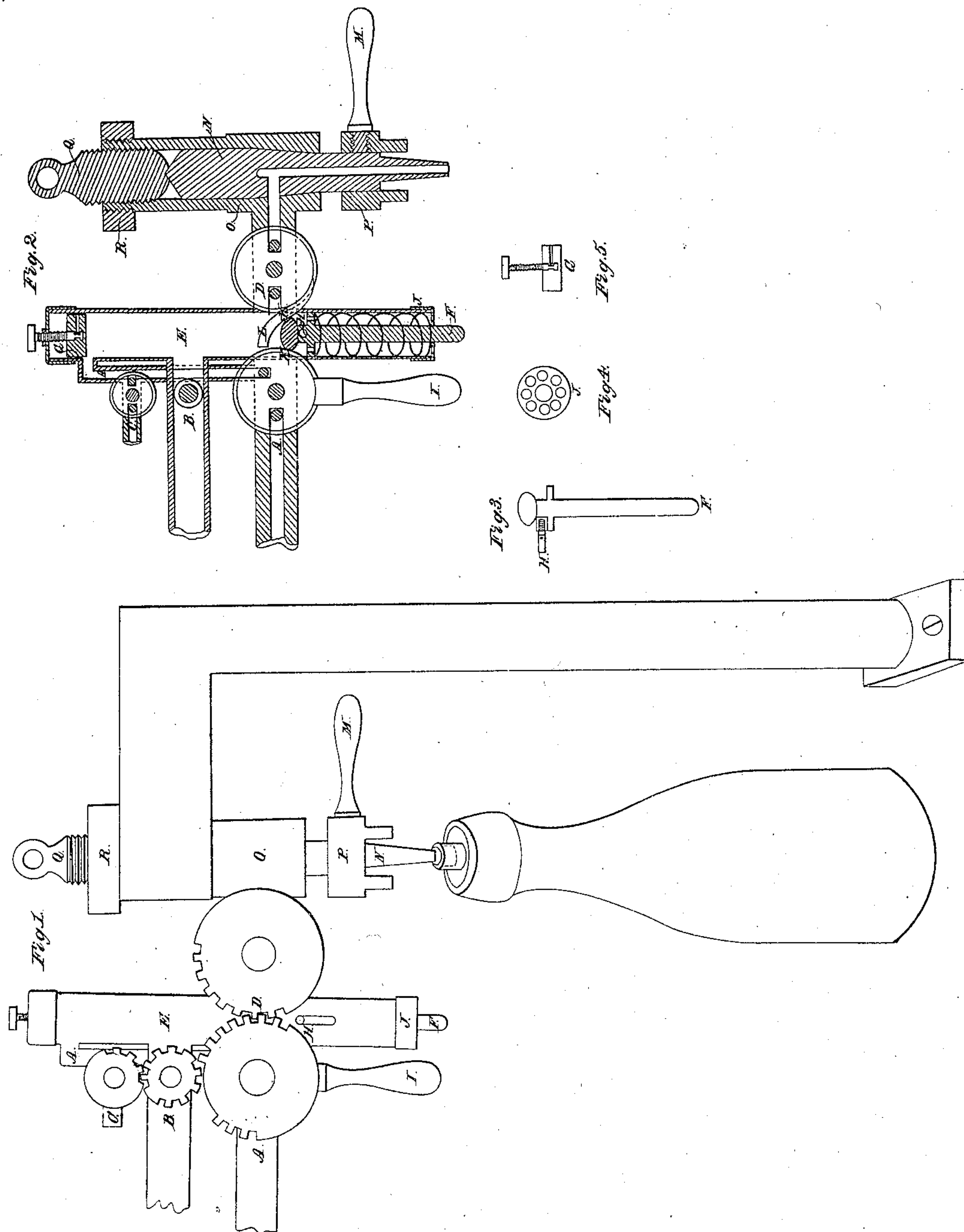


A. QUANTIN.

APPARATUS FOR BOTTLING MINERAL WATER, &c.

No. 14,368.

Patented Mar. 4, 1856.



UNITED STATES PATENT OFFICE.

A. QUANTIN, OF PHILADELPHIA, PENNSYLVANIA.

METHOD OF BOTTLING FLUIDS UNDER GASEOUS PRESSURE.

Specification forming part of Letters Patent No. 14,368, dated March 4, 1856; Reissued October 27, 1868, No. 3,175.

To all whom it may concern:

Be it known that I, ALPHONSE QUANTIN, of the city of Philadelphia and State of Pennsylvania, have invented a new and Improved Apparatus for Bottling Mineral Waters and Any other Fermented Beverages; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which the same letters refer to similar parts in each.

