

(Model.)

2 Sheets—Sheet 1.

W. J. ORMSBY.
Carbureting Apparatus.

No. 234,055.

Patented Nov. 2, 1880.

Fig. 1.

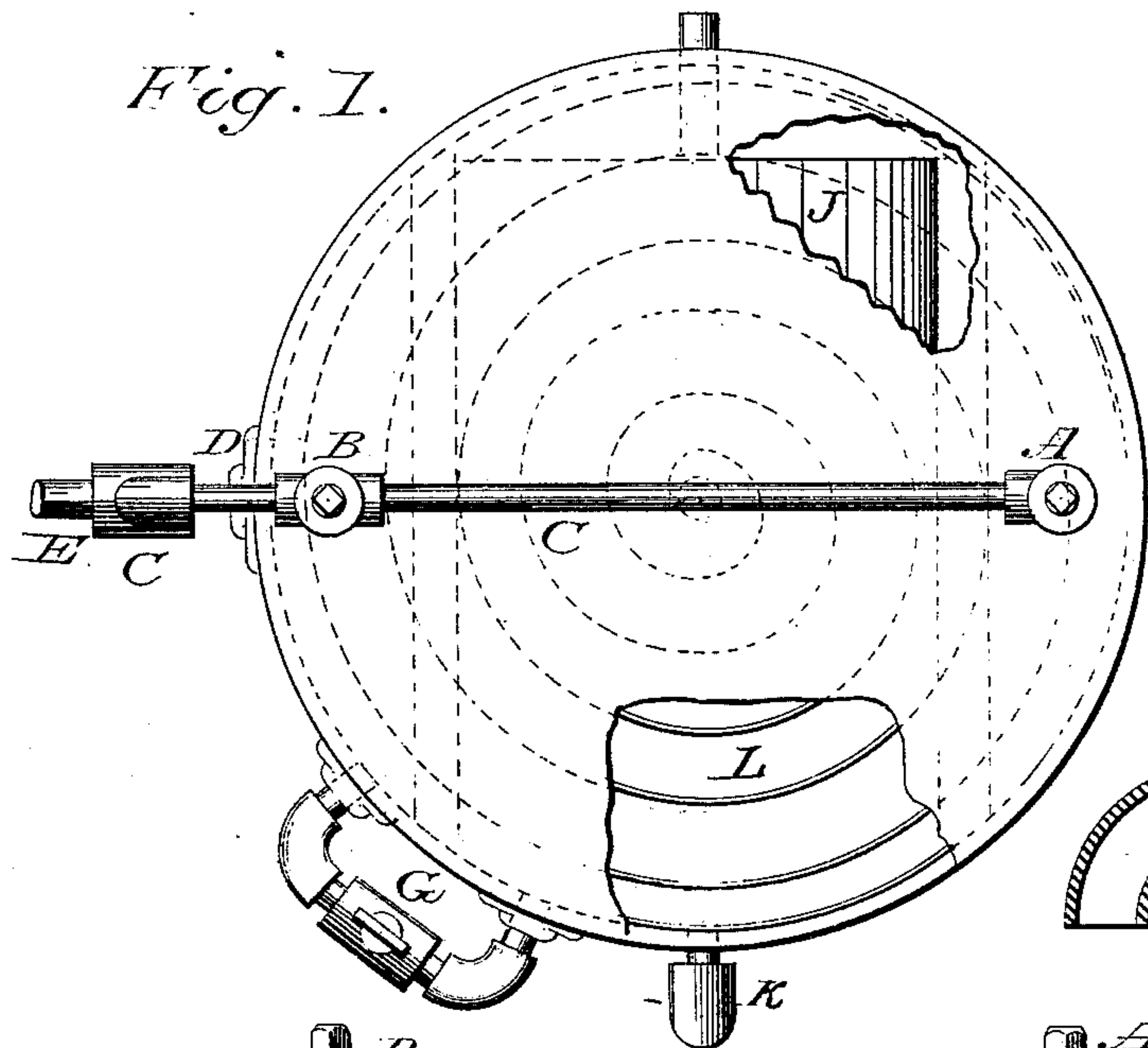


Fig. 3.

