L. F. BURGHARDT.

LABELING MACHINE.

APPLICATION FILED JUNE 1, 1920.

1,385,303.

Patented July 19, 1921.

4 SHEETS—SHEET 1.

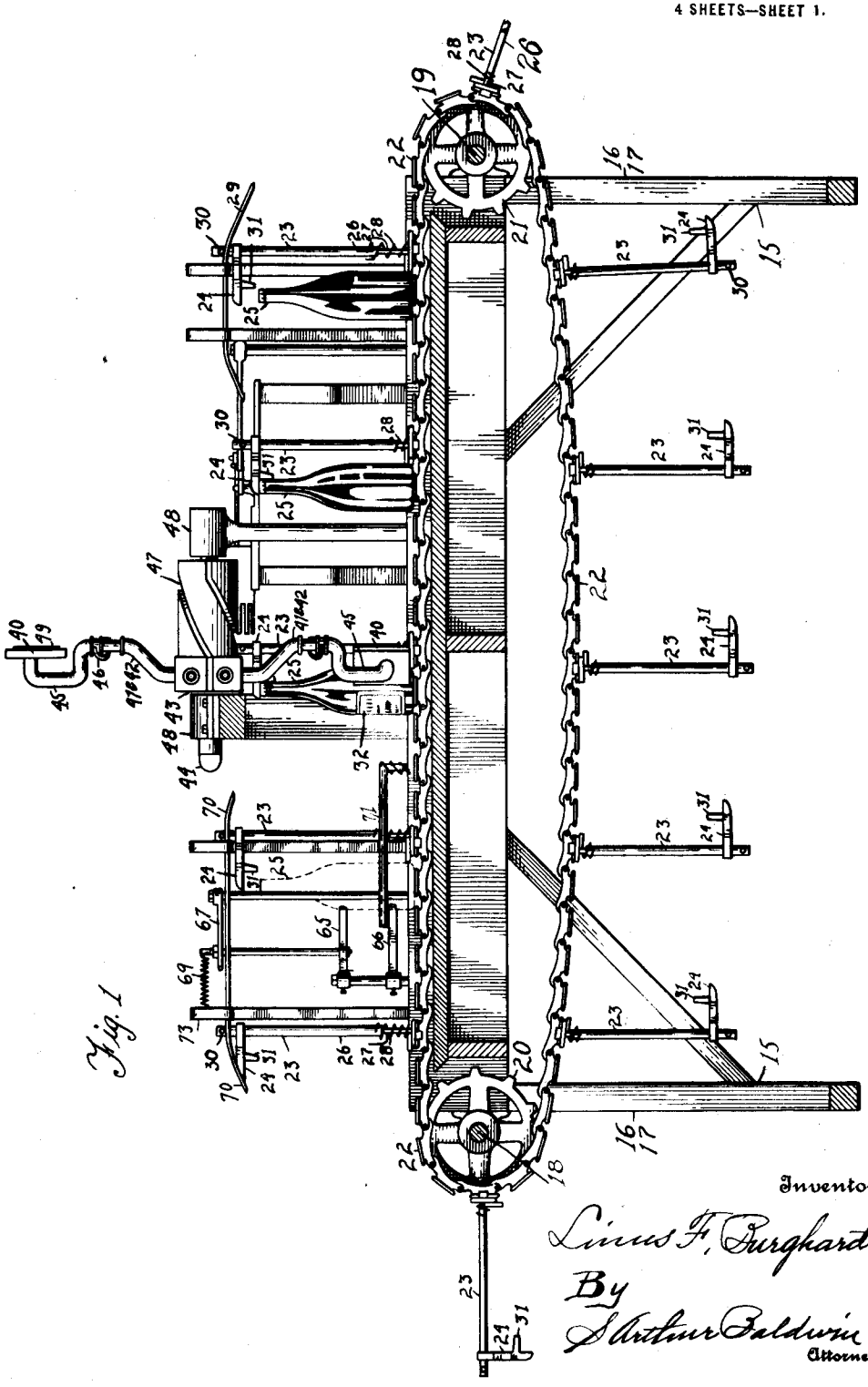

Fig. 1