Figure 1, a perspective view of the apparatus for bottling. Fig. 2, a vertical section of the same. Fig. 3, a view of the side of the valve with its knee, which is placed in the lower part of E. Fig. 4, a view of the lower part of E. Fig. 5, a vertical section of the cylinder with its screw.

To enable others skilled in the art to make and use my apparatus, I proceed to describe its construction and operation.

This apparatus is put in operation by the combined action of the cocks which act simultaneously in introducing into the bottle the syrup and mineral water; this arrangement can be adapted to any of the machines now in use.

My improved bottling apparatus consists of metallic cocks and tubes shown in Figs. 1 and 2. A, tube and cock for the mineral water which discharges in the upper part of E, by the tube A, passing behind B, and puts in motion the cocks B and D by the cog wheels attached to each of them. B, tube and cock for the syrup discharging in the middle of E, and shutting when A is open, and puts C in motion. C, tube and cock to give air in E, (for the admission of the syrup) by the tube A, which is shut by the cock A when C is open, and which is put in motion by the cock B opening and shutting simultaneously with B. D, tube and cock for the discharging of both liquids (syrup and mineral water mixed), passing in O and N, and put in motion by the cock A, opening and shutting simultaneously with A. E, measuring tube for the syrup in which the mixture is made, discharging into D. F, valve which serves to free E from the water which it contains before the admission of the syrup; this valve is opened by the arm L, which is attached to the cock D and is shut by the action of the spring, which surrounds it, after the passage of the

water through J. G, cylinder put in motion by a screw attached to the top of E, in order to increase or diminish the capacity of E. H, knee attached to the valve F by an opening made in the lower part of E, which serves to open the valve F by the arm L, which is attached to the cock D, by which it is put in motion and bends at the return of the arm, to prevent the action of valve F. I, lever which puts in motion the cock A. J, lower part of E, which serves to hold the spring of F and allows the waste water to escape. K, metallic ring serving to shut the valve F. L, arm attached to the cock D to put in motion the valve F. M, lever serving to shut the cock N and to turn P. N, cock serving to fill the bottle, and to cut off communication with D by turning in O. O, cylinder serving to connect the mixing apparatus with the filling apparatus, and forming a part of the filling cock N, and supporting the whole mechanism by the arm S, which is attached to it. P, cylinder which turns the top of the stopper of the bottle, attached to the cock N by the lever M. Q, screw to maintain the cock N in its place. R, nut holding the cylinder O to the arm S. S, support for the apparatus, attached to O, and to the table.

Having thus described the construction of the apparatus, I proceed to describe the manner of using it. I begin by inserting the cock N into the opening of the stopper. I open the cock A by means of the lever I, operating from right to left. This permits the mineral water to enter the tube E, which contains the requisite measure of syrup, and forces it by the cock D, opened by the same motion of A, to enter O and N, which is in the stopper of the bottle, and which fills it instantaneously. I then turn the lever M from right to left, which shuts the cock N, gives a half revolution to the cylinder P, and shuts the top part of the stopper and completes the operation. For the next bottle, I begin by pushing the lever I from right to left. This shuts the cocks A and D and opens the syrup cock B and the air cock C, allowing the syrup to flow into E by the tube B, attached to a reservoir for the same, more elevated than the apparatus. Turning the lever M from left to right, I am prepared to fill the second bottle.

My improved apparatus possesses the following advantages over all those now in use

for filling vases and bottles with mineral and fermented liquids.

1. The bottling of these beverages, with or without syrups or flavors, in one operation, which cannot otherwise be done except by mixing the liquids in the metallic fountains, by which process the galvanic action communicates to them a disagreeable taste.

2. My method has the great advantage of avoiding the double operation which consists in putting first the syrup into the bottle, and then filling it with the mineral water. This process requires a greater amount of labor, and gives no regularity in the dose of syrup.

3. The rapidity gained by the twofold combined operation of my apparatus when used for filling vases and bottles with permanent stoppers similar to those for which Letters Patent were granted to me under date July 25th, 1854.

4. The possibility of adapting the mixing portion of my apparatus to all the filling apparatus now in use, whether made of

metal or other substances, of any size whatever.

My improved apparatus is specially intended for mineral waters, but it may also be used with any gaseous or fermented liquids which it is desirable to preserve in bottles.

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

The compound apparatus composed of metal or other substances, constructed and operating substantially as hereinbefore described, that is, to introduce a certain portion of a liquid into the apparatus, and force it out by the action of another liquid, gaseous or fermented.

In witness whereof I have hereunto subscribed my name the 14th day of Feby. eighteen hundred and fifty six.

A. QUANTIN. [L. s.]

In presence of—

M. V. OBRY,
H. A. TINTARD.