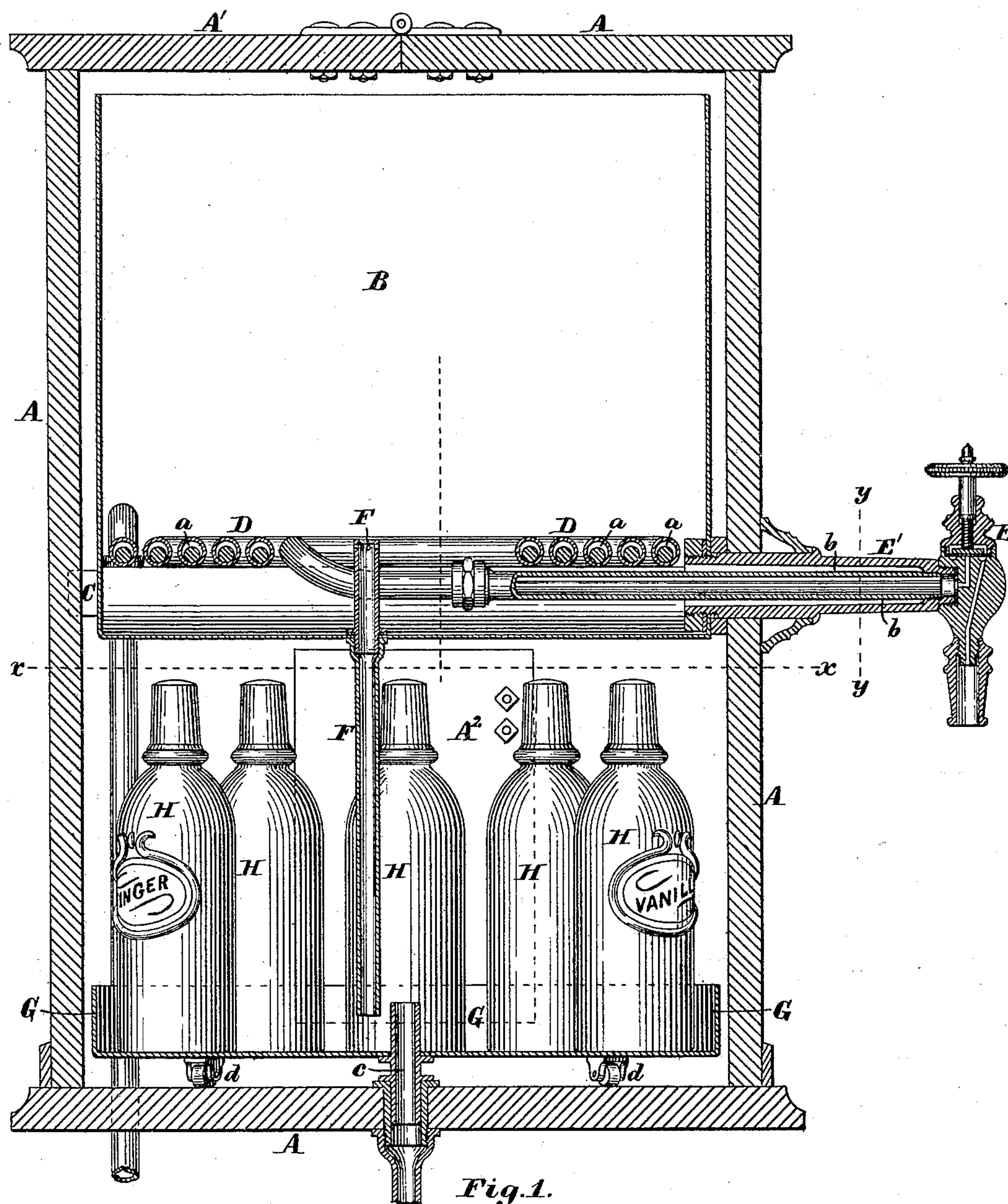


2 Sheets—Sheet 1.

**No. 232,803.**

Patented Oct. 5, 1880.



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Inventor:  
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(No Model.)

2 Sheets--Sheet 2.

W. H. COLLINS.  
Soda Water Apparatus.

No. 232,803.

