

No. 670,395.

Patented Mar. 19, 1901.

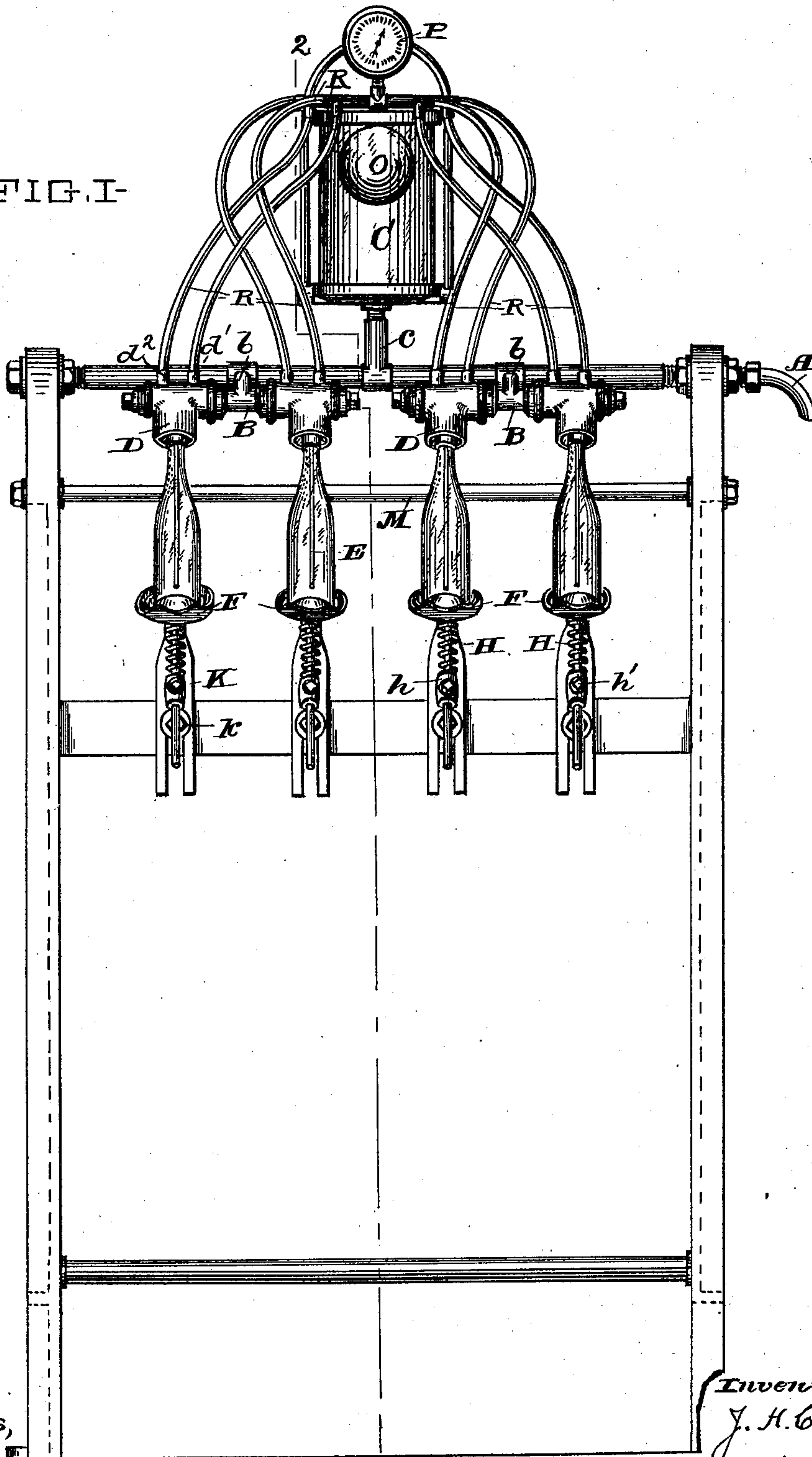
J. H. CHAMP.
BOTTLING MACHINE.

(Application filed Nov. 2, 1900.)

(No Model.)

