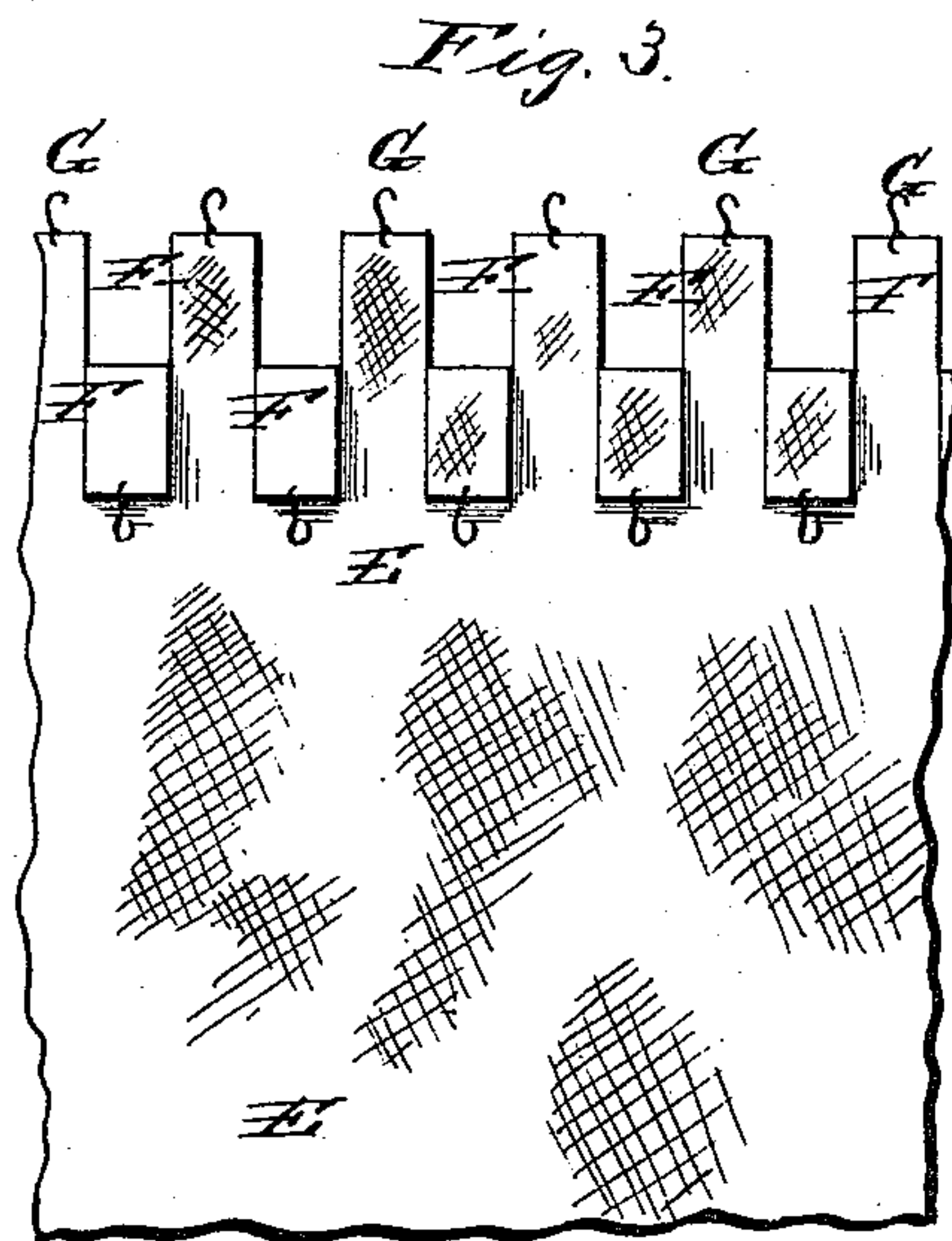
