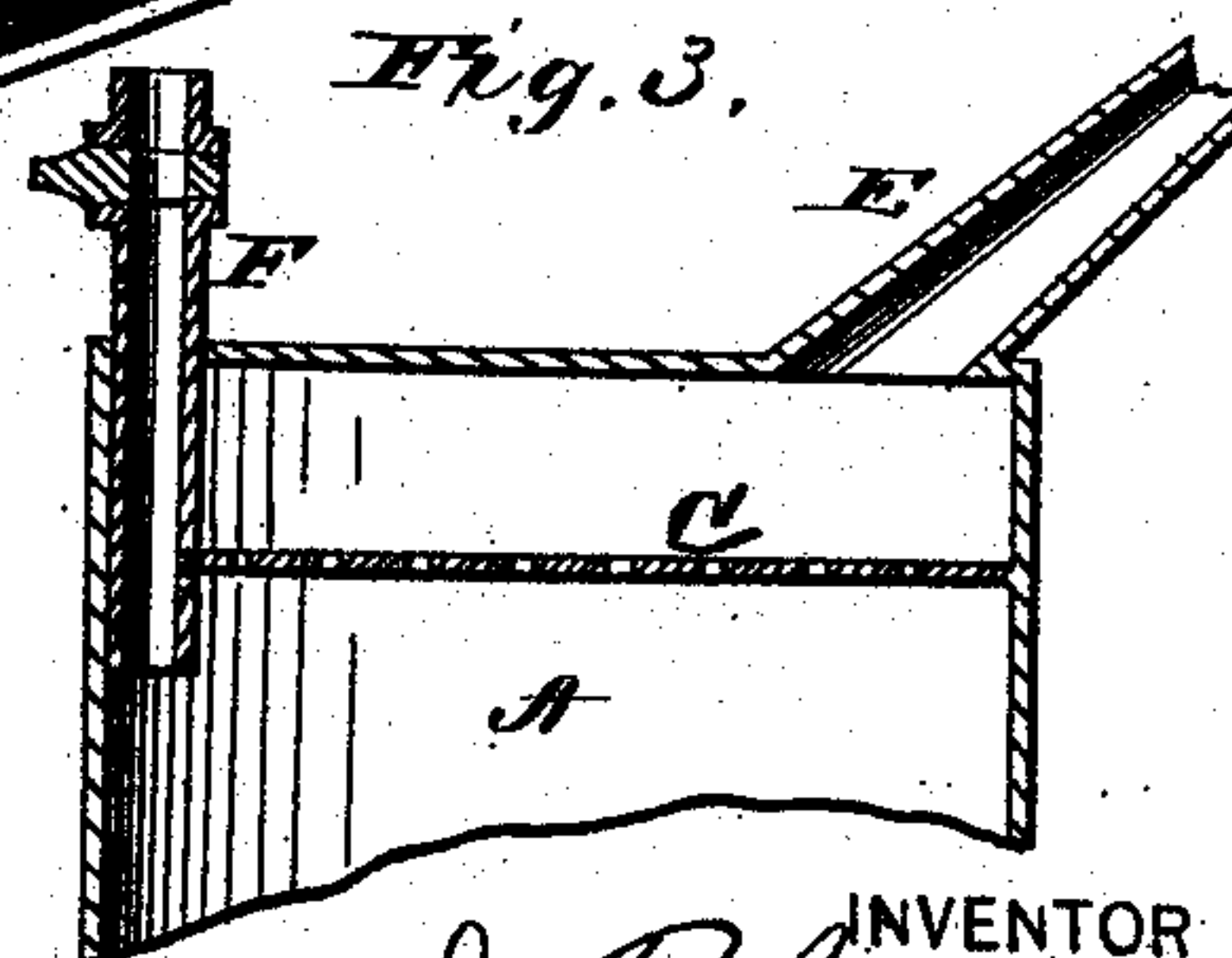
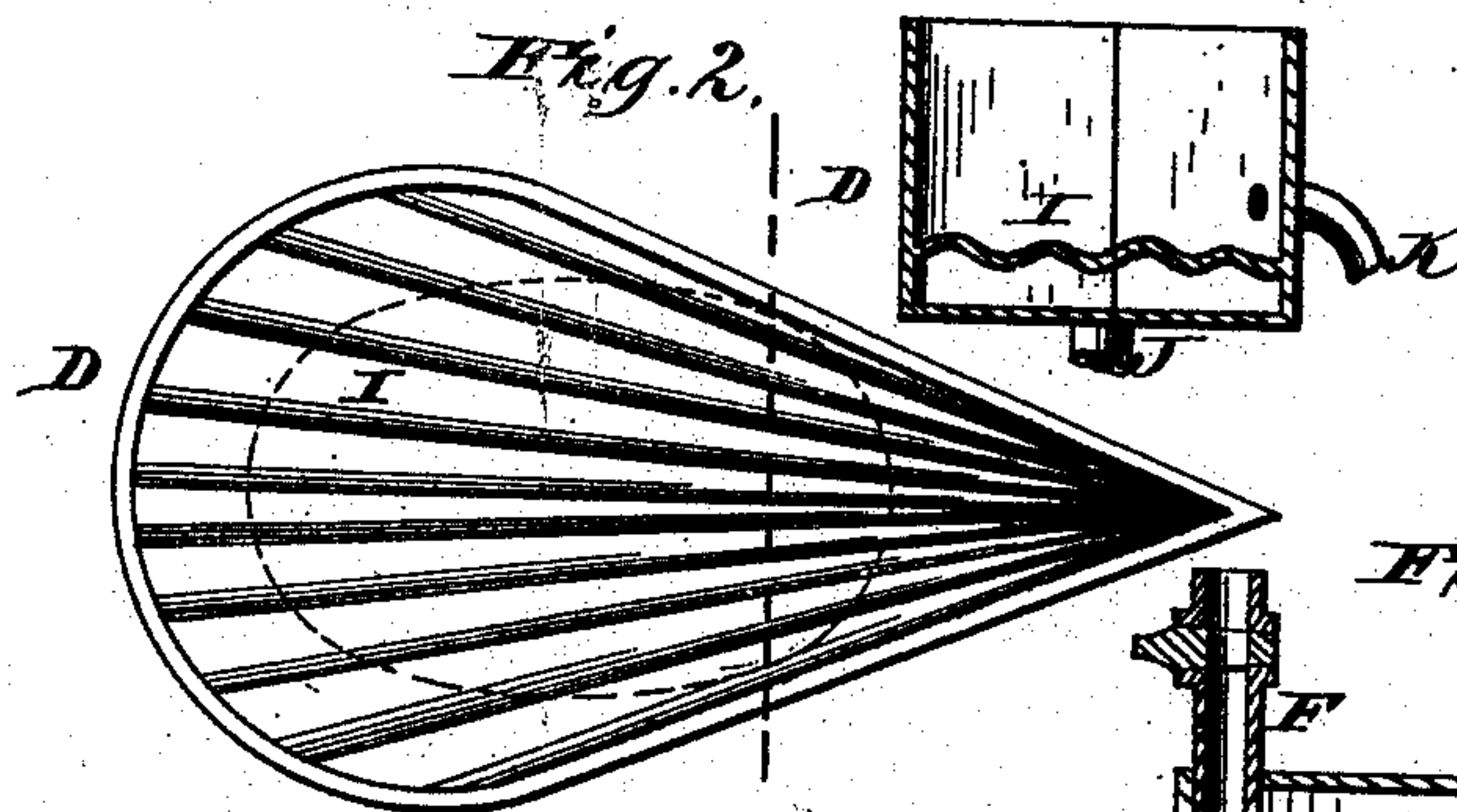
