

C. GREINER.

APPARATUS FOR DISPENSING EFFERVESCENT LIQUIDS.

No. 176,782.

Patented May 2, 1876.

Fig. 1.

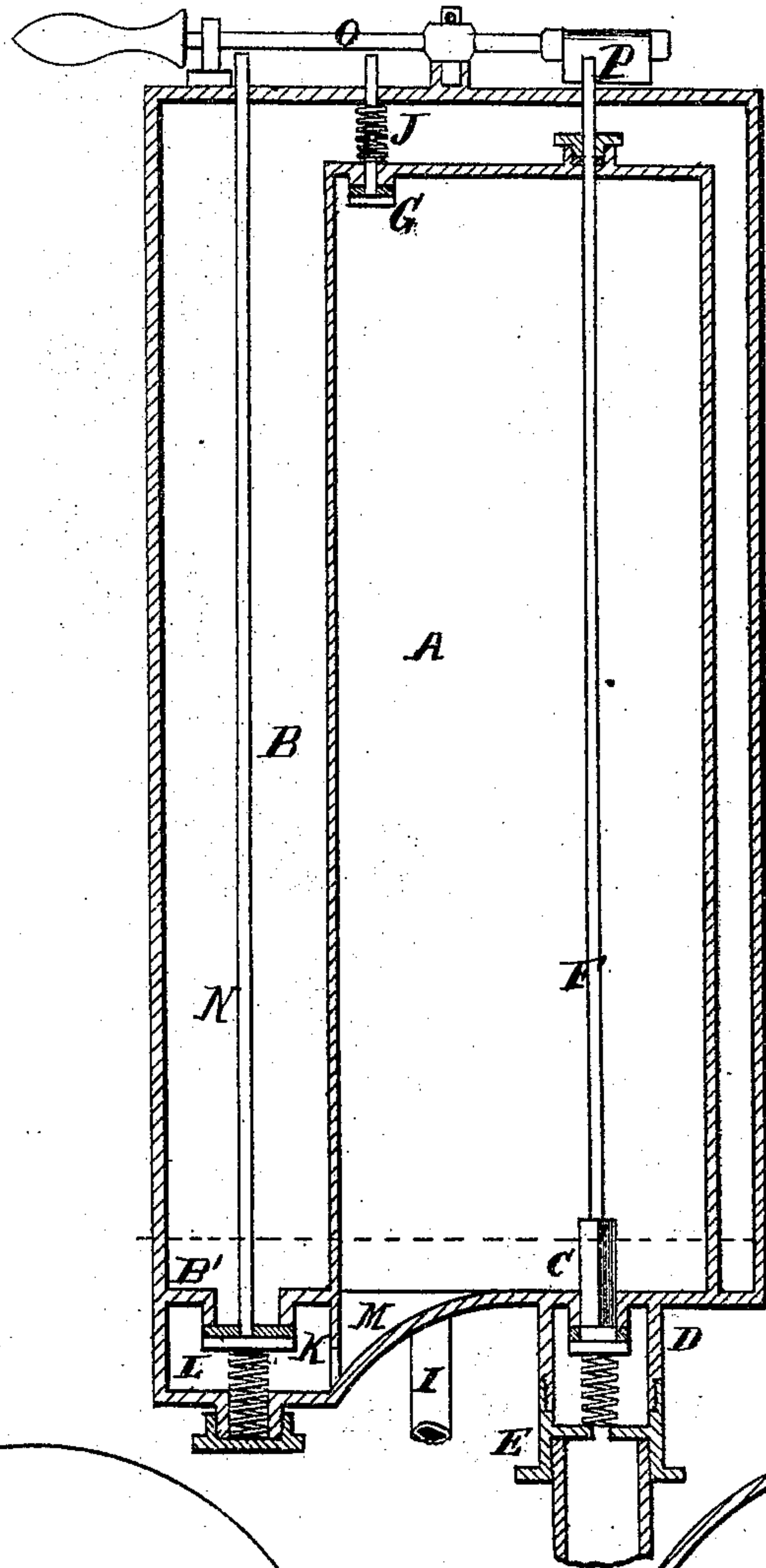


Fig. 2.

