Dec. 13, 1927.

1,652,599

J. E. AYERS

ADJUSTABLE JET FOR BOTTLE WASHING MACHINES

Filed Nov. 20, 1926

Fig. 1

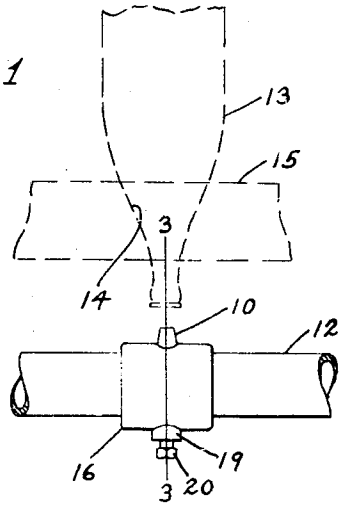


Fig. 2

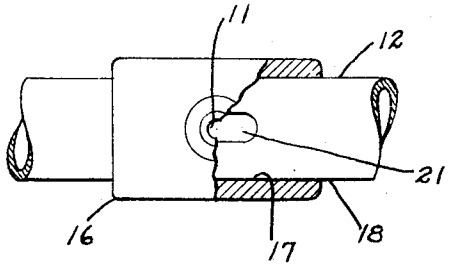
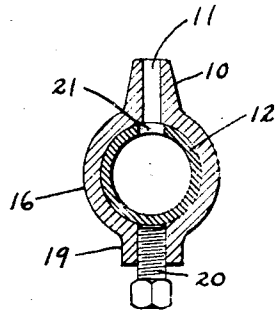


Fig. 3



Inventor
John E. Ayers,
By Louis M. Schmidt
Atty.

Patented Dec. 13, 1927. 1,652,599

UNITED STATES PATENT OFFICE.

JOHN E. AYERS, OF HARTFORD, CONNECTICUT.

ADJUSTABLE JET FOR BOTTLE-WASHING MACHINES.

Application filed November 20, 1926. Serial No. 149,655.

My invention relates to improvements in adjustable jets for bottle washing machines of the form in which in the final cleansing the bottle is positioned in inverted vertical position and a jet of warm water or the like is projected upwardly into the interior of the bottle and in which, furthermore, the bottles are carried along by an intermittent movement by means of an endless chain structure. and the object of my improvement to provide a jet structure in the form of a fixture that has a sleeve-like portion by which it is slidably mounted on the tubular conductor for the cleansing liquid and in which the jet opening is operatively connected with said conductor through the medium of an elongated slot along which the fixture can be adjusted to different positions, as desired, whereby the jet opening will be brought into proper registration with the bottles being operated upon.

In the accompanying drawing:—

Figure 1 is a side elevation showing diagrammatic form and by broken lines part of a cup structure and a bottle supported thereby and in position to be cleansed by a stream of cleansing liquid from the jet and showing in full lines an adjustable jet embodying my invention and the adjacent parts.

Figure 2 is a plan view of the jet and adjacent parts and in part broken away so as to show the slot in the conducting tube.

Figure 3 is a sectional view on the line 3—3 of Fig. 1.

My improved adjustable jet for bottle washing machines comprises an upwardly directed jet 10 that has an opening 11 that connects with the interior of a tubular conductor 12 for the delivery of a cleansing liquid upwardly into the interior of a bottle 13 that is brought into registration with said jet.

The bottle 13 may be supported in any proper manner as by some form of a cup 14 in the form of suitable opening in a carrier 15 that is incorporated in the structure of the endless chain through the medium of which the bottles are moved along in the bottle washing machine.

I find it desirable to provide means for adjusting the jet along the tubular conductor for various reasons, one being the fact that endless chain structures sometimes stretch so as to change the distance of separation longitudinally between the bottles carried thereby.

In the present instance the jet 10 is part of a fixture 16 that is generally in the form of a sleeve-like structure whose opening 17 is a close sliding fit for the portion 18 of the tubular conductor 12 on which it is mounted.

On the bottom of the fixture 16, opposite the jet 10, there is a boss 19 for a set-screw 20 by which the fixture is held in the position to which it is adjusted.

On the upper side of the tubular conductor 12 and covered generally by the walls of the opening 17 in the sleeve-like fixture 16 is a relatively elongated longitudinally directed slot 21 through the wall of the conductor and which is in registration with the delivery opening 11 in the jet 10.

Thus, as described, means are provided for effecting a close adjustment of the jet to the work.

I claim as my invention:—

In a bottle washing machine, a tubular conductor for cleansing fluid having a longitudinally extending slot through its wall, a jet fixture having an elongated sleeve-like body snugly fitting and slidingly mounted on said conductor in position to enclose said slot, said fixture having a nozzle carried by said sleeve, with the aperture of said nozzle extending radially thru said sleeve and being at its inlet end of less diametral extent than the length of said slot whereby said sleeve may, within predetermined limits, be adjusted longitudinally of said conductor while maintaining the nozzle aperture in register with said slot, and means for securing said fixture in adjusted position.

JOHN E. AYERS.