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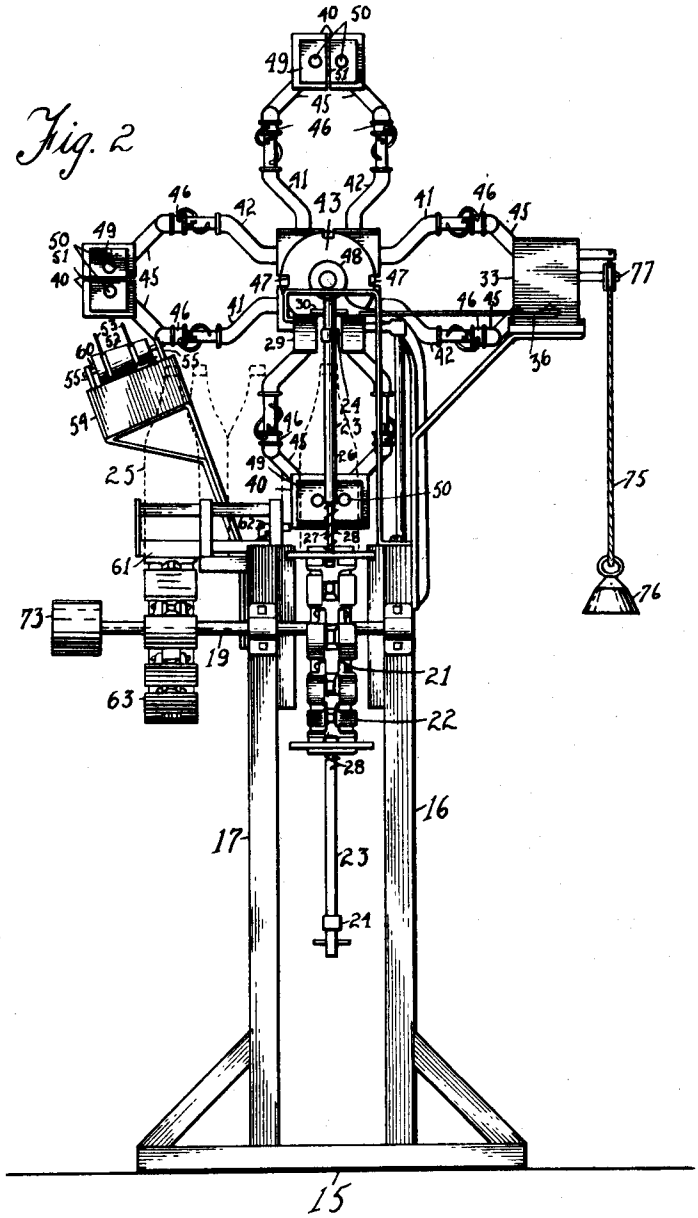
4 SHEETS—SHEET 2.

Fig. 2



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4 SHEETS—SHEET 3.

