No. 835,001. PATENTED NOV. 6, 1906.

W. J. STAPLETON.

SIPHON BOTTLE FILLER.

APPLICATION FILED MAY 5, 1905.

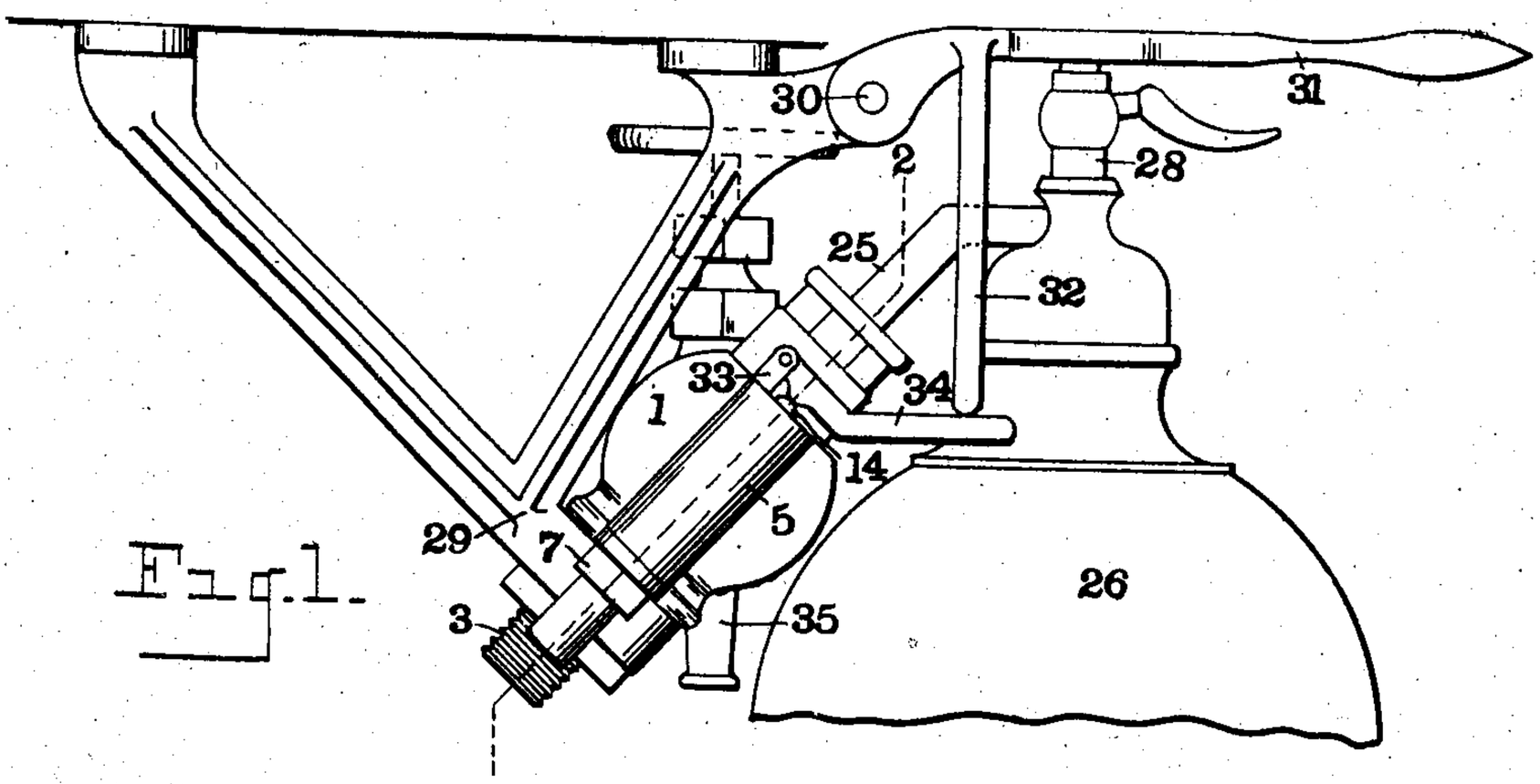

Fig. 1.

