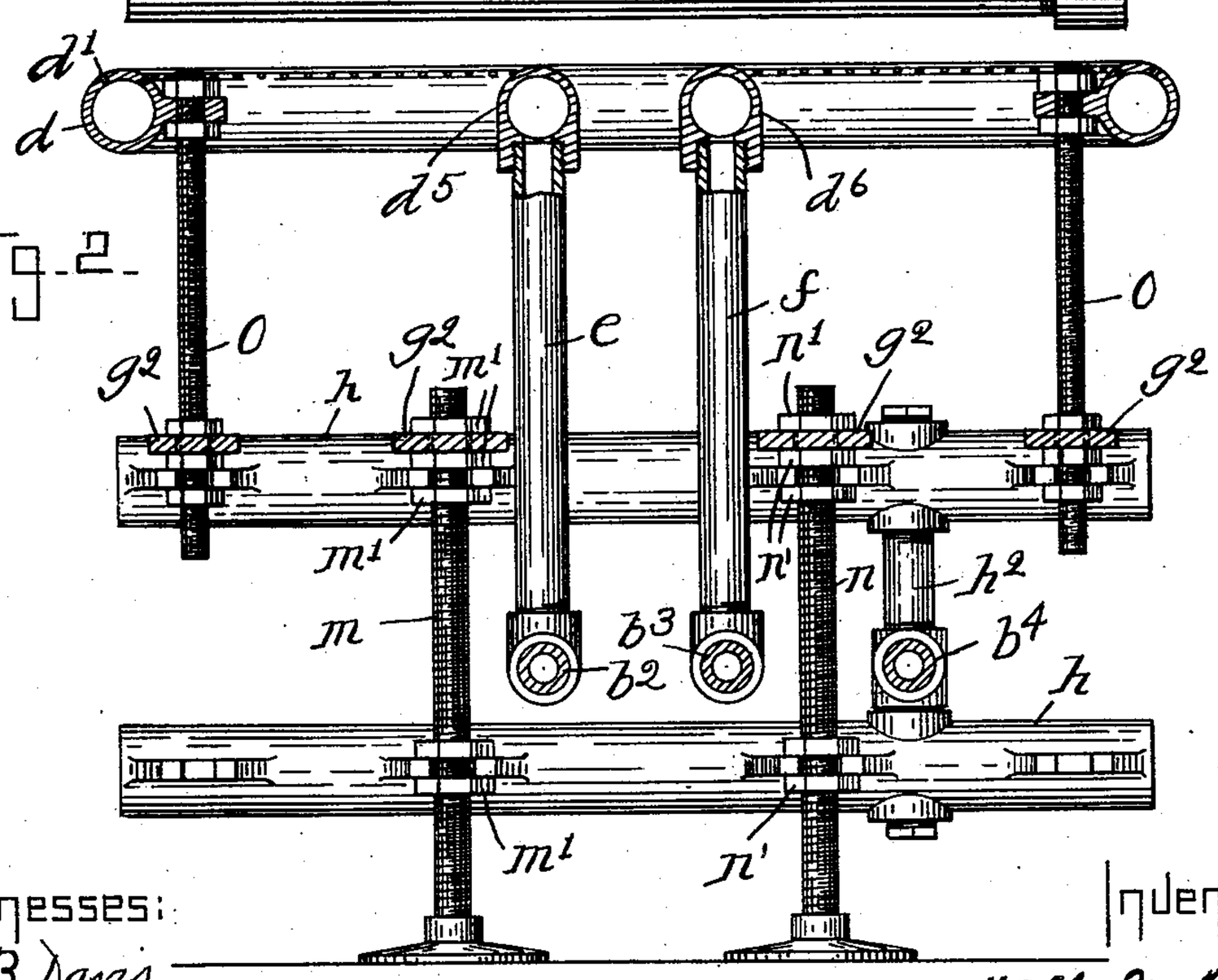


Fig. 2.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