Fig. 4

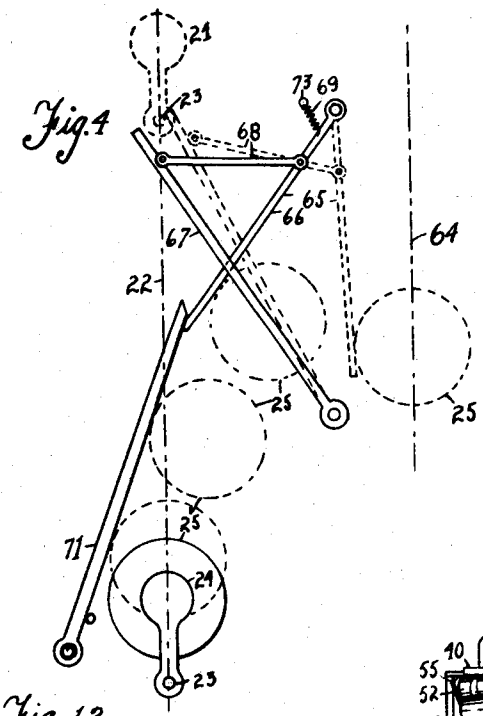


Fig. 12

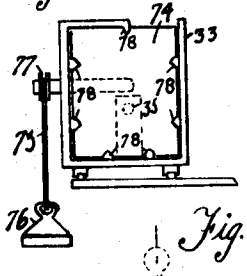


Fig. 5

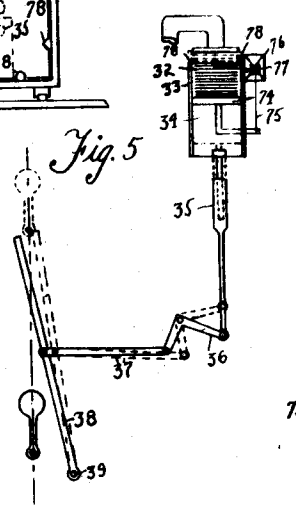


Fig. 6

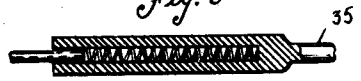
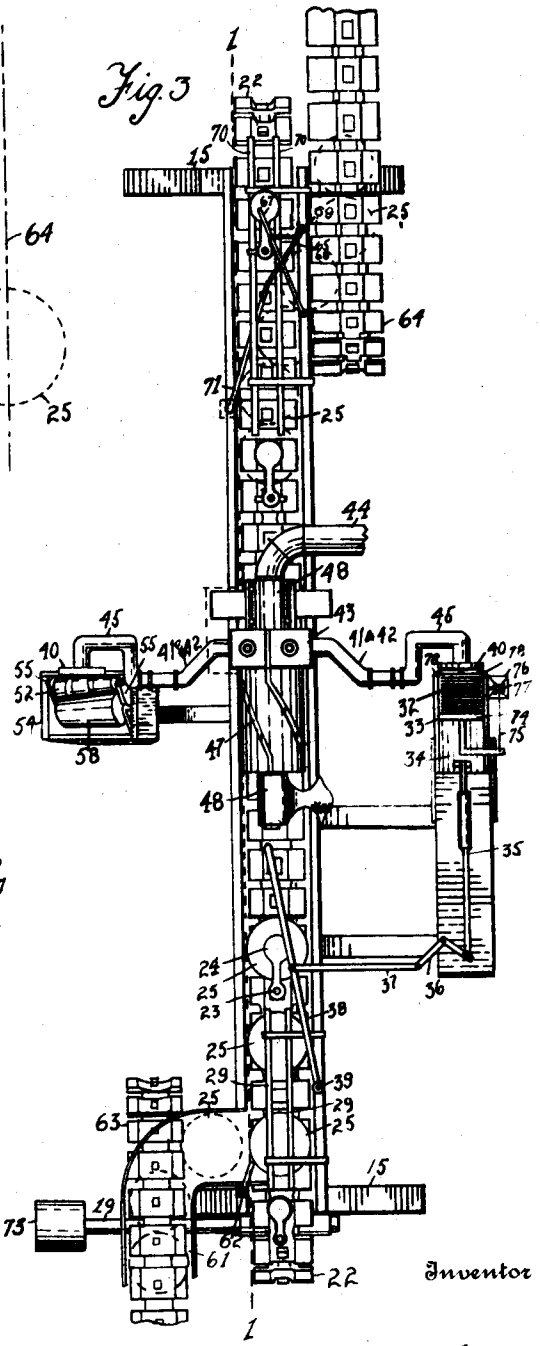


Fig. 3



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4 SHEETS—SHEET 4.

Fig. 7.

