

No. 819,260.

PATENTED MAY 1, 1906.

E. H. WHITNEY.
GAS HEATER.

APPLICATION FILED NOV. 14, 1904.

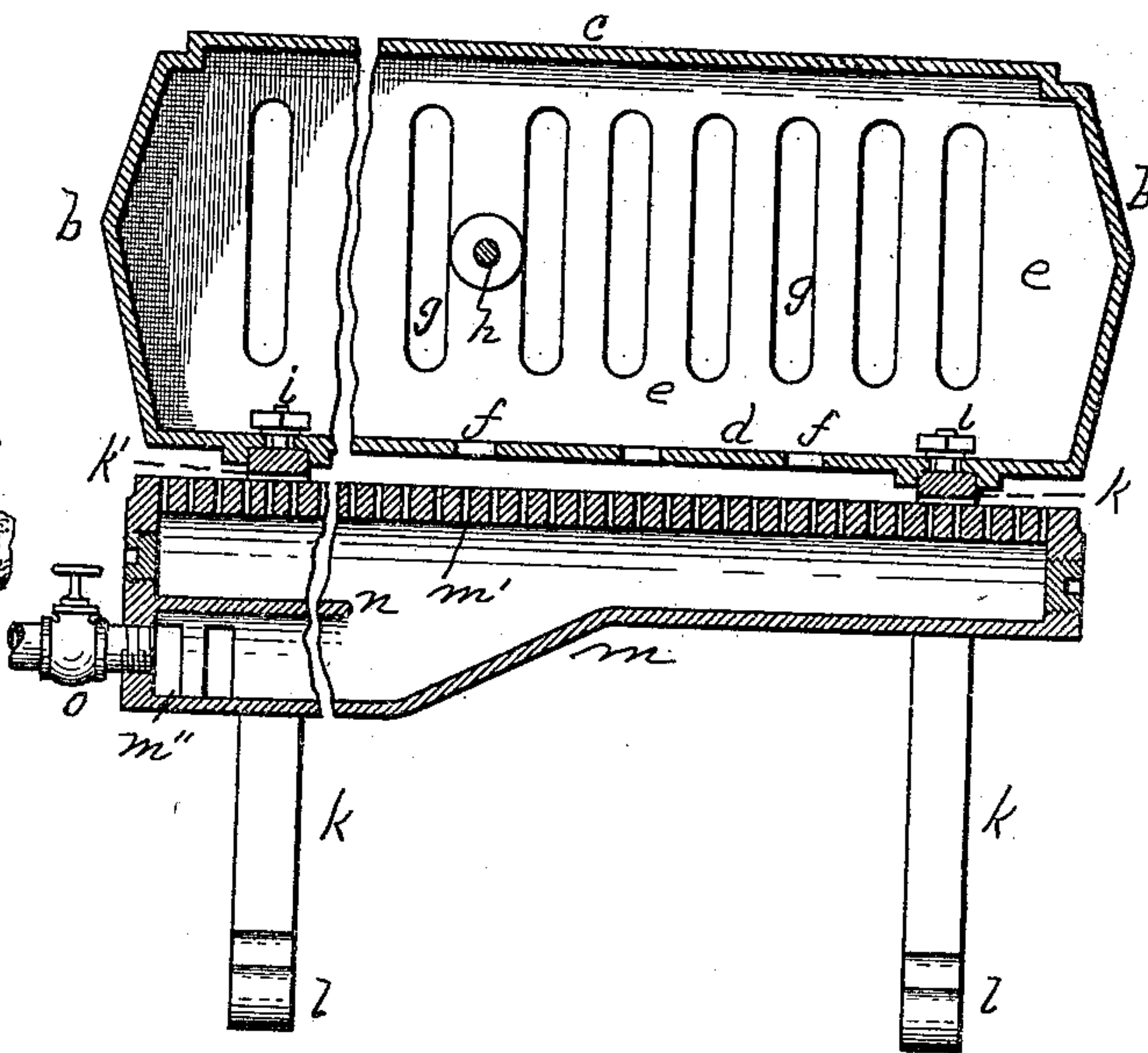
