

W. E. VERNON.
Gasoline Burner.

No. 239,894.

Patented April 5, 1881.

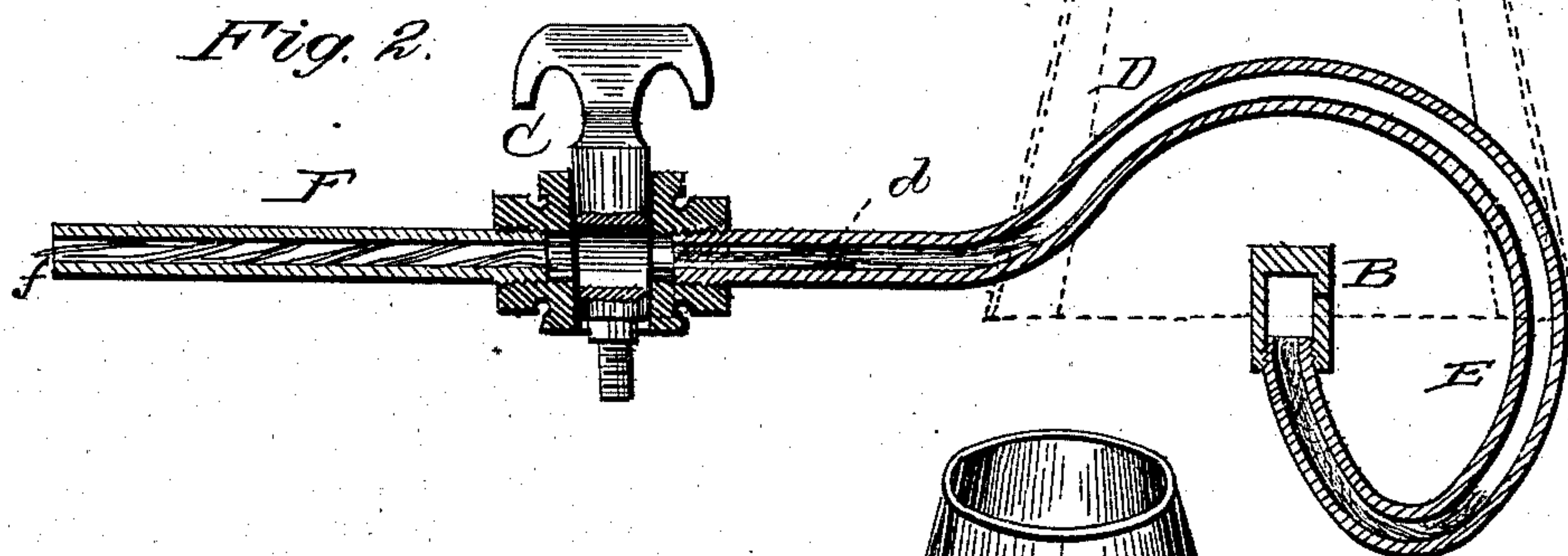