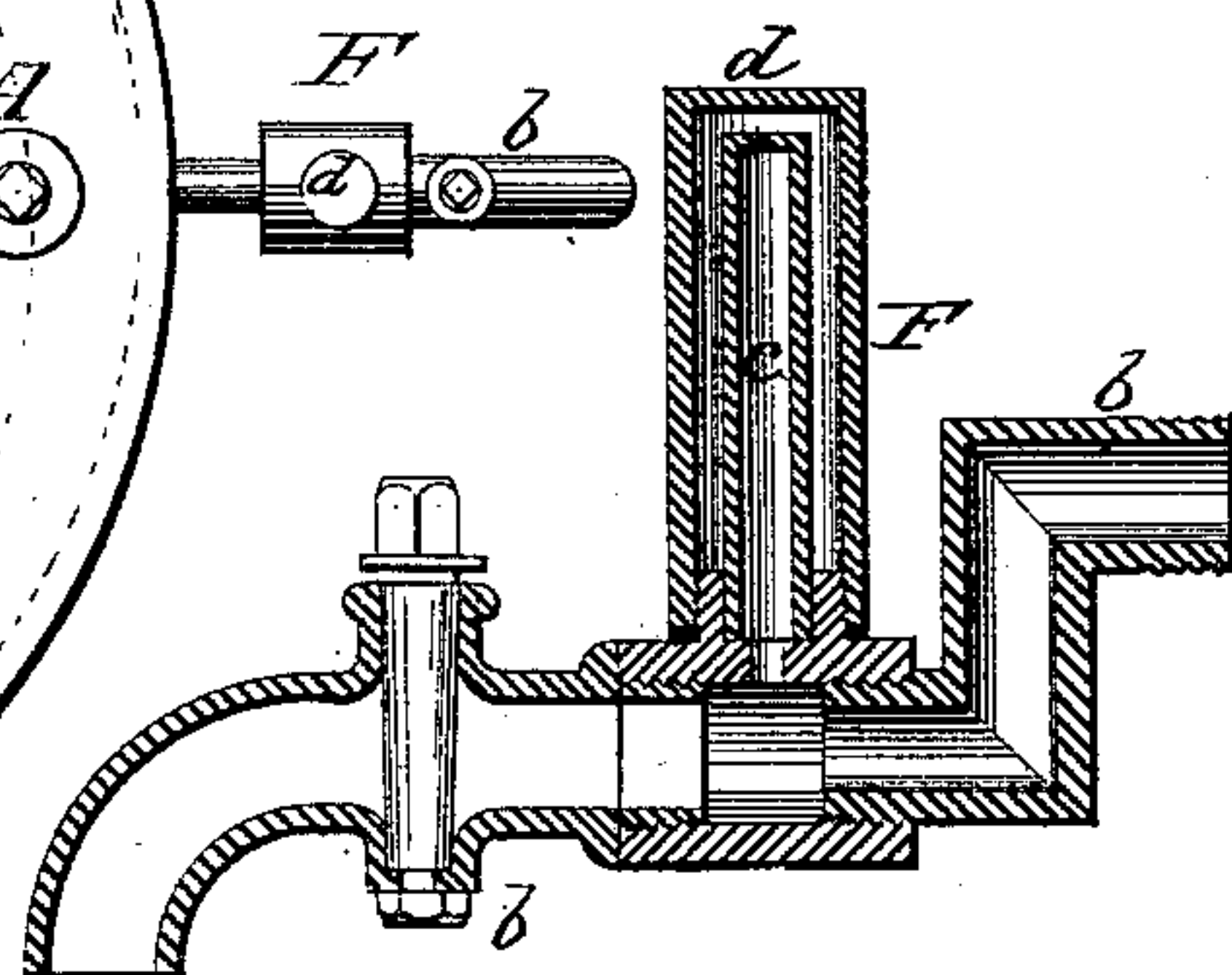