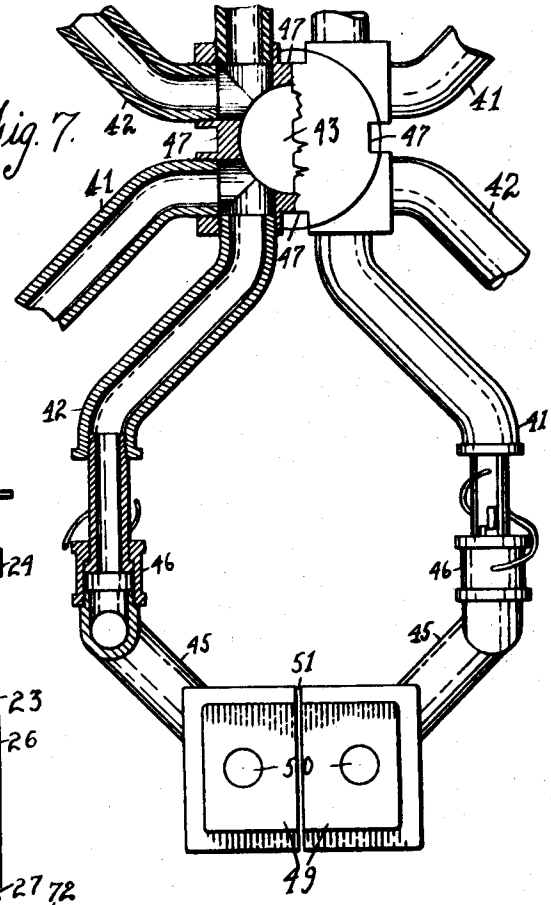


Fig. 9.

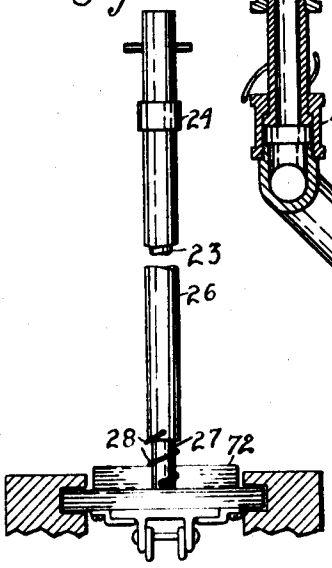


Fig. 8

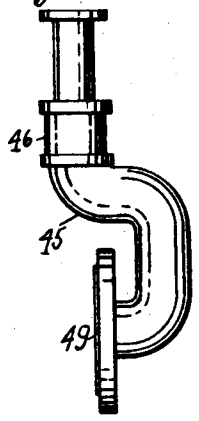


Fig. 10

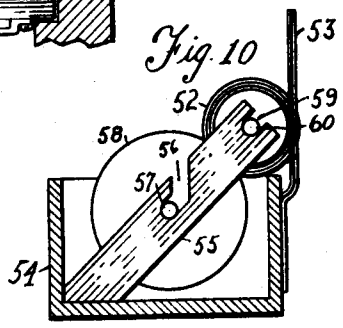
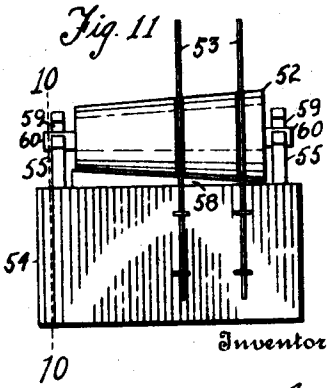


Fig. 11



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UNITED STATES PATENT OFFICE.

LINUS F. BURGHARDT, OF WESTFIELD, NEW YORK.

LABELING-MACHINE.

1,385,303. Specification of Letters Patent. Patented July 19, 1921.

Application filed June 1, 1920. Serial No. 385,586.

To all whom it may concern:

Be it known that I, LINUS F. BURGHARDT, a citizen of the United States, residing at the village of Westfield, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Labeling-Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

The invention relates to machines for attaching labels on containers such as bottles, cans, and the like; and the object of the improvement is to provide a simple and convenient arrangement of a main continuous sprocket chain conveyer belt having spaced holding standards with spring grip tops thereon for said containers and a feed conveyer belt and a distributing belt alongside the opposite ends of said main conveyer belt to feed said containers onto said main conveyer belt and to receive the labeled containers therethrough and distribute the same in combination with a rotatable vacuum suction cylinder having a plurality of pairs of tubular arms with label pickers on their outer ends to take a label from a label container to coat the same with liquid adhesive and press said label upon the container as it is drawn through between said label picker arms by said main conveyer belt, the actuation of all of said parts being attained by means of said main sprocket chain conveyer; and the invention consists in the novel features and combinations hereinafter set forth and claimed.