3 Sheets—Sheet 1.

FIG. I-



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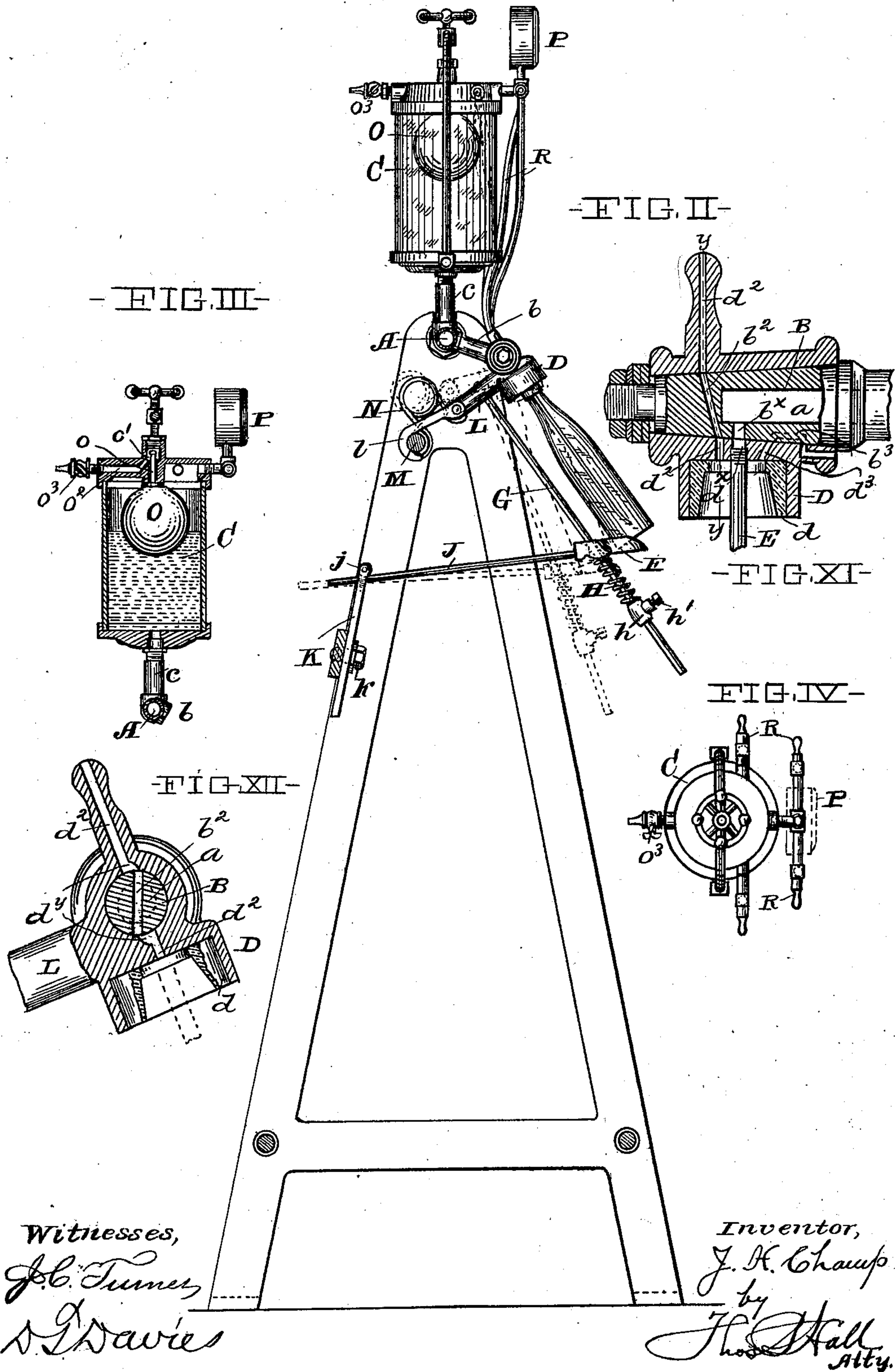
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3 Sheets—Sheet 2.