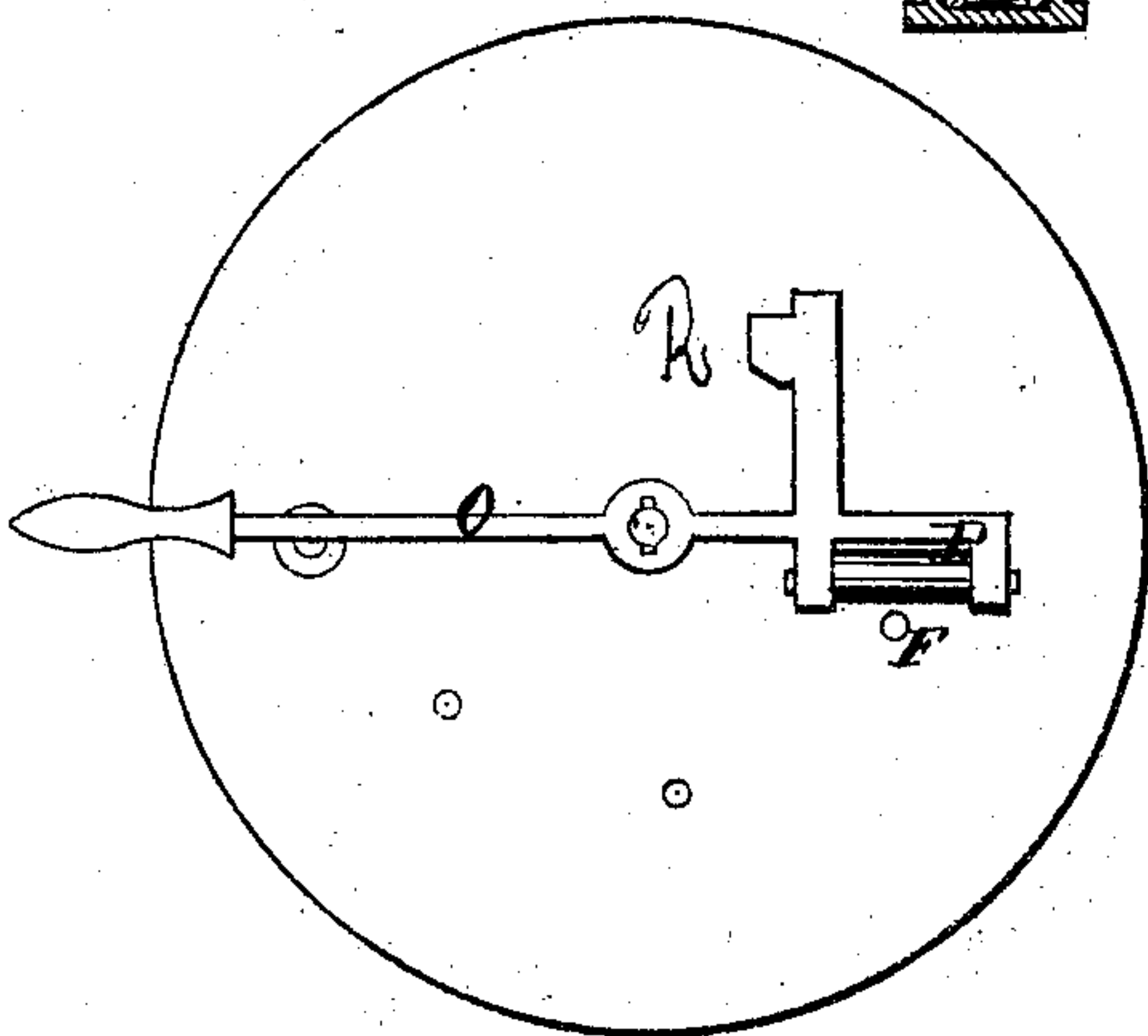
