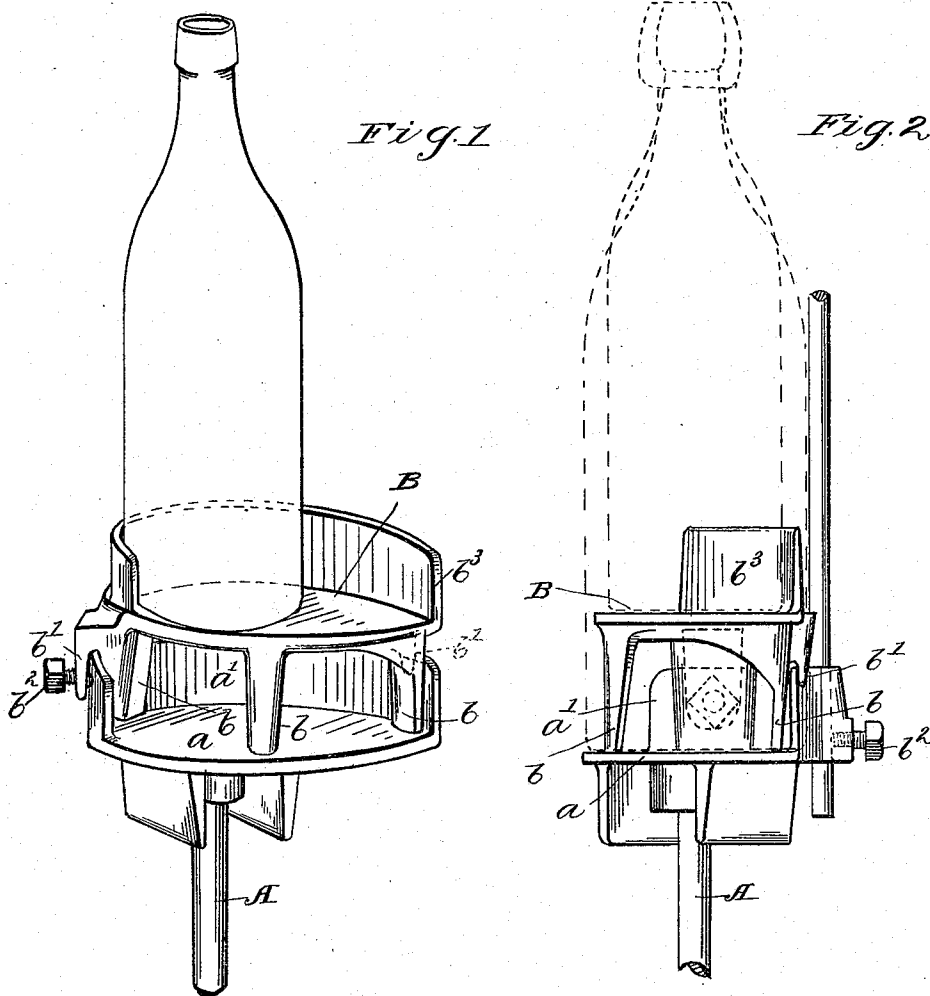


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BOTTLE REST FOR FILLING MACHINES.
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933,362.

Patented Sept. 7, 1909.



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UNITED STATES PATENT OFFICE.

JOSEPH H. CHAMP, OF CLEVELAND, OHIO.

BOTTLE-REST FOR FILLING-MACHINES.

933,362.

Specification of Letters Patent.

Patented Sept. 7, 1909.

Original application filed July 25, 1906, Serial No. 327,618. Divided and this application filed May 2, 1908. Serial No. 430,479.

To all whom it may concern:

Be it known that I, JOSEPH H. CHAMP, a citizen of the United States, resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Bottle-Rests for Filling-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.

The present invention relates to machines for filling bottles, and more particularly to that type of bottle filling machine wherein the bottles are raised and lowered to the valves, or filling heads, in a substantially vertical direction. It is well known that in machines of this type, where the operation is automatically had, the adjustment of the machine to various sizes of bottles is a feature of some difficulty, or at least bother, in the running of the machine. Accordingly in my co-pending application filed July 25, 1906, Serial No. 327,618, which relates to such an automatic bottle filling machine, I have disclosed several methods for thus adjusting the machine to different sizes of bottles. The subject-matter of the present application is one of the devices there disclosed and required to be divided out.