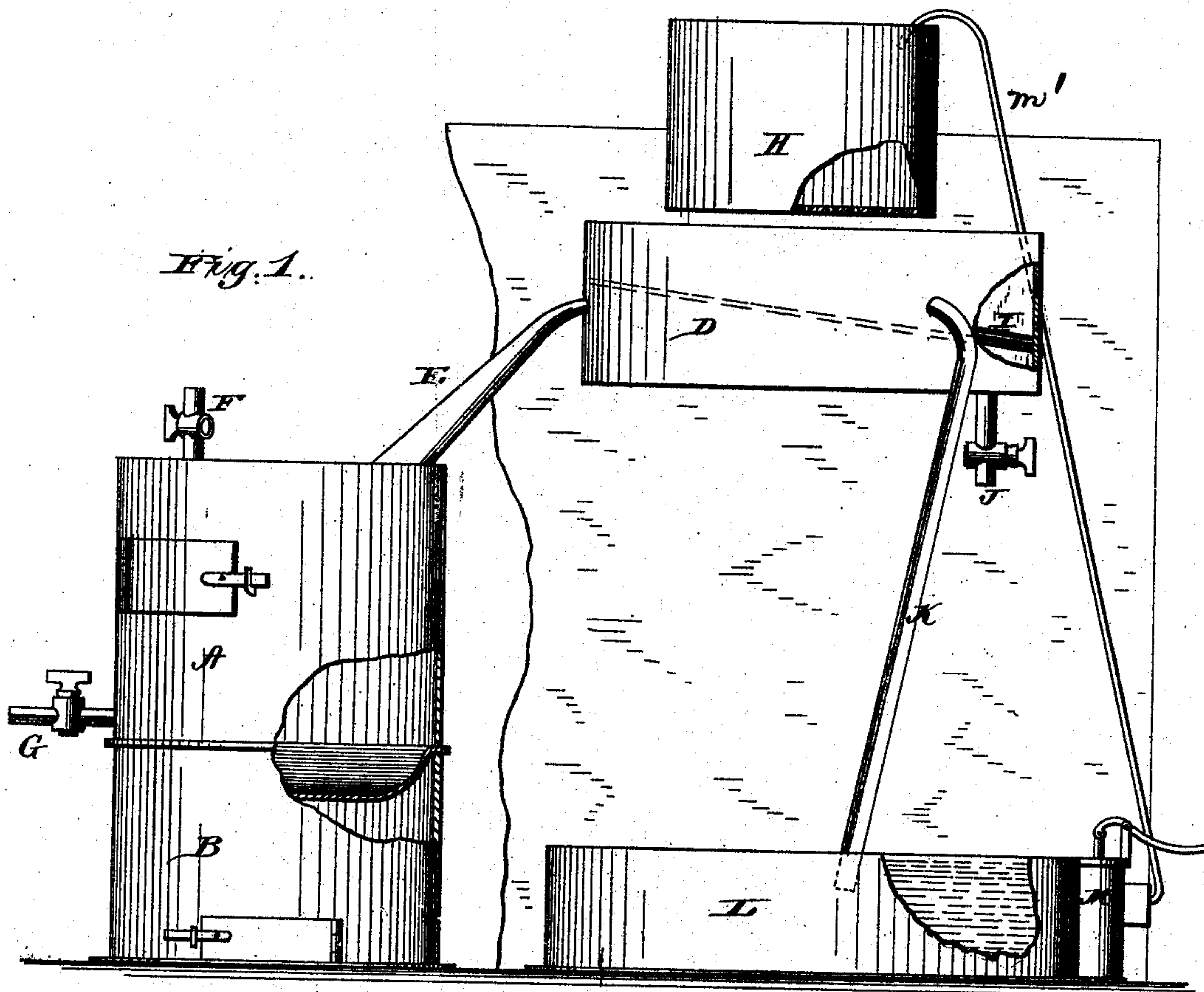


