

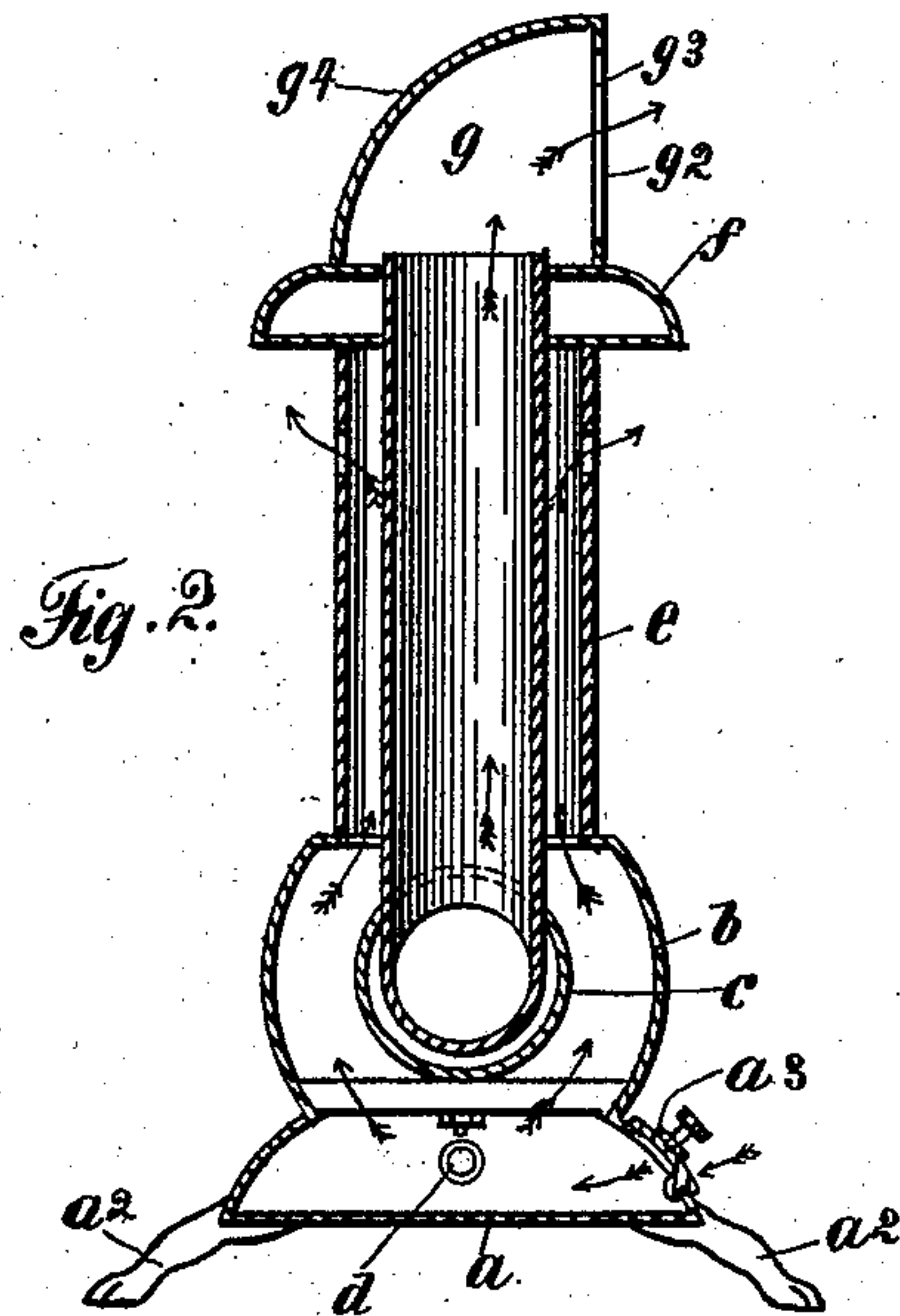
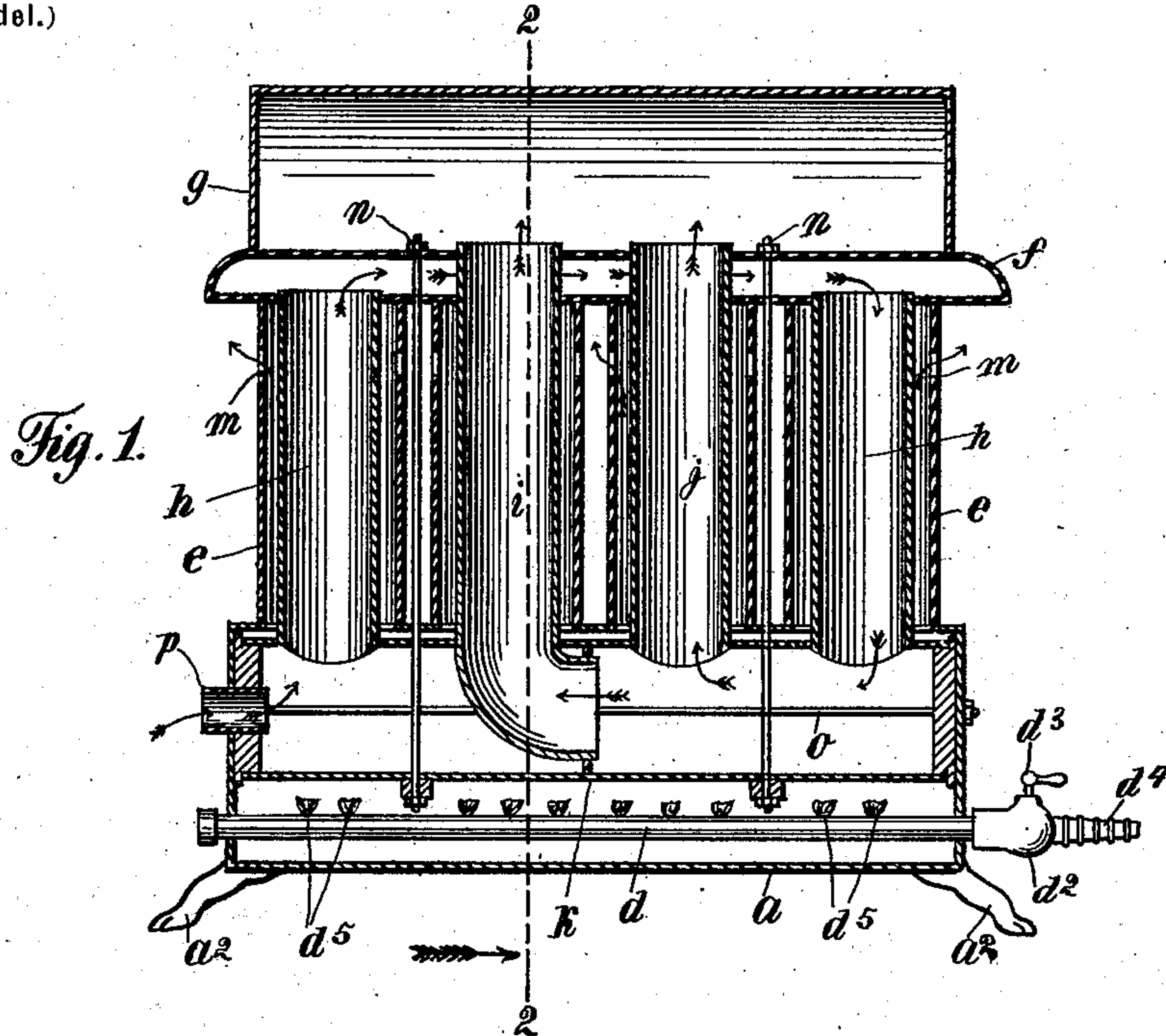
No. 698,327.