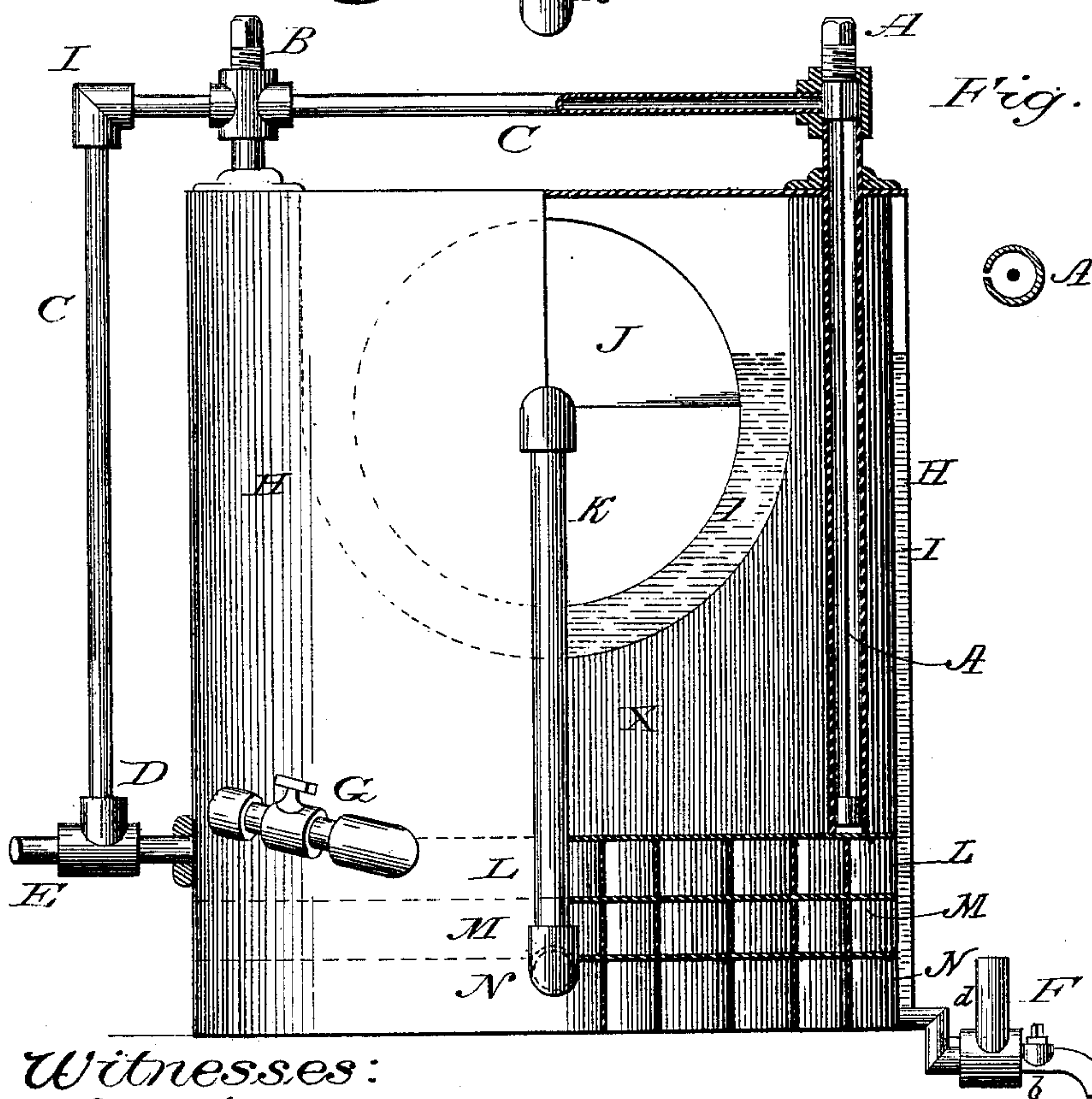