Patented Oct. 5, 1880.

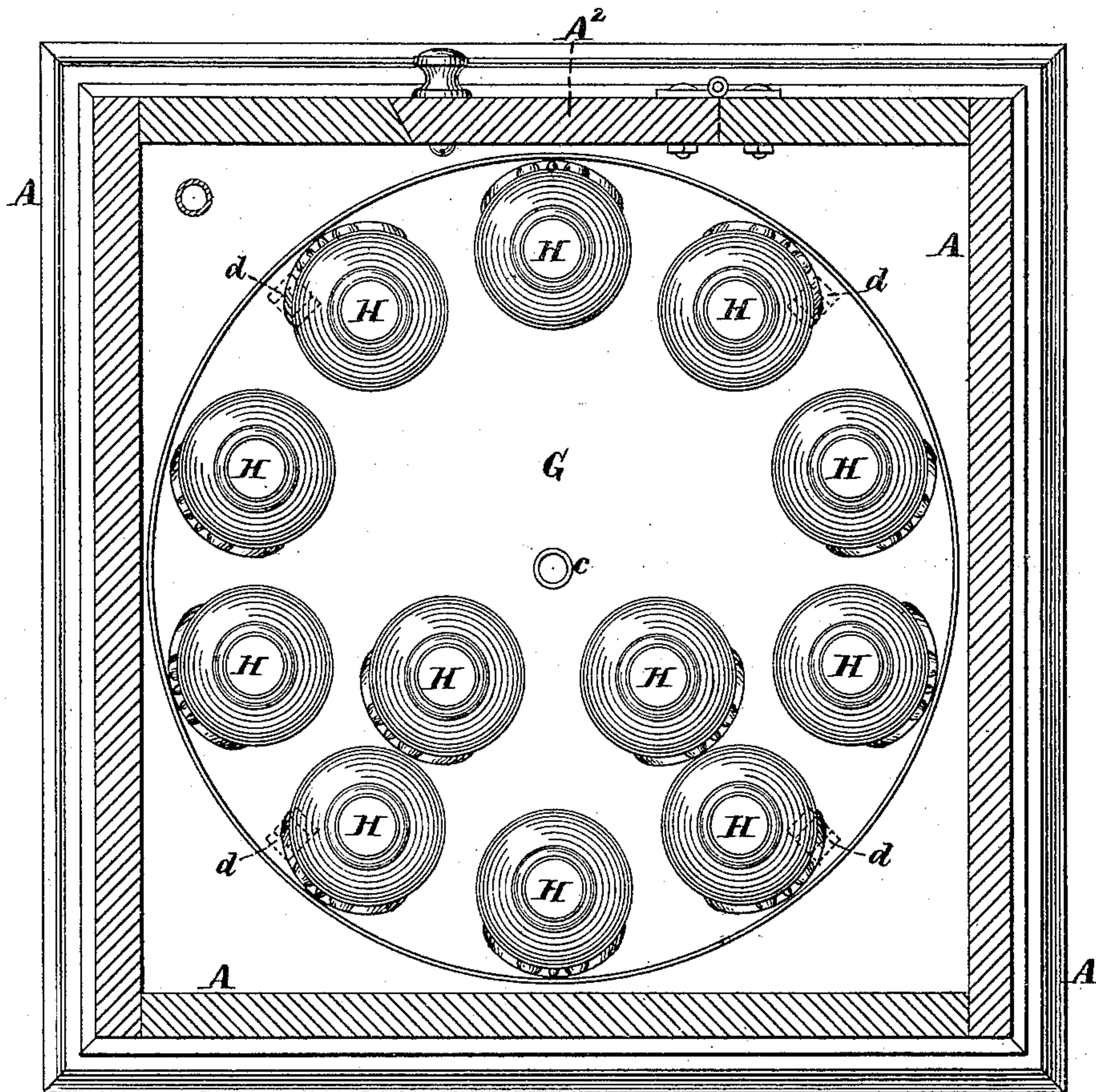


Fig. 2.

