Sept. 29, 1970 M. BABUNOVIC 3,530,971

CONTAINER RINSING AND COMBINING APPARATUS

Filed March 4, 1968 6 Sheets-Sheet 1

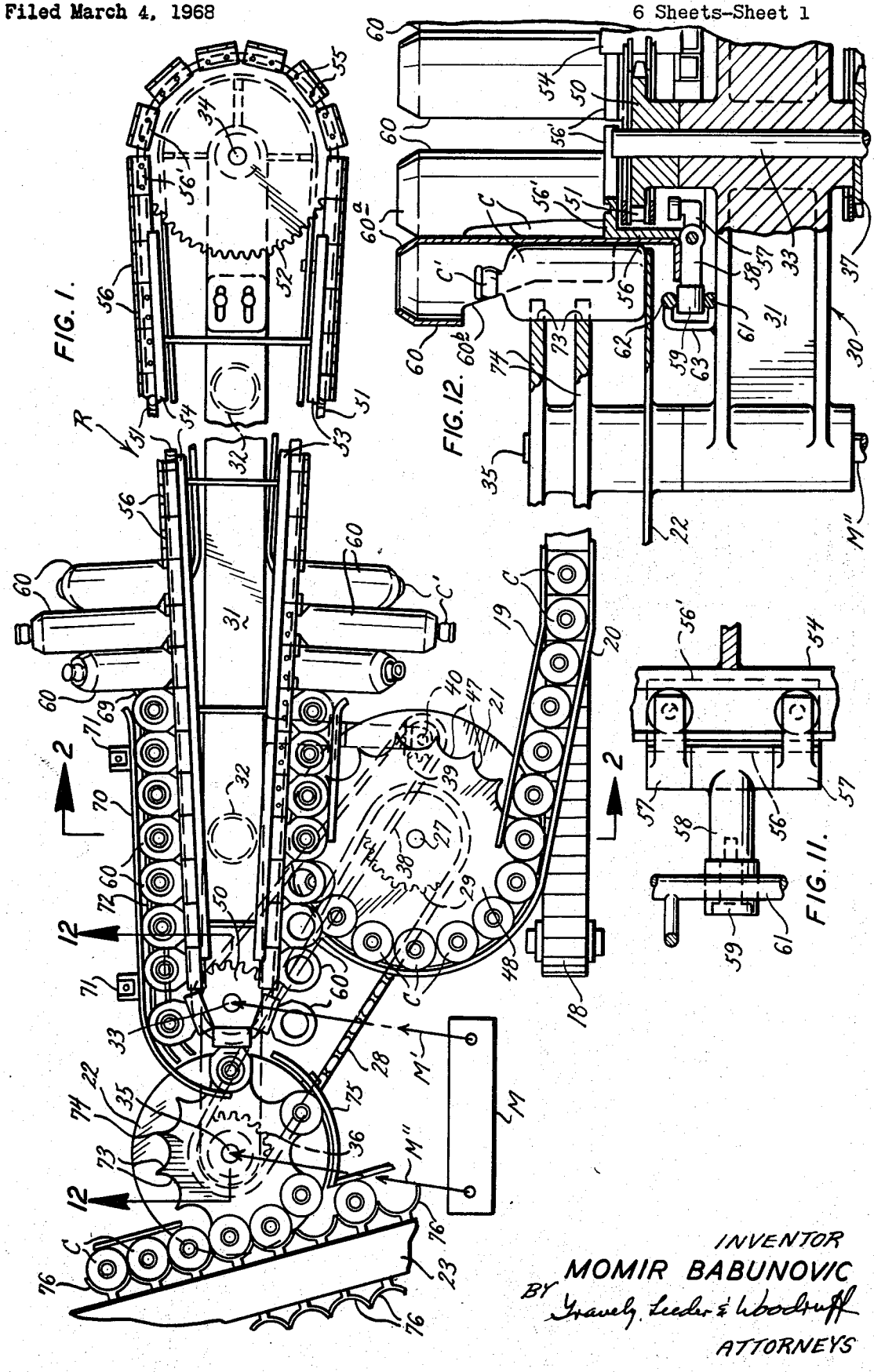


FIG. 1.

FIG. 12.

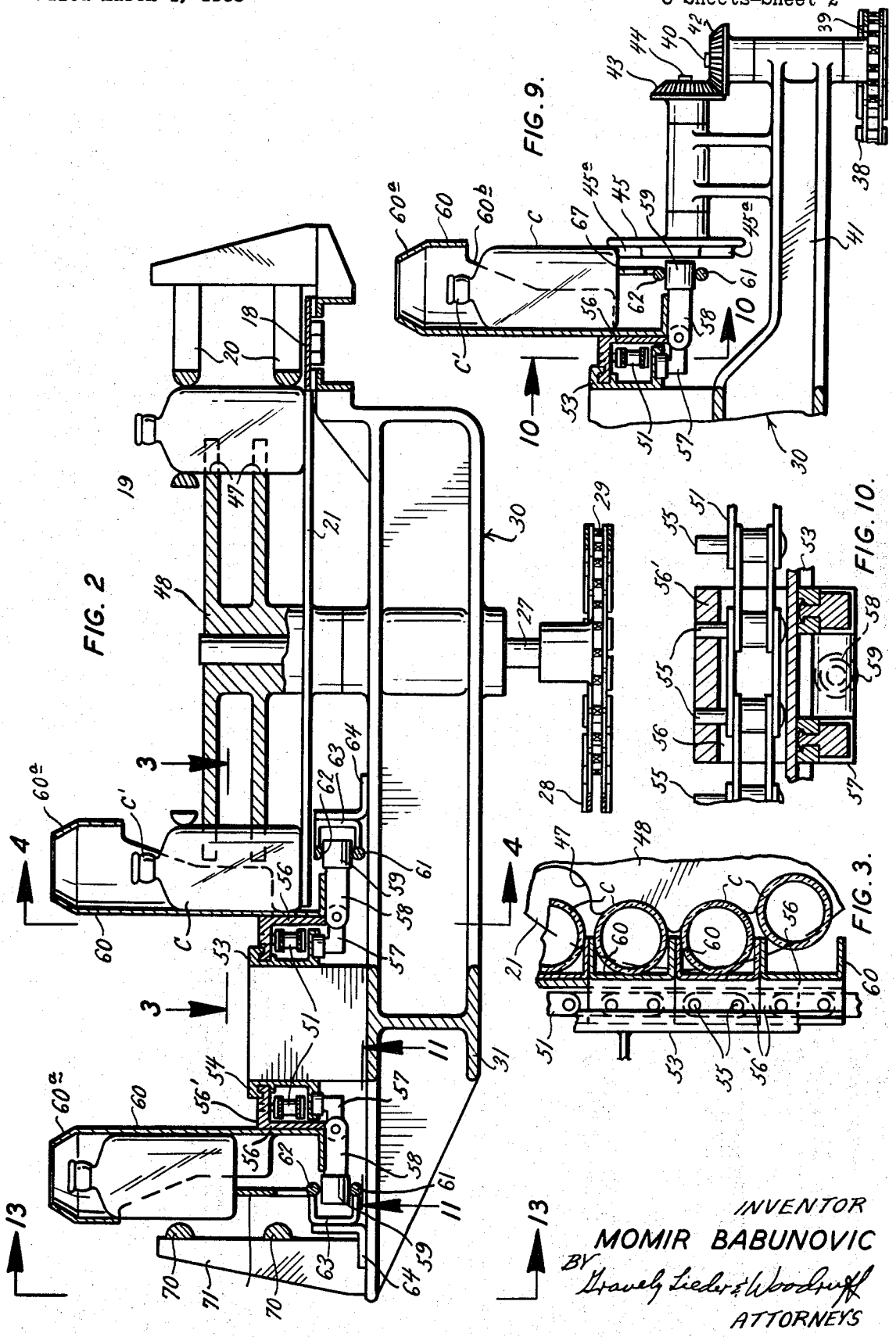
FIG. 11.