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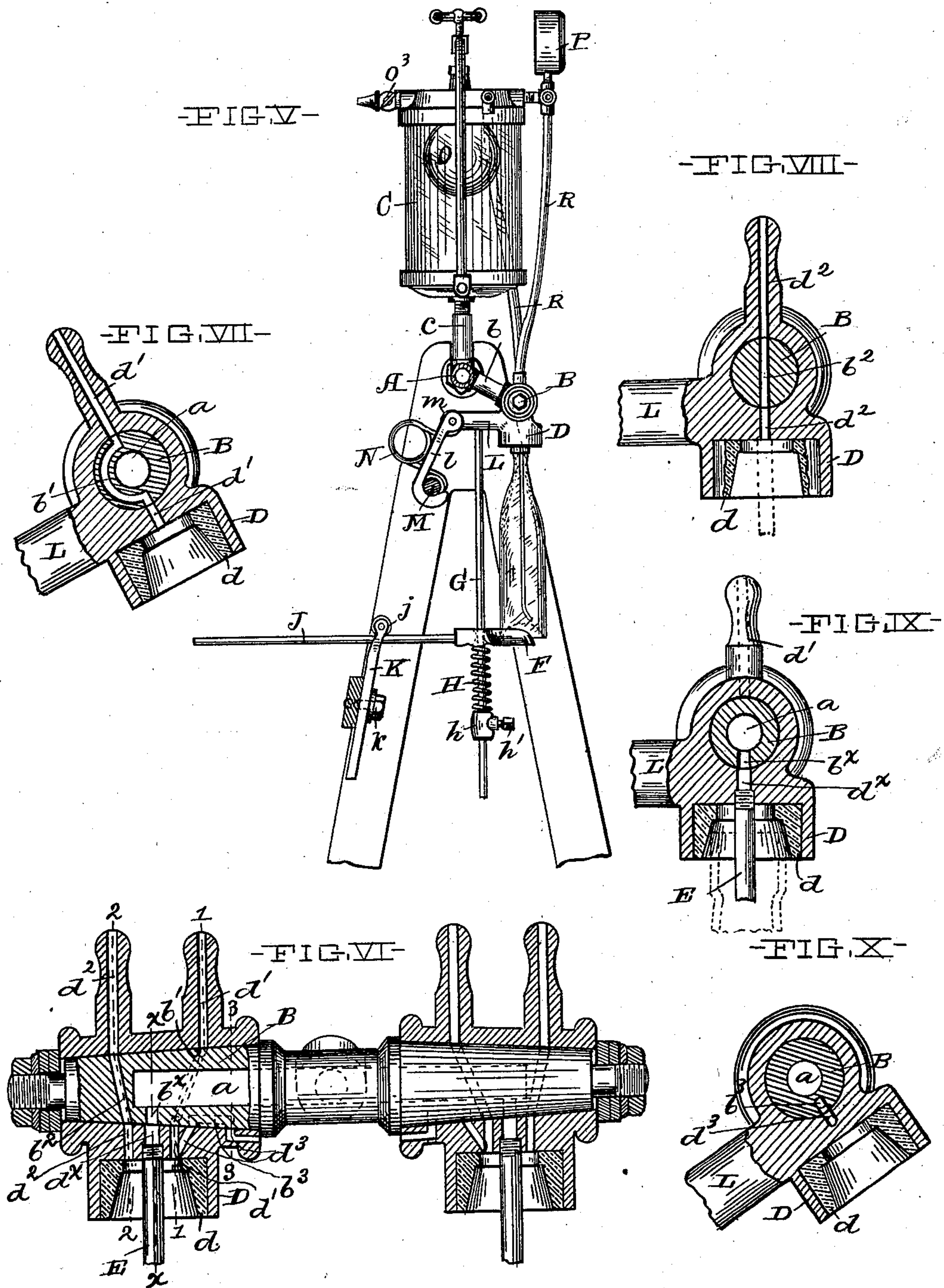
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(No Model.)

3 Sheets—Sheet 3.



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UNITED STATES PATENT OFFICE.

JOSEPH H. CHAMP, OF CLEVELAND, OHIO, ASSIGNOR TO THE BISHOP & BABCOCK COMPANY, OF SAME PLACE.

BOTTLING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 670,395, dated March 19, 1901.

Application filed November 2, 1900. Serial No. 35,240. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. CHAMP, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Bottling-Machines, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

My invention relates to bottling-machines.

It consists of the means hereinafter described, and particularly pointed out in the claims.

The annexed drawings and the following description set forth in detail certain means embodying the invention, such disclosed means constituting but one of various forms in which the principle of the invention may be used.

Figure I is a front elevation. Fig. II is a vertical section on line 2 2 of Fig. I, the dotted lines showing certain members in the first operative position and the full lines showing said members in the third operative position. Fig. III is a detail in vertical section of the air-compressing chamber, showing certain members in side elevation. Fig. IV is a detail top plan of the air-compression chamber. Fig. V is a vertical section on line 2 2 of Fig. I and showing certain members in the second operative position. Fig. VI is a detail, partly vertical section and partly side elevation, showing one pair of bottle-mouth holders with their coöperating means. Fig. VII is a section on line 1 1 of Fig. VI. Fig. VIII is a section on line 2 2 of Fig. VI. Fig. IX is a section on line $x x$ of Fig. VI, but showing the bottle-filling tube in side elevation. Fig. X is a section on line 3 3 of Fig. VI. Fig. XI is a longitudinal section of a modified form of bottle-mouth holder. Fig. XII is a section on line $y y$ of Fig. XI.

The form of the machine shown in the drawings is adapted to fill two pairs of bottles simultaneously; but it will be understood that a machine could equally well embody the invention, though such machine be adapted to at one time fill more or less number of bottles. Detail description will therefore be

given of the construction and operation of the invention as embodied in means for filling a single bottle, such construction and operation being substantially the same as in means for filling at one time more than one bottle.

