

T. JOHNSON.  
Vapor-Burner.

No. 212,705.

Patented Feb. 25, 1879.

FIG. 1.

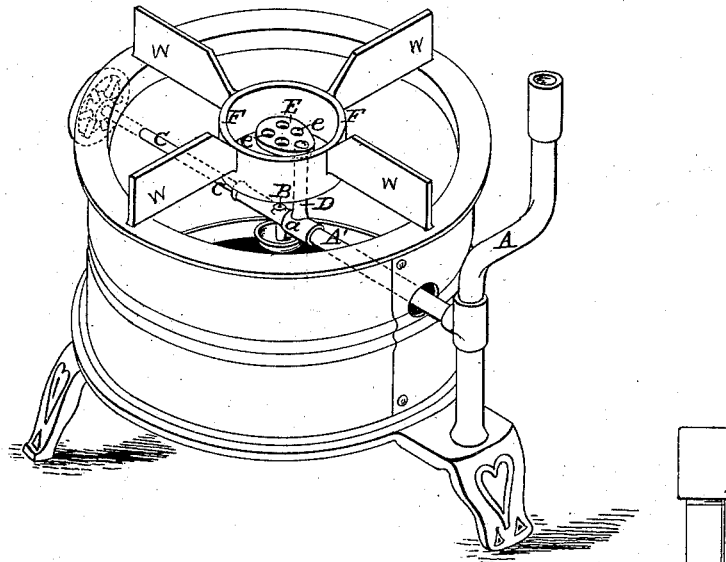
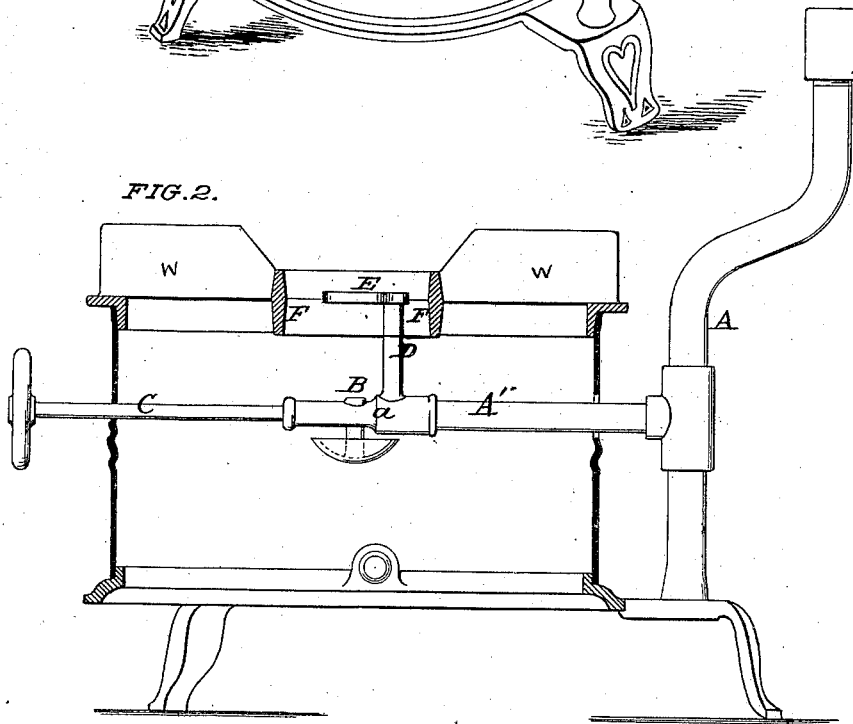


FIG. 2.



ATTEST:

*Geoff Knight*  
*Walter Allen*

INVENTOR:

*Thomas Johnson*  
*By Geoff Knight*  
*Atty.*

# UNITED STATES PATENT OFFICE.

THOMAS JOHNSON, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF HIS  
RIGHT TO JOHN BAIRD, OF SAME PLACE.

## IMPROVEMENT IN VAPOR-BURNERS.

Specification forming part of Letters Patent No. **212,705**, dated February 25, 1879; application filed  
December 27, 1878.

*To all whom it may concern:*

Be it known that I, THOMAS JOHNSON, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Vapor-Burners, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

By the present improvement a fine jet from the heated supply-pipe impinges against the under side of a perforated deflector, that is surrounded by a horizontal ring, as shown, to turn the flames back upon themselves and cause thorough combustion.

In the drawings, Figure 1 is a perspective view, showing the burner in position in a gas-stove. Fig. 2 is a vertical section axial to the burner.

The gasoline or other hydrocarbon liquid is contained in an elevated tank in communication with the feed-pipe A. This pipe has a horizontal portion, A', containing a valve at *a*, outside which is a valve-chamber in communication with the jet-hole B. C is the screw-threaded valve-stem. D is a standard upon the pipe A', having at top a deflector-cap, E, against whose under side the jet from B impinges. The cap E has preferably holes *e*, to allow small streams of flame to pass directly upward.

Surrounding the deflector E is a horizontal imperforate narrow ring, F, against which the

flames, issuing horizontally from beneath the deflector E, impinge, when they are deflected back upon themselves. This ring is provided with outwardly-extending wings W, for supporting a sauce-pan or other cooking utensil.

The effect is very striking, the heating being much intensified and the flame rendered almost devoid of light. Before the use of the ring F, I found a large volume of light flame was produced, throwing a considerable quantity of smoke, and having a low temperature compared with that of the flame produced by the burner with the ring F added.

I am aware that there are a number of patented burners having a foraminous tube of greater or less length, serving as a guide to the flame, and this I do not claim; but

What I claim as new and of my invention is—

The combination, with the supply-pipe A', having jet-hole B, of the solid standard D, extending upwardly from the supply-pipe, horizontal deflecting-cap E, supported on said standard, and the imperforate annular deflector F, extending above and surrounding said deflecting-cap, and having wings W, for supporting cooking utensils, substantially as set forth.

THOMAS JOHNSON.

Witnesses:

SAML. KNIGHT,  
GEO. H. KNIGHT.