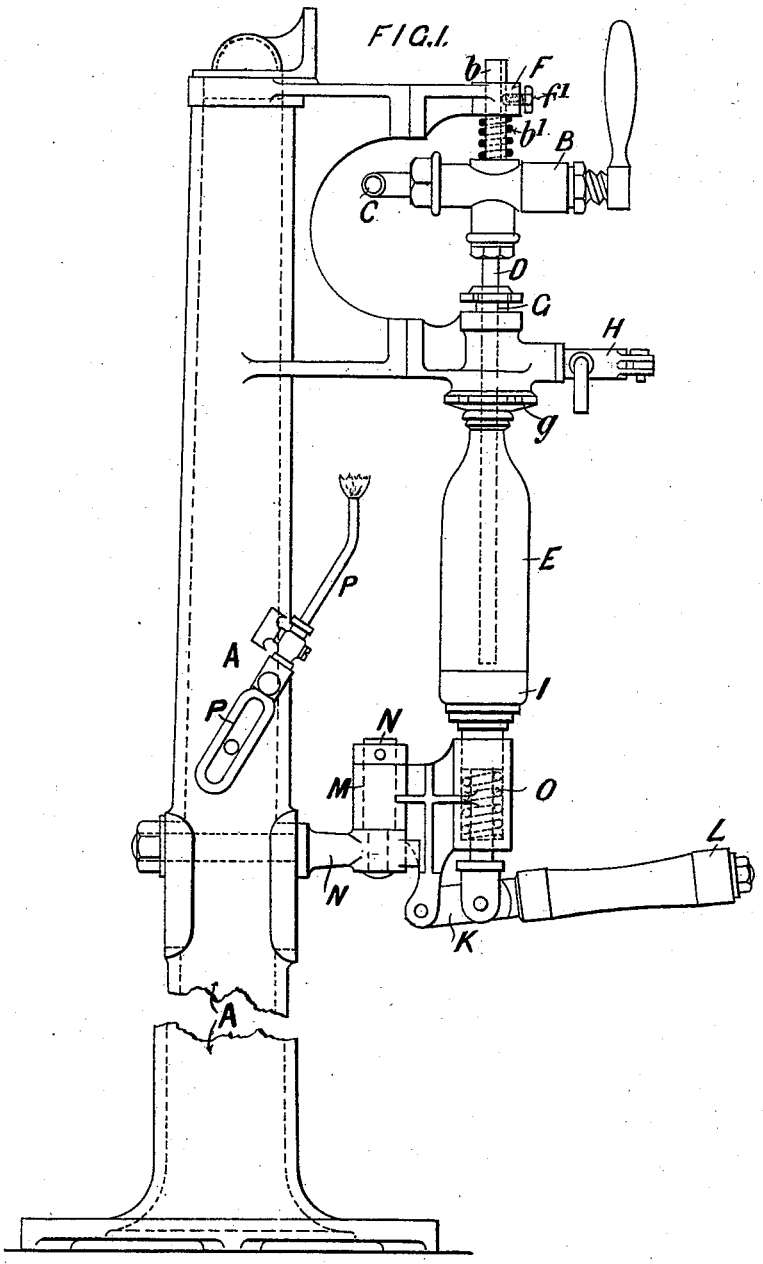
(No Model.) 3 Sheets—Sheet 1.

C. W. CLAYTON.

APPARATUS FOR FILLING BOTTLES WITH LIQUIDS.

No. 523,973. Patented Aug. 7, 1894.

FIG. 1.



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(No Model.) 3 Sheets—Sheet 2.

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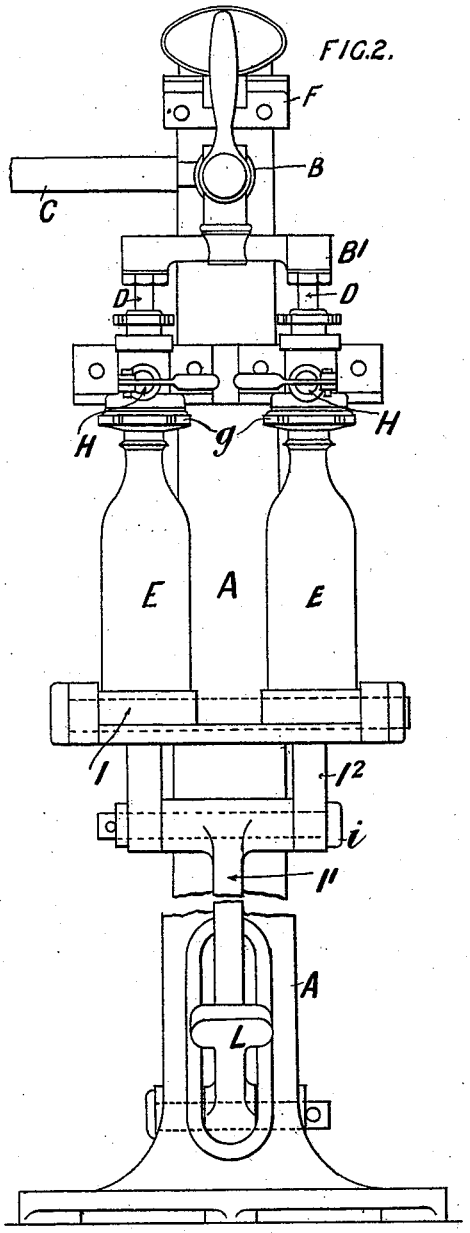
FIG. 2.