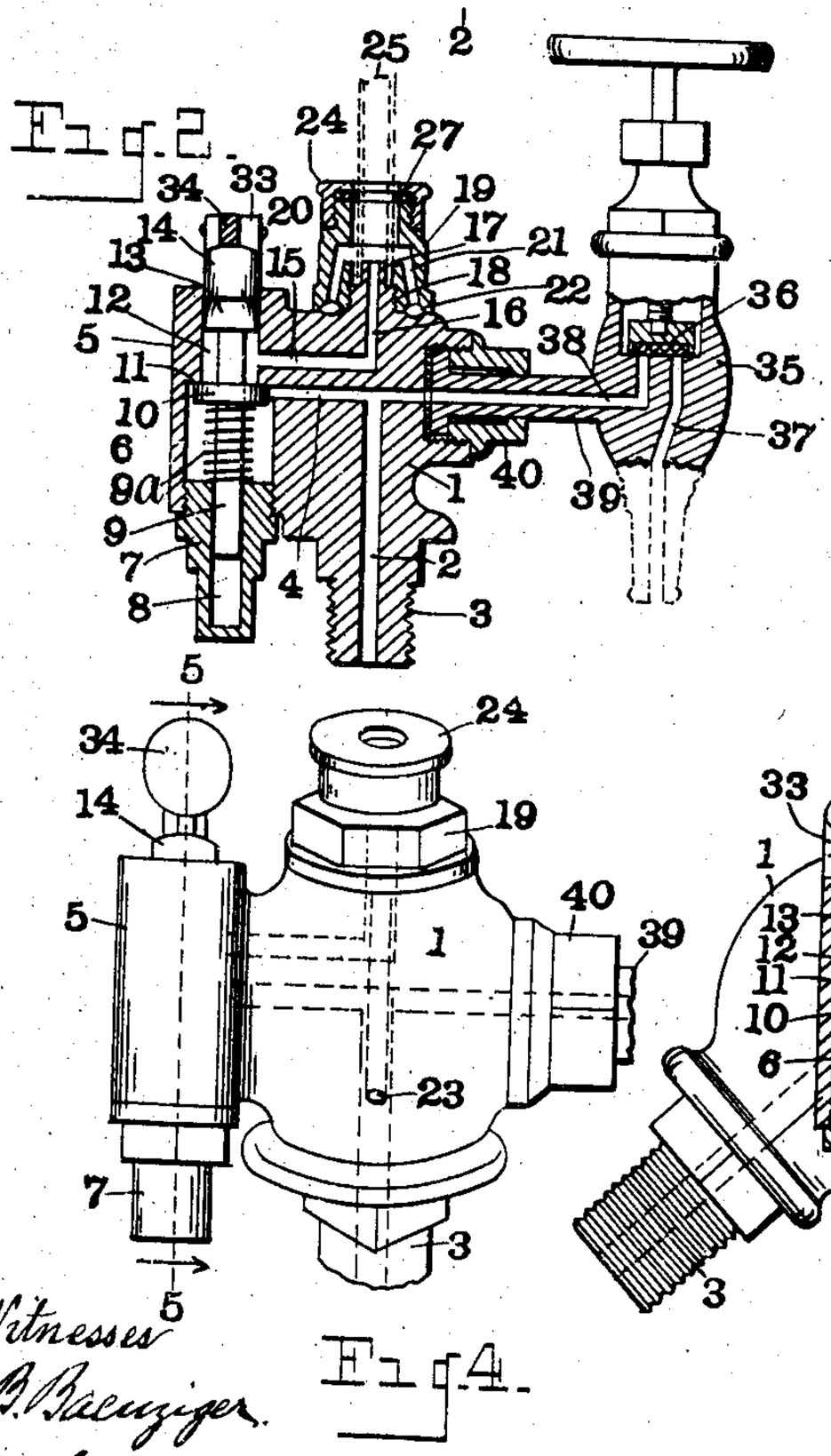

Fig. 2.