INVENTOR
MOMIR BABUNOVIC
BY Gravely, Lieder & Woodruff
ATTORNEYS

Sept. 29, 1970 M. BABUNOVIC 3,530,971

CONTAINER RINSING AND COMBINING APPARATUS

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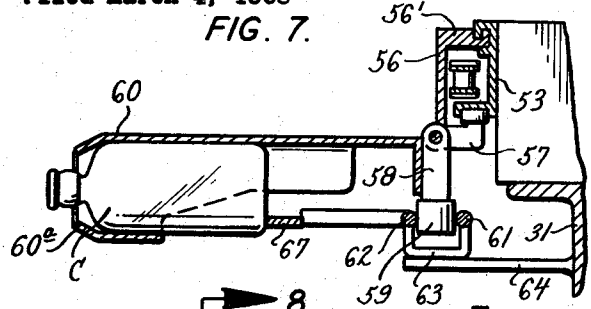


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CONTAINER RINSING AND COMBINING APPARATUS

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FIG. 7.



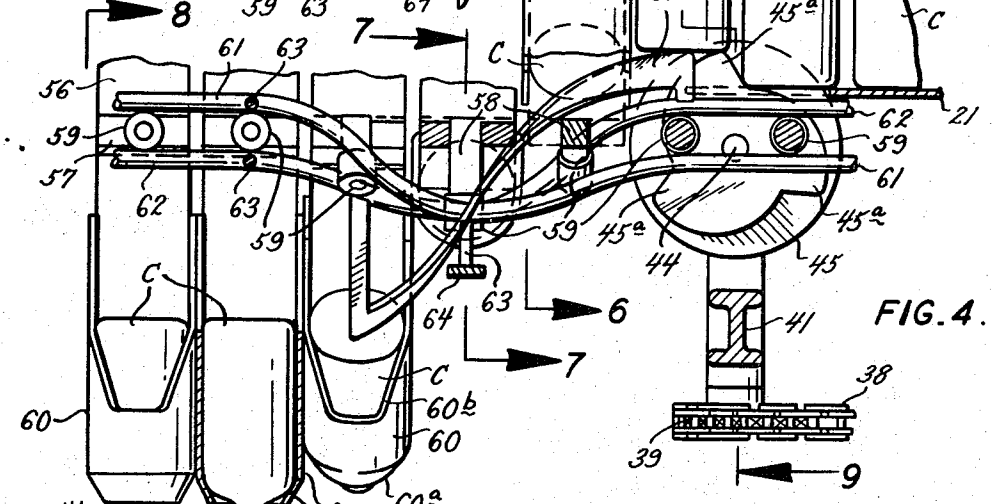


FIG. 4.

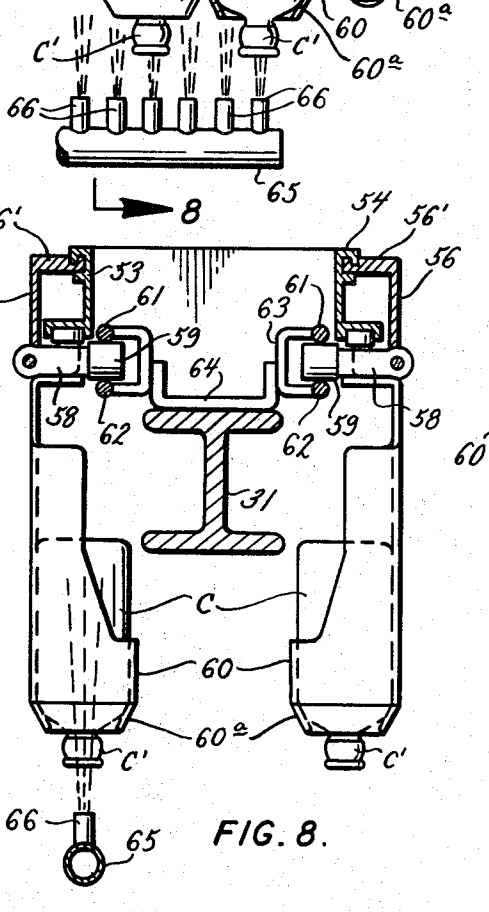


FIG. 8.

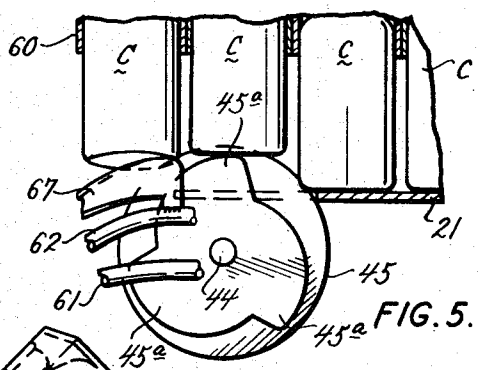


FIG. 5.

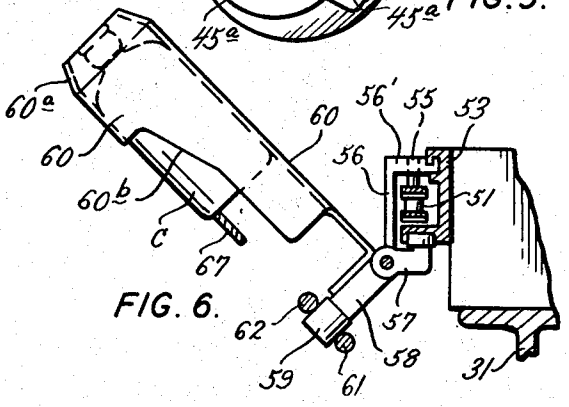


FIG. 6.

