

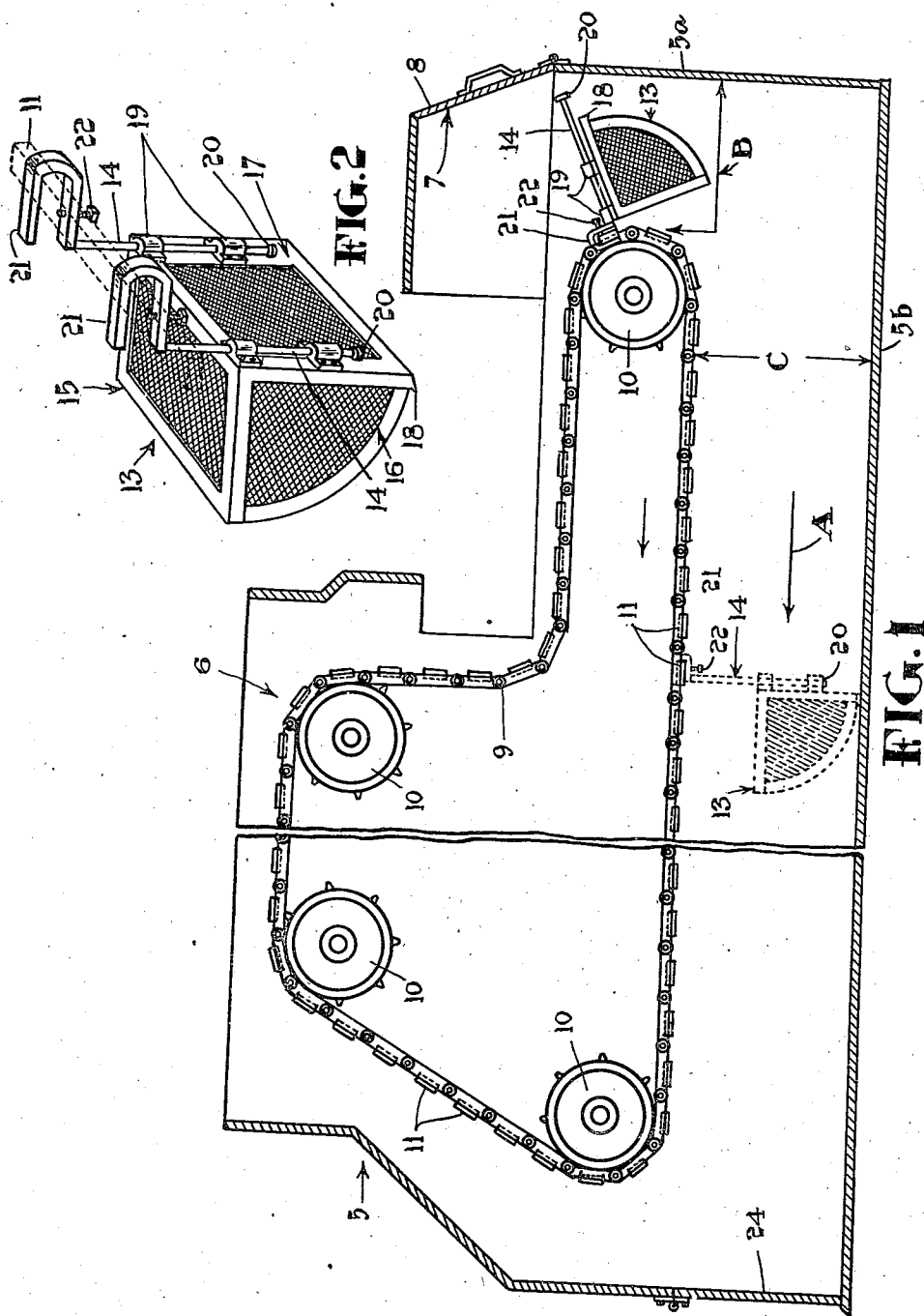
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LABEL SCRAPING ATTACHMENT FOR BOTTLE WASHING MACHINES

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LABEL SCRAPING ATTACHMENT FOR
BOTTLE WASHING MACHINES

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3 Claims. (Cl. 134-104)

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This invention relates to bottle washing machines and the object is to provide improved means for removing the labels which are detached from the bottles during the washing operation and accumulate on the bottom wall of the machine casing.

More particularly, the invention consists in providing a label scraping attachment which may be conveniently passed through the front opening of the bottle washing machine and quickly attached to a part of the bottle conveyor so that, by appropriate operation of the conveyor, the label scraping attachment may be moved rearwardly over the bottom wall of the machine casing in scraping contact therewith and will thus force the labels deposited on said wall toward the rear end of the machine where the labels are continuously removed through a door provided for this purpose.