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(No Model.) 3 Sheets—Sheet 3.

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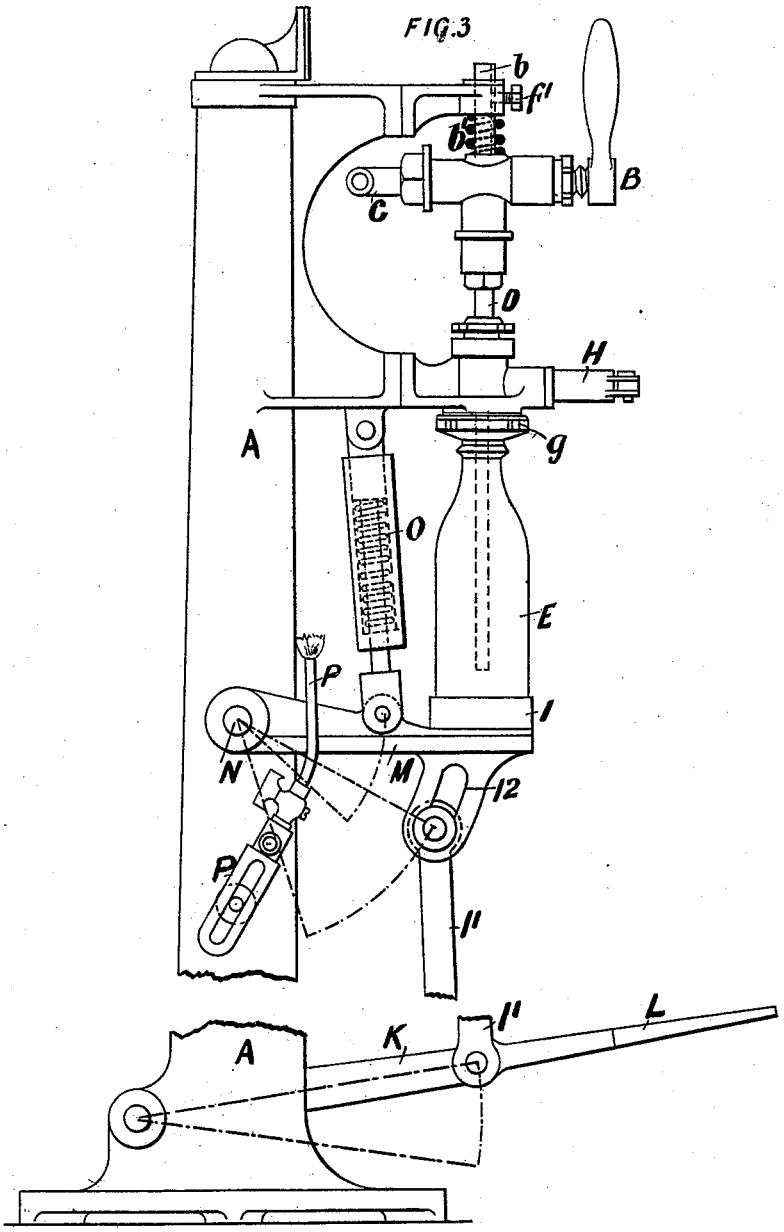
APPARATUS FOR FILLING BOTTLES WITH LIQUIDS.

No. 523,973. Patented Aug. 7, 1894.

FIG. 3



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Inventor:
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UNITED STATES PATENT OFFICE.

CHARLES WILLIAM CLAYTON, OF LONDON, ENGLAND, ASSIGNOR OF ONE-HALF TO ROBERT JAMES WHITE, OF SAME PLACE.

APPARATUS FOR FILLING BOTTLES WITH LIQUIDS.

SPECIFICATION forming part of Letters Patent No. 523,973, dated August 7, 1894.

Application filed November 21, 1893. Serial No. 491,534. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WILLIAM CLAYTON, a subject of the Queen of Great Britain, residing at No. 33 Wandsworth Bridge Road, Fulham, London, in the county of Middlesex, England, have invented new and useful Improvements in Apparatus for Filling Bottles with Liquids, of which the following is a specification.

This invention refers to improvements in apparatus for filling bottles with liquids.

Referring to the accompanying sheet of drawings—Figure 1. is a side elevation of a bottling machine or filler constructed according to my invention. Fig. 2. is a front elevation of a modified form for filling two bottles at a time and Fig. 3. is a side elevation thereof.