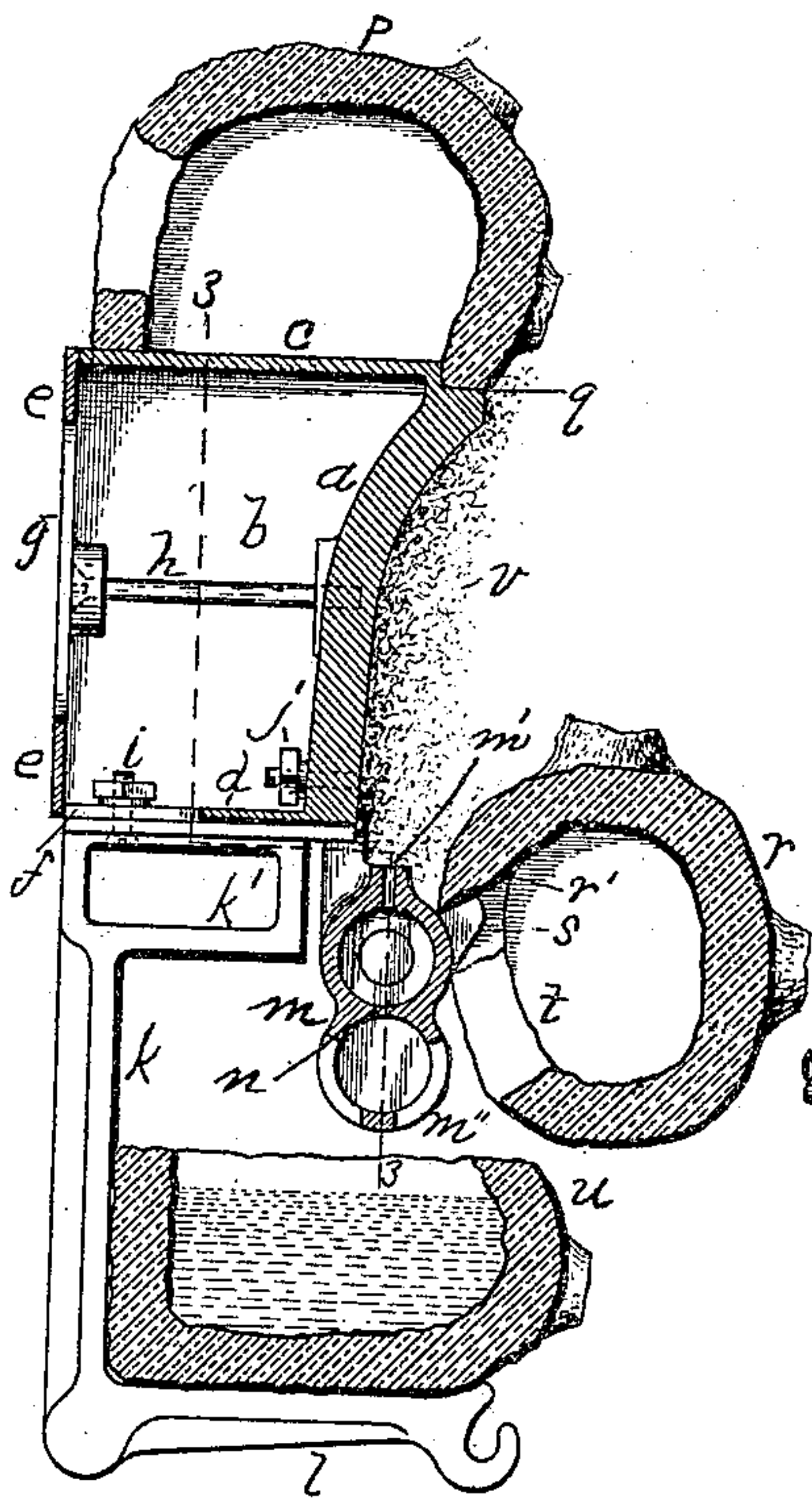
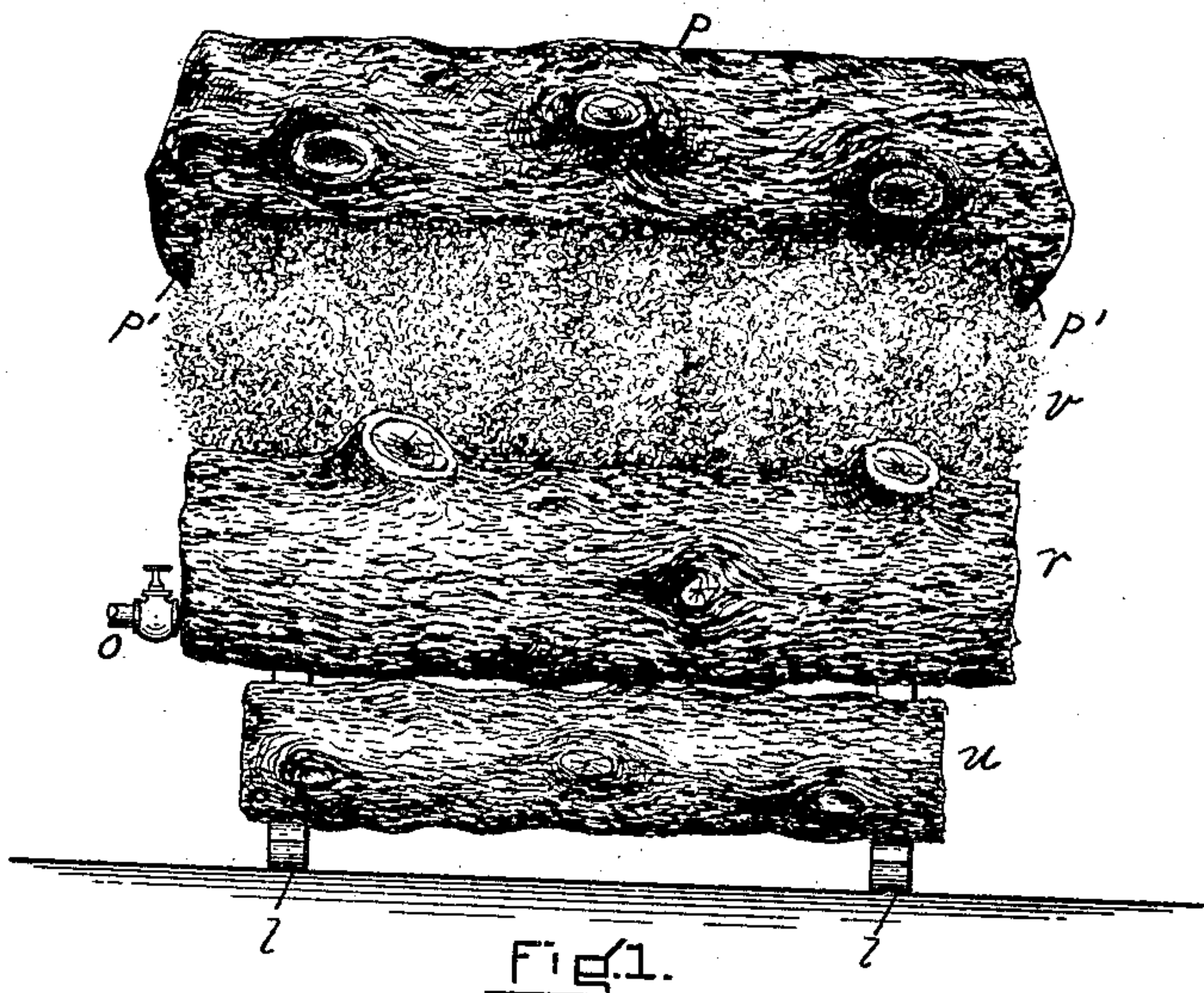


