

No. 706,503.

Patented Aug. 5, 1902.

P. G. VAN WIE.  
HOT PLATE.

(Application filed Feb. 12, 1901.)

2 Sheets—Sheet 1.

(No Model.)

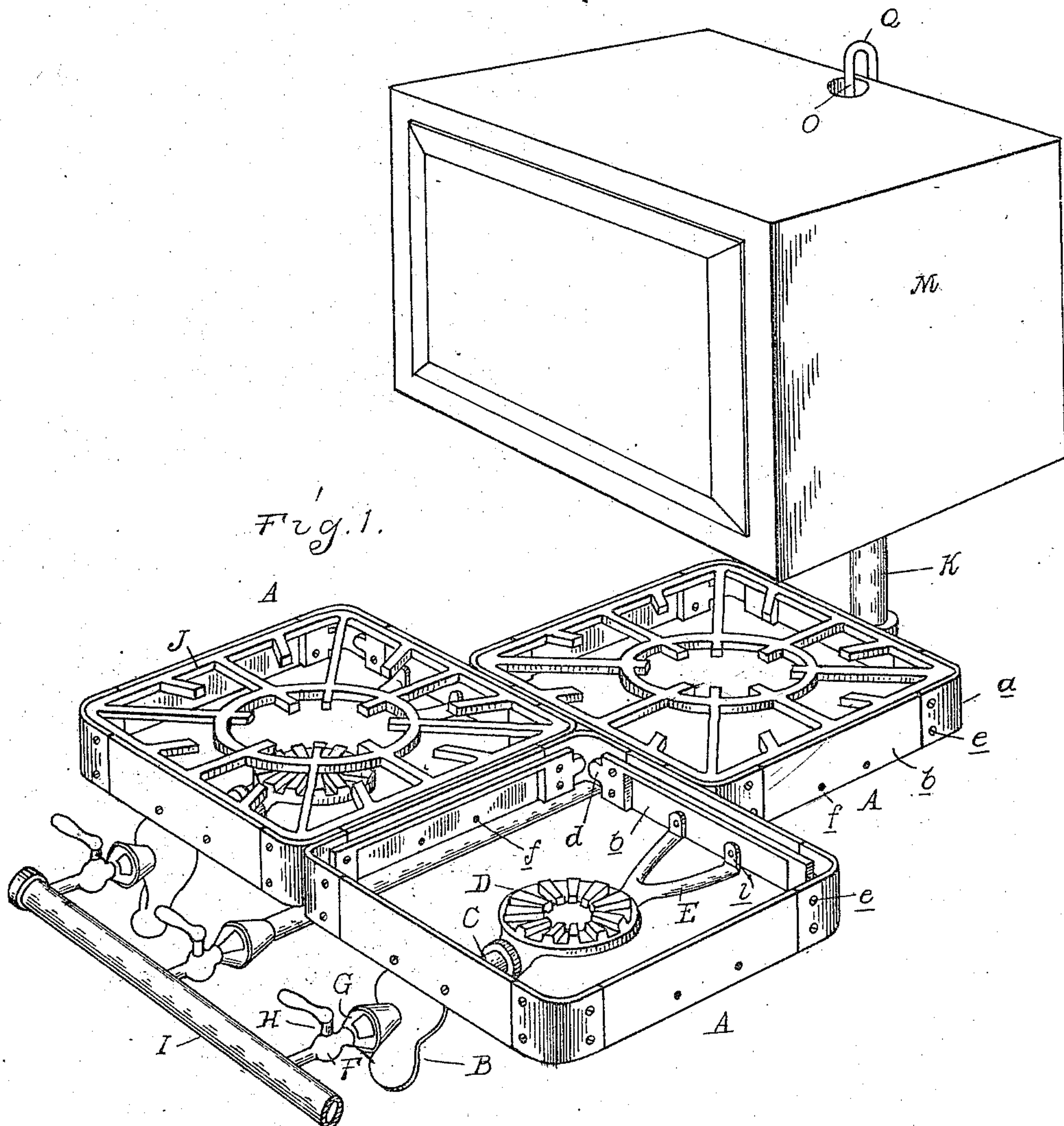
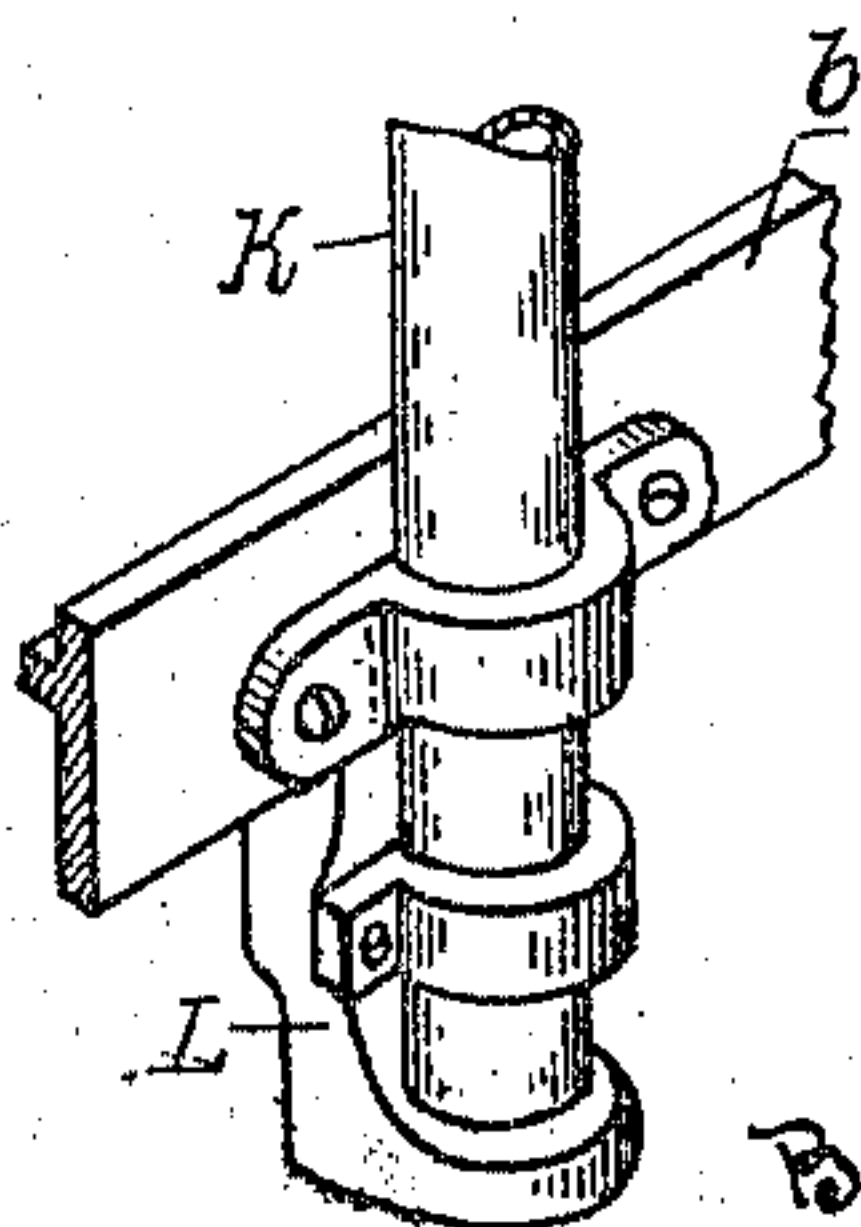


