No. 686,515. Patented Nov. 12, 1901.

C. A. GEDDES.

SODA WATER APPARATUS.

(Application filed July 15, 1901.)

(No Model.) 3 Sheets—Sheet 1.

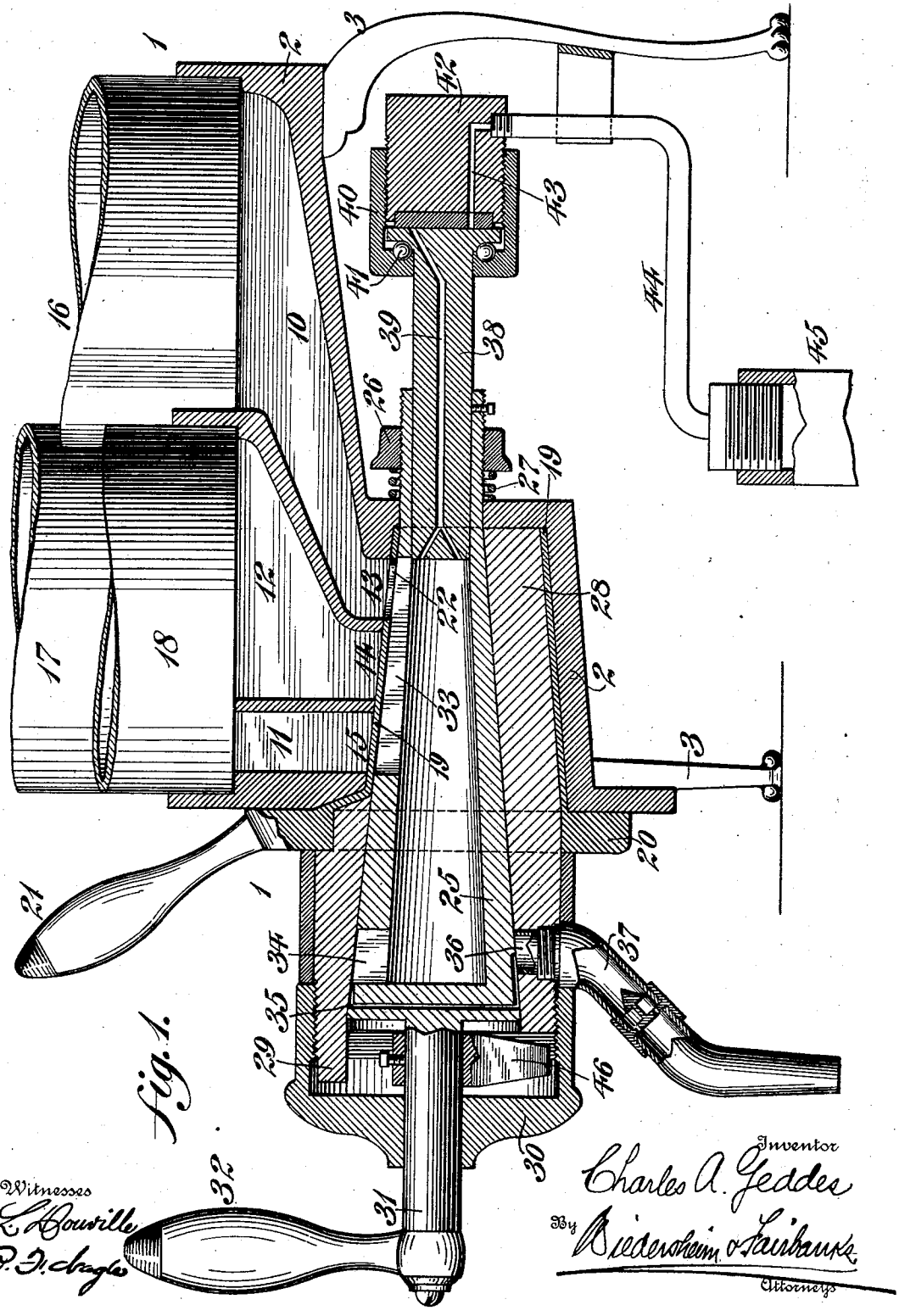


Fig. 1.