Fig. 2.



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2 Sheets—Sheet 2.

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Fig. 4.

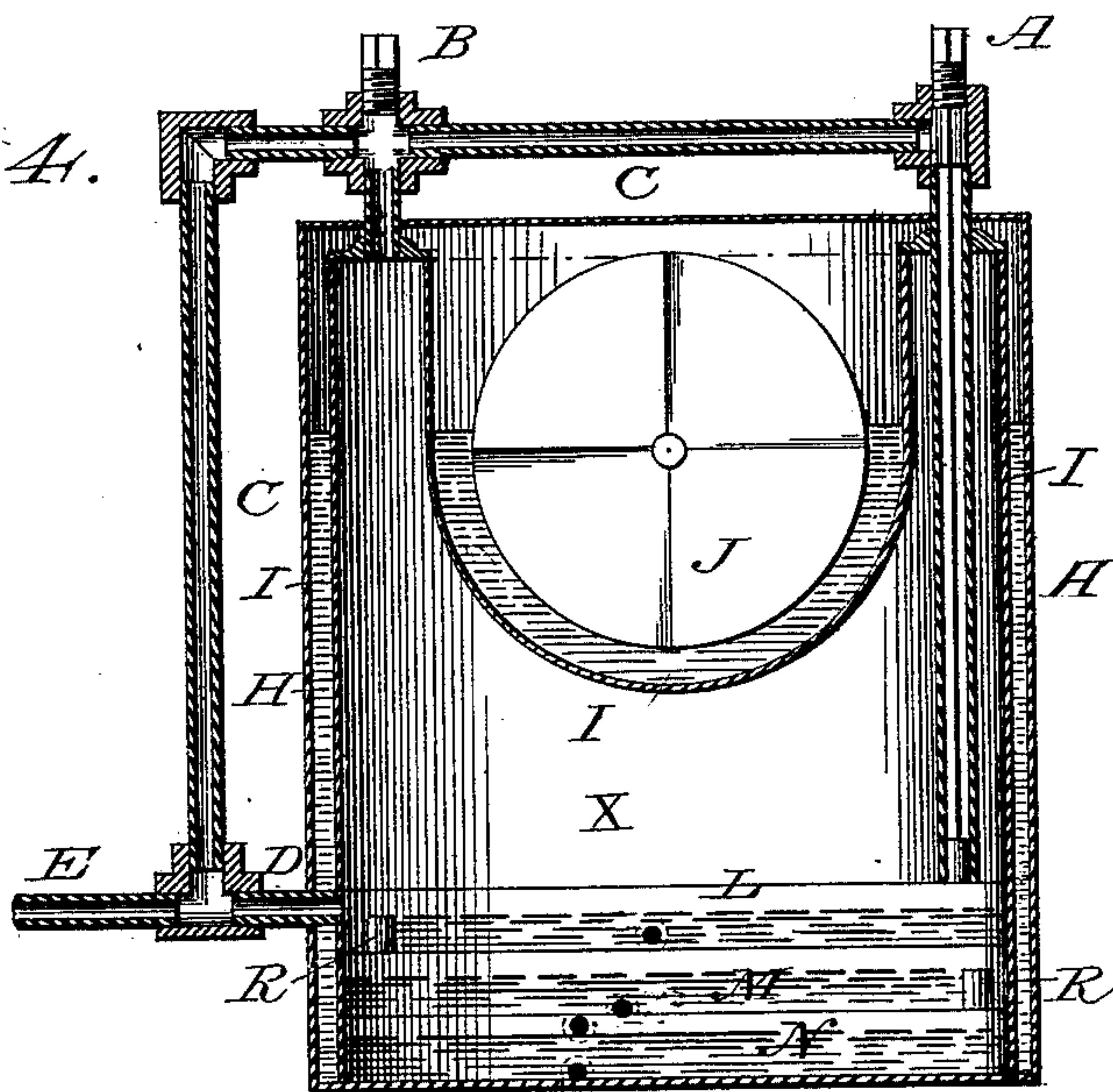
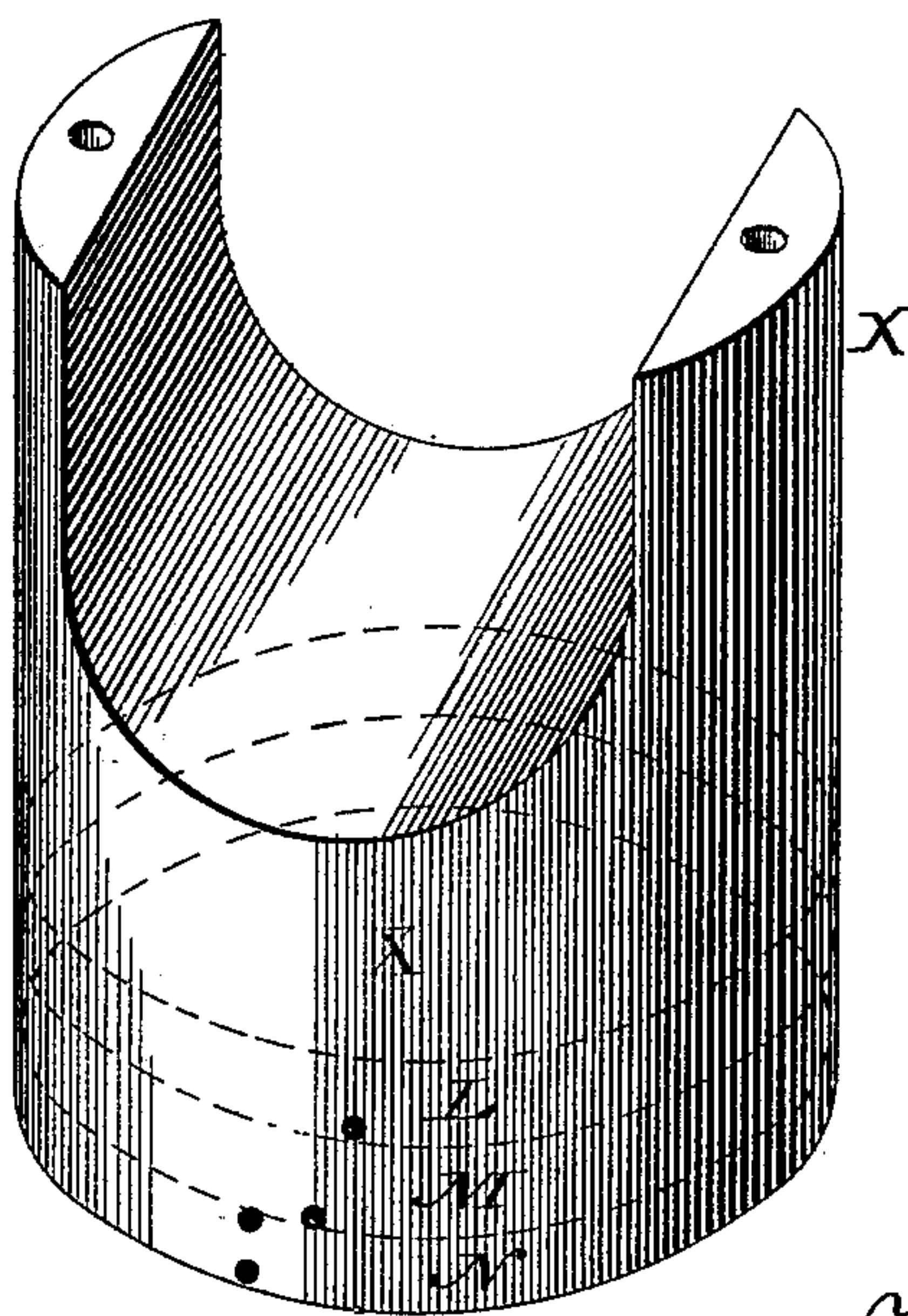