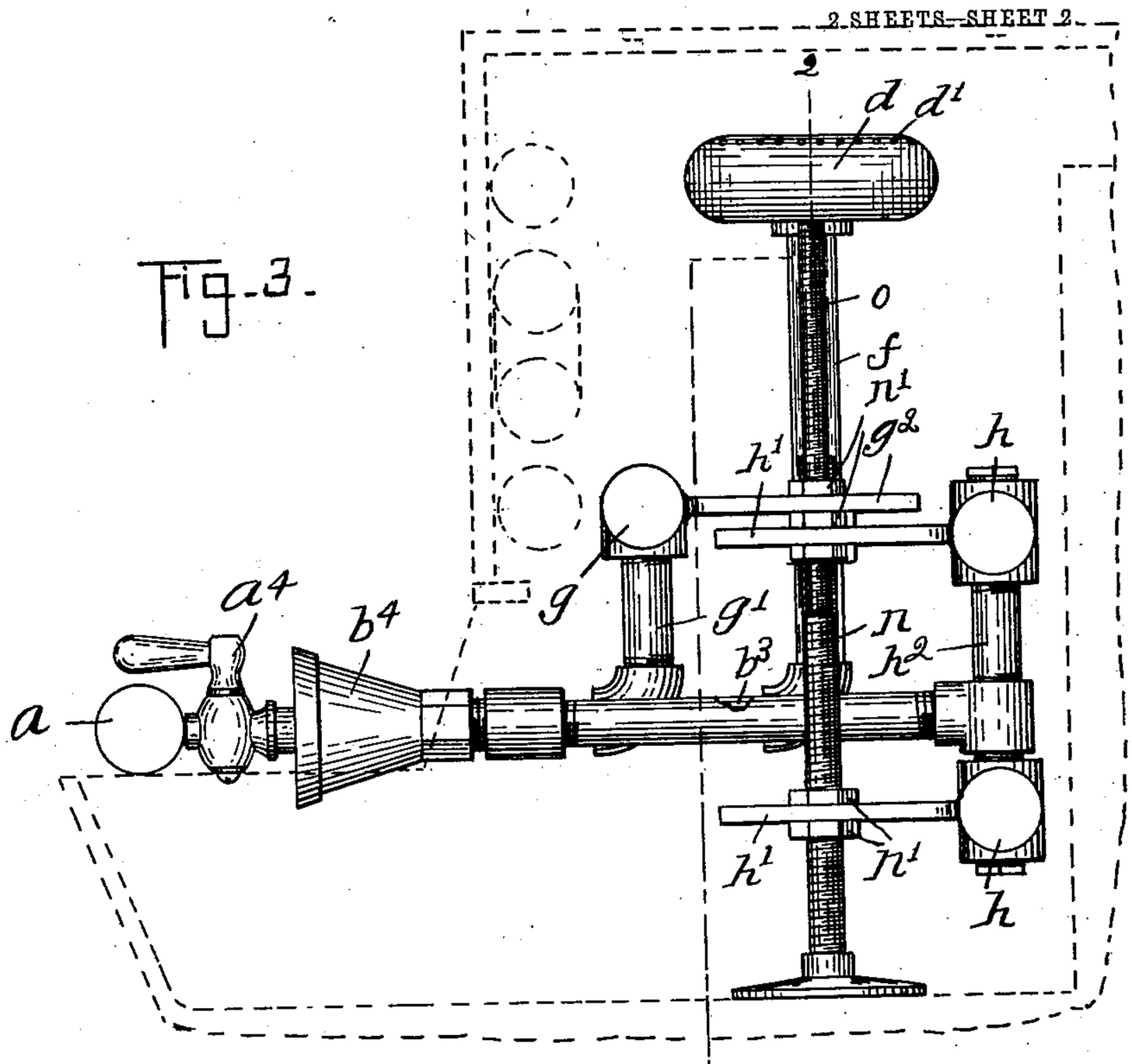


Fig. 4.