On a suitable frame or stand A Fig. 1 is mounted a cock B having a flexible or jointed pipe C which connects it with the supply of liquid. This cock B has a tube D which is of such a length as to reach the bottom of the bottle E when the same is in position for filling and the whole is made capable of sliding motion in suitable bearings on the frame-work A. that is to say, the frame A is provided at the top with a bearing bracket F through which projects the closed tube or guide rod *b* on the cock B and a set screw *f'* the end of which takes into a slot in the rod *b* allows of the latter and with it the cock B and tube D being held in the desired position. The tube D is made long enough to be clear of the bottom of the bottle E, but if an exceptionally short bottle happen to be put in, it would if it were fixed, either break the bottom of the bottle or prevent the mouth of the same making joint in the cap *g*. I therefore use a spring *b'* on the guide rod *b* which allows of the rising of the cock B and tube D.

The bearing bracket G which is fixed to or made in one with the frame A has a stuffing box down through which projects the tube D and below this bracket has made in one with it or secured thereto a cap *g* and cone such as is usual in filling machines and made so as to enable a tight joint to be made between the machine and the mouth of the bottle. Communicating by a passage with the interior of this cap is an ordinary snifting valve H whereby while the bottle E is being filled the air displaced is allowed to escape.

The bottle E is held up against the cap *g* by means of a bottle holder I having a lever K with a handle L mounted on an arm M which is hung on a vertical pivot N on the framework and provided with an internal helical or other spring O so as to cause the bottle to be held elastically in position for filling.

In order to fill a bottle, the bottle holder I is swung to one side clear of the tube D and a bottle is put under the cap *g* with the tube D in the bottle. The lever K L is depressed and the holder I is swung under the bottle the pressure on the lever is relaxed and the bottle is securely held in place. The filling cock B is then opened and the requisite charge of liquid allowed to run in.

Referring to Figs. 2 and 3, in which like letters refer to like or similar parts, the cock B is mounted on a stand A and having a flexible or jointed pipe C which connects it with the supply of liquid. This cock has a T piece B' and therefrom two tubes D which are of such a length as to reach the bottom of the bottle E, when the same is in position for filling and the whole is made capable of sliding motion in the same manner.

As described with reference to Fig. 1. it is evident that if desired this machine may also be made with one tube D for filling one bottle only at a time.

The bottles E are held up against the caps *g* by means of a double bottle holder I mounted on an arm M which is hung on a horizontal pivot N on the framework A and provided with a helical spring so as to cause the bottles to be held elastically in position for filling.

In order to fill the bottles, the bottle holders I are swung down clear of the tubes D by pressing on the foot lever K L which is connected by a pin *i* to the slots in the lugs I^2 of the said bottle holders—I may here remark that I prefer to use slots I^2 instead of round holes as the pin *i* is thus less liable to jam but chiefly in order to allow for occasional unequal height of the two bottles being filled. Two bottles are put under the caps *g* with the tubes D in the bottles, the pressure on the lever K L is released and the bottles are securely held in

place. The filling cock B is then opened and the requisite charge of liquid allowed to run in.

Although I have only shown my invention as applied to a one bottle and a two bottle filler, it is evident that with slight modifications I may construct machines for filling more than one or two bottles at a time respectively.

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

1. In a bottling apparatus, a filling cock provided with two stems extending from opposite sides thereof, one of said stems constituting the filling tube, in combination with a support provided with bearings for, and in which said stems have endwise motion, one of said bearings having a seat for the mouth of the bottle, and a movable bottle rest, substantially as and for the purpose set forth.

2. In a bottling apparatus, a filling cock provided with two stems extending from opposite sides thereof, one of said stems constituting the filling tube, in combination with a support provided with bearings in which said stems have motion, one of said bearings provided with a more or less elastic seat for the mouth of a bottle, a spring tending to hold the stop cock and its stems against motion in one direction, and a bottle rest adapted to be swung toward and from the filling tube, for the purpose set forth.

3. In a bottling apparatus, a filling cock provided with two stems extending from opposite sides thereof, one of said stems constituting the filling tube, in combination with a support provided with bearings in which said stems have endwise motion, one of said bearings constructed in the form of a stuffing box and provided with an elastic seat for the mouth of the bottle, a valve controlled air escape passage communicating with the opening in said seat around the filling tube, and a bottle rest adapted to be swung toward and from the filling tube, substantially as and for the purpose set forth.

4. The frame A in combination with the cock B having flexible supply tube C, guide stem *b*, spring *b'* thereon, branches B' and tubes D, the guides F and G, the bottle holder M hinged to the frame by the pivot N, the spring O for holding it up elastically with the bottle thereon, the rod I' pin jointed to the oblong hole I^2 on the bottle holder M and a treadle K L to which the rod is jointed substantially as set forth.

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