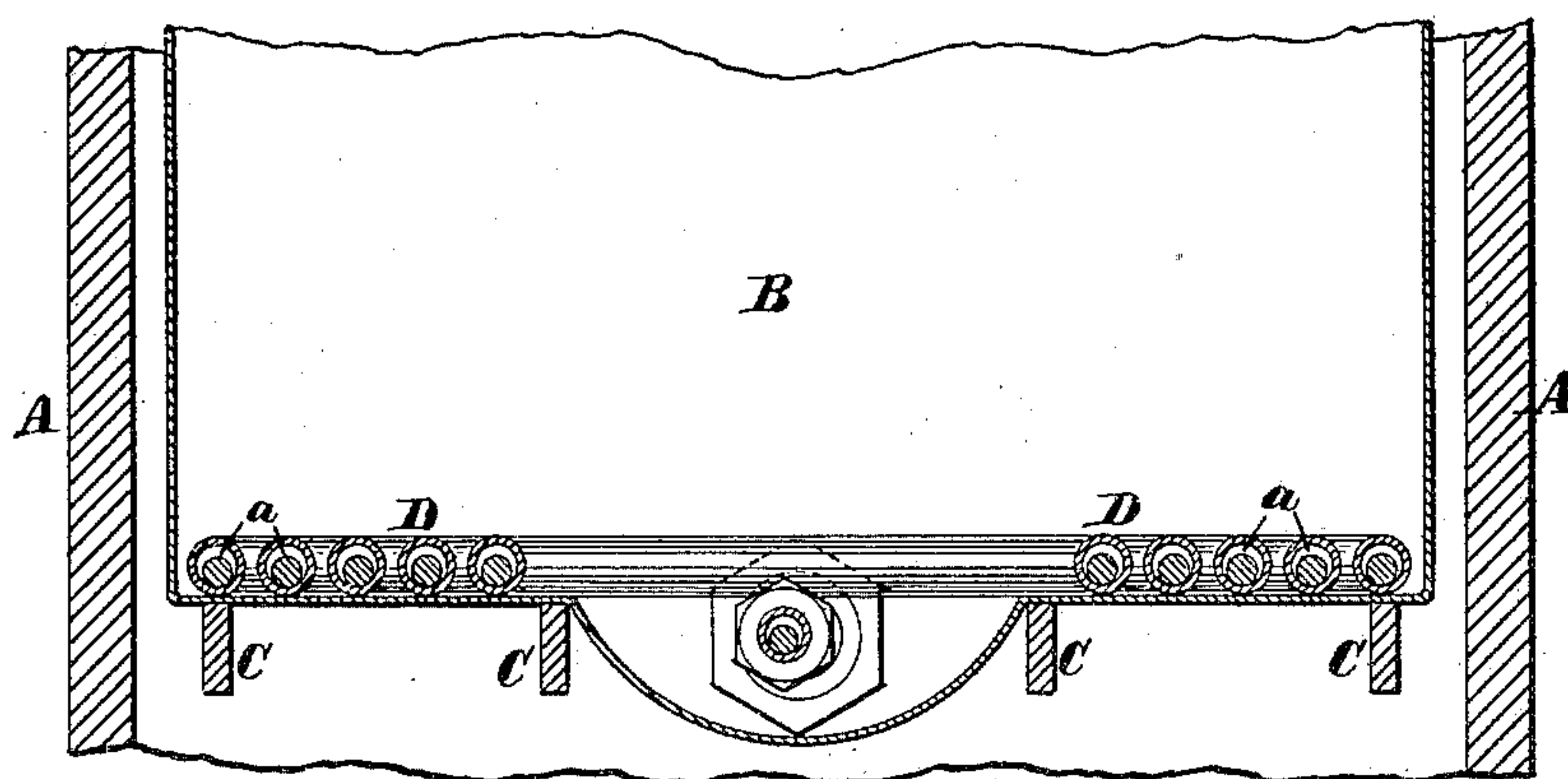


Fig. 3.