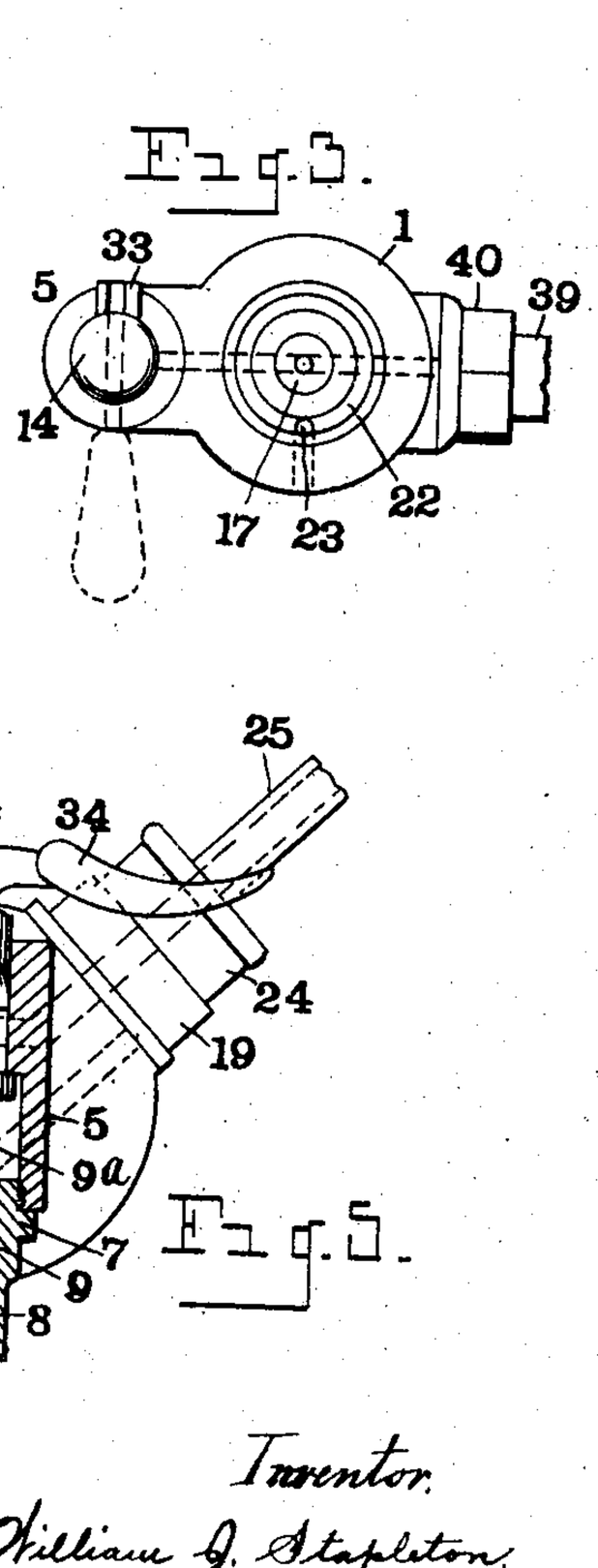

Fig. 3.

Fig. 4.

Fig. 5.

Witnesses
O. B. Baeuziger.
F. G. Howlett.

Inventor.
William J. Stapleton.

By E. W. Wheeler & Co. Attys

UNITED STATES PATENT OFFICE.

WILLIAM J. STAPLETON, OF DETROIT, MICHIGAN.

SIPHON-BOTTLE FILLER.

No. 835,001. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed May 5, 1905. Serial No. 259,047.