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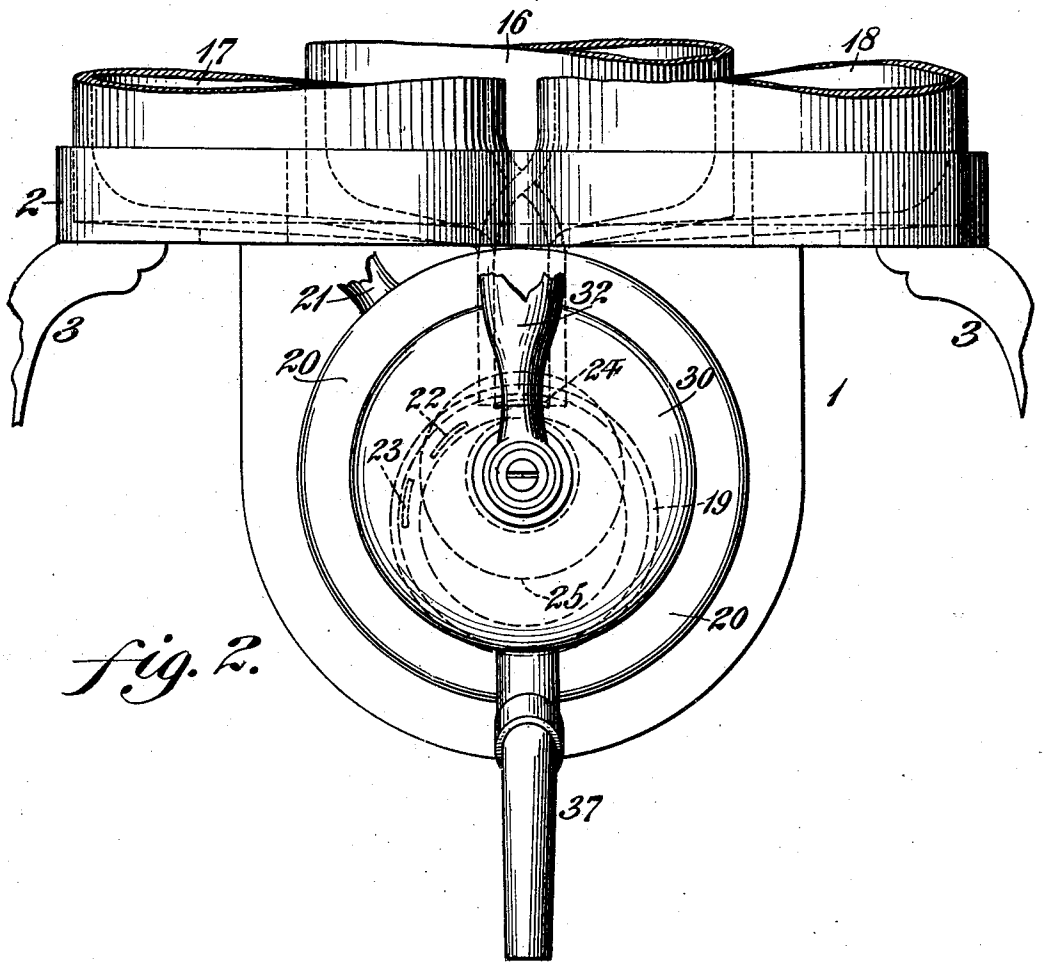
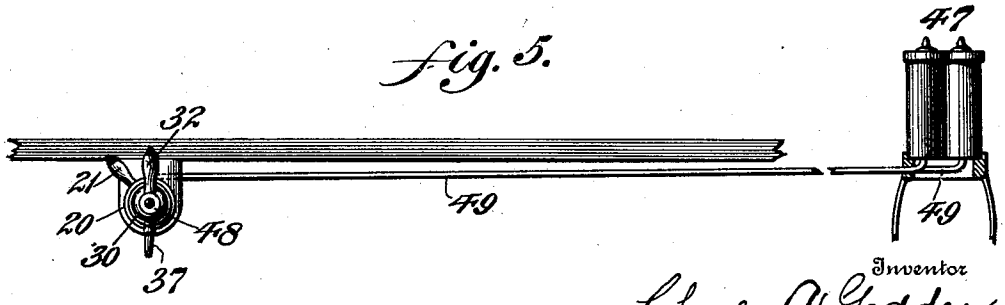


fig. 2.

fig. 5.