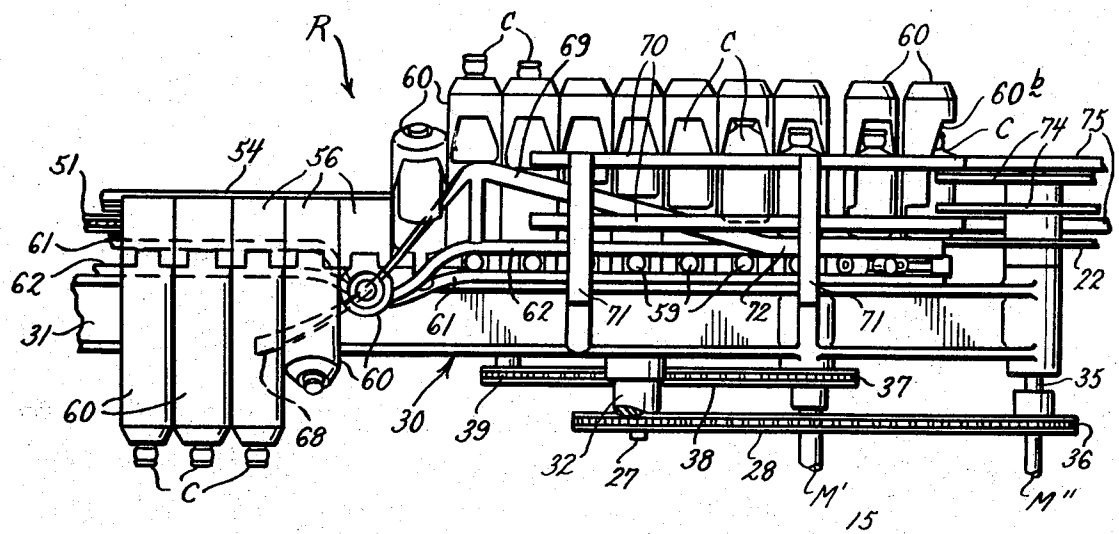
INVENTOR
MOMIR BABUNOVIC
BY Brumley Lieder & Woodruff
ATTORNEYS

Sept. 29, 1970 M. BABUNOVIC 3,530,971

CONTAINER RINSING AND COMBINING APPARATUS

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FIG. 13.



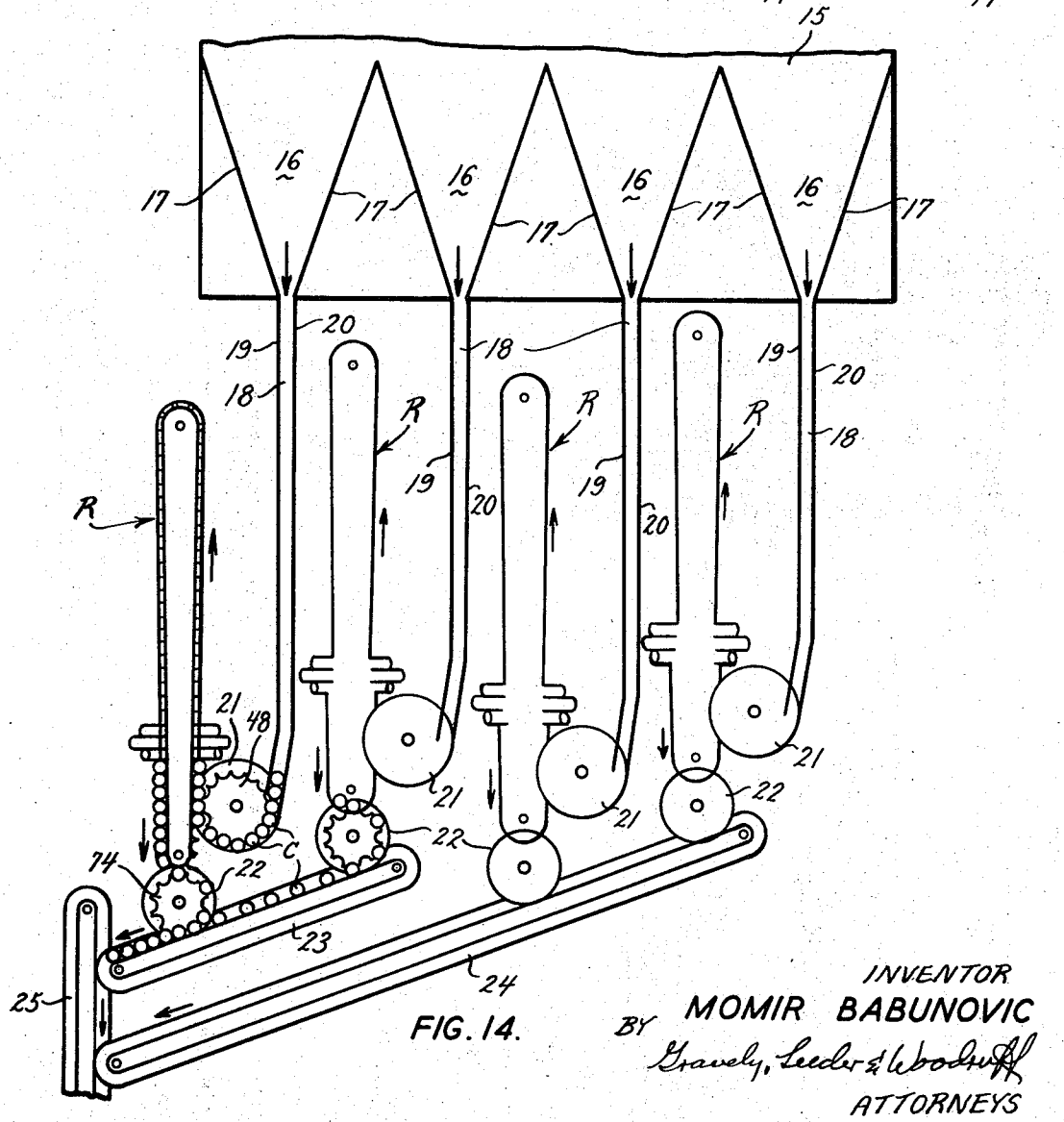


FIG. 14.