In the drawings, Figure 1 is a lengthwise sectional view of the frame showing the labeling mechanism in elevation with a container passing onto the conveyer belt and another passing through between two label picker arms having just received the label thereon from the pickers; another bottle is shown in dotted outline as being transferred from said conveyer belt. Fig. 2 is an end elevation of the labeling machine showing the label picker arm wheel in connection with the gluing or liquid adhesive applying rollers and the label holder. Fig. 3 is a top plan view of the labeling machine showing the preferred arrangement of the different parts. Fig. 4 is a detail view of the pivotally linked levers for transferring the bottles from the conveyer belt, showing the action of the same in dotted line. Fig. 5 is a plan view of the label holder and the actuating mechanism. Fig. 6 is a sectional view of the spring actuating rod for the label holder. Fig. 7 is a detail of the pneumatic picker arms and cylinder, one-half of said cylinder and arms being shown in section; and Fig. 8 is a detail of one of the picker plate end portions removed from its tubular picker arm. Fig. 9 is an elevation of one of the gripping standards or retainers for holding the container in a fixed relation upon the conveyer belt. Fig. 10 is a sectional view of the gluing or adhesive receptacle or tank at line 10—10 in Fig. 11; and Fig. 11 is an elevation of the same. Fig. 12 is an elevation of the front end of the label container showing the gravity feed for the labels and the sliding track for the label container.

Like characters of reference refer to corresponding parts in the several views.

The numeral 15 designates the supporting frame for the label applying mechanism; which consists of the spaced end standards 16 and 17 which support the shafts 18 and 19 with the sprocket wheels 20 and 21 mounted thereon to propel the sprocket chain conveyer belt 22.

The chain 22 has the spaced container retaining holding standards or bottle grippers 23 attached thereto throughout the length of said chain to receive the container or bottle under the spring gripper heads or tops 24 which hold the containers in position upon the belt 22, carrying said containers 25 along with said belt while the label is being attached upon the side of said container.

The retaining standards 23 comprise the spring grip tops 24 which are attached to the tubular outer portion 26 of the standard 23, which tubular outer portion 26 is slidably or telescopically mounted on the standard 27, a tension spring 28 being provided to normally draw downward on the telescoping portion 23 so that the spring grip top 24 attached thereto is drawn down upon the top of the container 25, the height of the grip top 24 being adjusted to the height of said container 25. An upwardly inclined track 29 is provided over the point of entry for the containers 25 upon the chain conveyer 22, and a crosswise pin 30 is placed in the top of said tubular portion 23 which slides up onto the track 29 as the conveyer chain 22 moves forward, thereby raising the grip top 24 and permitting the container 25 to pass beneath the same. Said raised track 29 descends at its opposite end, thereby per-

mitting the spring 28 to draw the grip top 24 down upon the top of the container 25, said grip top 24 being preferably arranged with an angular downward projecting lug 31 which aids in holding the container top 25 firmly in correct position as it is moved along by the sprocket chain conveyer belt 22.

The labels 32 are placed in the label container 33 which has a slidably mounted bottom plate 34 attached to the spring rod 35, which rod is pivotally attached to one arm of the bell crank lever 36, the other bell crank arm being pivotally attached to the link 37, which connects to the lever 38, which lever is pivotally attached at 39 and extends down into the path of the top of the standard 23 so that as the conveyer belt moves forward, the top of the standard 23 actuates the lever 38 which actuates the label holder bottom plate 34 through the link and bell crank connection to press a label 32 upon the pneumatic label picker 40. The label pickers 40 are hinged in pairs, one each to the tubular arms 41 and 42, which tubular arms connect to the vacuum cylinder 43. The cylinder 43 is connected by a tube 44 to an air pump or other source of vacuum suction.