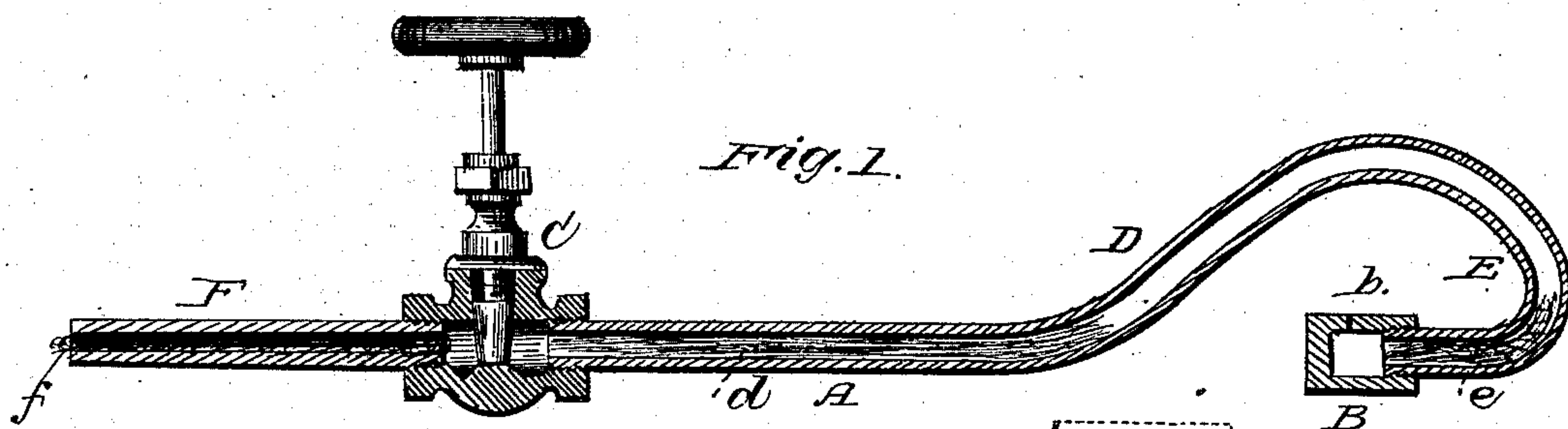
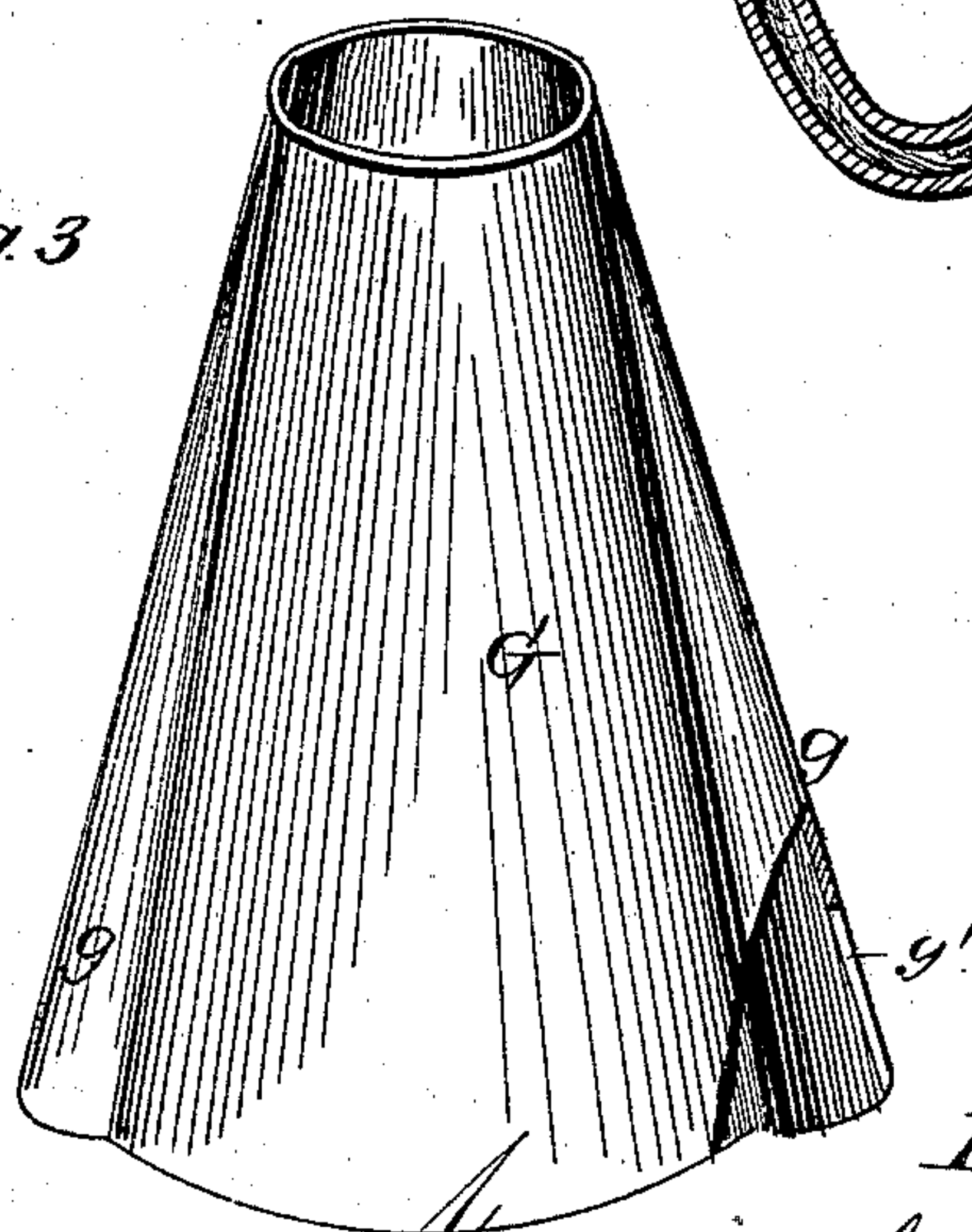