INVENTOR
BY MOMIR BABUNOVIC
Gravely, Lieder & Woodruff
ATTORNEYS

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CONTAINER RINSING AND COMBINING APPARATUS

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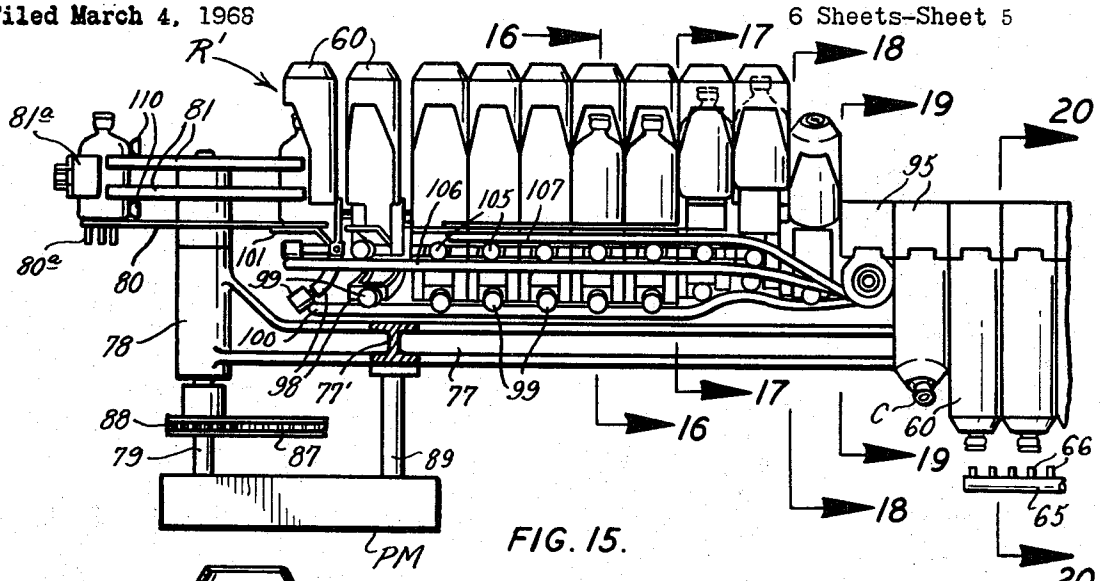


FIG. 15.

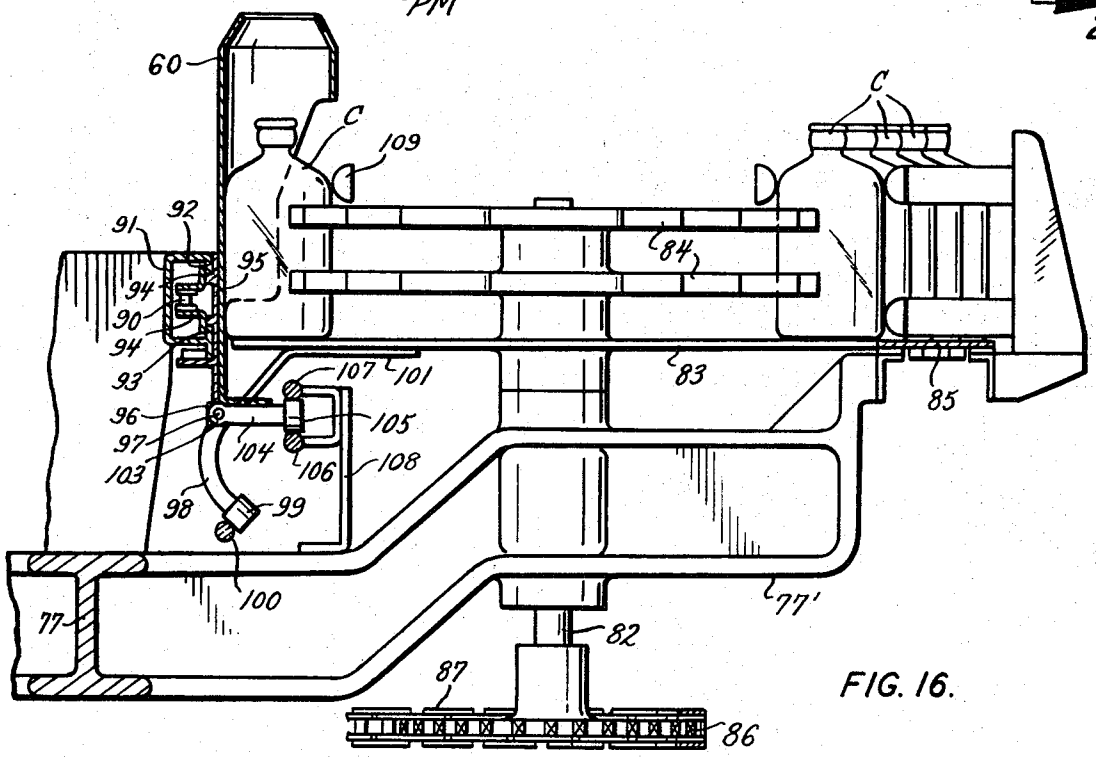


FIG. 16.

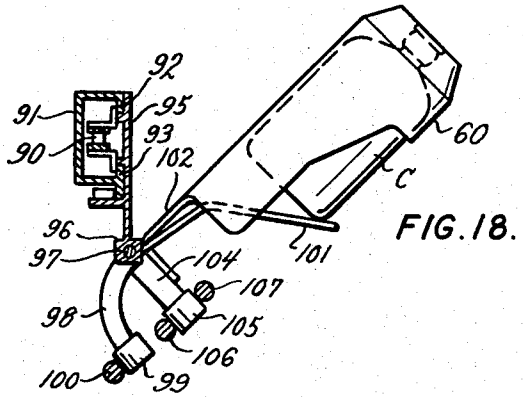


FIG. 18.

INVENTOR
MOMIR BABUNOVIC
BY Gravely, Lieder & Woodruff
ATTORNEYS

Sept. 29, 1970 M. BABUNOVIC 3,530,971

CONTAINER RINSING AND COMBINING APPARATUS

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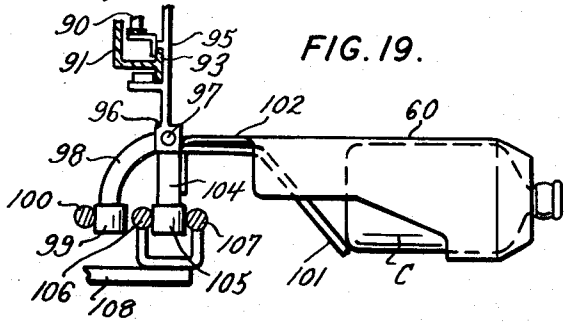


FIG. 19.

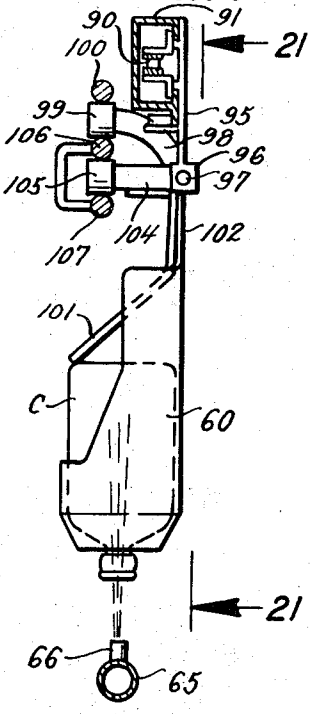


FIG. 20.