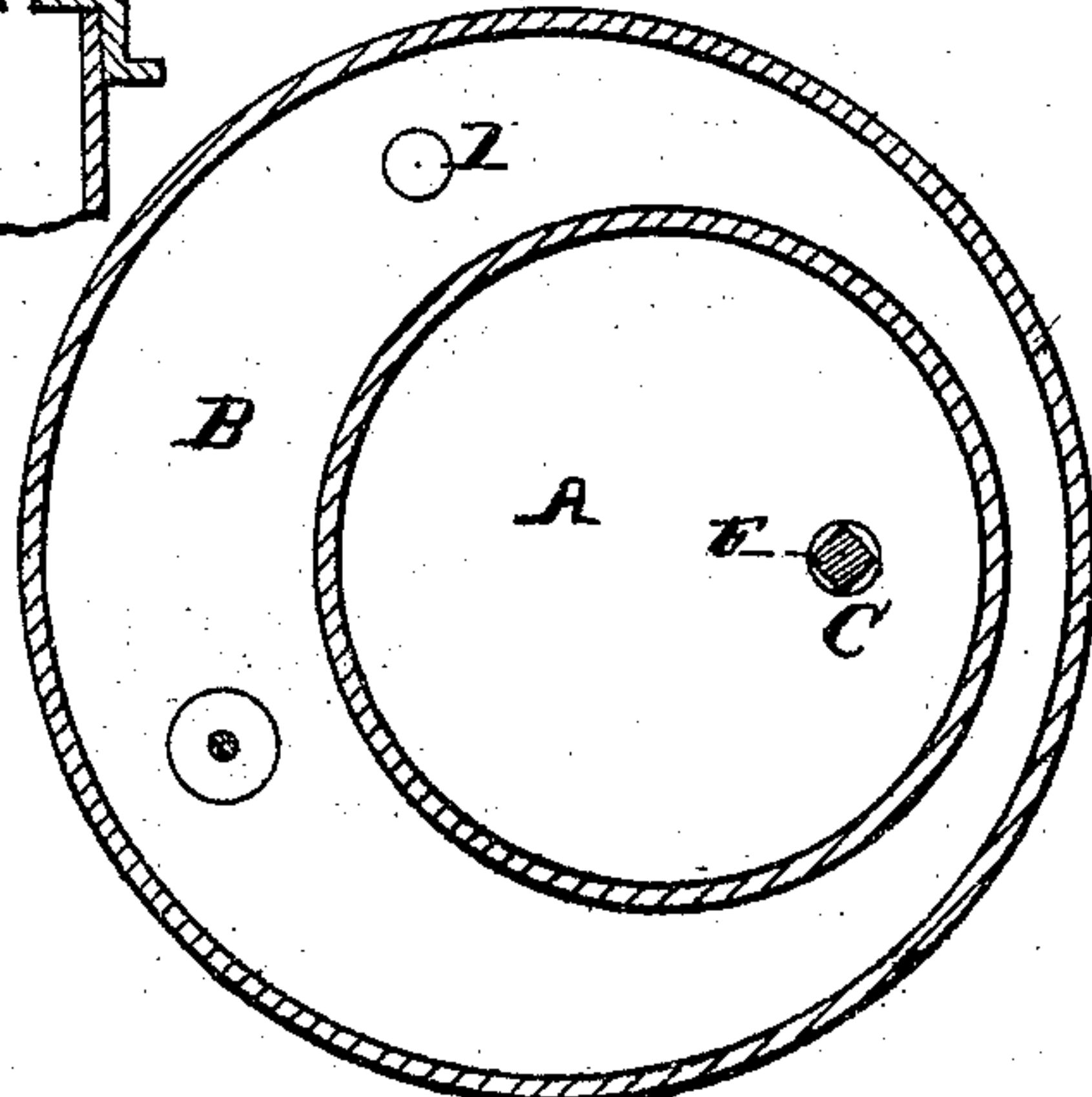