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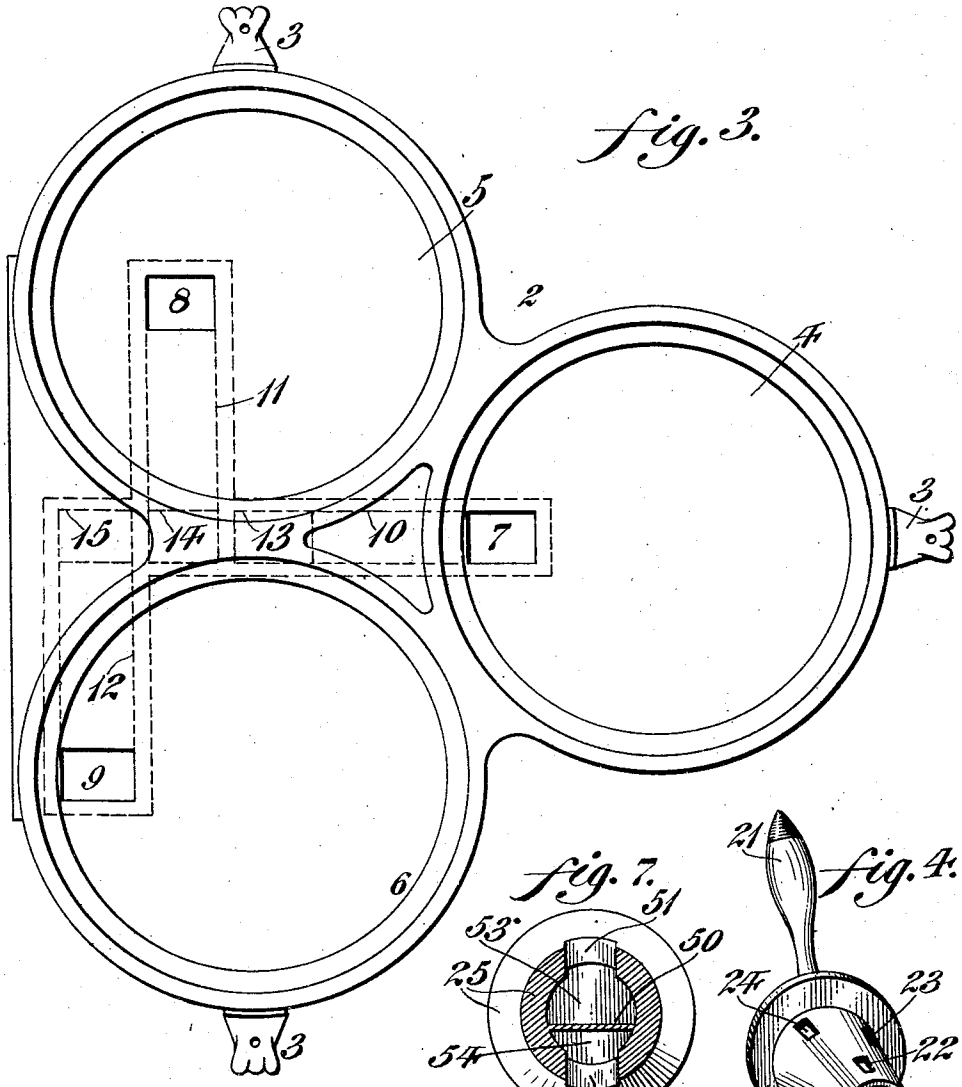


fig. 3.

fig. 7.

fig. 4.

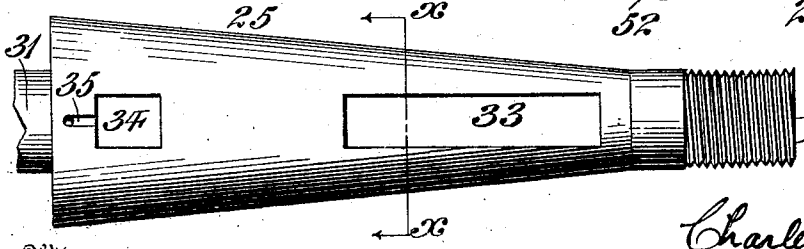


fig. 6.

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UNITED STATES PATENT OFFICE.

CHARLES ALEXANDER GEDDES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO WILLIAM OSCAR XANDER AND HUGH FRANCIS DALY, OF PHILADELPHIA, PENNSYLVANIA.

SODA-WATER APPARATUS.

SPECIFICATION forming part of Letters Patent No. 686,515, dated November 12, 1901.

Application filed July 15, 1901. Serial No. 68,318. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ALEXANDER GEDDES, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Soda-Water Apparatus, of which the following is a specification.

My invention consists of an improvement in soda-water apparatus whereby the syrup and soda-water are mixed and discharged into a glass or suitable receptacle in a mixed condition.

It further consists of means whereby the single valve or key will operate to discharge syrup from a plurality of syrup-holders as required.

