

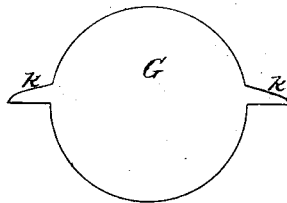
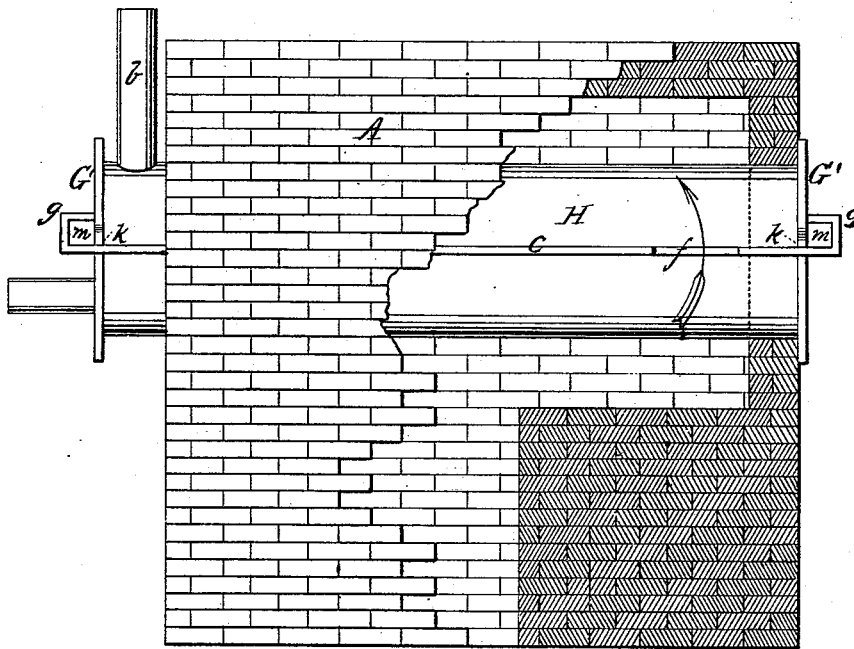
W. F. WEIBLE.
Gas-Retort.

2 Sheets--Sheet 1.

No. 161,369.

Patented March 30, 1875.

Fig. 1



WITNESSES

Villette Anderson
Robert Everett

INVENTOR

William F. Weible
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2 Sheets--Sheet 2.

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Fig. 2

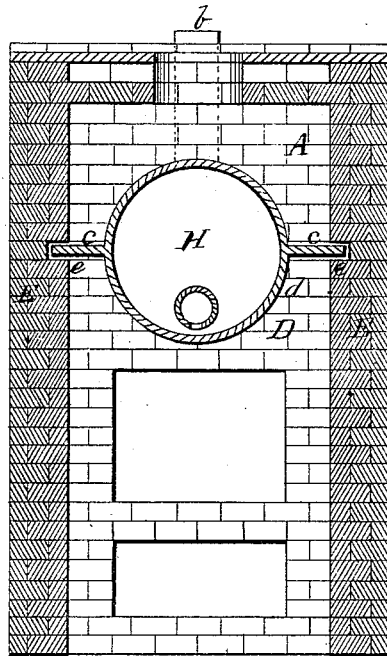
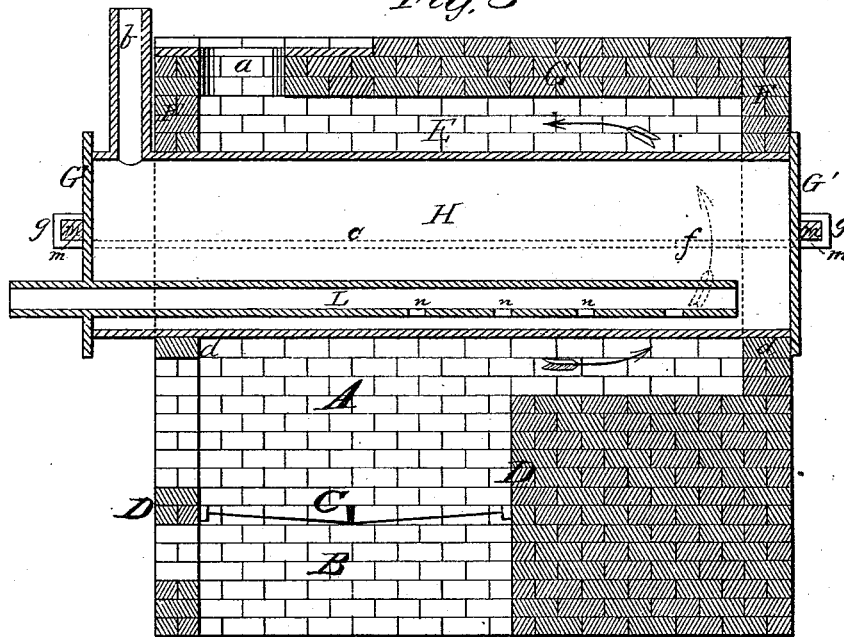