To all whom it may concern:

Be it known that I, WILLIAM J. STAPLETON, a citizen of the United States, residing at Detroit, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Siphon-Bottle Fillers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to a siphon-bottle filler; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The objects of the invention are to provide simple and efficient means for filling a siphon-bottle with carbonated water, to provide for automatically opening the valve which controls the flow of said water to the bottle concurrent with the opening of the valve in the siphon-bottle which allows the entrance of water therein, and to provide for drawing the carbonated water directly from the source of supply independently of the means for refilling the siphon-bottle.

The above objects are attained by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved siphon-bottle filler, showing the bottle in position to be filled with carbonated water. Fig. 2 is a sectional view through the filler-head as on line 2 2 of Fig. 1. Fig. 3 is a plan view of the head with the chambered nut and gland removed. Fig. 4 is an elevation of a modified form of the apparatus. Fig. 5 is a sectional view as on line 5 5 of Fig. 4.

Referring to the characters of reference, 1 designates a suitable head having a substantially vertical channel 2 therein, which at its lower end passes outwardly through an externally-threaded stem 3 for attachment of a suitable pipe (not shown) which communicates with the source of carbonated water. Crossing the head transversely is a channel 4, which communicates with the upper end of the channel 2.

Formed upon the side of the head 1 is an oblong case 5, having a valve-chamber 6 therein, with which one end of the transverse channel 4 communicates. Screwed into the lower end of said case and closing the bottom of said chamber is a plug 7, having a socket 8 therein. Seated in said socket and extending through the valve-chamber is a valve-stem 9, carrying thereon a valve 10, which normally rests upon a valve-seat 11 at the upper end of the chamber 6 above the point of communication of the channel 4 therewith. Continuing above the valve 10 the valve-stem 9 passes through the reduced chamber 12 and carries a valve 13, which closes the upper end of said chamber, the extreme upper end of the valve-stem 9 passing through the upper end of the case 5, as shown at 14. Surrounding the valve-stem and confined between the plug 7 and valve 10 is a coiled spring 9^a, which normally holds said valve on its seat. Communicating with the chamber 12 above the valve 10 is a transverse channel 15, whose inner end communicates with the lower end of the vertical channel 16, passing upwardly through the head and through the discharge-nipple 17, projecting from the threaded boss 18. Adapted to screw onto said boss is a nut 19, having an annular chamber 20 in the wall thereof, from which lead the downwardly-extending passages 21, whose lower ends open into the circular channel 22, formed between the under face of said nut and the top of said head, there being a passage-way 23 leading from said circular channel 22 and opening through the wall of the head, as shown by dotted lines in Figs. 3 and 4. Upon the upper end of the nut is screwed a gland 24, having a central opening to receive the nozzle 25 of the siphon-bottle 26 and carrying a washer 27, which makes a tight closure around said nozzle when inserted in said opening. In the top of the siphon-bottle is the usual spring-actuated valve, having a valve-stem 28, which projects therefrom.

The filler-head 1 is attached to a suitable bracket 29, secured to the under face of a counter or other support. Pivoted at 30 to said bracket is a lever 31, having a finger 32 depending from the side thereof. Pivotally attached to a post 33, mounted on the case 5, is a valve-actuating lever 34, which rests upon the upper end 14 of the valve-stem 9 and has a horizontally-projecting end which extends into the path of the depending finger 32. When the siphon-bottle is in position for filling, its nozzle 25 rests over the nipple 21, as shown by dotted lines in Fig. 2, said nozzle passing through the nut and gland

and being tightly embraced by the flexible washer 27. With the bottle in position a downward movement of the lever 21, which rests upon the stem 28 of the siphon-valve, said stem will be depressed to open said valve, so as to allow the carbonated fluid to enter the bottle. At the same time the downward movement of the lever 31 will cause the depending finger 32 thereon to engage the lever 34 and actuate it to depress the stem of valve 10 in the case 5, carrying said valve from its seat and permitting the carbonated water to flow by said valve and through the passages 15 and 16 into the nozzle 25 and thence to the bottle. Upon releasing the lever 31 the valve 10 will close to cut off the supply of carbonated fluid simultaneously with the closing of the valve in the siphon-bottle. In the operation of withdrawing the nozzle the "sniff" caused by the presence of the gas and fluid therein will escape into the chamber 20, thence through the passages 21 to the circular channel 22, and out the discharge-passage 23, communicating with said channel.