This present invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

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

In said annexed drawing: Figure 1 is a detail showing in perspective a bottle rest provided with my improved means adapting it to the accommodation of different sizes of bottles; and Fig. 2 is a side elevation of the same detail.

In the type of machine referred to, viz. that in which the bottles are raised and lowered in a substantially vertical direction, the bottles are regularly placed on tables, or rests, supported upon stems or rods to which the requisite vertical motion is imparted. The manner in which such motion is imparted is obviously, for present purposes, immaterial and such movement may be had either by means of a cam track, or otherwise,

as desired. In the figures just referred to, then, A designates such a reciprocable supporting stem or rod upon the upper end of which is provided a suitable table or rest *a*. The adjustment of rod A is normally intended to be such that the distance between the table and the filling head (not shown) will be that required in the filling of the largest size of bottle that the machine is designed to handle. Accordingly such table or rest *a* will be made of a size to properly accommodate the bottom of this size of bottle, a flange *a'*, partly encircling the table, being provided to prevent the bottle from sliding off, as also to correctly center the same with respect to the filling head.

When it becomes desirable to fill smaller bottles on the machine, it is obviously not only a matter of difficulty to properly readjust the height of stems A, even where these are susceptible of such adjustment, but furthermore, the size of the table *a* will be disproportionate to the size of the bottom of such smaller bottles. I accordingly provide for use in such connection a smaller bottle-bottom rest B adapted to be detachably fitted upon the larger bottle-bottom rest. Such smaller rest has depending lugs *b* that fit within and laterally bear against the outwardly projecting rear flange *a'* of the larger rest *a*. Such smaller rest is moreover provided with depending side jaws *b'* that are adapted to fit over such flange, one of which has a set screw *b²*, the end of which bears against the outer side of the flange *a'*, and thus permits the small rest to be securely affixed to the large rest. This small rest is likewise provided with a flange *b³* for the retention of the bottle thereon, such flange *b³* being so located with respect to the stem A and the filling head as to properly center the smaller bottle with respect to such head. To this end it is located more closely to the line of the vertical axis of the stem A than is the flange *a'* formed on the larger rest, and is described on the arc of a circle of smaller radius.

By the aforesaid simple means, it will be clear that the bottle rests of the machine, whatever their number, may be very quickly changed to accommodate different sizes of bottles, it being obviously a matter of much more simple adjustment than to provide means for raising and lowering the stems A, which latter adjustment, as already in-

licated, would still be ineffective to properly center the bottles on the rests by reason of their bottoms being of smaller diameter, and the flange *a'* thus unsuited to locate them in correct relationship to the filling head.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any 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. In mechanism of the class described, the combination of a large bottle-bottom rest and a small bottle-bottom rest, each having an upwardly projecting flange on one side, said small rest being adapted to be detachably fitted upon the large rest with such flanges correspondingly disposed, substantially as set forth.

2. In mechanism of the class described, the combination of a large bottle-bottom rest having an upwardly projecting flange on one side, and a small bottle-bottom rest having a corresponding flange and legs adapted

to fit within and have lateral bearing against the flange of said large rest, substantially as set forth.

3. In mechanism of the class described, the combination of a large bottle-bottom rest having an upwardly projecting flange on one side, a small bottle-bottom rest adapted to be detachably mounted on said large rest and having a corresponding flange, and a clamp-device adapted to detachably secure said small rest to the flange on said large rest, substantially as set forth.

4. In mechanism of the class described, the combination of a large bottle-bottom rest having an upwardly projecting flange on one side, a small bottle-bottom rest having legs fitting within and laterally bearing against said flange, said small rest having a depending side-jaw adapted to fit over the flange of said large rest, and a set screw provided in said jaw and adapted to bear against said flange, substantially as set forth.

Signed by me, this 30th day of April, 1908.

JOSEPH H. CHAMP.

Attested by—

D. T. DAVIES,
Jno. F. OBERLIN.