Patented Apr. 22, 1902.

W. J. SCHWARZ.  
GAS STOVE.

(Application filed Jan. 8, 1902.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM J. SCHWARZ, OF BROOKLYN, NEW YORK.

## GAS-STOVE.

SPECIFICATION forming part of Letters Patent No. 698,327, dated April 22, 1902.

Application filed January 8, 1902. Serial No. 88,847. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM J. SCHWARZ, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Gas-Stoves, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved gas-stove designed for heating purposes only and which may be used in rooms or compartments wherever needed; and with this and other objects in view the invention consists in a gas heater or stove constructed as hereinafter described and claimed.

In the drawings forming part of this specification, in which the separate parts of my improvement are designated by the same reference characters in each of the views, Figure 1 is a central vertical longitudinal section of a stove made according to my invention, and Fig. 2 a vertical section thereof on the line 2 of Fig. 1.

In the practice of my invention I provide a gas-stove which comprises a hollow bottom base portion *a* and a supplemental hollow base portion *b*, mounted thereon, and said base portion *a* is provided at the corners with legs *a*<sup>2</sup>, and the sides thereof are flared outwardly and downwardly, and the top base portion *b*, which is in full communication with the bottom base portion *a*, is provided with a central longitudinal tubular casing *c*, which is arranged concentrically in said top base portion or centrally thereof, as clearly shown in Fig. 2, and the front of the bottom base portion is provided with any suitable air-register *a*<sup>3</sup>. Passing longitudinally through the bottom base portion is a pipe *d*, which is closed at one end and provided at the other end with a coupling *d*<sup>2</sup>, having an air-valve *d*<sup>3</sup> and a nozzle-coupling *d*<sup>4</sup>, whereby a flexible gas-supply pipe may be connected therewith, and the coupling *d*<sup>2</sup> and the air-valve *d*<sup>3</sup> are of the usual construction, and said tube *d* constitutes the burner or burner-tube of the device and is provided on its upper side with openings *d*<sup>5</sup>, through which the gas escapes into the bottom base portion *a* and at which point said gas may be ignited.

