A. N. KETTERER.

JETTING ATTACHMENT.

APPLICATION FILED OCT. 17, 1911.

1,066,285. **Patented July 1, 1913.**

Fig. 1

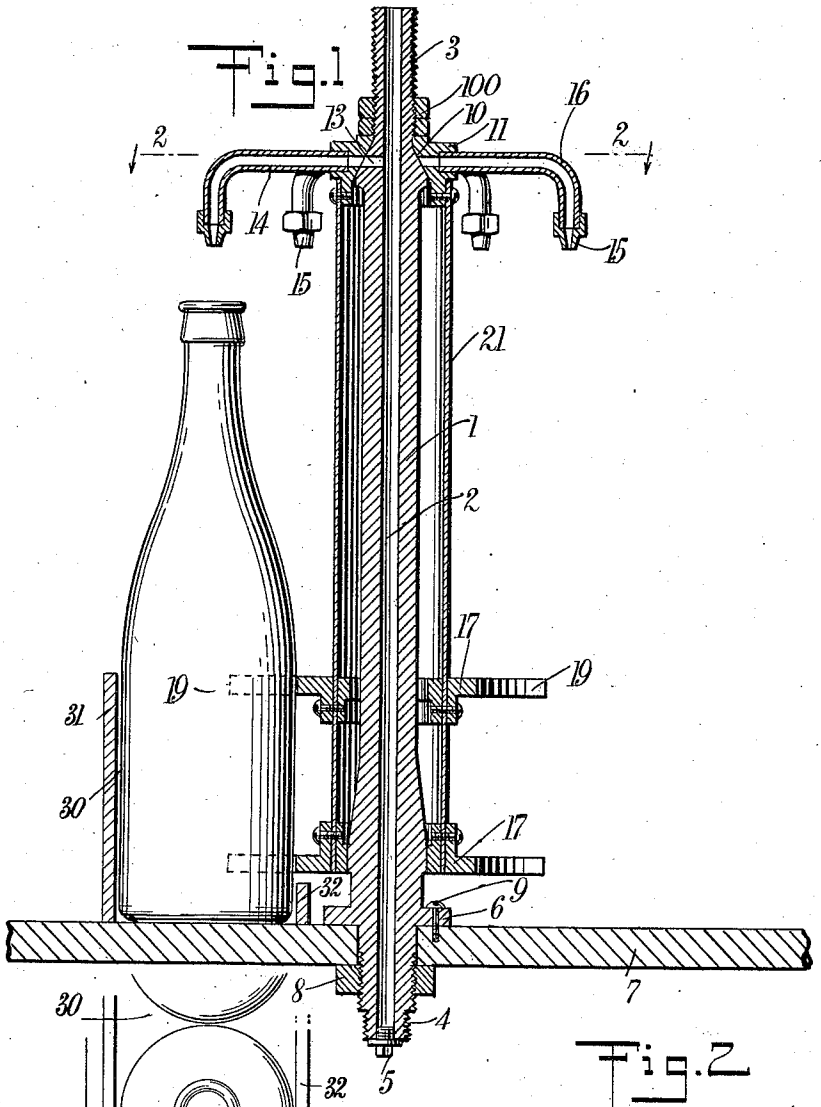
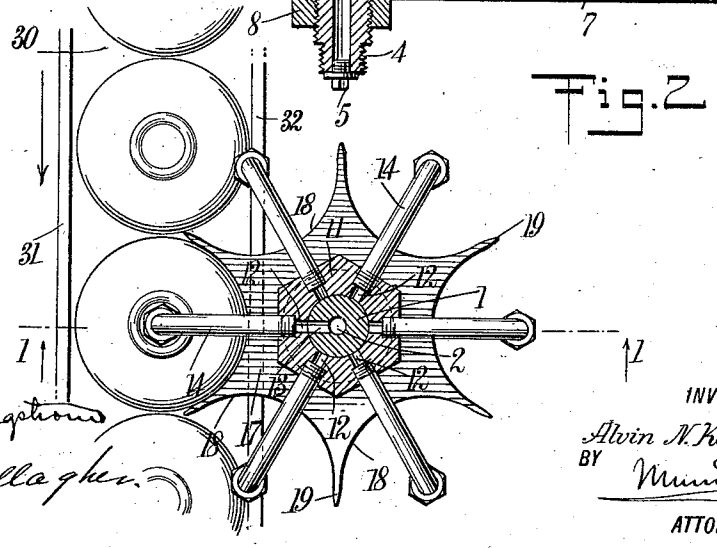


Fig. 2



WITNESSES

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JETTING ATTACHMENT.

1,066,285. Specification of Letters Patent. Patented July 1, 1913.

Application filed October 17, 1911. Serial No. 655,127.

To all whom it may concern:

Be it known that I, ALVIN N. KETTERER, a citizen of the United States, and a resident of St. Joseph, in the county of Buchanan and State of Missouri, have invented a new and Improved Jetting Attachment, of which the following is a full, clear, and exact description.