The fluid with which the bottle is to be filled is forced under proper pressure through pipe A, which has constant open communication with each of the cross-pipes b and c . The plug B has a central longitudinal fluid-way a in constant open communication with said cross-pipe b . Said cross-pipe c has constant open communication with the bottom of air-compressing chamber C. Hence the bottling fluid is permitted to always have uninterrupted flow in either direction between pipe A and chamber C.

A tubular valve and a bottle-mouth holder, the latter having an elastic gasket d , are conjointly formed in a single member D, such member being seated around the plug B and having rocking movement thereon. Such member D is provided with three fluid-ways, each divided into two transverse parts, each one of such fluid-ways having the plug B located between its said two transverse parts. The three two-part ways are respectively the air-inlet way d^1 , the air and foam outlet way d^2 , and the air and foam waste way d^3 . The air-inlet way d^1 has its two transverse parts adapted to communicate with each other by intermediate registration of channel b^1 , formed in plug B. The air and foam outlet way d^2 has its two parts adapted to communicate with each other by intermediate registration of channel b^2 , formed in plug B. Way a is provided with a port b^x , adapted to register under proper conditions with way d^x , formed in member D for the fluid to be bottled. The air and foam waste way d^3 has its two parts adapted to communicate with each other by intermediate registration of channel b^3 , formed in plug B. A tube E has its upper end detachably threaded in the lower portion of way d^x and has its lower end adapted to discharge into the bottom of the bottle the fluid which is under pressure in pipe A.

The bottle-body holder F is formed cup-shaped on its upper surface, adapted to receive and closely hold the bottom of a bottle of corresponding size. A rod G has its up-

per extremity rigidly connected to arm L, and has its depending portion passing freely through an opening in the rear portion of holder F, so as to have loose engagement with
 5 such holder. A spiral spring H is loosely fitted about said rod, being compressed between the holder F and a clip *h* on said rod, which clip may be maintained at different points of vertical adjustment on said rod by thumb-
 10 screw *h'*. A rod J projects rearwardly from holder F angularly to said rod G and is adapted to have longitudinal travel beneath roller *j*, fastened by clamp K to the framework of the machine, such clamp having its lower
 15 portion bifurcated and adapted to be maintained at different points of vertical adjustment on the machine-framework by clamp-bolt *k*, fitted within the bifurcation.

Member D is provided with rigid rear-
 20 wardly-projecting arm L, to which is pivoted the shank of a hook *l*, such hook passing over a rod M of the machine-framework. A curved spring N has its one end connected with said rod M and its other end connected with the
 25 pivot *m* of hook *l*, the construction being such that said spring exerts pressure upon said arm L, with tendency to maintain the latter downwardly inclined, as in the third operative position. (Shown by full lines of Fig. II.)

30 The air-compressing chamber C is provided with a float-valve O, whose stem *o* is loosely fitted in vertical channel *o'*, formed in the center of the upper portion of chamber C. Said vertical channel *o'* communicates at its
 35 upper end with horizontal channel *o''*, which latter is provided with air-cock *o'''*. Air-pressure gage P communicates with the top of chamber C. The lower end of vertical channel *o'* communicates with the interior of the
 40 air-compressing chamber C, such communication being controlled by the valve O. As the fluid under pressure within pipe A passes into chamber C it compacts the air within the upper portion of such chamber and maintains
 45 it under pressure, the degree of such compression being indicated by the gage. Tubes R connect the upper portion of the air-compressing chamber C, respectively, with the air-inlet way *d'* and with the air and foam outlet
 50 way *d''*, such tubes thus constituting intermediate fluid-ways between the air-compressing chamber C and the bottle-mouth holder D.

Assuming that a bottle is to be filled with beer under pressure, the bottle is placed in
 55 the machine between the mouth-holder and the body-holder, the members of the machine thereby being in position whereby the bottle is properly locked in place in the machine. The bottle is then pushed slightly rearward,
 60 so as to place the members of the machine in the first operative position, (shown in dotted lines of Fig. II and in Fig. VII,) wherein the air-inlet way *d'* is open, so as to permit air under pressure from the air-compressing
 65 chamber to pass into the bottle. The latter is then moved still farther rearwardly, thereby placing the members of the machine in