Fig. 3



Witnesses
Fred Dietrich
Jno. A. Madigan

Inventor
William E. Vernon.
by Louis Bagger & Co.
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM E. VERNON, OF OSKALOOSA, IOWA.

GASOLINE-BURNER.

SPECIFICATION forming part of Letters Patent No. 239,894, dated April 5, 1881.

Application filed February 13, 1880.

To all whom it may concern:

Be it known that I, WILLIAM E. VERNON, of Oskaloosa, in the county of Mahaska and State of Iowa, have invented certain new and useful Improvements in Gasoline-Burners; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a longitudinal section of my improvement with the aperture in its burner opening upwardly. Fig. 2 is a similar view of same with the aperture in its burner opening laterally. Fig. 3 is a perspective view of the burner-cone used when desired for concentrating the heat of the burner upon a particular point.

Similar letters of reference indicate corresponding parts in all the figures.

The object of this invention is to facilitate the conversion of gasoline, naphtha, and hydrocarbons generally into gas, thereby avoiding waste and intensifying the heat.

It consists in the improvements hereinafter described, and particularly pointed out in the claim.

For greater convenience and a perfect understanding of the scope of the invention, I will first describe the general construction of the burner and its connections, to which, broadly, no claim is made in this application.

Referring to the drawings, A represents a pipe secured in a proper frame, having a globe or other valve, C, as shown; and F a feed-pipe, filled with cotton or other suitable packing, *f*, to avoid waste of oil and remove impurities from the gas. The pipe A is bent upward at D, to form an oval or arch, and is thence bent downward, as shown at E, thence inward and upward, the end being provided with a proper burner. The burner may be arranged horizontally, as shown in Fig. 1, or vertically, as shown in Fig. 2. The horizontal portion of

the pipe A, between the valve C and upwardly-deflected portion D, is filled with wire-gauze *d*, to absorb heat and prevent explosion, and similar wire-gauze packing is employed from the end of the pipe, at the burner, for a sufficient distance backward, as shown at *e*.

The essential feature of the invention, in connection with the pipe A and its curvatures, as hereinbefore described, and plainly shown in Fig. 2 of the drawings, lies in the conical chimney G, made preferably of Russia sheet-iron, and having flanges *g g*, of semi-conical form, formed in opposite sides of the chimney, or secured thereto, as shown. One of these flanges *g* has a slot, *g'*, extending from the lower edge upward for a sufficient distance, and it is of a proper width to embrace snugly the pipe A at the curve D, while the other flange embraces the pipe A at the point in the portion E where the said pipe assumes its nearest approximate vertical position. This construction renders the cone-chimney easy of application and removal, and serves efficiently not only to collect and evenly distribute heat along the arch of the pipe, but it also collects and intensifies the reverberating rays of heat as they arise within the chimney toward the contracted top. In this feature of construction and its adaptation to the other parts the invention consists.

What I claim is—

The conical metal chimney G, having the semi-conical flanges *g g*, one of which is slotted at *g'*, as shown, to embrace the valved pipe A at D, and the other to embrace the pipe at its downward curvature, in combination with said pipe A, curved as shown, as and for the purposes specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM ELIAS VERNON.

Witnesses:

WILBUR FISK MARK,
ROBERT HENRY ALEXANDER.