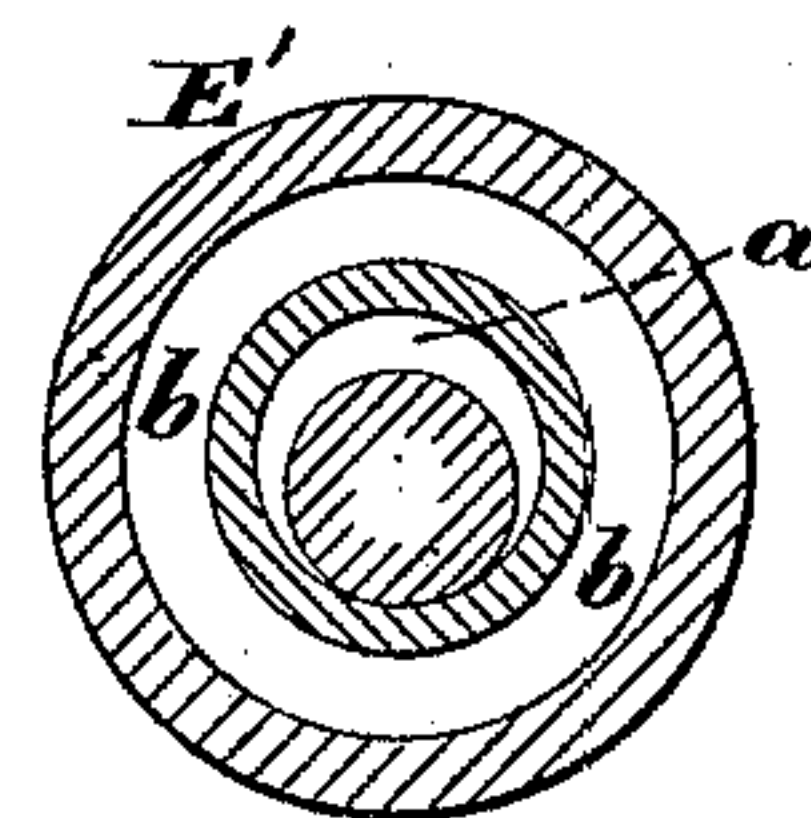


Fig. 4.

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# UNITED STATES PATENT OFFICE.

WILLIAM H. COLLINS, OF CHELSEA, MASSACHUSETTS.

## SODA-WATER APPARATUS.

SPECIFICATION forming part of Letters Patent No. 232,803, dated October 5, 1880.

Application filed July 22, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. COLLINS, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Soda-Water Apparatus, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to a soda-water draft apparatus, and has for its object the more effectual cooling of the soda-water and the sirups used therewith while using said sirups from glass bottles, whereby a greater degree of cleanliness is obtained than is possible when the sirups are drawn through faucets from fixed metallic cans, as is now the general practice; and it consists, first, of a cooler-coil composed of a pipe or passage having a crescent-shaped cross-section, formed by inserting within a cylindrical pipe a cylindrical rod of less diameter in a position eccentric to said pipe in such a manner that the soda-water passing through said cooling-coil to reach the draft-cock is spread out to a comparatively thin film, and exposed to a greater area of cooling-surface in proportion to its sectional area, so that it will be much more thoroughly and expeditiously cooled than when said soda-water flows through a cylindrical pipe, as heretofore practiced.

It further consists in a soda-draft apparatus having an ice-chamber in its upper portion, from which a free circulation of air to the chamber in the lower portion is had, a door opening into said lower chamber, and a pivoted turn-table located in said lower chamber and adapted to receive a series of sirup-bottles, and to be rotated to bring either of said bottles into convenient position in front of said door.

It further consists in the combination, in a soda-draft apparatus, of an ice-chamber provided with an overflow-pipe leading to the chamber beneath, a turn-table having a raised outer rim located in the chamber beneath the ice-chamber, and adapted to catch and hold the water flowing from the ice-chamber and to be revolved and provided with an overflow-pipe to carry off the surplus water and prevent it from rising too high in the turn-table, said turn-table being adapted to receive a series of glass sirup-bottles, which are kept cool by the

ice-water surrounding their bases and the frigid air which circulates through the chamber containing the sirup-bottles.