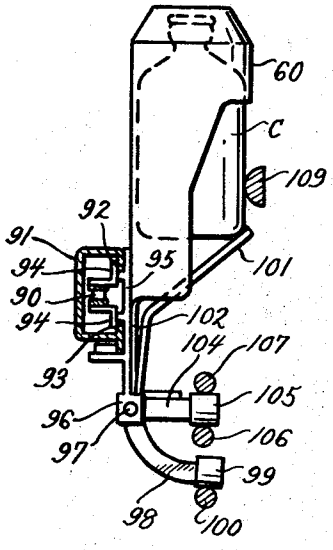


FIG. 17.

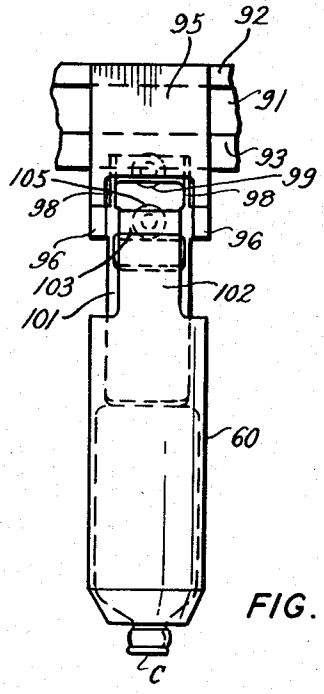


FIG. 21.

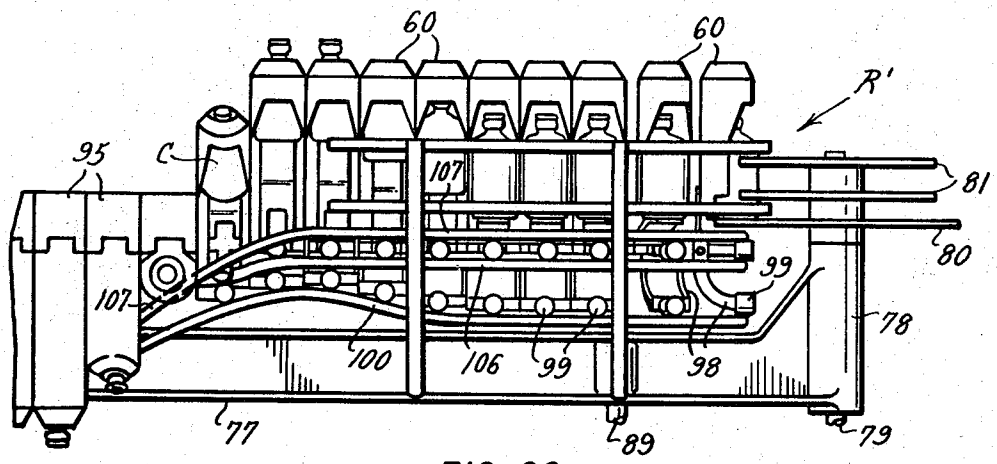


FIG. 22.

INVENTOR
MOMIR BABUNOVIC
BY Gravely, Lieder & Woodruff
ATTORNEYS

United States Patent Office 3,530,971
Patented Sept. 29, 1970

3,530,971

CONTAINER RINSING AND COMBINING APPARATUS

Momir Babunovic, Des Peres, Mo., assignor to Barry-Wehmiller Company, St. Louis, Mo., a corporation of Missouri

Filed Mar. 4, 1968, Ser. No. 710,141
Int. Cl. B65g 47/24
U.S. Cl. 198—33 9 Claims

ABSTRACT OF THE DISCLOSURE

Apparatus for handling containers at high speed and in which the containers are run through a rinsing operation prior to filling and are then combined so that several rinsing operation stations can be utilized to make up the capacity of a high speed filler. The apparatus is constructed to allow time for the rinsing phase which includes injecting draining and flinging the rinsing fluid, all in conveyors having a relatively long run that is doubled back on itself for conserving floor space.

This invention relates to apparatus for rinsing a large volume of containers in a plurality of stations and collecting the rinsed containers in a combined stream sufficient to supply the capacity of high speed processing equipment such as fillers.

Some of the problems that are associated with glass containers are care required to prevent breakage, and maximum speed of handling in a crowd to minimize breakage, scuffing and chipping. There is also the further problem with certain containers that the restricted necks limit the rinsing speed which could be greatly improved if the necks were larger. This latter problem is especially true of the prevailing types of beverage bottles in use.

It is, therefore, a general object of this invention to provide apparatus that can avoid the above recited and other problems while handling containers at greatly increased speeds.

An important specific object of this invention is to provide novel means to rinse containers in a compact path of travel so that space conservation is achieved.

Another important object of this invention is to improve the operation of rinsers so that certain motions and forces can be utilized to result in simplification of the apparatus.

A further object of this invention is to provide a compact rinser apparatus in which containers are handled in continuous single file order and are loaded and unloaded from carrier pockets by an improved and novel arrangement of swinging the pockets transversely to the line of travel.

Still another object of the present invention is to provide a compact and simplified container rinser apparatus which is arranged to receive and discharge containers at high speeds, to quickly and surely invert the containers for rinsing and draining and to quickly restore the containers to normal upright position prior to discharge.

Other and further objects of the present invention will be set forth in connection with the disclosure of a preferred embodiment which is shown in the drawings.

The preferred embodiment of this invention includes a high speed single line conveyor having container holding pockets articulated so as to be able to swing about an axis parallel to the direction of motion between erect and pendent positions, whereby pocket position controlling means can be relied upon to retain the pockets in either the erect or pendent positions as well as to smoothly and rapidly swing the pockets between the pendent and erect positions. The preferred apparatus also includes rotary

means for loading and unloading containers during movement of the conveyor pockets, together with means for elevating the containers into the pockets at the loading station and to lower the containers out of the pockets at the discharge station. The preferred embodiment of the present invention also includes a system for utilizing a plurality of rinsers, each having the above general characteristics, in which the rinsers cooperate to deliver the rinsed containers to high speed conveyor means which will combine the discharge of all of the rinsers into a high speed flow suitable for continuously supplying processing equipment such as high speed fillers.