the second operative position, (shown in Figs. V, VI, VIII, and IX,) wherein way *d''* may permit air or foam, or both, to pass from out
 70 of the bottle sufficiently to permit the beer to pass into the bottle, while also the beer under pressure within pipe A may be discharged into the bottom of the bottle. The bottle
 75 being then filled it is moved forwardly, so as to place the members of the machine in the third and final operative position, (shown in full lines of Fig. II and in Fig. X,) wherein the air and foam waste way *d'''* is open, so as
 80 to permit escape from the bottle of any air or foam, or both, that might otherwise overflow the mouth of the bottle when the latter is removed from the mouth-holder. The bottle
 85 may then be taken from the machine and corked. At the commencement of the operation the air-cock *o'''* is closed. Then the beer is turned on into pipe A, and thereafter said
 90 air-cock is opened, whereupon the filling of a bottle with the beer becomes automatic under the conditions of moving the bottle, as previously described, so as to cause the
 95 members of the machine to assume positions consecutively as set forth for the first, second, and third operative positions. During the operation of the machine the float-valve rises
 100 and falls, corresponding to the resultant of the forces to which it is subject, the pressure of air in the upper portion of chamber C being relieved by the intermittent falling
 105 of the float-valve from its seat against the lower end of vertical channel *o'*, which falling takes place by the beer within chamber C lowering in accordance with the reduction of pressure thereof incident to the pas-
 110 sage of beer into the bottle. The pressure of air within the bottle being equal to the pressure of air in the top of chamber C and also equal to the pressure of the beer in pipe A, the beer flows into the bottle, free from
 115 compressed air within the bottle passes out from the latter through way *d''* as is displaced by reason of the gravity flow of beer into the bottle, such displacement operating in conjunction with the conditions of the
 120 beer and air within chamber C, whereby the float-valve alternately rises and falls and the air-pressure within chamber C thereby being alternately increased and decreased. The
 125 bottling of the beer is thus effected under such conditions as to save in the bottled beer all the gases with which the latter is charged when it comes into pipe A from the original
 130 package. Also the bottle may be corked without loss of gases and without overflow or foaming over. The introduction within the bottle of the compressed air previously to the introduction therein of the beer results in an equalization of such two pressures
 135 within the bottle. The air-pressure being equal with the beer-pressure, the air is gradually displaced from the bottle by the gravity of the beer and all foaming and loss of gases are prevented during the operation of filling

the bottle. The air and foam waste way d^3 permits escape from the neck or mouth of the bottle of any air or foam, or both, that otherwise might overflow from the bottle when the latter is removed from the mouth-holder. The means for attaining such desirable ends are simple and economically efficient.

The invention may be used in bottling any suitable fluid other than beer, though it is especially adapted for the bottling of beer.

The modified form of bottle-mouth holder represented in Figs. XI and XII omits the air-inlet way d' (shown in the preferred form) and provides the air and foam way d^2 with a widened portion d^y at the junction of each of its two transverse parts with way b^2 . By this means the compressed air within chamber C may enter the bottle when the members of the machine are in their first operative position by reason of said widened portions d^y , and thereafter when the members of the machine are in their second operative position the same way d^2 permits of passage of air or foam, or both, from out of the bottle into chamber C, and the air and foam waste way d^3 operates in the third operative position of the members of the machine the same as in the preferred form of bottle-mouth holder.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the means herein disclosed, provided the means stated by any one of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention—

1. The combination of a primary member having a way provided with a port for the fluid to be bottled, a bottle-mouth holder having a way adapted to register with said port, said primary member and said holder each having fluid way or ways independent of said way for the fluid to be bottled, such independent fluid way or ways of said primary member being adapted to register with such independent fluid way or ways of said mouth-holder, a fluid-chamber, fluid way or ways connecting said fluid-chamber with said mouth-holder independent fluid way or ways, a fluid-way connecting said primary-member bottling fluid-way with said fluid-chamber, said primary member and said mouth-holder each having a fluid-waste way adapted not to register with each other during any of the previously-named registers but to so register subsequently to said previously-named registers, said mouth-holder being otherwise closed against fluid waste, substantially as set forth.

2. The combination of a plug having a way provided with a port for the fluid to be bottled, a valve exterior to said plug and adapted to have movement relatively thereto, such exterior valve carrying a bottle-mouth holder and having a way adapted to register with said port, said plug and said exterior valve each having fluid way or ways independent

of said way for the fluid to be bottled, such independent fluid way or ways of said plug being adapted to register with such independent fluid way or ways of said exterior valve, a fluid-chamber, fluid way or ways connecting the upper portion of said fluid-chamber with said exterior valve independent fluid way or ways, a fluid-way connecting said plug bottling-fluid way with the lower portion of said fluid-chamber, said plug and said exterior valve each having a fluid-waste way adapted not to register with each other during any of the previously-named registers but to so register subsequently to said previously-named registers, said exterior valve being otherwise closed against fluid waste, substantially as set forth.