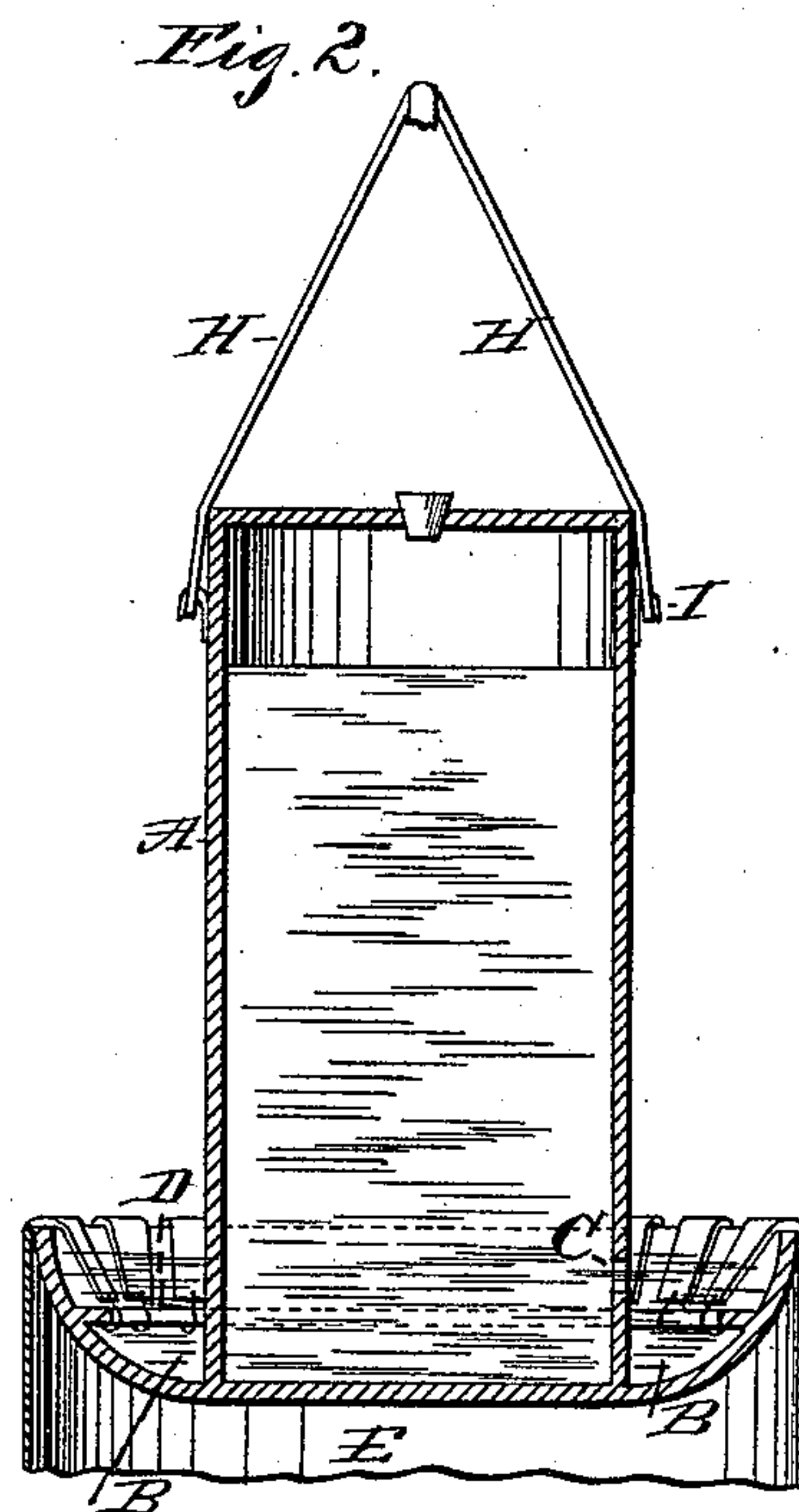