In the drawings:

FIG. 1 is a fragmentary plan view of a presently preferred embodiment showing certain of the features of the apparatus;

FIG. 2 is a greatly enlarged and fragmentary sectional elevational view taken along line **2—2** in FIG. 1;

FIG. 3 is a fragmentary detailed view taken along line **3—3** in FIG. 2;

FIG. 4 is a fragmentary view of a detail of the apparatus as seen at line **4—4** in FIG. 2;

FIG. 5 is a fragmentary view showing an operating position of the loading cam of FIG. 4;

FIG. 6 is a fragmentary elevational view of the apparatus as seen along line **6—6** in FIG. 4;

FIG. 7 is a view similar to FIG. 6, but in a different condition of operation;

FIG. 8 is a fragmentary sectional elevational view of the apparatus showing the outgoing and returning containers, the view being taken at line **8—8** in FIG. 4;

FIG. 9 is a fragmentary view of the loading cam when seen at line **9—9** in FIG. 4;

FIG. 10 is a greatly enlarged sectional detail taken at line **10—10** in FIG. 9 to show a typical component;

FIG. 11 is a fragmentary detail taken at line **11—11** in FIG. 2 to show a typical component;

FIG. 12 is a greatly enlarged sectional elevational view of portions of the preferred apparatus taken at line **12—12** in FIG. 1;

FIG. 13 is a fragmentary longitudinal elevational view of the apparatus as seen along line **13—13** in FIG. 2;

FIG. 14 is a schematic plan view of one system for the mass handling of containers with the apparatus of this invention;

FIG. 15 is a fragmentary elevational view of apparatus embodying alternate components of the present invention;

FIG. 16 is an enlarged fragmentary view taken at line **16—16** in FIG. 15;

FIGS. 17, 18, 19 and 20 are fragmentary schematic views taken respectively along lines **17—17**, **18—18**, **19—19** and **20—20** in FIG. 15;

FIG. 21 is a view taken at line **21—21** in FIG. 20; and

FIG. 22 is a fragmentary elevational view of the apparatus of FIG. 15 but seen from the opposite side.

The rinsing of containers is a necessary operation in order to be sure that foreign matter is not in the containers fed to a filling machine. This operation is especially desirable with new containers arriving from the manufacturing source so that foreign matter can be eliminated. The containers C arrive in mass lots and are collected by the conveyor **15** of FIG. 14 and moved into slots **16** formed by the angularly related walls **17**. The slots feed the containers C onto table top conveyors **18**, one of which is best seen in FIGS. 1 and 2 with guide rails **19** and **20**. The conveyors **18** direct the containers C onto a rotary table **21** from which they enter the rinser apparatus R. The system of FIG. 14 includes a multiple arrangement of rinsers R which are essentially the same, and which discharge the rinsed containers onto a transfer table **22** where the direction of movement is changed

and the flow is combined into conveyors **23** and **24** which operate at a speed sufficient to combine the flow from two of the rinsers R. The conveyors **23** and **24** may feed any suitable apparatus, such as fillers (not shown), or they may feed a third conveyor **25** which operates at a speed sufficient to combine the output from conveyors **23** and **24**. The combining function of conveyors **23**, **24** and **25** is more particularly set forth in the application for patent of Momir Babunovic, John C. Kay and Jerome F. Shea, Ser. No. 685,838, filed Nov. 27, 1967.

Each rinser R of FIG. 14 is essentially the same and, therefore it will not be necessary to describe the details of more than one, as it may be assumed that the other rinsers are the equivalent in all essential matters. Attention will now be directed to FIGS. 1 and 2, and to other views as is deemed important for a description of a typical rinser R.

As has been pointed out, the containers brought in on conveyor **18** are displaced by guides **19** and **20** on the rotary table **21** which is suitably mounted on a drive shaft **27** driven by a sprocket chain **28** on sprocket **29** located below the frame structure **30** which makes up the support for the various components. Part of the frame consists of a longitudinal beam **31** extending lengthwise of the apparatus and supported by legs **32**. The beam also operatively supports a driven shaft **33** at one end and an idler shaft **34** at the other end. A prime mover M delivers power at M′ to drive shaft **33** and also delivers power at M″ to a third shaft **35** (FIG. 1). The shaft **35** has a sprocket **36** which through chain **28** drives sprocket **29** for shaft **27** (FIG. 2). As will appear presently the shaft **33** has sprocket **37** (FIG. 12) which by chain **38** drives sprocket **39** on shaft **40** (see (FIG. 9). The shaft **40** is bearinged in an arm **41** of the frame structure **30** and has a bevel gear **42** meshed with a similar gear **43** which drives shaft **44** and this results in rotation of a loading cam member **45** later to be referred to.

In FIGS. 1 and 2 the containers C reaching the rotary table **21** are aligned in the peripheral recesses **47** of a starwheel **48** secured to the upper end of shaft **27**. The guide fence **20** continues about the starwheel **48** to retain the containers in the recesses until they are brought into the loading zone of the rinser R.

The rinser R has a driven sprocket **50** on the upper end of shaft **33** which meshes with a conveyor chain **51** (FIG. 12) trained about an idler sprocket **52** mounted on the idler shaft **34** (FIG. 1). The main longitudinal beam **31** of the frame **30** carries longitudinal fixed channel guides **53** and **54** (FIGS. 1 and 2) in which the chain **51** is guided. The chain links are articulated by vertically directed pins **55** (FIG. 10) and each pair of such pins **55** carries a slide bracket **56** having an upper horizontal portion **56′** (FIG. 8) which engages in the chain guides **53** and **54** except where the chain is supported by the sprockets **50** and **52**. The lower portion **57** of each slide bracket **56** forms a pivot journal for an arm **58** having a roller **59** on its outer end (best seen in FIGS. 6, 7, 9, 11 and 12). The arms **58** pivot about the bracket portions **57** such that the container pockets **60** mounted on the arms **58** may pivot therewith, as is best illustrated in FIGS. 6, 7, 8 and 9.

Control over the pivoting action of the pockets **60** is achieved by fixed rails extending about the beam **31**. For example, in FIG. 2 where the pockets **60** are vertically erect rails **61** and **62** holds the rollers **59** therebetween such that the pivot arms **58** are horizontal. The rails **61** and **62** are carried by U-shaped elements **63** fixed by brackets **64** carried on the frame **30**. The elements **63** and brackets are spaced at suitable intervals about the frame to allow the rails to be bent in suitable ways such that the container pockets may be pivoted outwardly and downwardly to a pendant position in which the containers are inverted. This arrangement is best seen in FIG. 4 where the pockets **60** move leftwardly. The right hand

portions of the rails **61** and **62** are arranged with the rail **61** under rail **62** (as in FIG. 9). As the rails enter the twist area, rail **61** is first bent down and then is reversed to emerge at the left above rail **62**, and rail **62** is bent down and emerges below rail **61**. The spacing between rails is, of course, maintained so no binding occurs on the rollers **59**. The progressive twist of the rails can be seen by viewing FIGS. 9, 6, 7 and 8, in order, and following the rollers **59**. In this progression of views, when related to FIG. 4 it is revealed that the pockets **60** of FIG. 4 swing out away from the viewer and then become pendent. This action is confirmed in the plan view of FIG. 1.