Fig. 3.



Witnesses
Otto Aufeland.
E. J. Kastenhuber

Inventor.
Charles Greiner
Van Santvoord & Hauff
Attys.

UNITED STATES PATENT OFFICE.

CHARLES GREINER, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR DISPENSING EFFERVESCENT LIQUIDS.

Specification forming part of Letters Patent No. **176,782**, dated May 2, 1876; application filed September 11, 1875.

To all whom it may concern:

Be it known that I, CHARLES GREINER, of the city, county, and State of New York, have invented a new and Improved Apparatus for Dispensing Effervescent Liquids; which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a vertical section of my apparatus. Fig. 2 is a plan or top view. Fig. 3 is a horizontal section.

Similar letters indicate corresponding parts.

My invention relates to an apparatus for dispensing soda-water and other effervescent liquids, and it has for its object to permit of discharging the surplus gas from the liquid previous to its being drawn.

My apparatus is constructed of an inner and an outer chamber, the former of which has two valves, one for the admission of liquid and the other for the escape of surplus gas, while the outer chamber has a valve by means of which the liquid may be passed from the inner to the outer chamber, whence it discharges by a suitable pipe.

The several valves are attached to rods which protrude from the same side of the apparatus, and with which is combined an oscillating arm carrying one or more cams, which, when the arm is turned in the proper direction, successively displace the rods, and thereby the valves are opened.

In the drawing, the letters A B designate the two chambers of my apparatus, which are situated one within the other, and are preferably made of a cylindrical form. In the bottom of the inner chamber A is arranged the valve C, that serves to admit the liquid to the apparatus, the valve being arranged in a nipple, D, which, by a nut, E, is adapted to be connected with a fountain. F is a rod attached to the valve C, and which passes upward through the tops of the two chambers A B, from which it protrudes, as seen in Fig. 1. Beneath and against the top of the chamber A is the seat of the gas-valve G, which, by being so situated, is brought above the level of the liquid that may be let into said chamber, and, if surplus gas emanates from the liquid and collects in the upper part of

the chamber, the gas may be allowed to escape by simply opening the valve G, without, however, allowing of the discharge of liquid. From the chamber A the gas escapes to the outer chamber B, and thence by a pipe, I, to the outer air. To the gas-valve is connected a rod, J, which passes upward and protrudes from the top of the chamber B.

The two chambers A B have a common bottom but independent tops, and the outer chamber B has a false bottom, B'. Contiguous to this bottom is placed a discharge-valve, K, and the space L formed beneath the false bottom communicates with the chamber A by an aperture, M, so that if liquid is admitted to the chamber A the liquid immediately fills up the space L, and if the valve K is then opened the liquid discharges into the outer chamber B. From this chamber the liquid passes off by the same pipe I that serves previously to let off the surplus gas from the apparatus, or by an additional pipe or contrivance. A rod, N, attached to the valve K, passes up through the chamber B and protrudes from its top. Now, the several rods F J N are arranged, as nearly as possible, in the arc of a circle described from the center of the outer chamber B, in which center and on the top of the chamber D is pivoted an oscillating arm, O, to which is hinged a cam, P, the cam being situated in the line of the valve-rods F J N. When the arm O is turned, the cam P passes over and successively displaces the valve-rods F J N, and by this means the valves are successively opened, with the result hereinbefore stated.

The cam P permits of oscillating the arm O by reason of its being hinged to the arm, and the cam, moreover, ceases in its action on the valve-rods F J N in its return movement.

The several valves C G K are rendered self-closing by being provided with springs.

In addition to the cam P, the arm O has a supplemental cam, R, by which the gas-escape valve G and the liquid-discharge valve K are held simultaneously in an open condition, but which may be dispensed with.

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

1. An apparatus for dispensing effervescent

liquids, constructed of the chambers A B, in combination with the valves C G K, substantially as described.

2. In combination with the valves C G K, the rods F J N, oscillating arm O, and main cam P, adapted to operate substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 21st day of June, 1875.

CHARLES GREINER.

Witnesses:

W. HAUFF,
CHAS. WAHLERS.