FIG. 2.
WITNESSES.
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FIG. 3.
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EDGAR H. WHITNEY, OF BOSTON, MASSACHUSETTS.

GAS-HEATER.

No. 819,260.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed November 14, 1904. Serial No. 232,566.

To all whom it may concern:

Be it known that I, EDGAR H. WHITNEY, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Gas-Heaters, of which the following is a specification.

Gas-log heaters—that is to say, gas-stoves which are of the shape of logs of wood or a number of logs of wood or in which imitation logs of wood are employed—have heretofore been made of terra-cotta or of iron. The terra-cotta gas-log heaters are ornamental and are an excellent imitation of logs of wood; but this style of heater is under the disadvantage of requiring to be placed under a chimney or draft. It cannot be located anywhere in a room without a chimney with safety, for the reason that such gas-logs consume gas in the same way as the ordinary lighting-burner, in which the combustion is incomplete, and the impure products of combustion if thrown into the apartment vitiate the air. In the heaters or heating-stoves the gas is mingled with a due proportion of air prior to ignition, rendering the combustion more nearly complete and innocuous. The iron gas-log stoves or heaters require no chimney and can be placed anywhere in a room; but the paint or finish applied to produce a resemblance of wooden logs burns off and the effect is lost.

It is the principal object of this invention to produce a heater or stove in which the heater proper is constructed of iron or metal and is provided with terra-cotta covering-logs. By this means the useful qualities of the iron heater, which can be placed in a room without a chimney, are combined with the permanently-ornamental quality of the terra-cotta logs, which practically cover the iron portion of the heater or the front or top of such portion, those being the parts which are particularly in view as the heater is ordinarily situated. Moreover, the heating-jets are included in the confined space between the iron front of the heater proper and the front log, thereby being protected against the inrush of cold air toward the burners, which would tend to unduly chill the front wall, and at the same time they are concealed from view. The refractory log on top also has the effect to restrict radiation at that point, and thus tends to concentrate the heat in the hot-air chamber.

While terra-cotta is perhaps on the whole

the best material for my purpose in making the logs, any other suitable clay or pottery may be employed.

The nature of the invention is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of my improved gas-heater. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a section taken on line 3, Fig. 2, a portion being broken out.

Similar letters of reference indicate corresponding parts.

The iron stove or heater proper is preferably constructed in accordance with the drawings and comprises the front wall *a*, rearwardly curved, as shown in Fig. 2, the end walls *b*, the top *c*, and the bottom *d*, all preferably in a single casting, and the rear wall *e*. The bottom *d* is provided with a series of air-inlets *f*, extending, preferably, to the rear edge of said bottom, and the rear wall *e* is provided with a series of air-outlets *g*, the front, top, and ends being without openings or passages and the rear wall being bolted at *h* to the front wall. The iron heater is sustained in a raised position by supporting-standards *k*, having forwardly-projecting feet *l*, the heads *k'* of said standards being bolted to the bottom *d* at *i*. A suitable burner *m*, provided with the horizontal partition *n* and gas-inlet *o*, is bolted at *j* to the front wall of the iron heater, and said burner, (which is of ordinary construction,) is provided with the usual perforations *m'* and air-inlets *m''*.

All the above-described parts are of metal, preferably iron casting. Supported by the iron heater and directly by the top *c* and the upper edge of the front wall *a* is a clay—preferably terra-cotta—log *p* of the ordinary hollow construction. The front wall of this log rests on the ledge or step *q*, and the opposite ends *p'*, Fig. 1, of the log extend down over the corresponding end walls *b*. By this means the log *p* is prevented from endwise and rearward movement. Another terra-cotta log *r* is supported in front of the burner *m* by means of projections *s*, which extend forward and upward from said burner (being integral therewith) into the opening *t* in the rear side of the log *r* and under the upwardly-beveled upper edge *r'* of said opening. The function of this log is to create a confined space within which the heating-jets *m'* operate, thereby conserving the heat generated and concentrating it upon the front wall *a*, through which the heating effect is communicated to

the air in the air-chamber of the heater. The feet *l* support a terra-cotta log *u*, made trough-shaped and adapted to hold water and to operate as an evaporating-pan. The front surface of the wall *a* has adhesively secured to it asbestos *v* of the style and in the manner usual in gas-heaters. It will be seen, therefore, that the logs *p*, *r*, and *u* practically cover the top of the heater and those portions of the front not covered by the asbestos *v*, which of course represent flames of fire. Thus terra-cotta covering-logs, which are both durable and ornamental, are utilized in connection with a hidden iron stove, whereby the gas-heater may be placed in any desired portion of a room without any connection with or necessity for a chimney or draft.

In practical operation the gas enters the burner *m* through the inlet *o* and is mixed with air which enters through the inlets *m''* and is ignited at the perforations *m'*, where it burns in the confined space between the refractory log *r* and the front wall of the heater, so as to heat the latter in the most economical manner. Air enters the heater through the inlets *f*, is heated, and passes out through the outlets *g*.

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

1. In a gas-heater, a hot-air chamber, provided with air inlets and outlets, a gas-burner

for heating the front wall thereof externally, and a log of refractory material in front of said burner, to afford a confined space between said log and front wall, in which the combustion takes place, substantially as specified.

2. In a gas-heater, a metallic hot-air chamber provided with air inlets and outlets, the front wall thereof being rearwardly curved downward, a gas-burner at the base of said front wall for heating the same, and a log of refractory material in front of said burner to deflect the heat upward against said front wall, substantially as specified.

3. In a gas-heater, a metallic hot-air chamber provided with air inlets and outlets, the front wall thereof being rearwardly curved downward, a gas-burner for heating said front wall externally, a refractory log in front of said burner forming a confined space between said log and front wall in which the heat is concentrated on the latter, and a refractory covering at the top of the heater to limit radiation and conserve the heat in the hot-air chamber, substantially as specified.

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

EDGAR H. WHITNEY.

Witnesses:

HENRY W. WILLIAMS,
A. K. HOOD.