As the pockets **60** pivot outwardly and finally reach the pendent atttiude the containers are moved by gravity and the pivoting action of the pockets into the pocket neck **60*a*** which is closed so that the container's open ends emerge and are in position to pass directly over the rinser fluid manifold **65** (FIGS. 4 and 8). The manifold **65** is provided with a plurality of upwardly directed nozzles **66** to deliver the rinse fluid into and over the outside of the containers C. The containers, once they become inverted, remain inverted during the travel outwardly from the loading station and about the idler sprocket **52** and for a substantial part of the travel back toward sprocket **50**.

Turning now to FIGS. 1, 2 and 9 it can be seen that as the containers C are delivered by the starwheel **48** to the successive pockets **60** arriving from the sprocket **50** on the out travel of the pockets **60** toward sprocket **52**, the pockets present the outwardly open sides **60*b*** to the containers. The pockets are held somewhat above the containers so the necks C′ pass under the closed pocket necks **60*a*** and are captured in the pockets **60**. After being captured by the pockets **60** the containers C are transferred to a fixed bar **67** which engages the bottom surfaces. The bar **67** is best seen in FIGS. 4 and 9, and the transfer is effected by the loading cam **45**. The cam **45** has a disc body formed with lifting lobes **45*a*** which move in the direction of container motion (counterclockwise as seen in FIG. 4). The successive lobes push the containers upwardly in the pockets **60** and the elevating action deposits the containers upon the upper edge of the bar **67** where they remain supported. The bar **67** is twisted in appropriate fashion to match the twist of the rails **61** and **62** (FIGS. 4, 5, 6, and 7) so that the neck portion C′ of the containers remain captured by the pockets **60** until the outward pivoting of the pockets has gone sufficiently far to cause the containers to slide fully into the pocket necks **60*a***. The action of the loading cam **45** and bar **67** is greatly assisted by the high speed travel of the pockets **60** so that the outward pivoting (FIG. 6) of the pockets **60** from the base ends of the containers flings the containers fully into the closed neck portion **60*a*** of each pocket. Complete control of each container is thus assured.

Having moved out to the idler sprockets **52** and returned on the inward pass of the conveyor chain **51**, the pendent pockets **60** (FIG. 13) are again swung to the vertically erect attitude by a second twisted arrangement of the rails **61** and **62** which guide the rollers **59** back to horizontal positions (FIG. 2, at the left side). During the reverse twist in rails **61** and **62**, the bottoms of the containers engage on a cam bar which has an upwardly directed portion **68** effective to retain the containers fully in the respective pockets **60** until the pockets are fully erect. The cam bar includes a container lowering ramp **69** (FIG. 2) which coincides with guard rails **70** carried on stanchions **71** attached to the frame **30**. The lowering ram **69** has a horizontally directed portion **72** which has its upper edge at the same level with the rotary table **22** mounted on shaft **35**.

The pockets **60** move the containers into registery with peripheral recesses **73** of a pair of starwheels **74** carried by shaft **35** so as to rotate with the table **22**. The guard rails **70** curve over a portion of the table **22** until the containers rest thereon. The curved travel of the pockets **60**

at the table 22 cause the containers to move out toward the starwheel recesses 73 such that a pick-off rail 75 (FIG. 1) can operate to cause the containers to leave the pockets 60 and move circularly with the table 22 and starwheels 74. The final operation of the table 22 and starwheels 74 is to register the containers with alternate pockets 76 carried on the discharge conveyor 23.

The operation of the rinser apparatus R described in FIGS. 1 to 13 is understood to be typical of each rinser R shown in FIG. 14. To review the important aspects of the rinsers R, it can be understood now that containers C are fed to each rotary loading table 21 and are caused to traverse a curved path to bring the speed up to that of the rinser conveyor 51 so the containers are smoothly deposited in the pockets 60. A cam 45 at each loading station raises the containers into successive pockets 60 and a fixed cam bar 67 holds the containers in the pockets during the outward and downward pivoting action of the pockets to invert the containers over the rinser spray nozzles 66. The containers are thoroughly rinsed and then remain pendent during the outward and return travel so that sufficient time is provided for drainage. The pendent pockets then go through a rapid reinverting pivoting action at the erecting station, which action throws off the rinse fluid in a flinging motion due to the high speed, and keeps the containers securely in the pockets until the fixed cam bar 68 engages the container bottoms to control the same. Thereafter the cam bar ramp 69 lowers the containers to the level of the rotary discharge table 22 and the now rinsed containers are transferred from the table 22 to the discharge conveyor 23 (or conveyor 24 as the case may be) for combining with containers from adjacent rinsers R. In such an apparatus layout the rinsers can be greatly compacted and run at high speed to match the capacity of the combining conveyors 23 and 24. The components of each rinser R are arranged to promote rapid and secure loading and unloading of the containers. The flinging action of the swinging pockets 60 cause the containers to stay in the pockets during the inverting and erecting phases, and this is a significant improvement in rinsers as it allows the use of simple means to achieve the good results evident in this embodiment. This flinging action is assisted by providing closed neck portions 60*a* on each pocket 60.

Turning now to FIGS. 15 to 22 inclusive there is disclosed a modification which may also be a preferred embodiment of the apparatus. The apparatus R' includes a suitable general frame 77 having a bearing housing 78 for a shaft 79 driven by a prime mover PM of any convenient character. The shaft 79 drives a rotary plate 80 similar to plate 22 in FIG. 1, and peripherally recessed star wheels 81 are also driven by the shaft 79. An arm 77' of the general frame 77 operatively supports a shaft 82 (FIG. 16) which drives a rotary plate 83 similar to plate 21 in FIG. 1. The shaft 82 also drives a pair of peripherally recessed star wheels 84 (like starwheels 48 in FIG. 1) which regulate the feeding of the containers C between the delivery conveyor 85 and the conveyor means in the present apparatus. Shaft 82 is provided with a sprocket 86 connected by chain 87 to a sprocket 88 on shaft 79.

The shaft 89 in FIG. 15 is driven from the prime mover PM and operates a conveyor sprocket (not shown but similar to sprocket 50 in FIG. 1) which moves the container pockets 60. The individual pockets 60 are mounted on selected links 90 (FIG. 16) of a suitable roller chain which runs in a guide channel 91 having marginal flanges 92 and 93 at top and bottom to guide the links 90 of the roller chain by the link ears 94. The link ears carry a pivot bracket 95 which is provided along its lower margin with a bearing boss 96 for a pivot pin 97. The boss 96 (FIG. 21) is bifurcated to receive therebetween the bifurcations of a yoke bracket 98 (FIGS. 15 and 21) which carries at its lower end a roller element 99. The roller 99 is made to follow a rail 100 suitably supported from the general frame 77 (not necessary to show). The bracket 98 also is part of a container control leaf 101 which moves with the motion of the bracket roller 99 on the rail 100. The control leaf 101 is normally positioned in a substantially horizontal attitude as the conveyor chain traverses the end turn (FIG. 15) about the axis of shaft 89, and the leaf is caused to pass just beneath the rotary table 80 (FIG. 15) as well as the table 83 (FIG. 16).

