

No. 705,283.

Patented July 22, 1902.

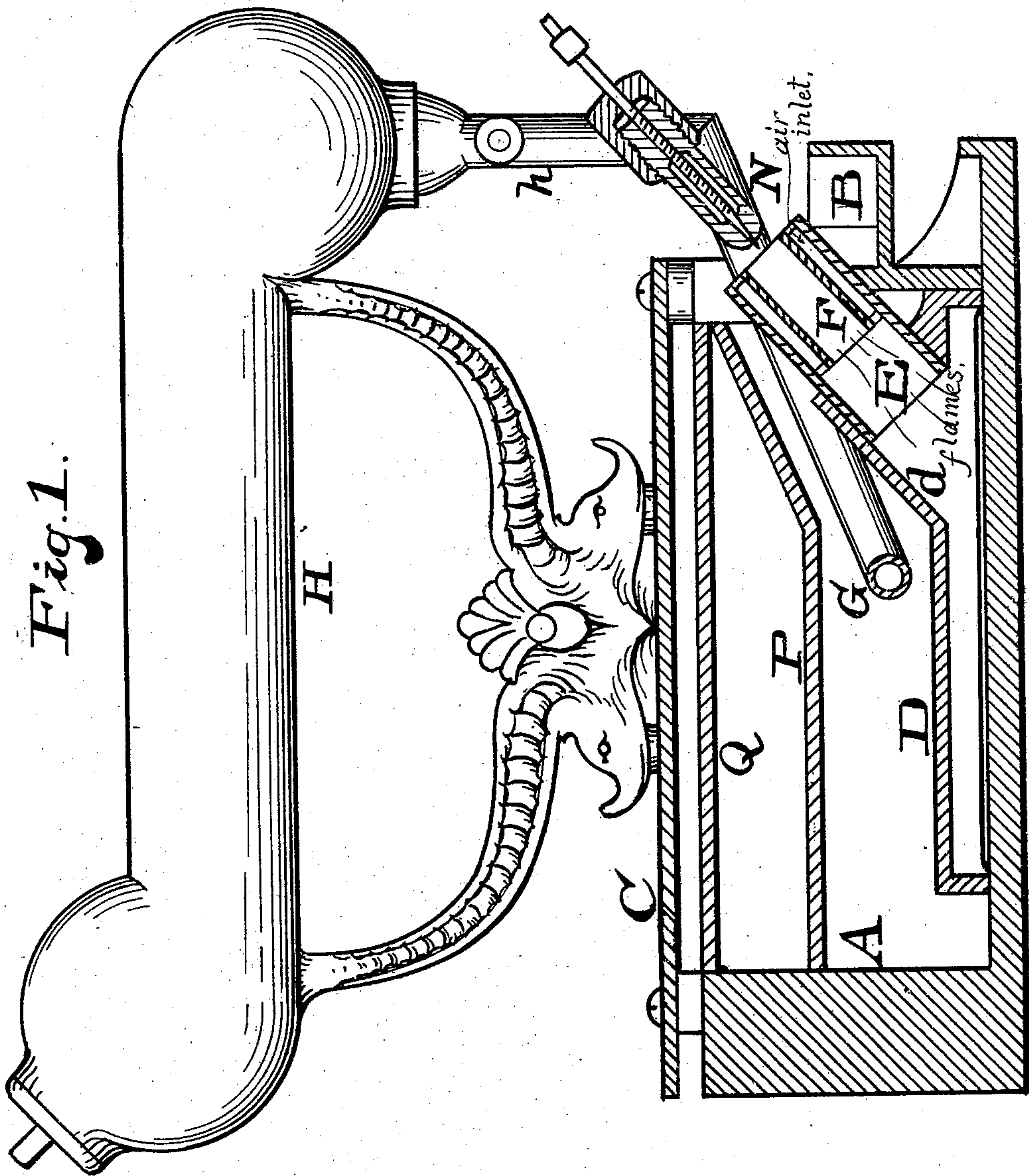
W. NEUHS.

FLAT IRON.

(Application filed Sept. 3, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:

*J. H. Kiser,*  
*Edward F. Spurney*

Inventor:

