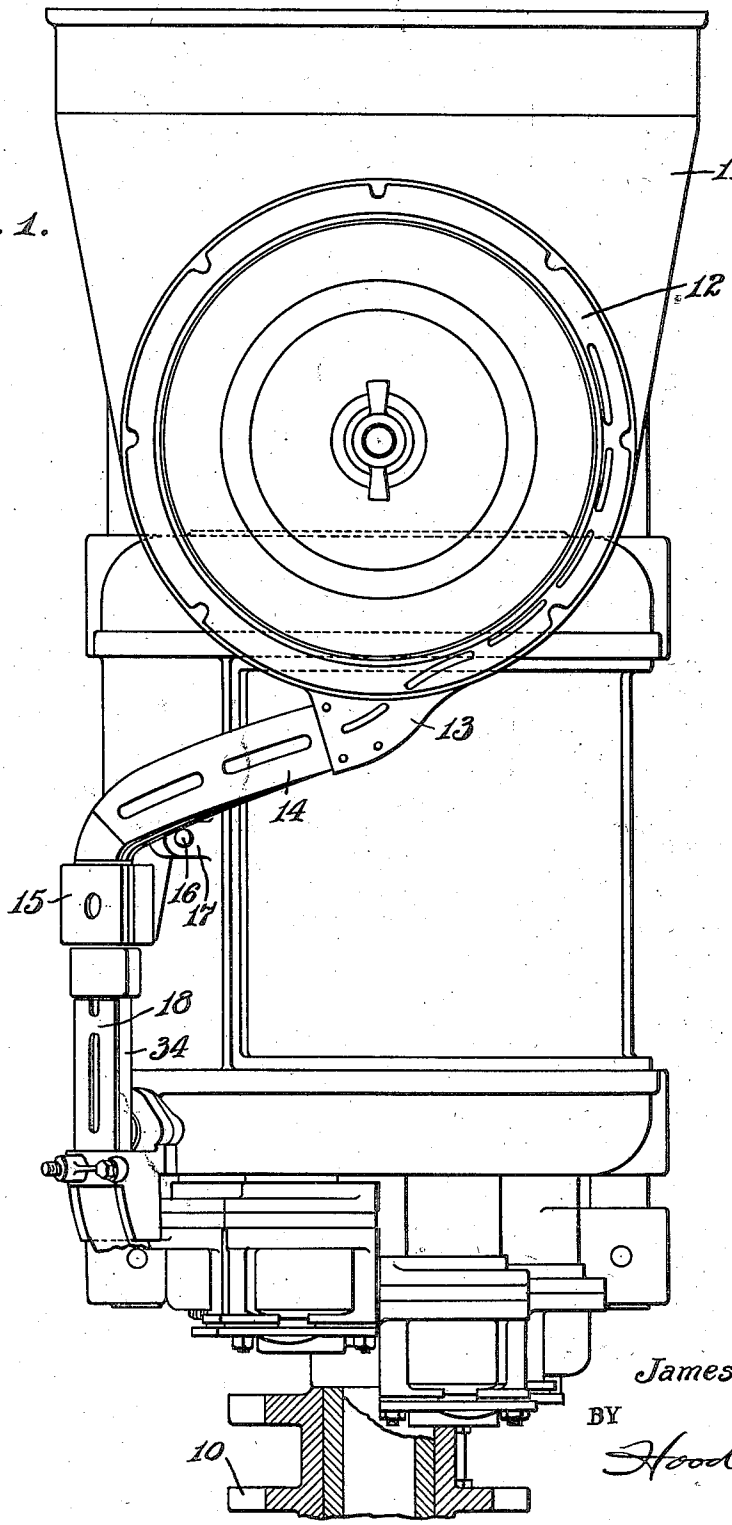
June 18, 1935. J. KANTOR 2,005,585

BOTTLE CROWNING MACHINE

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Fig. 1.



INVENTOR.
James Kantor,
BY
Hood & Hahn.
ATTORNEYS

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Fig. 2.

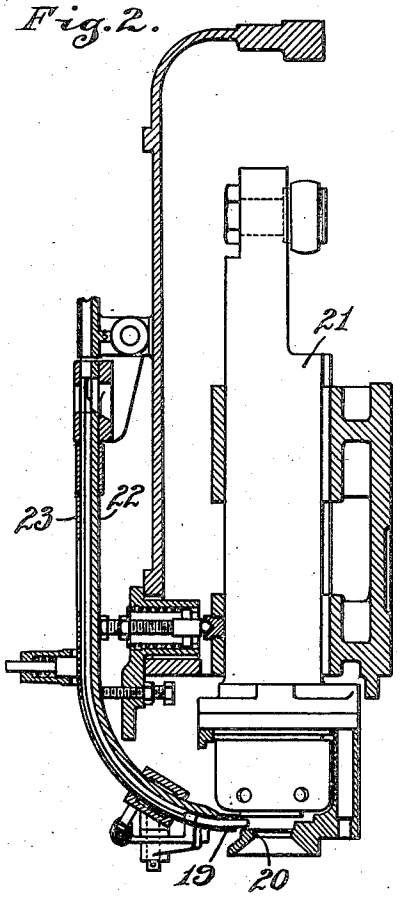


Fig. 4.

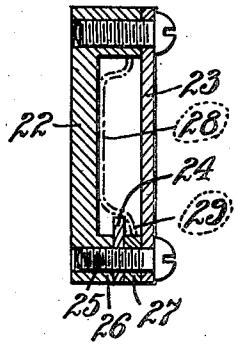


Fig. 5.