My invention relates generally to jetting attachments which are used in directing jets of beer into bottles and more particularly it involves a device used for the same purpose as that described and claimed in Letters Patent No. 981,768, issued to me January 17, 1911.

The object of my invention is to provide an improved jetting attachment which can be easily attached to the discharge chute of beer bottle fillers whereby jets of beer may be directed successively into a number of bottles whereby the beer therein may be agitated in order to expel the air therefrom.

A further object of my invention is to provide a jetting attachment of improved construction which consists of few parts and which will be efficient in its operation and which may be offered at a low cost.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a vertical sectional view of my device on the line 1—1 of Fig. 2; Fig. 2 is a horizontal sectional view of my device on the line 2—2 of Fig. 1.

The attachment is designed to be positioned on any suitable support and in close proximity to any bottle filling machine and is made up of the vertically extending element 1 having a bore 2 extending longitudinally thereof, the element forming in effect an upstanding pipe having threaded ends, as at 3, 4, either of which is adapted for connection to a source of supply the end not used being adapted to be closed by any suitable plug 5. The element 1 is provided with a shoulder 6 adjacent one end thereof, this shoulder being adapted to rest adjacent one side of a suitable support 7, there being a securing means, such as a nut 8, engaging the opposite side of this support whereby the element may be secured in position, which position is further insured by providing a pin 9 which extends through the shoulder 6 and into the support 7.

Adjacent the upper end of the element 1 and around the outside, an enlarged portion 10 is provided, the outside of which tapers downwardly, this enlarged portion serving as a seat for a member 11 having a similarly-tapered opening extending therethrough which is rotatably mounted thereon, and suitably held in position by any means, such as lock nuts 100 positioned on the threaded end 3 of the element 1. This member 11 is provided with a plurality of radially extending openings 12 and the upstanding element 1 is also provided with a radially extending opening 13 which is adapted to register successively with each of the openings 12 as the parts are moved relatively to each other. The member 11 is further provided with a number of spouts 14 each of which is provided at its lower end with a suitable tip or nozzle 15, the spouts communicating with the openings 12; in order to provide for directing the material from the spouts into bottles standing in an upright position, each of the spouts is preferably bent, as at 16.

Adjacent the lower end of the upstanding element 1 are a plurality of star wheels 17 embodying a plurality of curved recesses 18 extending inwardly thereon, thereby forming a number of spurs 19, the spurs of the wheels being in register whereby a number of bottles 20 may be securely positioned relatively to the device.

In order to provide for simultaneous movement of the spouts and the bottles the star wheels 17 are secured to the member 11 which carries the spouts by any suitable means, such as a vertically extending sleeve 21, whereby the spouts and the spurs travel together.

The bottles are fed continuously to the succession of recesses 18, through a way 30 formed between the guides 31, 32; the bottles are fed continuously to the way, each bottle coming into the successive recesses 18, the star wheels and the spouts being turned by the movement of the bottles and each bottle being jetted in turn when the spout over it registers with the opening 13 in the upstanding element 1.

Referring particularly to Fig. 1 it will be noted that the star wheels 17 are closely ad-

jacent the bottoms of the bottles and that the width of the way 30 is substantially equivalent to the diameter of the bottles; the conjoint use of such features provides for steady and uninterrupted passage of the bottles inasmuch as the center of gravity of a filled bottle is adjacent these star wheels.

The size of the different parts of the jetting device may be varied to adapt it for use with different bottles and the material of which each part is made may be likewise varied in order to adapt it for use under varying circumstances without departing from the spirit and scope of the invention as defined in the following claims.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent:—

1. A jetting device, comprising a support having a bottle way, a vertical tube secured to the support adjacent the way and having adjacent to its upper end an enlarged tapering portion provided with a lateral opening, a jet body mounted to revolve on the tapering portion of tube and provided with a plurality of lateral openings, downwardly curved spouts secured to the jet body in register with the openings thereof and having nozzles at their ends, a sleeve secured to the jet body and extending downwardly therefrom to within a short distance of its lower end, and star wheels secured to the lower portion of the sleeve one above the other.

2. A jetting device, comprising a support having a bottle way, a vertical tube secured to the support adjacent to the way and having a lateral opening adjacent its upper end, a jet body mounted to revolve on the upper end of the tube and provided with a plurality of lateral openings adapted to register with the opening of the tube, downwardly curved spouts secured to the jet body in register with the openings thereof and having nozzles at their ends, star wheels one above the other and adjacent the lower end of the tube, and means secured to the jet body and carrying the star wheels.

3. A jetting device, comprising a support having a bottle way, a vertical tube secured to the support adjacent the way and having a lateral opening adjacent its upper end, a jet body mounted on the tube and provided with a plurality of radial spouts adapted to register with the opening of the tube, said spouts having downwardly curved ends, and means adjacent the lower end of the tube and carried by the jet body for receiving and holding the bottles in position under the said spouts.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALVIN NEWTON KETTERER.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."