*Werner Neuhs,*  
*per Geo. W. Tibbitts*  
*Attorney.*

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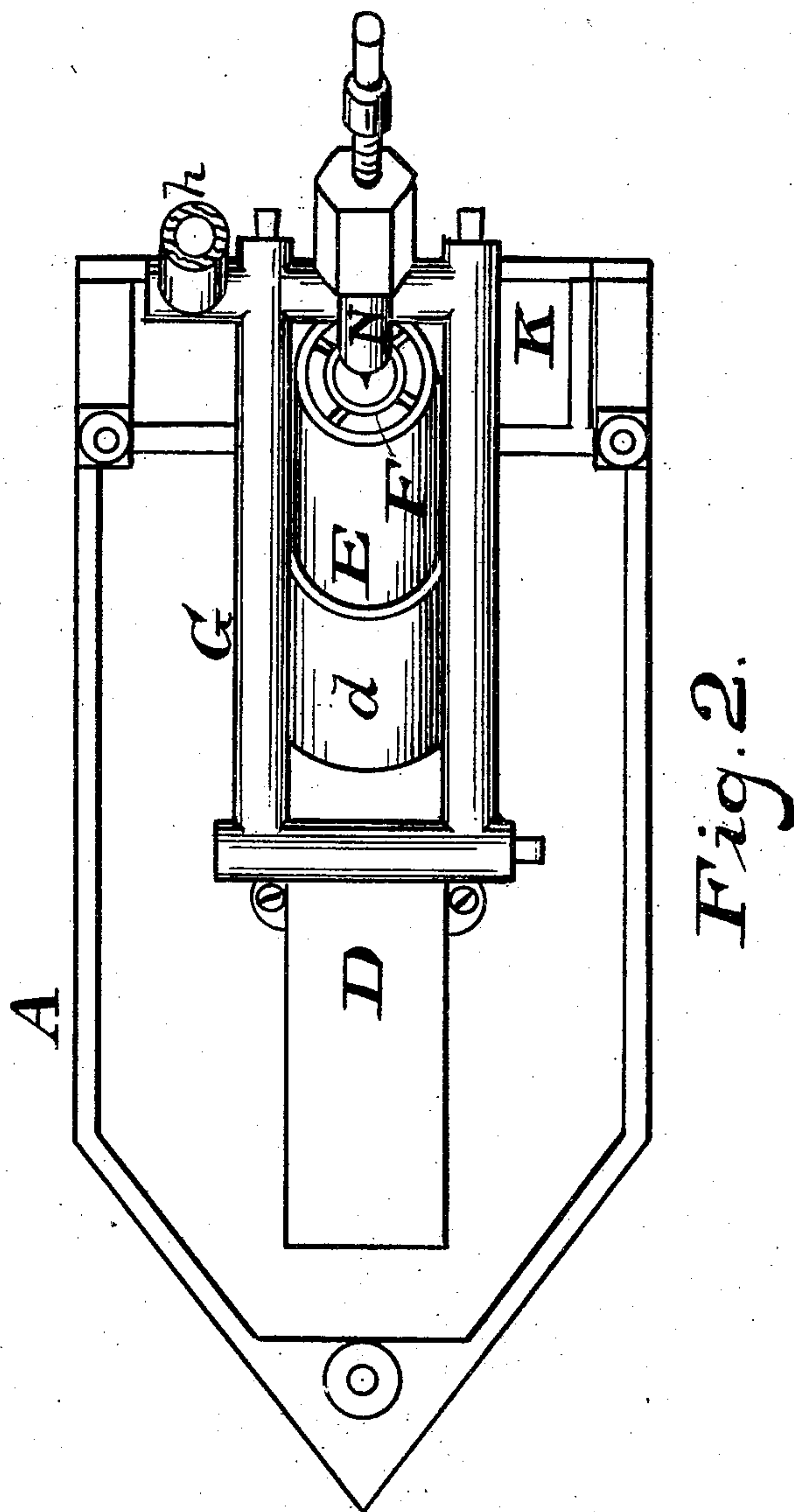
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(No Model.)

2 Sheets—Sheet 2.



Witnesses:

*E. J. Aisel.*  
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# UNITED STATES PATENT OFFICE.

WERNER NEUHS, OF CLEVELAND, OHIO.

## FLAT-IRON.

SPECIFICATION forming part of Letters Patent No. 705,283, dated July 22, 1902.

Application filed September 3, 1901. Serial No. 74,164. (No model.)

*To all whom it may concern:*

Be it known that I, WERNER NEUHS, a citizen of the United States of America, and a resident of Cleveland, Cuyahoga county, State of Ohio, have invented certain new and useful Improvements in Sad-Iron Heaters, of which the following is a specification.

This invention relates to flat-irons; and it consists in the new means for heating them, substantially as hereinafter described, and pointed out in the claim.

In this invention gasolene is employed for heating the iron, for which I provide a burner and vaporizing device specially adapted for the purpose, which is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal section of my new flat-iron. Fig. 2 is a top or plan view with the handle and top plate removed to show the generator and burner.

A is the body of the iron, consisting of a rectangular box having open top and a pointed forward end.

C is a covering-plate, upon which is attached a reservoir-handle H, connected with the burner by a pipe *h*.

The heater consists of a shallow and narrow box D, fixed in the central part of the bottom of body A. Said box D has an inclined tubular upward extension *d*, provided with one big tube E and a smaller and shorter inner tube F, into which the vapor and air are injected. The vapor-generator consists of a double return-tube G, lying over the said box D and the tubes E and F and is connected with pipe *h* to receive fluid from the reservoir-handle H.

N is a nozzle terminating the generator and provided with a vapor-jet orifice controlled by a needle-valve.

K is a heater-cup for the initial starting of the burner.

P is a plate in the body A for covering the box D and generator G, located about two-thirds from the bottom, and Q is a plate located in the top of the body A and beneath the cover C. These plates form upper chambers over the heater and serve to prevent heating the handle.

The operation of this device is as follows: The gasolene passes through the generator in the direction indicated by the arrows and is quickly vaporized. The vapor is injected into the inner tube F and is burned in the chamber formed by the box D on the bottom of the flat-iron. The space between tubes F and E provides for additional air to feed the burner and which increases the heating capacity of the burner.

Having described my invention, what I claim is—

A flat-iron heater comprising a combustion-chamber, a return generating-tube over said combustion-chamber, an entrance-tube into the combustion-chamber, a small tube supported in said entrance-tube providing an air-inlet space between said tubes, and a nozzle terminating said generating-tube having a vapor-jet orifice controlled by a needle-valve and arranged to discharge vapor into said small tube, in combination, substantially as described.

Signed by me at Cleveland, Ohio, this 31st day of August, 1901.

WERNER NEUHS.

Witnesses:

GEO. W. TIBBITTS,  
J. DE KAISER.