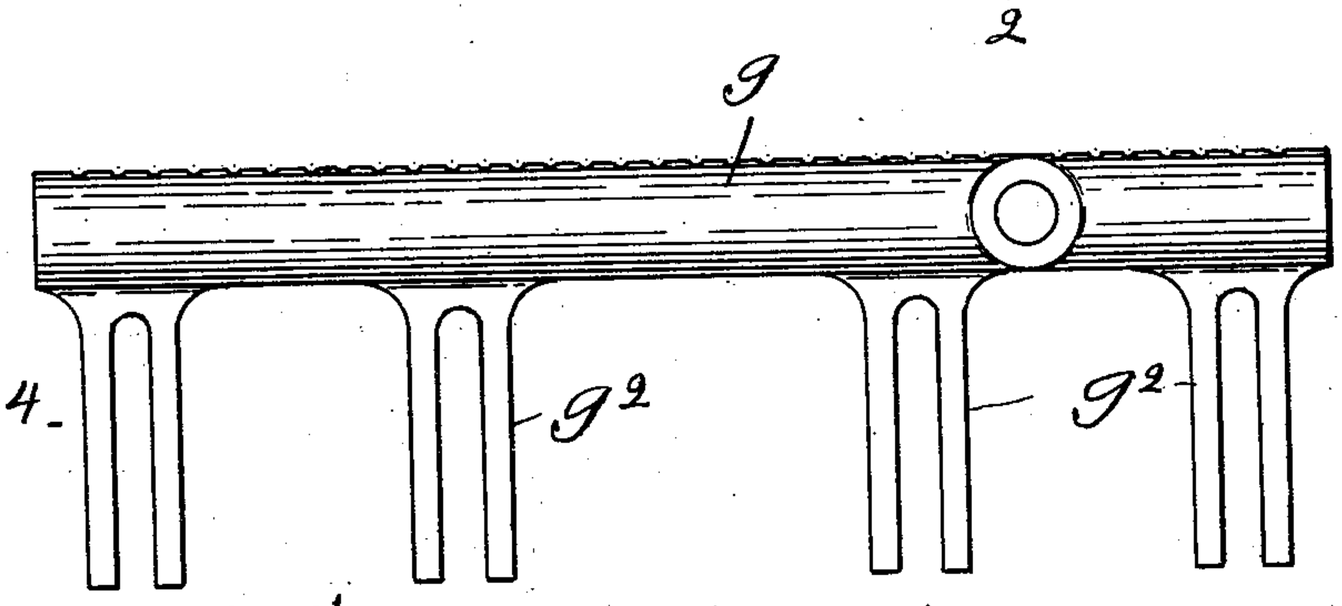


Fig. 6.

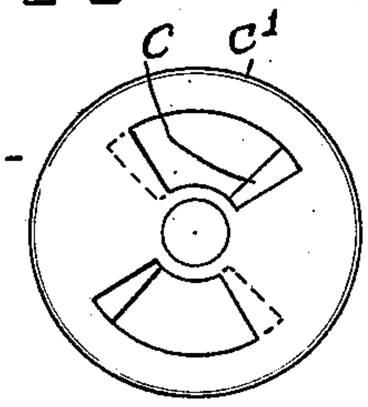
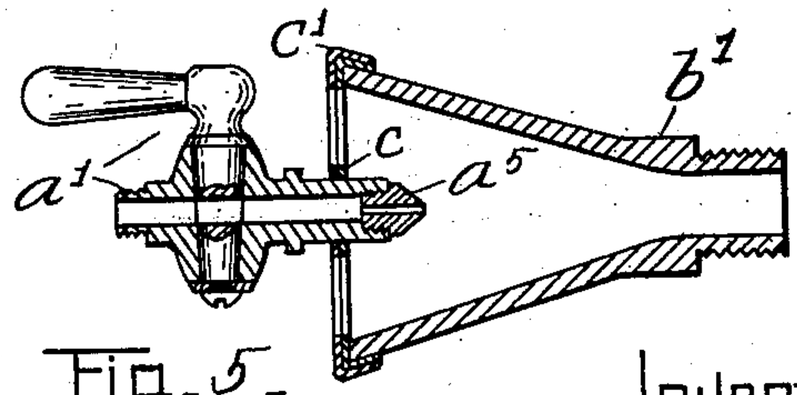


Fig. 5.



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UNITED STATES PATENT OFFICE.

WELLES MORTIMER PARTRIDGE, OF PEABODY, MASSACHUSETTS.

GAS-STOVE.

SPECIFICATION forming part of Letters Patent No. 747,474, dated December 22, 1903.

Application filed February 21, 1903. Serial No. 144,394. (No model.)

To all whom it may concern:

Be it known that I, WELLES MORTIMER PARTRIDGE, of Peabody, county of Essex, State of Massachusetts, have invented an Improvement in Gas-Stoves, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to gas-stoves or appliances especially adapted to be placed in an ordinary kitchen stove or range having an oblong or oval-shaped fire-pot without permanently altering said stove or range, and has for its object to improve and simplify the construction of the same, especially adapting it for the purposes for which it is designed.

The device has the capability of thoroughly mixing the air and gas before delivery and of separately heating the two halves or parts of the top of the stove—the water-front and the oven.

Means are provided for supporting the device in adjustable position, whereby it may be correctly located with reference to the particular parts which the several burners are intended to heat notwithstanding variations of the depths and widths of different fire-pots, and means are also provided for adjusting the uppermost burners independently of the other burners.

Figure 1 shows in plan view a gas-stove embodying this invention. Fig. 2 is a vertical section of the apparatus, taken on the dotted line 2 2, Fig. 3. Fig. 3 is a side elevation of the apparatus shown in Fig. 1. Fig. 4 is a plan view of one of the burners. Fig. 5 is a longitudinal section of the outer end portion of the pipe for delivering air and gas to the burners and the gas-supply nozzle, and Fig. 6 is an end view of the outer end of said pipe for delivering air and gas to the burners.

a represents the gas-supply pipe, having at one side a plurality of openings, and to this pipe a plurality of shut-off valves a' a^2 a^3 a^4 are connected at said openings. Each shut-off valve has attached to its case a nozzle a^5, (see Fig. 5,) which projects into the enlarged end portion of a pipe which delivers the air and gas to the burners. Four burners are herein shown, and consequently four delivery-pipes b' b^2 b^3 b^4 are provided. The enlarged end of each delivery-pipe is made conical to increase the size of the mixing-chamber and also provide for the inlet of air. At the outer end of each conical end portion two plates are placed which are disposed one upon the other, one, as c, being rigidly connected to the end of the pipe, and the other, as c', being placed upon the plate c and being rotatable relative thereto. The plate c is stationarily secured to the end of the pipe by spinning a lip or flange firmly over the end of the pipe, and the plate c' is rotatably mounted upon the plate c by forming a lip or flange which overlies and loosely engages the lip on the plate c. The stationary plate c has sector-shaped openings, and the movable plate c' likewise has sector-shaped openings, and as said plate c' is rotated the openings may be brought into position to register more or less, as required.