Preferably four pairs of label picker arms 41 and 42 extend out radially from the vacuum cylinder 43, having the pairs of pneumatic pickers 40 attached upon their outer ends, the outer portion 45 of said tubular arms 41 and 42 being rotatably mounted and offset as shown in section in Fig. 7, at the point 46, so that said picker plates 40 may turn sidewise as they wipe the label 32 upon the container 25 without pinching and permit said container 25 to pass between the two pneumatic picker plates 40 as the conveyer plate moves forward.

In order to rotate the wheel made by the pairs of picker arms 41 and 42, so that a fresh pair of arms with the label thereon may be presented to each container 25 as it advances to said picker arms, the outer side of the cylinder 43 has a cam groove 47 lengthwise each quarter of its circumference, which groove receives the upper end of the standard 23 therein as the conveyer belt 22 moves forward, and the force of said conveyer belt 22 drawing upon said standard and container causes the rotation of the rotatably mounted cylinder 43 a quarter turn in the journals 48 in each end of said cylinder 43, thereby advancing the pairs of arms one-quarter turn of said cylinder and presenting a fresh pair of picker plates 40 with the label 32 pneumatically retained thereon.

The picker plates 40 are preferably formed with a projecting central portion 49 which holds the label 32 thereon in position ready for application to the side of the container as it passes through between the two plates 40. The vacuum suction through the mouths 50 of each of the label picker plates 40 picks a single label 32 from the bunch in the container 33 as said labels 32 are pushed forward by the lever 35 as hereinbefore described, and the suction retains said single label 32 in position upon said picker plates 40, each mouth 50 holding one end of said label bridging across from one to the other picker plate and covering the slightly open joint 51 therebetween.

As stated, the labels 32 are placed within the label container 33 upon the sliding bottom plate 34. Said label container 33 has the plunger 74 slidably mounted therein with an angular arm which extends to the outer side and is attached by a cord 75 to a weight 76, which cord 75 runs over a pulley 77, thereby keeping the labels steadily against the lugs 78 around the outer edges thereof. The vacuum suction from the label picker plates 40 is just sufficient to draw one label from the front of the series of labels in the container 33, usually about a two-ounce pressure being all that is needed to accomplish the withdrawal of a single label. The action of the rods and levers 35, 36, 37 and 38 moves the entire container 33 forward as shown in dotted outline in Fig. 5, pressing the front label against said picker plates 40 and withdrawing said labels after the bottle has passed the end of the lever 38, leaving a label upon the pair of picker plates, which label is held firmly in position, as described, by vacuum suction.

As the cylinder 43 is rotatably moved forward, the label 32 retained upon the projecting surface 49 of the picker plates 40 by vacuum suction is wiped over the surface of the gluing or liquid adhesive roller 52, wiping against the upright wires 53 on the tank 54, which wires with the vacuum suction from mouths 50 prevent said liquid adhesive from withdrawing the label 32 from the picker plates 40. Without the separating wires 53 the labels would occasionally be drawn from the mouths 50 and picker plates 40 and wrapped around the roller 52. After passing the gluing roller 52, the next quarter turn of the arms 41 and 42 places the freshly coated label 32 in position before the container 25 ready to be wiped thereon as hereinbefore described.

The gluing or adhesive mechanism consists of the receptacle or tank 54 which has the supports 55 attached therein with the notches 56 to receive the journals 57 of the large roller 58, the notch 59 being provided in the ends of each of the supporting standards 55 to receive the journals 60 of the roller 52.

The containers 25 are placed upon the chain belt conveyer 22 by being fed from a feed conveyer 63 alongside said chain belt

conveyer 22. A passageway 61 formed by rails above the two conveyers 22 and 63, which form guides that lead the containers 25 directly from the feeding conveyer 63 onto the chain belt conveyer 22 by the pressure of said containers 25 on said feeding conveyer 63 caused by the travel of said feeding conveyer 63 upon which the containers 25 are placed by the operator.