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM J. ORMSBY, OF CINCINNATI, OHIO.

CARBURETING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 234,055, dated November 2, 1880.

Application filed April 12, 1880. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM J. ORMSBY, of Cincinnati, Hamilton county, Ohio, have invented a new and Improved Carbureting Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improvement in that class of air-carbureters in which the tank or reservoir containing the gasoline or other carbureting-liquid is placed above but in communication with the pans or trays intended to receive from time to time a limited portion of said liquid, and through which pans the air to be carbureted is successively passed.

My improvement pertains to the construction, combination, and arrangement of parts, as hereinafter described and claimed.

In accompanying drawings, Figure 1 is a plan view of the apparatus, parts being broken out to show the interior construction. Fig. 2 is in part a side view and in part a vertical section of my apparatus. Fig. 3 is a sectional view of the indicator detached and enlarged. Fig. 4 is a complete sectional elevation of the apparatus. Fig. 5 is a perspective view of the gasoline tank and pans separate from other parts.

The tank X for holding the gasoline or other carbureting-liquid, the pans or trays L M N for receiving the gasoline from said tank, and the wheel J for forcing air into and through the said pans for the purpose of carbureting it are all inclosed by a metal casing, H, and surrounded by a body of water, I, which fills the annular space between the casing and the aforesaid or inclosed parts. The tank X is cylindrical in its lower portion, and provided with a semicircular recess in its top to afford space for the air wheel or pump J. In other words, the latter is arranged horizontally, and the tank X extended upon opposite sides of the same, Fig. 4, so as to economize space as much as practicable.

The tank X rests on the superposed pans or trays L M N, which are made shallow and provided with overflow-pipes R, so that if carbureting-liquid be admitted into the upper pan, L, it will overflow into the second one, M, and thence into the third, N. The upper pan, L, is connected with the tank X by means of a

pipe, G, Figs. 1 and 2, having a cock, which allows the liquid to be admitted to the pans whenever required. The overflow-pipes R allow the upper pans, L M, to become partly filled, and in order that it may be known when the proper amount of carbureting-liquid has been received in the lower pan, N, I provide the latter with an indicator, F, which consists of a cock, *b*, provided with a short glass stand-pipe, *c*. The latter is open at the top to allow free passage of air, and a detachable metallic tube or cap, *d*, is applied to cover and protect the glass tube *c*, as shown.

In order to supply the tank X with gasoline, I employ the pipe A, which extends vertically to the bottom of the same, and is provided with a removable plug at the top. Said pipe is slotted, as shown in detail, Fig. 2, and contains a cork float, which is allowed to rise and thus indicate the height of the gasoline in the operation of filling the tank. A pipe, C, connects with the upper end of pipe A and extends across the top and down the side of the casing to the junction with the pipe E, which conducts the carbureted air to the burners. A short pipe, B, connects the upper part of the gasoline-tank with said pipe C. The air-wheel J being rotated in the water (which envelops more than half of it) by a weighted cord or other suitable means, it forces air through its hollow axis into the pipe K, which conveys it into the space or chamber above the gasoline in the lower pan, N, where it takes a spiral course between guide plates; thence it passes through overflow-pipe into the space above the middle pan, M, and thence again through overflow-pipe into the space above the upper pan, whence it escapes into the service-pipe E. In such circuitous passage the air mingles with the vapor arising from the gasoline in the evaporating-pans and becomes loaded with carbon. Some evaporation also goes on from the surface of the liquid in the tank X, and the vapor thus produced passes through pipe B into pipe C, and thus mingles with the already partly-carbureted air that is escaping from the upper pan, L.

By my construction and arrangement of parts I produce a compact, economical, safe, and efficient apparatus for its purpose.

I am aware a series of superposed pans for

holding carbureting-liquid have been provided with an exterior chamber having a glass front, through which the height of carbureted liquid could be observed.

5 What I claim as new is—

1. In a carbureting apparatus, the combination of the air-wheel J, arranged horizontally, the gasoline-tank X, provided with a
10 said air-wheel, the carbureting-pans L M N, placed beneath said tank, the casing H, surrounding the aforesaid parts and adapted for containing water, in which the air-wheel is
15 partly submerged, all said parts being suitably connected by pipes to allow passage of air, gasoline, and gas or carbureted air, as shown and described, for the purpose specified.

2. In a carbureting apparatus, the combination, with the gasoline-tank X and carbureting-pans, of the slotted tube A, for use in
20 filling said tank with carbureting-liquid, and also for conducting air therefrom, the pipes B C and D E, arranged and connected as shown and described, for the purpose specified. 25

3. The combination, with the series of superposed pans L M N, having communication, as specified, of the indicator F, which is attached to the lower pan, and consists of a tube
30 or discharge-cock, b, having a glass stand-pipe and a detachable metal cap or protecting-tube, as shown and described.

WILLIAM JAS. ORMSBY.

Witnesses:

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