Fig. 2.



Witnesses  
J. E. Smith.  
M. J. Maguire.

Inventor  
Peter G. Van Wie  
By *M. J. Maguire*  
Attys.

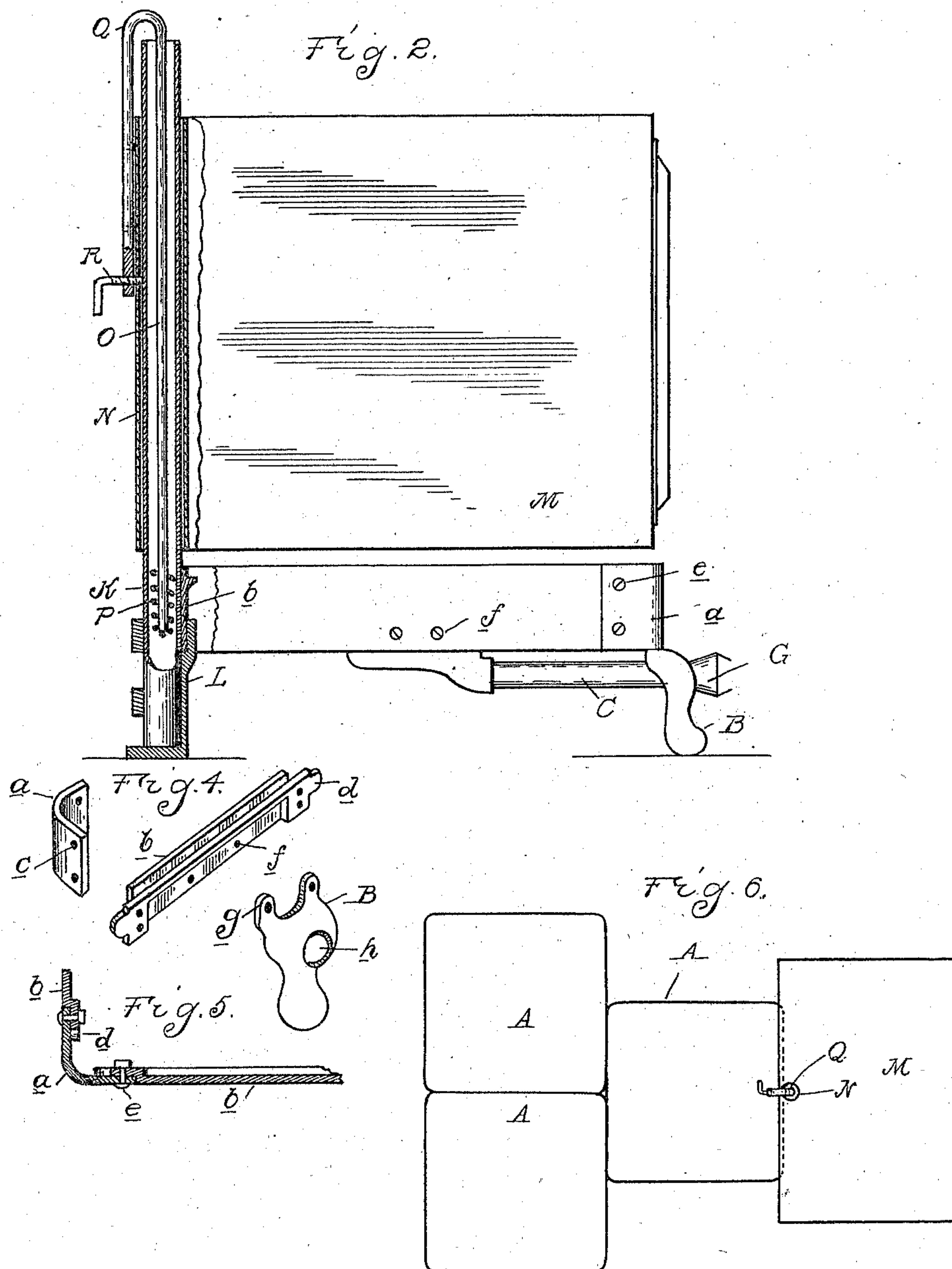
P. G. VAN WIE.

HOT PLATE.

(Application filed Feb. 12, 1901.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses:  
T. C. Smith.  
W. B. Bogarty.

Inventor  
Peter G. Van Wie  
By *[Signature]* Magnusson.  
Attys.



# UNITED STATES PATENT OFFICE.

PETER G. VAN WIE, OF DETROIT, MICHIGAN, ASSIGNOR TO THE IDEAL MANUFACTURING COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

## HOT-PLATE.

SPECIFICATION forming part of Letters Patent No. 706,503, dated August 5, 1902.

