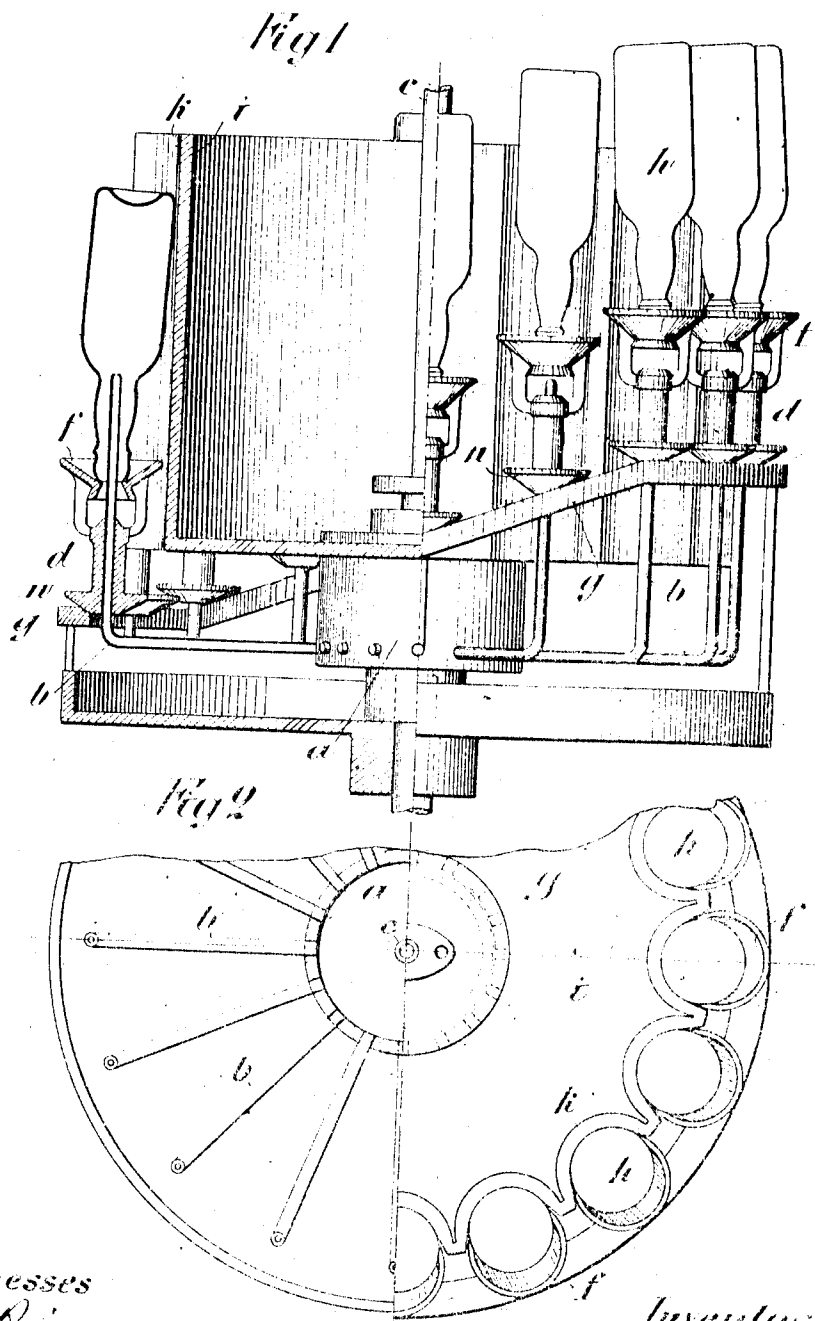


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 APPARATUS FOR RINSING BOTTLES
 APPLICATION FILED SEPT. 11, 1912

1,055,220.

Patented Mar. 4, 1913.



Witnesses
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UNITED STATES PATENT OFFICE.

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APPARATUS FOR RINSING BOTTLES.

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Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed September 11, 1912. Serial No. 719,862.

To all whom it may concern:

Be it known that I, ANDERS ANDERSEN PINDSTOFTE, director, a subject of the Kingdom of Denmark, residing at No. 62 Frederiksberg Allé, Copenhagen, Denmark, have invented certain new and useful Improvements in Apparatus for Rinsing of Bottles; and I do hereby 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.

The invention relates to apparatus for rinsing of bottles previously treated in a bottle cleaning machine.