It further consists of novel details of construction, all as will be hereinafter fully set forth, and particularly pointed out in the claims.

Figure 1 represents a partial vertical section and partial side elevation of a soda-water apparatus embodying my invention with the parts in the position they assume when the plug is being filled with syrup from receptacle 16. Fig. 2 represents an end elevation thereof, showing portions of the device broken away. Fig. 3 represents a plan view of a stand employed. Fig. 4 represents a perspective view of the key and thimble connected therewith. Fig. 5 represents an elevation showing the syrup-receptacles at a distance from the point of discharge. Fig. 6 represents a plan view of the plug employed with the handle removed. Fig. 7 represents a vertical sectional view of a modification of the plug which is taken on line $x\,x$, Fig. 6.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates a soda-water apparatus consisting of a body portion or frame 2, which is supported on legs 3. Said body portion in the present instance is provided with means for supporting three syrup-receptacles, said means consisting of the circular chambers 4, 5, and 6, the lower portions of which are provided with the openings or ports 7, 8, and 9, which have suitable passages 10, 11, and 12, leading to the openings or ports 13, 14, and 15, respectively, it being seen that the receptacles 16, 17, and 18 are suitably supported in said holders.

19 designates a thimble which is suitably supported in a portion of the frame 2 and is provided with the shoulder 20, to which is suitably attached a handle 21, said thimble having openings 22, 23, and 24, which are adapted to register with the openings 13, 14, and 15, respectively, when the thimble is properly rotated, it being noticed that the said openings 13, 14, and 15 are in alinement, while the openings 22, 23, and 24 are so arranged on the thimble that but one of the same will register with the said openings 13, 14, and 15 at a time.

25 designates a hollow plug which passes through a suitable portion of the frame 2 and is held in position by the nut 26, which is actuated by the spring 27 in order to hold the parts tightly in position, said plug being further held by a block 28, which assists in holding the plug in position, said block having a lug or projection 29 thereon and has secured thereto in any suitable manner the cap 30, through which passes the arm 31, which is connected with the plug 25 and has secured thereto the handle 32.

33 designates an opening in the plug 25, which is so situated therein as to be in alinement with the openings 13, 14, and 15 when the plug is properly turned, said plug 25 likewise having an opening 34, which communicates with a passage 35 in the plug 25, the opposite end of which communicates with an opening 36 in the block 28 and which is in communication with a discharge pipe or nozzle 37.

38 designates a rod which is suitably connected with the plug 25 and has a passage 39 therethrough, the end of said passage which is within the plug 25 being forked and the opposite end of said passage being deflected, as best seen in Fig. 1, this end of the rod being suitably supported in a frame 40 and is adapted to turn therein, it being assisted by the ball-bearings 41, said casing 40 having a block 42 secured thereto, having a passage 43 therethrough in communication with a pipe 44, which communicates with a suitable soda

reservoir or tank 45, only a portion of which is shown.

The operation is as follows: In Figs. 1 and 2 I have shown the parts in the position they assume when syrup is being drawn from receptacle 16—that is to say, with the port 22 registering with receptacle port or opening 13 and with the inlet opening or port 33 of the plug registering with thimble-port 22. In this position outlet-port 34 of the plug is diametrically opposite the discharge-nozzle 36 to allow the escape of air therethrough and through the passage 35. The plug, however, stands normally with its inlet-port 33 in a horizontal plane or quarter-turn from the position shown in Fig. 1, while the thimble may normally stand in any position. When it is desired to draw a certain syrup, the thimble is turned by its handle 21 until the desired port therein registers with the desired receptacle-port, it being noted that the plug remaining in its normal position prevents the flow of syrup as the different ports of the thimble pass by the different receptacle-ports. After the thimble is brought to the desired position—for instance, as in Fig. 1—the handle 32 of the plug is then raised to a vertical position or quarter-turn, which brings the plug inlet-port 33 to the position shown in Fig. 1. The plug is then filled with syrup. After the plug is filled with syrup it is given a half-turn, which closes the thimble-ports and brings the plug outlet-port 34 opposite the discharge-nozzle and also carries with it the rod 38 and causes the deflected end of the passage 39 to register with the passage 43, whereby the soda-water which is contained in the tank will be discharged through the various passages and the forked end of the passage 39 into the interior of the plug 25 and will be thoroughly mixed with the syrup, which in the mixed state will be discharged through the opening 34, which is now in register with the opening 36 owing to the turning of the handle 32, and will pass through the nozzle 37 into the glass or other receptacle, after which the handle 32 is returned to its former position and the passage of the soda-water from the plug 25 is stopped. It will be evident that the same operation takes place should other flavors be desired by the proper manipulation of a thimble 19, and it will be further evident that any number of tanks may be employed and that the proper turn can be given to the handle 21 and can be easily determined by a proper indicator.