Fig. 3



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UNITED STATES PATENT OFFICE.

WILLIAM F. WEIBLE, OF TIDIOUTE, PENNSYLVANIA.

IMPROVEMENT IN GAS-RETORTS.

Specification forming part of Letters Patent No. **161,369**, dated March 30, 1875; application filed October 24, 1874.

To all whom it may concern:

Be it known that I, WILLIAM F. WEIBLE, of Tidioute, in the county of Warren and State of Pennsylvania, have invented a new and valuable Improvement in Gas-Retorts; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of an outside view of my device. Fig. 2 is a transverse vertical sectional view, and Fig. 3 is a longitudinal vertical sectional view of the same.

This invention has relation to means for manufacturing gas from refined oil, petroleum, benzine, and naphtha for private houses, hotels, and factories; and it consists in the construction and novel arrangement of the portable retort and its connections, as hereinafter fully shown and described.

In the accompanying drawings, the letter A designates a furnace or stove, lined with tiles, and usually constructed with an ash-pit, B, grate C, end walls D, having circular notches *d*, and side walls E, extending upward beyond the end walls, and provided with supporting-ledges *e*. F F represent end tiles or pieces, which are notched in their lower edges, and fit down upon the upper edges of the end walls D, leaving circular openings, through which project the ends of the retort. G indicates a tile, covering the top; and the smoke-pipe is designed to have its exit from the top of the furnace at *a*, near the front end thereof. H represents the retort, a cylindrical or tubular vessel, open at both ends, and provided at its front end with an upwardly-extending gas-pipe, *b*, which leads to a gas holder or condenser. Longitudinally extending on each side of this cylinder, and forming parts thereof, are the horizontal flanges *c c*, which, with the body of the retort, form, when in place, the dividing-wall between the direct and return flues of the furnace, and are notched at

f f, to open communication between the two, near the rear ends of said flanges. In order to provide means for attaching the retort-heads G', the flanges *c* are extended a little beyond the ends of the body of the retort, and are turned first upward, and then backward, as shown at *g*. The retort-heads are provided with lugs *k* on each side, which rest on the extensions of the flanges *c*, in such a manner that the heads are supported in position opposite the ends of the cylinder. When in position the heads are forced up against the cylinder, and secured by means of wedges or keys *m*, which rest in bearings *g*. Through the front head of the retort, and rigidly secured thereto, passes a distributing-pipe, L, the lower part of which is perforated at *n n* along its rear portion, or that part which lies farthest within the retort when the head is in position. Through this pipe the oil is supplied and distributed in the retort, where it is vaporized and converted into gas by the heat of the furnace.

The furnace, as above described, is divided by the retort and its flanges into a direct and an upper return-flue. The flanges, therefore, receive heat on both upper and under surfaces, and conduct it to the body of the retort.

What I claim as new, and desire to secure by Letters Patent, is—

1. The portable retort, consisting of the cylinder H, its horizontal side flanges *c*, extended at their ends, the gas-pipes, the cylinder-heads G, their bearing-lugs *k*, and the perforated distributing-pipe L, substantially as specified.

2. The combination, with the retort-cylinder H and its side flanges *c*, notched at *f*, of the furnace, having the ledge-bearings *e* in its side walls, to receive the side flanges *c* of the retort, as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM F. WEIBLE.

Witnesses:

J. R. SHIREY,
J. A. WEIBLE.