3. The combination of a primary member having a way provided with a port for the fluid to be bottled, a bottle-mouth holder having a way adapted to register with said port, said primary member and said mouth-holder each having fluid way or ways independent of said way for the fluid to be bottled, said independent fluid way or ways of said primary member being adapted to register with said independent fluid way or ways of said mouth-holder, a fluid-chamber, a fluid-way connecting said primary-member bottling-fluid way with said fluid-chamber, fluid way or ways connecting the upper portion of said fluid-chamber with said mouth-holder independent fluid way or ways, said fluid-chamber provided at its upper portion with a fluid-escape passage controlled by a valve actuated by a float within said fluid-chamber, said primary member and said mouth-holder each having a fluid-waste way adapted not to register with each other during any of the previously-named registers but to so register subsequently to said previously-named registers, said mouth-holder being otherwise closed against fluid waste, substantially as set forth.

4. The combination of a primary member having a way provided with a port for the fluid to be bottled, a bottle-mouth holder having a way adapted to register with said port, said primary member and said mouth-holder each having a fluid-way independent of said way for the fluid to be bottled and adapted to register with each other previously to the first-named register, a fluid-chamber, a fluid-way connecting said primary-member bottling-fluid way with said fluid-chamber, a fluid-way connecting the upper portion of said fluid-chamber with said mouth-holder independent fluid-way, said primary member and said mouth-holder each having a fluid-waste way adapted not to register with each other during any of the previously-named registers but to so register after the close of said previously-named registers, said mouth-holder being otherwise closed against fluid waste, substantially as set forth.

5. The combination of a primary member having a way provided with a port for the

fluid to be bottled, a valve exterior to said primary member and adapted to have movement relatively thereto, such exterior valve carrying a bottle-mouth holder and having a way which registers with said port, said primary member having a fluid-way independent of said way for the fluid to be bottled, said exterior valve having a fluid-way independent of said way for the fluid to be bottled and divided into two transverse parts adapted to conjointly register with said primary-member independent fluid-way, substantially as set forth.

6. The combination of a plug having a way provided with a port for the fluid to be bottled, a tubular valve seated around said plug and adapted to have rotary movement thereon, such tubular valve carrying a bottle-mouth holder and having a way which registers with said port, said plug having a fluid-way independent of said way for the fluid to be bottled, said tubular valve having a fluid-way independent of said way for the fluid to be bottled and divided into two transverse parts adapted to conjointly register with said plug independent fluid-way, substantially as set forth.

7. The combination of a primary member having a way provided with a port for the fluid to be bottled, a valve exterior to said primary member and adapted to have movement relatively thereto, such exterior valve carrying a bottle-mouth holder and having a way which registers with said port, said primary member having a plurality of fluid-ways independent of said way for the fluid to be bottled, said exterior valve having a plurality of fluid-ways independent of said way for the fluid to be bottled and each divided into two transverse parts adapted to conjointly register with a corresponding one of said primary-member independent fluid-ways, such several independent fluid-ways of said primary member and of said exterior valve being adapted to so register respectively at different times, substantially as set forth.

8. The combination of a plug having a way provided with a port for the fluid to be bottled, a tubular valve seated around said plug and adapted to have rotary movement thereon, such tubular valve carrying a bottle-mouth holder and having a way which registers with said port, said plug having a plurality of fluid-ways independent of said way for the fluid to be bottled, said tubular valve having a plurality of fluid-ways independent of said way for the fluid to be bottled and each divided into two transverse parts adapted to conjointly register with a corresponding one of said plug independent fluid-ways, such several independent fluid-ways of said plug and of said tubular valve being adapted to so register respectively at different times, substantially as set forth.

9. The combination of a primary member having a way provided with a port for the fluid to be bottled, a valve exterior to said primary

member and adapted to have movement relatively thereto, such exterior valve carrying a bottle-mouth holder and having a way which registers with said port, said primary member having a fluid-way independent of said way for the fluid to be bottled, said exterior valve having a fluid-way independent of said way for the fluid to be bottled and divided into two transverse parts adapted to conjointly register with said primary-member independent fluid-way, a fluid-chamber connected respectively to said primary-member bottling-fluid way and to one of said two transverse parts of said exterior-valve independent fluid-way, substantially as set forth.

10. The combination of a plug having a way provided with a port for the fluid to be bottled, a tubular valve seated around said plug and adapted to have rotary movement thereon, such tubular valve carrying a bottle-mouth holder and having a way which registers with said port, said plug having a fluid-way independent of said way for the fluid to be bottled, said tubular valve having a fluid-way independent of said way for the fluid to be bottled and divided into two transverse parts adapted to conjointly register with said plug independent fluid-way, a fluid-chamber, a fluid-way connecting said plug bottling-fluid way with the lower portion of said fluid-chamber, a fluid-way connecting the upper portion of said fluid-chamber with one of said two transverse parts of said tubular-valve independent fluid-way, substantially as set forth.