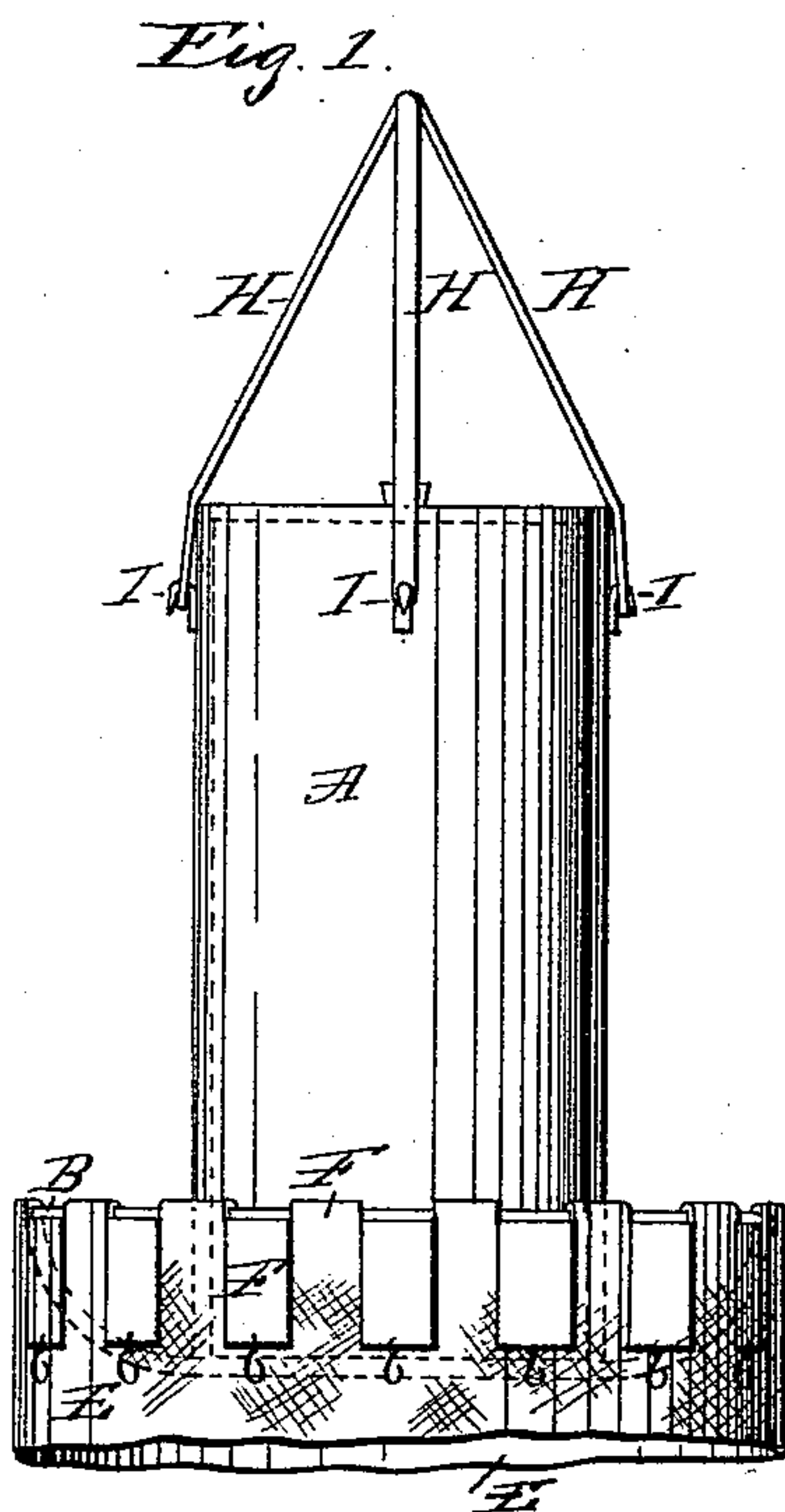