Figure 1 in the drawings is a sectional elevation of a soda-water apparatus embodying my invention, the cutting-plane being through the center of the draft-cock. Fig. 2 is a horizontal section on line *xx* on Fig. 1. Fig. 3 is a partial vertical section of the cutting-plane, being at right angles to Fig. 1, and Fig. 4 is a transverse section of the draft-cock arm on line *yy*.

A is the marble casing, provided with the hinged lid A' and the door A<sup>2</sup>, cut through one of its vertical sides. B is an ice tank or chamber, made of tinned sheet metal, and supported in the upper part of the casing A upon the bars C C, said tank being made somewhat smaller than the interior diameter of the casing, and of such a height as to not quite reach the under side of the cover of the casing, so that cold air from the ice-tank may pass over the top of said tank and descend between it and the walls of the casing A to the chamber beneath the tank.

Within the tank B and resting upon its bottom is the cooling-coil D, composed of a cylindrical pipe, the bore of which is partly filled by a rod, so as to form in said pipe a crescent-shaped passage, *a*, through which the soda-water must pass from the receiver to the draft-cock, and by virtue of the thinness of the body of soda-water in said passage and the amount of surface exposed to the action of the refrigerating material in the ice-tank the soda-water is very effectually cooled.

E is the draft-cock, which may be of any desired construction, except that its supporting-arm E' is made somewhat larger than usual, so that the soda-pipe may be connected directly to the head of the draft-cock after passing through the whole length of the arm E', an annular space, *b*, between said pipe and the inner surface of the hollow arm E', communicating directly with the interior of the tank B, so that the ice-water which accumulates in the bottom of the tank and surrounds the coil D will fill said annular chamber and surround the soda-water pipe close up to the draft-cock head, and thus effectually cool all of the soda-water contained in the pipe and maintain it in a cool



state, so that the first half-glass that is drawn will be as cold as any.

F is an overflow-pipe, designed to carry off the surplus water from the ice-tank as the ice melts, and discharge it into the dish-shaped turn-table G in the lower portion of the case A.

The turn-table G is provided with a central pivot in the form of an overflow-pipe, *c*, around which it may be revolved, its outer edge being supported by the trucks *d d*, which roll upon the bottom of the casing A. A series of sirup-bottles, H H, are placed in a circle on the outer portion of the turn-table G, as shown in Fig. 2, either one of which may be readily brought in front of the door A<sup>2</sup>, when desired for use, by turning the turn-table G.

A full assortment of sirups may be arranged in the outer circle, and extra bottles of those sirups for which there is the greatest demand may be placed on the central portion of the turn-table, where they will be kept cool till wanted to supply the places of empty bottles in the outer circle.

The ice-water which escapes from the ice-tank falls into the dish-like turn-table and accumulates therein till it rises to the level of the top of the overflow pipe *c*, and, surrounding the lower ends of the sirup-bottles H, tends to keep their contents cool, as does also the frigid air with which the casing A is filled.

The advantage of this arrangement of sirup-bottles is that the sirups are used from clean glass bottles, which may be readily cleansed every time they are emptied, while at the same time the sirups are kept cool, thus obviating

the objection to fixed sirup-tanks and a faucet for each sirup, as is now generally practiced, which is want of cleanliness, due to the difficulties of cleansing the tanks and faucets when the tanks become empty and require refilling.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The cooler-coil composed of a cylindrical pipe the bore of which is partially filled by a cylindrical rod to form a crescent-shaped passage, substantially as described.

2. In a soda-water apparatus, the combination of a casing provided with a stationary ice chamber or tank in its upper part, a soda-cooling coil, means of drawing soda from said coil, and a turn-table located in a chamber beneath said ice-chamber, and adapted to support a series of sirup-bottles and to be revolved to present either of said bottles in front of a door in the side of said casing, substantially as described.

3. The combination of the ice-tank B, provided with the overflow-pipe F, the turn-table G, provided with a raised circumferential wall and mounted on wheels, and the overflow-pipe *c*, adapted to carry off the surplus water and to serve as a pivot for said turn-table, substantially as described.

Executed at Boston, Massachusetts, this 11th day of June, A. D. 1880.

WILLIAM H. COLLINS.

Witnesses:

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