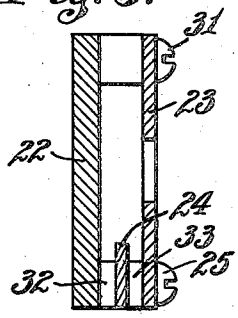
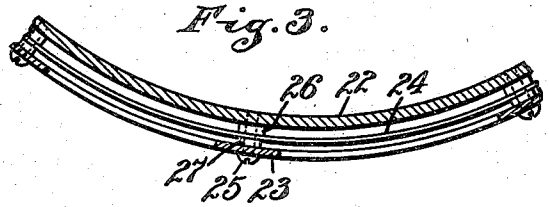


Fig. 3.



INVENTOR.
James Kantor,
BY
Hood & Hahn.
ATTORNEYS

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UNITED STATES PATENT OFFICE

2,005,585

BOTTLE CROWNING MACHINE

James Kantor, Chicago, Ill., assignor to The Liquid Carbonic Corporation, Chicago, Ill., a corporation of Delaware

Application September 5, 1931, Serial No. 561,381

2 Claims. (Cl. 226—88.1)

The present application relates to bottle crowning machines, and more particularly to improvements in the crown chute therefor.

Bottle crowns are furnished to bottlers in relatively large cases, the crowns being rather loosely packed in the cases. A certain amount of dirt and foreign matter such as small pieces of cork, bits of excelsior, straw, wood, and metal chips is always present in the cases. In the past, considerable difficulty has been experienced because of the presence of this dirt and foreign matter which has a tendency to clog the crown chute and, even if it does not have this effect, sometimes gets into the bottles which are being crowned. It is the primary object of the present invention to provide means whereby this foreign matter will be discharged and separated from the crowns before the crowns reach the bottles. Further objects of the invention will appear as the description proceeds.

To the accomplishment of the above and related objects, my invention may be embodied in the form illustrated in the accompanying drawings, attention being called to the fact, however, that the drawings are illustrative only, and that change may be made in the specific construction illustrated and described, so long as the scope of the appended claims is not violated.

Fig. 1 is a fragmental elevation of a portion of a bottle crowning machine to which my improved chute is applied;

Fig. 2 is a fragmental vertical section of a portion of the machine and a portion of the crown chute;

Fig. 3 is a horizontal section through a portion of the crown chute; and

Figs. 4 and 5 are vertical sections taken at spaced points through the crown chute.

The illustrated machine comprises a bottle star 10 constructed and adapted to move the bottles on the platform of the machine from one position to another. A crown hopper 11 is mounted at the top of the machine, and with said hopper is associated a cylindrical casing 12 in which operates an agitator of well known construction. Said agitator conducts crowns from the hopper 11 to a discharge conduit 13 associated with the casing 12, and thence to the crown chute.

The crown chute comprises a section 14 which is substantially horizontal, being slightly inclined downwardly and to the left as viewed in Fig. 1, the lower end of said section 14 being received in the upper portion of a joint member 15 hingedly secured by a pin 16 to a ear 17 on the crowning machine. Another chute section 18 is connected to the lower end of the joint member 15 and leads downwardly, terminating in a mouth 19 disposed adjacent the crown throat 20 with which is associated a crowning plunger 21 of well known construction.

The sections 14 and 18 may be considered as elements of a unitary chute. Said chute is preferably formed of a pair of parallel side members 22 and 23 between which is secured a bar 24. The chute section 18 has been illustrated with a solid wall 34, but it is to be understood that the bar 24 might be substituted for the wall 34. The chute section 14, however, is constructed in the manner illustrated most clearly in Figs. 3, 4, and 5. The walls 22 and 23 and the bar 24 are secured together by means of screws 25, or the like, spacers 26 and 27 being provided, whereby the bar 24 is spaced from both walls 22 and 23 to provide openings 32 and 33, most clearly shown in Fig. 5. The parts are so proportioned that a bottle crown, illustrated at 28 in Fig. 4, will be received in the chute section 14 with its peripheral surface resting upon the upper edge of the bar 24, and with its flange 29 received in the space between the bar 24 and the wall 23, thus projecting into the space 33. It will be obvious that, with the crowns in this position, foreign matter will be permitted to fall through the spaces 32 and 33, thus being discharged from the chute.

If desired, an air jet may be provided to direct a stream of air downwardly through the chute section 14 to assist in the removal of the foreign matter from the chute.

I claim as my invention:

1. In a bottle crowning machine, a crown hopper, a crown throat, and a chute connecting said hopper with said throat, a portion of said chute being inclined slightly from the horizontal, positioned to support the crowns in a vertical plane upon their peripheral edges and being open at its lower edge, and a bar spaced from at least one side wall of said chute portion and disposed in said lower edge of said chute portion and engageable with the peripheral surfaces of crowns in said chute to hold said crowns in said chute while permitting foreign matter to fall from said chute.

2. In a bottle crowning machine a crown hopper, a crown throat and a chute connecting said hopper with said throat, a portion of said chute being inclined slightly from the horizontal, positioned to support the crowns in a vertical plane upon their peripheral edges and being open at its lower edge and a bar spaced from the side walls of the chute portion and disposed in the lower edge of said chute portion and engageable with the peripheral surface of the crowns in said chute to hold said crowns in said chute while permitting foreign matter to fall from said chute.

JAMES KANTOR.