(No Model.)

J. O. WOODS.  
VAPORIZER.

No. 430,162.

Patented June 17, 1890.



Witnesses  
*James M. Stick*  
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# UNITED STATES PATENT OFFICE.

JUSTUS O. WOODS, OF NEW YORK, N. Y.

## VAPORIZER.

SPECIFICATION forming part of Letters Patent No. 430,162, dated June 17, 1890.

Application filed January 27, 1890. Serial No. 338,227. (No model.)

*To all whom it may concern:*

Be it known that I, JUSTUS O. WOODS, a citizen of the United States of America, residing at New York city, county, and State, have invented and made certain new and useful Improvements in Vaporizers for use with Disinfectants, Perfumes, and Cooling-Fluids; and I do hereby declare that the following is a full, clear, and exact description and specification of the same, reference being had to the drawings forming part thereof.

My invention relates to vaporizers which are of the description shown and described in the application for Letters Patent of the United States filed by me on November 20, 1889, Serial No. 330,998, wherein the quantity of fluid to be evaporated is contained in a trough fed from an adjacent closed reservoir, from which the quantity of fluid in said trough is regulated by the equilibrium between the weight of fluid in said reservoir and the external air-pressure by means of an aperture or apertures near the bottom of said reservoir, and in which the quantity of fluid evaporated from the said trough is also regulated; and my invention consists in certain means for regulating such evaporation, fully set forth and claimed in this specification.

In order that persons skilled in the art may understand, construct, and use my invention, I will proceed to describe it, referring to the drawings, in which—

Figure 1 represents an elevation of my invention. Fig. 2 represents a vertical section of the same. Fig. 3 represents the evaporating-apron and its retaining hooks or claws, by which it is secured to the projections in the evaporating-trough.

A is the closed reservoir.

B is the evaporating-trough beneath.

C is an aperture near the base of the closed fluid-reservoir, through which fluid flows into the trough B when equilibrium is established between the weight of fluid and partial vacuum in the fluid-reservoir and the air-pressure outside, and through which air enters to said partial vacuum above the fluid in the reservoir.

D is the flange on the inside of the trough B, with which the claws or hooks attached to the evaporating-apron engage to support the apron when it hangs over the side of the trough.

E is the evaporating-apron.

F are the strips into which the upper end of the evaporating-apron E is slitted.

G are the hooks or claws which are attached to each strip to hold it in the evaporating-trough B on flange D.

H are straps attached to projections I on the fluid-reservoir to suspend it by.

The operation of my device is as follows: Fluid is put into the fluid-reservoir, either through an opening in the top closable by a stopper or through the opening C in the base, until the reservoir is filled. The fluid will then flow into the trough B and air enter the reservoir until the fluid has risen above the hole C, when it will cease, being kept back by the pressure of the atmosphere against the partial vacuum left above the fluid in the reservoir. The fluid in the trough is conducted by the strips F of the apron E by capillary attraction and syphonic action to the body of the apron itself, and is evaporated by the surrounding air. In case too rapid evaporation should occur, some of the strips F are removed from the trough B and dropped upon the apron E. The quantity of fluid evaporated is thus regulated to a nicety. As soon as the fluid in the trough B has been evaporated so that the aperture C is uncovered air will again enter the reservoir and more fluid will flow out until equilibrium is again established.

Having now fully described my invention and the manner in which I have embodied it, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the closed fluid-reservoir, of the trough, the discharge-aperture near the bottom of the reservoir, and within the evaporating-trough the flange for retaining the conducting and evaporating strips in said trough, substantially as hereinbefore set forth.

2. The combination of the closed fluid-reservoir provided with the discharge-aperture C, the evaporating-trough, and the slitted ends of the evaporating-apron to regulate the quantity of fluid for evaporation, substantially as hereinbefore set forth.

JUSTUS O. WOODS.

Witnesses:

JAMES M. HICKS,  
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