Other characteristic features and advantages of the invention will be more readily understood from the following detailed description of the accompanying drawing, in which—

Fig. 1 is a longitudinal sectional view of a conventional bottle washing machine and shows our improved label scraping attachment secured to a part of the bottle conveyor.

Fig. 2 is an enlarged perspective view of the scraping attachment per se, the part of the bottle conveyor to which it is attached being indicated by dotted lines.

In this drawing we have shown only those parts of a conventional bottle washing machine which are necessary to an understanding of our invention. Such parts comprise the casing 5 and the bottle conveyor generally indicated at 6.

The casing 5 is provided with the usual front opening 7 normally closed by a hinged door 8. The conveyor 6 comprises side chains 9 (only one of which is shown) trained around suitable sprockets 10 and carry between them transversely extending bars 11.

The scraping attachment provided in accordance with our invention comprises a scraper element 13 equipped with attaching members 14 for securing it to one of the transversely extending bars 11 of the bottle conveyor 6. The scraper element 13 comprises a top member 15, side members 16 and a rear member 17, the latter being provided with a lower scraping edge 18. As here shown the top and rear members 15 and 17 consist of wire cloth or netting secured to open rectangular frame members made of wood or other suitable material. The side members 16 also consist of wire cloth or netting secured to

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suitable substantially triangular frame members made of wood or other suitable material. This provides a bucket-like scraper whose side, rear and top walls tend to confine the labels which pile up in front of the rear wall 17 when the scraper is travelling in the direction indicated by the arrow A.

The attaching members 14 consist of rods slidably mounted in upper and lower brackets 19 carried by the rear member 17 of scraper 13. These attaching members are provided, at their lower ends, with enlargements 20 and, at their upper ends, with U-shaped fittings 21 adapted to be fitted over one of the conveyor bars 11 as shown and secured in place by set screws 22.

In the usual bottle washing machine the clearance B between the front end of bottle conveyor 5 and the front wall 5a of casing 5 is less than the clearance space C between the lower run of the bottle conveyor and the bottom wall 5b of the casing. It will thus be seen that a rigid scraper attachment which is long enough to reach from the lower run of the bottle conveyor to the bottom wall 5b of the casing would be too long to pass through the clearance space B. It is for this reason that we provide a sliding connection between the scraper element 13 and its attaching members 14.

In applying our improved scraper attachment, scraper element 13 and its attaching members 14 are passed through the front casing opening 7 and the U-shaped fittings 21 are fitted over and fastened to one of the conveyor cross bars 11. The sliding connection between scraper 13 and the attaching members 14 permits the scraper 13 to move inwardly along the members 14 to shorten the overall length of the attachment so that it will pass downwardly through the relatively small clearance space B. As the scraper attachment is carried downwardly and rearwardly by operation of the bottle carrier 6 the attaching members 14 gradually assume a vertical position with their enlarged ends 20 directed downwardly and the scraper element 13 slides downwardly on the members 14 until its lower scraping edge 18 comes to rest on the bottom casing wall 5b. The bottle carrier is operated to move the scraper rearwardly to a position close to an opening at the rear end of the casing which is normally closed by a door 24. When the scraper element 13 reaches this position the labels which are pushed along in advance thereof are removed through the door 24. The scraper attachment may then be removed so as not to interfere with subsequent bottle washing operations.

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We claim:

1. A label scraping attachment of the character described comprising a scraper provided with vertically disposed guide brackets, vertically disposed guide rods extending slidably through said brackets and equipped, at their lower ends, with stops engageable with certain of said brackets, and means at the upper ends of said rods for attaching them to a part of the bottle carrier of a bottle washing machine.

2. A label scraping attachment of the character described comprising a scraper element comprising top, side and rear members, vertically extending attaching rods to which the rear member of the scraper element is slidably secured for limited sliding movement in either direction longitudinally of said rods, and means, at the

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upper ends of said rods, for attaching the same to a part of the bottle carrier of a bottle washing machine.

3. A label scraping attachment of the character described comprising a scraper element including top, side and rear members, a pair of vertically extending attaching rods to which the scraper element is slidably secured for limited sliding movement in either direction longitudinally of said rods, U-shaped fittings at the upper ends of said rods adapted to be fitted over a part of the bottle carrier of a bottle washing machine, and means carried by said U-shaped fittings for securing them to the aforesaid part of the bottle carrier.

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