The apparatus, which is of the kind by which the bottles are inserted upon upward directed rinsing pipes leading from a rotatory water reservoir connected to a source of water under pressure, is characterized by loose bottle supports inserted upon the rinsing pipes and movable along said pipes, and which bottle supports are guided along said pipes by means of a stationary guide in such a manner, that at the place where the bottles are inserted or withdrawn said bottle supports are raised beyond the ends of the rinsing pipes, so that neither said pipes nor the bottles can be damaged during the insertion or the withdrawal of the bottles, while during the time between the insertion and the withdrawal said bottle supports are successively carried down along the rinsing pipes and again upward, thereby causing the bottles during this period to be automatically carried down over the rinsing pipes and again raised beyond the same. The arrangement is further such, that the bottle supports turn around the rinsing pipes during the rotation of the apparatus, so that the bottles are rotated during the rinsing, which of course will be very effectively done.

A constructional form of the invention is illustrated on the drawing.

Figure 1 is a side view of the apparatus partially in vertical section. Fig. 2 is a plan of parts of the apparatus partially in horizontal section.

a is the water reservoir mounted to rotate on the shaft x and provided with a number of upward directed rinsing pipes b and through the pipe c connected to a source of water under pressure, from which the reservoir is adapted to be constantly supplied

with water under pressure. Upon the pipes b bottle supports are mounted, which can be moved along said pipes. Said bottle supports consist of a guide piece d and a funnel-shaped support f . The lower conical part n of the guide piece d travels during the rotation of the reservoir a along a stationary guide g , which is of such a shape, that the supports f at the place when the bottles are inserted and withdrawn (see the right hand side of Fig. 1) are raised beyond the ends of the rinsing pipes, so that neither said pipes nor the bottles h can be damaged during the insertion or withdrawal of the bottles, while during the period between the insertion and the withdrawal of the bottles said supports f are successively carried down along the rinsing pipes (see the left hand side of Fig. 1) and again upward, so that the bottles during this period are automatically carried down over the rinsing pipes and again raised beyond the same.

The construction is adapted to be provided with means whereby the water will be caused to flow through the several distributing pipes b when said pipes enter their respective bottles, *i. e.*, when the bottle supports are at the lowermost positions on the track-way g ; and means may also be provided for automatically closing off the water flow through said pipes when their respective bottles are at the uppermost position on the track-way g . A casing i is secured to rotate with the reservoir a , and has the wall thereof constructed to provide lobes, or recesses k , adapted to receive and support the bottles during the washing operation. Said automatic regulating means for causing the stoppage and permitting of the flow of the washing liquid through the several pipes b consists of an arcuate plate Y , which is stationary and lies against the inner surface of the reservoir a , and in which position it covers and uncovers the openings of the pipes b as said pipes are rotated.

The conical part n of the bottle support is only in contact with the conical guide face of the guide g along a line (see the left hand side of Fig. 1) so that during its travel along the guide it will get a rolling movement. Consequently the bottle supports and the bottles supported by the same will be rotated around the rinsing pipes,

and of course the rinsing of the bottles, which furthermore are held in a slight inclined position, will be very effectively done.

The details described and illustrated may be varied without departing from the principle of the invention.

Claims.

1. In an apparatus for rinsing bottles, the combination of a rotary water reservoir, means for supplying water under pressure to said reservoir, a plurality of rinsing pipes leading from said reservoir, rotatable bottle supports loosely mounted on said rinsing pipes, and a guide formed as a raising and lowering cam, and having frictional contact with said bottle supports, whereby during the rotation of the water reservoir, the bottle supports are caused to move up and down along the rinsing pipes, substantially as described.

2. In an apparatus for rinsing bottles, the combination of a rotary water reservoir, means for supplying water under pressure to said reservoir, a plurality of rinsing pipes leading from said reservoir, rotatable bottle supports mounted on said rinsing

pipes and each provided with a conical part, and a guide formed as a raising and lowering cam, and having frictional contact with said bottle supports, whereby during the rotation of the water reservoir, the bottle supports are caused to move up and down along the rinsing pipes, substantially as described.

3. In an apparatus for rinsing bottles, the combination of a rotary water reservoir, means for supplying water under pressure to said reservoir, a plurality of rinsing pipes leading from said reservoir, rotatable bottle supports mounted on said rinsing pipes, a guide formed as a raising and lowering element coöperable with said rotatable bottle supports for raising and lowering the bottles, and a lobed casing secured to rotate with said reservoir and providing rests for the bottles carried by said supports, substantially as described.

In testimony whereof, I affix my signature, in presence of two witnesses.

ANDERS ANDERSEN PINDSTOFTE.

Witnesses:

MARCUS MOELER,
CHAS. MARTENS.