In order to secure the positive alinement of the passage 39 with the passage 43, I have provided a stop 46, secured to the arm 31, which contacts with a lug 29 at the proper time.

In the construction just described I have shown the tank situated directly over the plug 25; but in Fig. 5 I have shown tanks 47 situated at a considerable distance from the discharging mechanism 48, with which the tanks are connected by the pipes 49, the operation being the same as previously described. In Fig. 7 I have shown a construction where the interior of the plug 25 is divided by a diaphragm 50 and is provided with the two openings or ports 51 and 52, so that by turning the plug a greater or less amount of syrup or other material is delivered thereto owing to the different sizes of the chambers 53 and 54, formed by the diaphragm 50.

It will be apparent that various changes may be made by those skilled in the art which will come within the scope of my invention, and I do not therefore desire to be limited in every instance to the exact construction herein shown and described.

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

1. In a soda-water apparatus a plurality of syrup-receptacles, independent openings each of which communicates with one of said receptacles, and a revoluble thimble situated adjacent said openings, independent ports in said thimble adapted to register with different openings when the thimble is revolved, a plug having an opening therein adapted when in its normal position, to be in longitudinal alinement with all of said first-mentioned openings and a second opening in said plug adapted to register with a discharge-nozzle, when the plug is revolved.

2. In a soda-water apparatus a plurality of syrup-receptacles, independent openings each of which communicates with one of said receptacles, and a revoluble thimble adjacent said openings, independent ports in said thimble adapted to register with different openings as the thimble is revolved, a plug having an opening therein adapted when in its normal position, to be in longitudinal alinement with all of said first-mentioned openings, whereby syrup is discharged into said plug, means for introducing soda-water into said plug whereby the syrup and soda-water are mixed and means for discharging the mixed syrup and soda-water from said plug.

3. In a soda-water apparatus a plurality of syrup-receptacles, independent openings each of which communicates with one of said receptacles, and a revoluble thimble situated adjacent said openings, independent ports in said thimble adapted to register with different openings when the thimble is revolved, a plug having an opening therein adapted when in its normal position, to be in longitudinal alinement with all of said first-mentioned openings, a soda-water tank, a passage leading therefrom, an arm connected with said plug having a passage therein, which is adapted to register with said first-mentioned passage when the plug is turned, and a second opening in the plug adapted to register with the discharge-nozzle when the plug is turned.

4. In a soda-water apparatus a plurality of syrup-receptacles, independent openings each

of which communicates with one of said receptacles, a thimble having independent ports which are adapted to register with different of said first-mentioned openings at the proper time, a plug having an opening when in its normal position, to be in longitudinal alinement with all of said first-mentioned openings, a second opening in said plug, a discharge-nozzle and a passage connecting said second-mentioned opening with said discharge-nozzle.

5. In a soda-water apparatus a plurality of syrup-receptacles, independent openings each of which communicates with one of said receptacles, a thimble having independent ports therein which are adapted to register with different of said openings when the thimble is revolved, a plug suitably supported and having an opening adapted when in its normal position, to be in longitudinal alinement with all of said first-mentioned openings, a passage communicating with the interior of said plug and adapted to register with a second passage which is in communication with a soda-water receptacle and a stop for said plug.

6. In an apparatus of the kind specified, a plurality of receptacles having fixed outlet-ports, a rotatable thimble having ports adapted to register with different outlet-ports as the thimble is turned, a rotatable plug within said thimble having an opening adapted to register with said thimble-ports and when in normal position, to be in longitudinal alinement with all of said first-mentioned ports, and an outlet-port to register with a discharge-nozzle, and means for connecting said plug with a charged-liquid supply when the outlet-port thereof registers with the discharge-nozzle.

7. In an apparatus of the kind specified, the combination with a rotatable plug having an inlet-port, an outlet-port, and means for connecting said plug with a charged-liquid supply when said outlet-port registers with a discharge-nozzle, a plurality of receptacles having fixed outlet-ports disposed in longitudinal alinement and situated in the path of said inlet-port of the plug and a rotatable thimble situated between said receptacle-ports and said plug and provided with ports adapted to register with said receptacle-ports and the inlet-port of the plug.

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