11. The combination of a plug having a way provided with a port for the fluid to be bottled, a tubular valve seated around said plug and adapted to have rotary movement thereon, such tubular valve carrying a bottle-mouth holder and having a way which registers with said port, said plug having a fluid-way independent of said way for the fluid to be bottled, said tubular valve having a fluid-way independent of said way for the fluid to be bottled and divided into two transverse parts adapted to conjointly register with said plug independent fluid-way, a fluid-chamber, a constantly free fluid-way connecting said plug bottling-fluid way with the lower portion of said fluid-chamber and adapted to always permit uninterrupted flow of the bottling fluid in either direction, a fluid-way connecting the upper portion of said fluid-chamber with one of said two transverse parts of said tubular-valve independent fluid-way, substantially as set forth.

12. The combination of a plug having a way provided with a port for the fluid to be bottled, a tubular valve seated around said plug and adapted to have rotary movement thereon, such tubular valve carrying a bottle-mouth holder and having a way which registers with said port, said plug having a fluid-way independent of said way for the fluid to be bottled, said tubular valve having a fluid-way independent of said way for the fluid to be bottled and divided into two transverse parts

adapted to conjointly register with said plug independent fluid-way, a fluid-chamber, a constantly free fluid-way connecting said plug bottling-fluid way with the lower portion of said fluid-chamber and adapted to always permit uninterrupted flow of the bottling fluid in either direction, a fluid-way connecting the upper portion of said fluid-chamber with one of said two transverse parts of said tubular-valve independent fluid-way, said plug and said tubular valve each having a fluid-waste way adapted to come into registration with each other only subsequently to said registrations of the previously-named fluid-ways, said tubular valve being otherwise closed against fluid waste, substantially as set forth.

13. The combination of a primary member having a way provided with a port for the fluid to be bottled, a valve exterior to said primary member and adapted to have movement relatively thereto, such exterior valve carrying a bottle-mouth holder and having a way which registers with said port, said primary member and said exterior valve each having fluid way or ways independent of said way for the fluid to be bottled, such independent fluid way or ways of said exterior valve being each divided into two transverse parts adapted to conjointly register with a respective one of said primary-member independent fluid way or ways, a fluid-chamber connected respectively to said primary-member bottling-fluid way and to a respective one of said two transverse parts of said exterior-valve independent fluid way or ways, substantially as set forth.

14. The combination of a plug having a way provided with a port for the fluid to be bottled, a tubular valve seated around said plug and adapted to have rotary movement thereon, such tubular valve carrying a bottle-mouth holder and having a way which registers with said port, said plug and said tubular valve each having fluid way or ways independent of said way for the fluid to be bottled, such independent fluid way or ways of said tubular valve being each divided into two transverse parts adapted to conjointly register with a respective one of said plug independent fluid way or ways, a fluid-chamber connected respectively to said plug bottling-fluid way and to a respective one of said two transverse parts of said tubular-valve independent fluid way or ways, said plug and said tubular valve each having a fluid-waste way adapted to come into registration with each other only subsequently to said registrations of the previously-named fluid-ways, said tubular valve being otherwise closed against fluid waste, substantially as set forth.

15. The combination of a primary member having a way provided with a port for the fluid to be bottled, a valve exterior to said primary member and adapted to have movement relatively thereto, such exterior valve carrying a bottle-mouth holder and having a

way which registers with said port, said primary member having a plurality of fluid-ways independent of said way for the fluid to be bottled, said exterior valve having a plurality of fluid-ways independent of said way for the fluid to be bottled and each divided into two transverse parts adapted to conjointly register with a respective one of said primary-member independent fluid-ways, such respective independent fluid-ways of said primary member and of said exterior valve being adapted to so register severally at different times, a fluid-chamber, a fluid-way connecting said plug bottling-fluid way with the lower portion of said fluid-chamber, two fluid-ways severally connecting the upper portion of said fluid-chamber with a respective one of said transverse parts of each of said primary-member independent fluid-ways, substantially as set forth.

16. The combination of a plug having a way provided with a port for the fluid to be bottled, a tubular valve seated around said plug and adapted to have rotary movement thereon, such tubular valve carrying a bottle-mouth holder and having a way which registers with said port, said plug having a plurality of fluid-ways independent of said way for the fluid to be bottled, said tubular valve having a plurality of fluid-ways independent of said way for the fluid to be bottled and each divided into two transverse parts adapted to conjointly register with a respective one of said plug independent fluid-ways, such respective independent fluid-ways of said plug and of said tubular valve being adapted to so register severally at different times, a fluid-chamber, a fluid-way connecting said plug bottling-fluid way with the lower portion of said fluid-chamber, two fluid-ways severally connecting the upper portion of said fluid-chamber with a respective one of said transverse parts of each of said plug independent fluid-ways, said plug and said tubular valve each having a fluid-waste way adapted to come into registration with each other only subsequently to said registrations of the previously-named fluid-ways, said tubular valve being otherwise closed against fluid waste, substantially as set forth.

