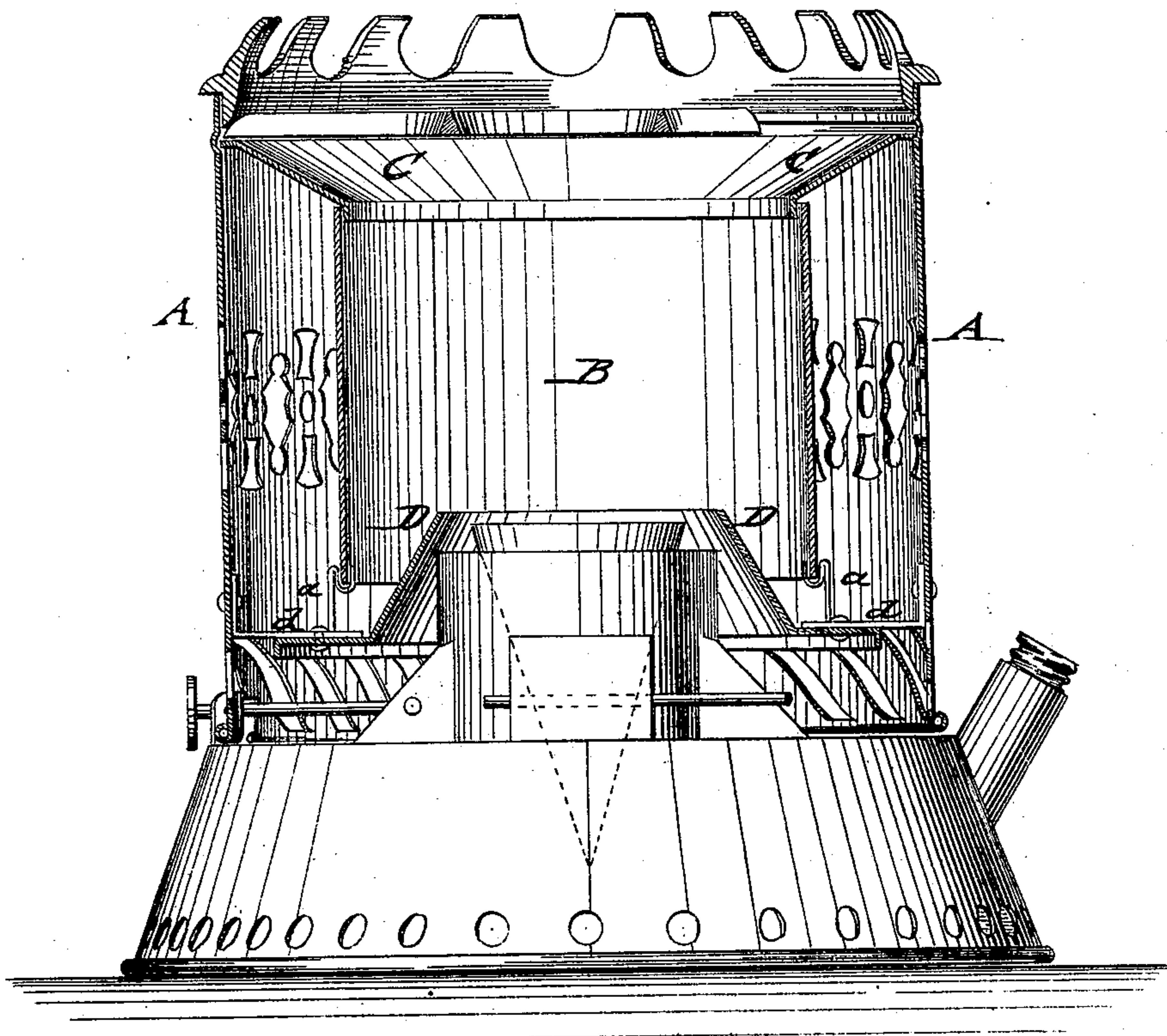


F. HILDEBRANDT.
PETROLEUM COOKING STOVES.

No. 179,701.

Patented July 11, 1876.



WITNESSES:

Chas. Nida
John Goethals

INVENTOR:

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UNITED STATES PATENT OFFICE.

FREDRICK HILDEBRANDT, OF NEW YORK, N. Y.

IMPROVEMENT IN PETROLEUM COOKING-STOVES.

Specification forming part of Letters Patent No. **179,701**, dated July 11, 1876; application filed May 27, 1876.

To all whom it may concern:

Be it known that I, FREDRICK HILDEBRANDT, of the city, county, and State of New York, have invented a new and Improved Petroleum Cooking-Stove, of which the following is a specification:

The accompanying drawing represents a vertical central section of my improved petroleum cooking-stove.

My invention relates to an improved petroleum cooking-stove that rests directly on the lamp, and produces the complete consumption of the gases of combustion of the flame, by an increased supply of air, preventing the smelling of the stove, and furnishing an economical cooking-stove.

The invention consists of a perforated sheet-metal body resting directly on the lamp, and supporting an interior chimney that is connected at the top by an inverted conical diaphragm with the body, and provided at the base with a burner-encircling cone inside of the chimney to conduct the air both at the inside and outside of the cone to the flame of the burner.

In the drawing, A represents the sheet-metal body of my improved stove, being made of cylindrical or other shape, according to the shape of the burner with which the body is to be used. The body A is supported either on legs, or on a perforated lower part directly on the lamp, suitable recesses or slots being arranged for the wick-operating ratchet-rods. A chimney, B, of cylindrical or other shape, according to the round, elongated, or other shape of the burner, is supported on brackets *a* of body A, and made of glass, mica, sheet metal, or other suitable material, the transparent materials being preferable, as they have the advantage that the condition of the flame may be readily observed through the

perforated body, and also a cheerful illuminating effect be produced by the stove. The upper edge of the chimney is connected with the upper part of the body A by an annular diaphragm, C, of inverted conical shape, which closes the space between chimney and body, and admits no cold air to pass out at the upper part of the stove, but serves to check the air and draw it downward to the flame to be heated up by the passage along the chimney. A conical diaphragm, D, is arranged inside of the chimney, and attached by brackets *d* to the body of the stove, forming air-passages between burner and diaphragm, and between diaphragm and chimney, that throw first a supply of cold air from the lower part of the stove on the outside of the flame, and a second supply of heated air on the upper part of the flame, so as to entirely consume the gases of combustion, and prevent thereby the escape of any gases and smell, and produce the complete utilization of the oil.

The combustion takes place within the chimney and above the base-cone, so as to draw the heat upward away from burner and lamp, keeping the body of the stove cool, and admitting the direct position of the stove over the lamp without requiring an insulating air-space or cooling water-chambers.

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

A petroleum cooking-stove, composed of an outer perforated body and of an interior chimney, conical top diaphragm, and interior base cone or diaphragm, substantially in the manner and for the purpose set forth.

FREDRICK HILDEBRANDT.

Witnesses:

PAUL GOEPEL,
T. B. MOSHER.