Application filed February 12, 1901. Serial No. 46,981. (No model.)

*To all whom it may concern:*

Be it known that I, PETER G. VAN WIE, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful improvements in Hot-Plates, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to gas or vapor stoves of that type commonly known as "hot-plates." These usually are formed of a flat frame supporting one or more burners and adapted in use to be placed on a table or range, which brings the burner at a convenient elevation for cooking over.

It is the object of the present invention to obtain a simple construction and one in which the component parts may be readily assembled to form plates having any desired number of burners.

It is a further object to provide an oven which is capable of being elevated a sufficient distance to permit of using the burners for other purposes and which may be lowered at any time into proper relation with one or more of said burners.

The invention consists in the peculiar construction and arrangement in connection with said hot-plate of an oven, and, further, in the peculiar construction, arrangement, and combination of parts, as hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a hot-plate and oven, showing the latter in its raised position. Fig. 2 is a vertical central section with the oven lowered in position for use. Fig. 3 is a perspective view of the lower portion of the oven-supporting standard. Fig. 4 is a perspective view of some of the parts detached. Fig. 5 is a horizontal section showing said parts assembled; and Fig. 6 is a diagrammatic plan view of the plate, showing the different adjustments of the oven in relation thereto.

The hot-plate is composed of one or more sections or units, each of which comprises an open frame or ring, a burner supported centrally within said ring, and a grating resting on top of said ring and adapted to support

the article to be heated. These units may be assembled to bring the burners in the desired relation to each other, and the construction is such that they may be assembled in different relations without the necessity of fitting or drilling. In detail each unit comprises a ring A, composed of four corner-pieces *a* and four intermediate side pieces *b*. The corner-pieces are preferably of a rounding form and are provided near their opposite edges with apertures *c*, preferably cored in casting. The side plates *b* are provided on opposite ends with overlapping tongue-pieces *d*, which are correspondingly apertured to register with the apertures *c* and are secured to the corners by suitable bolts *e*. Each of the plates *b* is also provided near its lower edge and upon opposite sides of its longitudinal center with apertures *f*. These are for the purpose of securing the supporting legs or standards to the ring and also for assembling several of said rings in different relations, as will be hereinafter set forth.

The supporting legs or standards B are of any suitable form, provided with ears *g*, apertured correspondingly to the apertures *f* to permit of bolting to the frame. The legs are also preferably apertured, as at *h*, to receive the mixing-tube C of the burner D. The latter may be of any desired construction and is supported centrally within the ring by means of the mixing-tube C and the bracket E at its opposite side, which is forked or bifurcated and extends to the opposite plate *b*. The bracket is secured to said plate by bolts passing through the apertures *f* therein and corresponding apertures in feet or legs *i* on said bracket. The outer end of the mixing-tube may be provided with any suitable air and gas mixing device, such as the conical gas-inlet nozzle F and registering ring G, which control the admission of air.

H is a valve for controlling the gas-inlet, and I is the gas-supply pipe connecting therewith.

In Fig. 1 of the drawings I have shown the hot-plate formed of three units assembled to bring the burner equidistant from each other. In assembling the parts the adjacent sides of



two of the units are secured to each other by common bolts passing through the corresponding apertures *c* and *f* of both sides. The third unit is arranged to have its center in line with the meeting sides of the other units and is secured thereto by bolts passing through the apertures *c* and *f*. In order that the parts may be thus assembled, said apertures *c* and *f* are so arranged in relation to each other that the apertures *c* of the units arranged side by side will register with the apertures *f* of the intermediate unit and also that the apertures *c* of the latter will register with the two of the apertures *f* of the former. It will thus be readily understood that the units may be assembled either as shown in Fig. 1 or to form squares of varying sizes, as desired, and that no additional fitting is required to assemble the parts in any desired relation. Where a single unit is used, it is preferably provided with four legs or standards *B*; but where the plate is formed of a number of units it is only necessary to use three or four supporting-legs arranged at suitable points to give the required stability. Each unit is preferably provided with removable grating *J*, supported upon the ring *A*.