17. The combination of a plug having a way provided with a port for the fluid to be bottled, an exterior valve and a bottle-mouth holder conjointly formed as a single member having rocking movement upon said plug and provided with a way adapted to register with said port, a movable bottle-body holder, a rod having its one end rigidly connected with said mouth-holder and having its opposite end portion engaging with said body-holder, substantially as set forth.

18. The combination of a plug having a way provided with a port for the fluid to be bottled, an exterior valve and a bottle-mouth holder conjointly formed as a single member having rocking movement upon said plug and provided with a way adapted to register with

said port, a movable bottle-body holder, a rod located parallel with said mouth-holder and angularly to the axis of said plug and having its one end rigidly connected with said mouth-
 5 holder and having its opposite end portion loosely connected with said body-holder, substantially as set forth.

19. The combination of a plug having a way provided with a port for the fluid to be bot-
 10 tled, an exterior valve and a bottle-mouth holder conjointly formed as a single member having rocking movement upon said plug and provided with a way adapted to register with said port, said mouth-holder having an arm
 15 rigidly projecting therefrom angular to the axis of said plug, a movable bottle-body holder, a rod having its one end rigidly connected with said arm and having its opposite end portion engaging with said body-holder,
 20 said rod being angular to said arm and to the axis of said plug, substantially as set forth.

20. The combination of a plug having a way provided with a port for the fluid to be bot-
 25 tled, an exterior valve and a bottle-mouth holder conjointly formed as a single member having rocking movement upon said plug and provided with a way adapted to register with said port, an arm projecting rigidly from said
 30 holder at right angles to the latter and also to the axis of said plug, a movable bottle-body holder, a rod having its one end rigidly connected to said arm and having its opposite end portion loosely engaging with said body-
 35 holder, such rod being at right angles to said arm and to the axis of said plug and being parallel with said mouth-holder, substantially as set forth.

21. The combination of a plug having a way
 40 provided with a port for the fluid to be bottled, an exterior valve and a bottle-mouth holder conjointly formed as a single member having rocking movement upon said plug and provided with a way adapted to register with
 45 said port, an arm projecting rigidly from said holder at right angles to its axis of rocking movement, a movable bottle-bottom holder, a rod having its one end rigidly connected to said arm and having its opposite end portion
 50 engaging loosely with said bottom-holder, such rod being at right angles to said arm and to said axis, spring mechanism connected to said arm and tending to maintain the latter in position adapted to cause said mouth-holder
 55 to be in position for having a bottle placed in or taken from same, spring mechanism connected with said rod and bottom-holder and tending to maintain the latter in position for

clamping the bottle between said two hold-
 60 ers, substantially as set forth.

22. The combination of a movable bottle-holder, a rod having its one extremity rigidly connected to said holder, a device against which the opposite end portion of said rod has longitudinal traveling bearing, substantially
 65 as set forth.

23. The combination of a movable bottle-holder, mechanism tending to press said holder against the bottom of a bottle when the latter is normally seated thereon, a rod pro-
 70 jecting from said holder angularly to the line of said pressure, a device against which the opposite and free end portion of said rod has longitudinal traveling bearing, substantially as set forth.

24. The combination of a movable bottle-mouth holder, a movable bottle-body holder, a rod connecting such two holders, a second rod located angularly to said first-named rod and having its one end portion connected to
 80 said body-holder, a device against which the opposite end portion of said second rod has longitudinal traveling bearing, substantially as set forth.

25. The combination of a movable bottle-
 85 mouth holder, a movable bottle-body holder, a rod having its one extremity rigidly connected with said mouth-holder and having its body portion loosely engaging with said body-holder, spring mechanism which tends to
 90 maintain such body-holder in certain position longitudinally of such rod, a second rod projecting from said body-holder angularly to said first rod, a device against which the op-
 95 posite and free end portion of said second rod has longitudinal traveling bearing, substantially as set forth.

26. The combination of a movable bottle-mouth holder, a movable bottle-bottom holder, a rod having its one extremity rigidly con-
 100 nected with said mouth-holder and having its body portion loosely engaging with said bottom-holder, a clip adjustably fastened to said rod, a spring whose opposite extremities respectively engage said clip and said bottom-
 105 holder, a second rod located angularly to said first rod and having one extremity rigidly connected with said bottom-holder, a device against which the opposite and free end por-
 110 tion of said second rod has longitudinal traveling bearing, substantially as set forth.

Signed by me this 31st day of October, 1900.

JOSEPH H. CHAMP.

Attest:

THOS. B. HALL,
 D. T. DAVIES.