Arranged over the top base portion *a* are

a plurality of vertical hollow cylindrical casings *e*, four of which are shown, and these casings are in communication at the base thereof with the top base portion *b*, and said casings *e* are closed at the top by a horizontal flat and hollow top member *f*, which is provided with a supplemental hollow top member *g*, which is preferably provided with a vertically-arranged front *g*<sup>2</sup>, having air-outlet openings *g*<sup>3</sup>, and the supplemental top member *g* is also preferably provided with a top and back portion, which is segmental in cross-section, as shown at *g*<sup>4</sup>.

Passing vertically through the hollow cylindrical casings *e* at each end of the stove are pipe members *h*, which communicate at their upper ends with the hollow horizontal top member *f* and at their lower ends with a horizontal tubular casing *c* in the top base portion *b*, and intermediate of the tube members *h* are two other vertically-arranged tubes *i* and *j*, the upper ends of which are in communication with the supplemental horizontal top member *g* and the lower ends of which are in communication with the tubular casings *c* in the base member *b*.

The tubular casing *c* in the base member *b* is also divided centrally and vertically by a partition *k*, and the vertically-arranged tubular member *i* is provided at its lower end with a right-angle extension, which is curved to the right and which passes through said partition, and by means of this construction three of the vertically-arranged tubular members within the cylindrical casing *e*, including those designated by the reference characters *i* and *j*, are in communication with the right-hand end portion of the tubular casing *c* in the base member *b*, while the other vertically-arranged tubular member *h* in the left-hand vertically-arranged cylindrical casing *e* is in communication with the left-hand end of said tubular casing *c* in the base member *b*.

The hollow cylindrical and vertically-arranged casings *e* are also provided, preferably near the top thereof, with escape ports or passages *m* for the hot gases of combustion, and in Fig. 1 of the drawings I have shown the separate parts of a stove or heater bound together by vertically-arranged rods *n*, and a horizontal rod or rods *o* are also placed in the



base portion *b*; but these features form no part of my invention and are not shown in Fig. 2, and the separate parts of the stove or heater may be combined in any desired manner.

The operation of the device will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.

The gas is ignited in the bottom base member *a*, and the hot gases of combustion pass around the tubular casing *c* in the top base member *b* and up through the vertically-arranged cylindrical casings *e* and escape out through the openings *m*, and in this operation the tubular casing *c* and the tubular members *h*, *i*, and *j* in the cylindrical vertically-arranged casings *e* are highly heated. At the same time the air enters through the tubular port or passage *p* at the left-hand end of the top base member *b* and passes into the left-hand end of the tubular casing *c*, where it is heated, and from which it passes up through the left-hand tubular member *h* into the horizontal top member *f*, from which it passes downwardly through the right-hand tubular member *h* into the tubular casing *c*, from which it passes upwardly again through the tubular members *i* and *j* into the top member *g* and is discharged from the front thereof into the room or compartment. In this operation the air is highly heated, as will be readily understood, and a suitable conduit may be provided to convey the air to the ingress port or passage at *p* from any desired point, if desired, or the air may pass directly from the room or compartment into the tubular casing *c* through said port or passage *p*.

My improved heater is simple in construction and operation and may be used wherever devices of this class are desired, and changes in and modifications of the construction described may be made without departing from the spirit of my invention or sacrificing its advantages.

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

1. A gas-stove comprising a hollow base portion, vertically-arranged hollow casings mounted thereon and in communication therewith, a hollow top portion placed on said vertically-arranged hollow casings and provided with a supplemental top portion having front openings, a tubular casing arranged centrally and longitudinally in the base portion and divided by a central transverse partition, and tubular members arranged in said vertically-

arranged cylindrical casings, all of which are in communication at their lower ends with the said tubular casing in the base portion and part of which are in communication with the hollow top member and the others of which pass therethrough and are in communication with the supplemental top member, substantially as shown and described.

2. A gas-stove comprising a hollow base portion, vertically-arranged hollow casings mounted thereon and in communication therewith, a hollow top portion placed on said vertically-arranged hollow casings and provided with a supplemental top portion having front openings, a tubular casing arranged centrally and longitudinally in the base portion and divided by a central transverse partition, and tubular members arranged in said vertically-arranged cylindrical casings, all of which are in communication at their lower ends with the said tubular casing in the base portion and part of which are in communication with the hollow top member and the others with the supplemental top member, said base portion being also provided with a burner-tube below said tubular casing, substantially as shown and described.

3. A gas-stove comprising a base composed of a bottom and top portion, the bottom portion of the base being provided with a gas-burner tube, and the top portion of said base being provided with a horizontally-arranged tubular casing, a plurality of vertically-arranged hollow casings placed on the top base portion and in communication therewith, a horizontal hollow top portion placed on said vertically-arranged hollow casings and provided with a supplemental top portion which is placed thereon and provided with openings, vertically-arranged tubes placed in said vertically-arranged hollow casings, all of which are in communication at their lower ends with the tubular casing in the upper base portion and part of which are in communication with the top portion and others with the supplemental top portion, said tubular casing in the upper base portion being provided with a transverse partition through which one of said tubes passes substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 31st day of December, 1901.

WILLIAM J. SCHWARZ.

Witnesses:

F. A. STEWART,  
C. E. MULREANY.