The uppermost burners are made oblong or oval shaped and consist of a tubular casting d, having jet-orifices d' along their upper sides and also having two transverse walls d^2, located at points intermediate its length to thereby divide the casting into two separate compartments or chambers d^3 d^4 and forming or producing two separate U-shaped burners. These burners are horizontally disposed and occupy a position close to the top of the stove or range. Two tubular cross-pieces d^5 d^6 are formed integral with the casting d, near the middle, which respectively connect with the tubular opening in the compartments d^3 d^4. A pipe e leads from the delivery-pipe b^2 to the tubular cross-piece d^5, and a pipe f leads from the delivery-pipe b^3 to the tubular cross-piece d^6, and said pipes deliver the air and gas directly to said tubular cross-pieces, and from said cross-pieces the air and gas freely passes to the burners, being approximately evenly distributed by said cross-pieces to the opposite ends of the burners.

The burner g consists of a tubular casting closed at its ends and having a row of jet-orifices along one side, and a pipe g' leads from the delivery-pipe b' to said burner. The burner g is located so as to heat the water-front, which may be a tank or coil. The burner g has formed integral with it a plurality of ears or extensions g^2, which are slotted or have openings or holes through them to thereby adapt them to receive the supports

which hold the burner in position and to allow the device to be fitted to different widths of fire-pots.

The burners *h*, (two in number,) although connected together to constitute a single burner, are located so as to heat the oven, and said burners *h* each consist of a tubular casting closed at the ends and in all respects made like unto the burner *g*, having slotted ears or extension *h'*. A pipe h^2 connects the two burners *h h* together, and the delivery-pipe b^4 is connected to said pipe h^2.

To support the apparatus in suitable adjustable position, two stands *m n* are provided, each consisting of a base and a screw-threaded upright bar, and said bars are of suitable diameter to pass freely through the openings in the ears or extensions on the burners, and nuts *m' n'* are placed on said uprights on which the ears or extensions rest. The burners *h h* are supported by said stands, and the burner *g* is also supported by said stands, and by means of said stands the said burners may be supported in different elevated positions. Screw-threaded upright bars *o* are also provided at points midway between and at each end of the burners *g h*, which support the uppermost burner, and said uprights pass through holes in the ears on said uppermost burner, and on said upright bars nuts are placed, on which the uppermost burner rests. By means of said upright bars *o* the uppermost burner is independently adjustable to different elevations in order to fit different depths of fire-pots.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a gas-stove, a pair of burners consisting of a horizontally-disposed tubular casting having semicircular end portions and a pair of parallel side portions, and having transverse walls within it at points intermediate the length of said side portions to form two separate tubular compartments, and also having jet-orifices at the upper side of each semicircular portion and along a portion of the side portions, a pipe for air and gas leading to each compartment having inlets for the air and a nozzle projecting into each pipe, which is connected with a gas-supply pipe, substantially as described.

2. In a gas-stove, a pair of burners consisting of a horizontally-disposed oval-shaped tubular casting having transverse walls within it at points intermediate its length, to form two separate tubular compartments, and having jet-orifices, and also having two tubular cross-pieces adjacent said transverse walls in open communication with the burners, a delivery-pipe leading to each tubular cross-piece having inlets for the air, and a nozzle projecting into each pipe which is connected with a gas-supply pipe, substantially as described.

3. In a gas-stove the combination of a pair of upright stands, side burners having ears slotted to embrace said stands, nuts for holding said burners on the stands in whatever position they may be set, other ears also on said burners, upright posts connected thereto, another burner having ears and means for adjustably connecting it to said upright posts, substantially as described.

4. In a gas-stove, the combination of two horizontal burners placed one above the other, and rigidly connected together, a delivery-pipe leading thereto, another horizontal burner and a delivery-pipe leading thereto, and two horizontally-disposed U-shaped burners located above the aforesaid burners and separate delivery-pipes leading to said U-shaped burners, substantially as described.

5. In a gas-stove, the combination of a burner, a delivery-pipe leading thereto having a conical end portion, a plate at the end of said end portion having a lip or flange which engages said end portion and having holes through it, and another plate placed against said plate having a lip or flange which loosely engages the lip on the aforesaid plate, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WELLES MORTIMER PARTRIDGE.

Witnesses:
B. J. NOYES,
L. H. HARRIMAN.