J. R. GLADNEY.
Condenser for Alcohol-Stills.

No. 224,421.

Patented Feb. 10, 1880.



WITNESSES

WITNESSES
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 C. L. Ewert.

INVENTOR

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UNITED STATES PATENT OFFICE.

JOHN R. GLADNEY, OF BUENA VISTA, MISSISSIPPI.

CONDENSER FOR ALCOHOL-STILLS.

SPECIFICATION forming part of Letters Patent No. 224,421, dated February 10, 1880.

Application filed July 2, 1879.

To all whom it may concern:

Be it known that I, JOHN R. GLADNEY, of Buena Vista, in the county of Chickasaw, and in the State of Mississippi, have invented certain new and useful Improvements in Condensers for Alcohol-Stills; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to condensers for alcohol-stills; and it consists in the combination of a condenser having an interior corrugated diaphragm forming a water-receptacle above and a vapor-chamber below, a water-reservoir having perforated bottom, a tank and pump, and suitable connecting-pipes, all as hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side elevation, partly in section, of my still. Fig. 2 is a plan view of the condenser, showing also a cross-section of the same. Fig. 3 is a section of the upper part of the boiler.

A represents the boiler, with furnace B underneath. Near the top of the boiler is a perforated diaphragm, C, which divides the boiler, as it were, into two compartments. From the top of the boiler a pipe, E, conducts the vapor to the condenser D.

The perforated diaphragm C prevents the liquid from overflowing and passing into the condenser.

The liquid is admitted into the boiler through a pipe, F, which may enter from the top, as shown, and pass below the diaphragm; or said pipe may enter the side of the boiler, if preferred.

G is an outlet near the bottom of the boiler for drawing off the liquid.

The condenser D consists of a pan or vessel of any suitable dimensions, and preferably of substantially the form shown in Fig. 2. It is open at the top and provided with an inclined partition or diaphragm, I, which forms the condensing-surface. This partition or diaphragm I is corrugated, as shown, to increase the condensing-surface.

The vapor enters through the pipe E into the condenser below the corrugated diaphragm I, and is there condensed by the action of water, which is caused to continually drip on top of the diaphragm from a reservoir, H, above. The bottom of this reservoir is perforated with numerous small holes. From the condenser the liquor is allowed to pass out through a pipe, J, into any suitable vessel placed for its reception. The water from above the diaphragm passes through a pipe, K, into a tank, L, below, from whence it may be pumped up into the reservoir H, as required for use, by means of a pump, M.

This still is simple and cheap in construction, and yet performs the work designed with good results.

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

The combination of the condenser D, having an interior corrugated diaphragm, I, forming a water-receptacle above and a vapor-chamber below, the water-reservoir H, having perforated bottom, pipes K *m'*, tank L, and pump M, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

JOHN R. GLADNEY.

Witnesses:

H. AUBREY TOULMIN,
H. J. ENNIS.