To provide for drawing the carbonated fluid directly, a draft-cock 35 is employed, having a valve 36 adapted to control the passages 37 and 38 therein. The passage 38 leads outwardly through the stem 39 of said cock, which is secured in a recess in the body 1 by a gland 40, mounted on said stem and screwed into said recess in a manner to cause the passage 38 in said stem to register with one end of the transverse channel 4, which communicates with the induct-channel 2. By means of this arrangement it is only necessary to open the valve 36 to draw the carbonated fluid directly from the cock 35.

A modified form of the siphon-filler is shown in Figs. 4 and 5, wherein the position of the case 5 is slightly changed and the lever 34, which opens the valve 10, is not in a position to be actuated simultaneously with the opening of the siphon-bottle valve through the operation of the lever 31. In the modified form shown in said Figs. 4 and 5 the valve 10 is opened to fill the siphon-bottle by an independent movement of the lever 34 after said bottle has been placed in position and its valve opened by a depression of the lever 31. The form, however, shown in Figs. 1, 2, and 3 is the preferred form.

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

1. In a siphon-bottle filler, the combination of a head having valve-controlled passages therein, a nipple adapted to receive a siphon-nozzle with which one of said passages communicates, a lever for actuating the valve controlling said passage-ways, a lever for opening the valve of the siphon-bottle, and means connecting said levers to cause the valve in said head and the valve of the siphon-bottle to open simultaneously.

2. In a siphon-bottle filler, the combination of a head having vertical and transverse ways therein for the passage of the carbonated fluid, a valve in the head for controlling the passage of said fluid through said ways, a nipple with which the terminal of one of said ways communicates adapted to receive a siphon-nozzle, a lever for opening the siphon-valve, and means adapted to be engaged by said lever for opening the valve in the head simultaneously with the opening of the valve in the siphon-bottle.

3. In a siphon-bottle filler, the combination of a head having ways therein for the passage of the carbonated fluid, a case having a valve-chamber communicating with said passage-ways, a valve in said chamber for controlling the passage of fluid through said ways, said valve having a stem which projects from said case, a pivoted lever engaging said stem for the purpose of unseating said valve, a nipple at the terminal of one of said valve-controlled passages adapted to receive a siphon-nozzle, a cap surrounding said nipple, having an opening through which the nozzle is adapted to be inserted, and having a sniff-chamber, there being a vent-passage leading from said chamber.

4. In a siphon-bottle filler, the combination of a head having a substantially vertical way adapted to communicate with a source of carbonated fluid, a case upon said head having a valve-chamber therein, a transverse way connecting said substantially vertical way with said chamber, a spring-actuated valve in said chamber to control the passage of the fluid therefrom, a second chamber in the case above said valve, a discharge-nozzle and a transverse passage-way in the head connecting said second chamber with said nozzle, a projecting stem connected with said valve, and a pivoted lever engaging said stem.

5. In a siphon-bottle filler, the combination of a head having valve-controlled passages therein, an aperture in the head to receive a siphon-nozzle with which one of said passages communicates, a movable member for actuating the valve controlling said passage-ways, a movable member for opening the valve of the siphon-bottle, and means connecting said movable members to cause the valve in said head and the valve of the siphon-bottle to open simultaneously.

In testimony whereof I sign this specification in the presence of two witnesses.

WILLIAM J. STAPLETON.

Witnesses:
E. S. WHEELER,
I. G. HOWLETT.