Heretofore hot-plates have usually been provided with detachable ovens, which when not in use must be lifted from the plate, so that the latter can be used for other purposes. This has been found a difficult task, as the plates are usually placed on a range, table, or other elevated support and the oven is a considerable weight to be lifted. I have therefore avoided the difficulty by providing an oven capable of being raised or lowered in relation to said hot-plate and also provided with a spring or counter tension device for assisting the operator in raising the oven.

As shown in Fig. 1, the rear unit is provided with a vertical standard *K*, preferably formed of a tube and secured at its lower end to the frame *A*. To add to the strength of this support, it is preferably engaged at its lower end with a special leg or standard *L*, which is provided with a socket to receive the lower end of the standard and is secured by bolts to the ring through the aperture *f*.

The oven *M* may be of any desired form, the particular construction of which forms no part of the present invention. It is provided, however, with a tubular socket *N*, preferably passing upward through the flue in the rear wall of the oven. To support the oven in its various positions of adjustment and also to assist in raising the same, the rod *O* extends centrally downward through the hollow standard *K* and is supported at its lower end on a spring *P*, sleeved therearound, said spring being attached at its upper end to the hollow standard. Above the hollow standard the rod *O* is given a return-bend *Q*, the downwardly-extending portion thereof being secured to the rear wall of the oven by bolting or riveting thereto.

*R* is a set-screw for holding the oven in different positions of adjustment, and this preferably passes through a threaded aperture in the downwardly-extending portion of the rod *O*. The tension of the spring *P* is sufficient to counterbalance wholly or partially the weight of the oven, so that the latter may be easily raised whenever the set-screw is loosened.

It is to be noticed that the oven is not only capable of being raised and lowered upon the standard *K*, but may also be swiveled thereon. Thus where desired instead of raising the oven to clear the burner it may be swiveled by turning upon the standard, so as to extend rearwardly, as shown in Fig. 6, and thus be out of the way.

What I claim as my invention is—

1. A hot-plate formed of a plurality of assembled units, each unit comprising an open frame or ring, a burner supported centrally therein and a supply-pipe for said burner extending to one side of said ring, said rings being adapted to be detachably secured to each other to form a common supporting-frame.

2. A hot-plate formed of a plurality of units each comprising a substantially rectangular open frame or ring, a burner supported centrally therein and a supply-pipe extending to one side of said ring, said units being assembled to have their supply-pipes extending in the same direction, and a common gas-supply pipe connected to all of said burner supply-pipes, said rings being adapted to be secured to each other in either straight or staggered series to form a common supporting-frame.

3. A hot-plate comprising a substantially rectangular open frame formed of corner-pieces and connecting straight side pieces, a burner arranged centrally within said frame, a supporting-bracket for said burner extending to and connected with one side of said frame, a supply-pipe extending to the opposite side of said frame, and a plurality of supporting-legs connected to said frame centrally of said side pieces.

4. A hot-plate comprising an open frame or ring, a burner arranged centrally of said ring, a supporting-bracket for said burner extending inward from one side of said frame, a supply-pipe for said burner extending outward below the opposite sides of said frame and a supporting-leg for said frame apertured for the passage of said supply-pipe and forming a support therefor.

5. The combination with a hot-plate, of a tubular standard projecting upward from the margin thereof, and an oven sleeved upon said standard, a coil-spring within said standard, a rod supported upon said spring within said standard having a return-bend portion extending external thereof and secured to the wall of the oven-casing and a set-screw having a threaded engagement with an aperture in said return-bend portion adapted to bear against said standard and to hold the oven in different positions of adjustment.



6. The combination with a hot-plate, of a  
tubular standard projecting upward there-  
from, an oven sleeved upon said standard, a  
coil-spring within said standard and a rod se-  
cured to said oven, extending centrally down-  
ward in said hollow standard and supported  
upon said spring.

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

PETER G. VAN WIE.

Witnesses:

M. B. O'DOHERTY,  
H. C. SMITH.