Each pocket 60 is formed with an extension 102 (FIG. 21) that forms a bearing hub 103 mounted on pin 97. The hub 103 is provided with an arm 104 which carries a roller 105 adapted to cooperate with rails 106 and 107 suitably supported in spaced relation by bracket means 108 (FIG. 16). It is understood that bracket means 108 and the rails 106 and 107 vary in shape and location about the apparatus in order to control the position of the pockets 60, and the rail 100 also varies its position to regulate the control means 101 relative to the pockets 60.

The shape and relationship of the rails 106 and 107, as seen in FIGS. 17, 18, 19 and 20, causes the roller 105 to tilt the arm 104 which swings the pocket 60 clockwise about pivot pin 97 from the erect position of FIG. 15 to the inverted position of FIG. 20. This action occurs in a relatively short time and thus the container C is forced or flung fully into the pocket. During the pocket swing, the rail 100 also curves about and holds the control leaf 101 against the bottom of the container so that in the jet rinse position of FIG. 20 the force of the jet cannot lift the container. However, prior to reaching the position of FIG. 18 the rail 100, seen in FIG. 16, holds the leaf 101 in a position to receive the bottom of the container and thereby support the container. A guard rail 109 (FIGS. 16 and 17) aids in holding the container until the curve of the rail 100 causes the leaf 101 to lift the container fully into the closed neck portion of the pocket 60.

The apparatus of FIGS. 15 and 21, is arranged to swing the pockets with the containers therein to an inverted rinse and drain position (FIG. 15) and, after a period of drain time, to swing the pockets to the erect position (FIG. 22) in preparation for discharging the rinsed containers from the pockets 60 and reloading from the table 83 (FIG. 16). The rinsed containers are discharged onto rotary table 80 (FIGS. 15 and 22) where with the aid of guide rails 81 they are placed on a high speed conveyor represented by the skid bars 80*a* and the chain actuated pockets 81*a*. The pockets 81*a* work in conjunction with guide rails 110 to retain the containers in transport position. The lowering of the containers onto table 80 is effected by the control leaf 101 being moved as its arm 98 and roller 99 follows the rail 100 in the manner disclosed in FIG. 22.

The operation of the modified apparatus of FIGS. 15 to 22 is substantially like that for the apparatus of FIG. 1 and no detailed description is deemed necessary. The difference in apparatus is that the control leaf 101 of FIG. 17 acts throughout the loading, rinsing, draining and unloading phases to maintain engagement with the container in each pocket. It is understood, of course, that the container rinser apparatus R' of FIGS. 15 to 22 may be used in place of the apparatus R in the system shown in FIG. 14.

The foregoing description of the preferred embodiment is not to be interpreted as unduly limiting the scope of apparatus which will achieve the end result sought herein. Furthermore, having read and understood the foregoing description in connection with the accompanying drawings, it will become evident to those skilled in this art that changes and modifications might be made in the operating components.

What is claimed is:

1. In a container handling apparatus: a horizontally movable conveyor means defining a path of movement

between a container loading station and a container unloading station, pivot forming means carried by said conveyor in spaced series relation, a container pocket having a base end and a closed neck, and being connected to each pivot forming means adjacent the base end of said pocket, each said pocket having an open side at the base end for container reception and discharge and said closed neck portion receiving the container neck, first means adjacent the loading station to move the containers through said open side and into said closed pocket neck portion, second means adjacent the unloading station to control the movement of containers out of the closed pocket neck portion and outwardly of said open side, pocket position control means extending from said loading station to said unloading station, follower means connected to each of said container pockets and engaged with said control means, said control means effecting outward pivoting movement of each pocket between a neck-up erect position for loading and unloading containers and a neck-down pendent position for inverting the containers, and power means operating said conveyor means whereby the successive pockets are caused to move into and out of downward pendent positions with the container necks seated in and exposed through said closed neck portions of the pockets.

2. The apparatus set forth in claim 1 wherein the height of said open side of said pockets is greater than the container height.

3. The apparatus set forth in claim 1 wherein said cam means includes a pair of rail means extending lengthwise of said conveyor means and formed with twisted portions operable to cause said cam follower means to pivot the associated pockets between erect and pendent positions.

4. The apparatus set forth in claim 3 including container position control means for each pocket, other rail means adjacent said first mentioned pair of rail means, and follower means connected to said position control means to engage said other rail means and control the loading and unloading of the containers.

5. The apparatus of claim 1 wherein said path of movement of said conveyor means includes a single pass outwardly from said loading station and a single pass inwardly to said unloading station, said loading and unloading stations being on opposite sides of said conveyor means and said outward pass being connected to said inward pass at a point remote from said loading and unloading stations.

6. In container handling apparatus: a horizontally directed conveyor having spaced container loading and unloading stations and a path of movement connecting said stations, a series of pivoted brackets on said conveyor, a container carrying pocket connected to each said bracket, each pocket having an outwardly open side and a closed neck portion with an axially open end, first means adjacent said loading station to move containers into the open sides of successive pockets and to lift the container necks axially into said closed neck portions with the neck open through said axially open ends, second means adjacent said unloading station to control the

movement of the containers out of said closed neck portions for release through the open sides of said pockets, means to drive said conveyor, and pocket position control means operably connected to said pockets adjacent said pivoted brackets and effective to swing the successive pockets outwardly from said conveyor and downwardly into pendent positions and to swing said pockets upwardly again into erect positions, said control means including fixed elements extending substantially horizontally adjacent said conveyor and follower means engaged with said fixed elements, said fixed elements extending from said loading station to said unloading station.

7. The apparatus of claim 6 and having other means operated by said position control means to retain the containers in said pockets between said stations.

8. The apparatus of claim 7 wherein said other means includes pivoted elements engaging the containers in said pockets throughout substantially the movement between said stations.

9. In container handling apparatus: conveyor means movable in a closed horizontal path having a container receiving station and a container discharge station; container pockets having an open base portion and a container neck receiving seat; means pivotally connecting said base portion of said pockets to said conveyor means in series alignment; pocket position control means extending substantially horizontally along said closed path of said conveyor means from said receiving to said discharge stations; follower means connected to each of said pocket pivot connecting means and engaged with said position control means to determine the position of said pockets; said position control means having a first portion adjacent said container receiving station positioning said pockets in a substantially upright position to receive containers, a second portion adjacent said container discharge station positioning said pockets in a substantially upright position to discharge containers, and a third portion extending between said first and second portions and operative through said follower means to swing said pockets outwardly relative to said path of movement and into substantially inverted positions with said container neck receiving seats below said horizontal path of conveyor movement; and means adjacent said container receiving station operative to lift containers upwardly into said pockets toward said neck receiving seats.

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RICHARD E. AEGERTER, Primary Examiner

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