A spring arm 62 is hinged between the two chain conveyers 22 and 63 so that when a container 25 has passed from the feeding conveyer 63 to the main chain belt conveyer 22, it has to press past said arm 62 which springs back into position, thereby holding said container in line and preventing it being pressed backward or out of line.

The containers 25 are removed or transferred from the chain belt conveyer 22 to a distributing or storage conveyer belt 64 alongside the opposite or finishing end of the main conveyer belt 22 by means of the spring arm 71 and the pivotally linked levers or arms 65, 66 and 67 which are arranged as shown in Figs. 1, 3 and 4 so that when the container 25 is moved forward by the main conveyer belt 22, it engages the spring arm 71 which presses said container 25 slightly to one side as the belt conveyer 22 moves forward as shown in the diagram in Fig. 4, until the container presses against the lever 65 which continues to gradually press the bottle to one side until the top end of the holding standard 23 strikes the lever 67, thereby moving said lever to one side as shown in dotted outline in the diagram in Fig. 4, and moving the lever 65 to press the container 25 forcibly to said side and off the conveyer belt 22 onto the distributing or storage belt 64, the central line of which is given in said diagram in Fig. 4, thereby finishing the labeling operation. The levers 65 and 66 are directly over one another so as to form one coöperating arm and are connected to the lever 67 by the link 68. Said link levers 65, 66 and 67 are returned to their normal position after transferring a container 25 to the distributing or storage belt 64 by means of a spring 69 which is attached to the lever 65 at one end and to the post 73 at the other, which post 73 is one of the supporting posts for the raised track 70.

Said raised track 70 performs the office of raising the grip tops 24 from the container 25, thereby releasing said container so that it may be transferred to the storage or distributing belt 64. The end of said raised track 70 adjacent the cylinder 43 is above the path of the grip tops 24 except when a container is under the same, thereby permitting said grip tops to pass freely beneath the raised track 70 except when said grip top holds a bottle in position so that said conveyer belt 22 travels freely around in its rotation with the grip top standards 23 thereon in normal position without molesting the levers or actuating mechanism in any way except when loaded with a container 25 beneath said grip tops thereby raising it into the path of said levers, cam grooves and raised track, since only by raising said grip top 24 in support of a container 25 will it enter the cam grooves 41 in the cylinder 43 or engage the raised track 70.

It is now apparent that when the power is applied to the pulley 72 thereby turning the shaft 19 and the sprocket wheel 21, the sprocket chain 22 is actuated, thereby actuating the sprocket wheel 22 and moving the standards 23 forward. As said standards 23 are advanced, the crosswise pin 30 engages the initial downwardly bent end of the elevated track 29, thereby raising the grip top 24 and permitting the insertion of the container 25 beneath said grip top so that after its insertion, said grip top will pass down upon the top of said container 25 as the cross pin 30 passes down the other inclined end of the raised track 29.

The feeding belt 63 may be actuated from the same shaft which actuates the main belt 22 or from a separate shaft, and presses a container 25 onto said main belt 22 beneath the grip top 24 with the downwardly projecting stop or support 31 against the rear side of the top of said container 25, thereby holding said container firmly in line, the body of the container or bottom portion of the same being held in line by the block 72 on the conveyer belt 22.

As the conveyer belt 22 moves forward, the top of the standard 23 engages the end of the spring lever 38, pressing it to one side and actuating the plunger 34 to press a label on the pneumatic picker plates 40, which label is retained on said picker plates by means of the vacuum suction through the mouths 50 and arms 41 and 42. The continued advance of the belt conveyer 22 inserts the raised top of the standard 23 into the cam groove 47 of the cylinder 43 and turns the cylinder 43 one-quarter turn before said standard 23 and grip top 24 pass out of said groove 47 in the straight latter end of said cam groove 47.

The standard 23 is held firmly erect upon the conveyer belt 22, thereby holding the container 25 firmly in position as it passes straight through between the resiliently hinged lower ends of the arms 41 and 42 with the picker plates 40 thereon, thereby pressing said picker plates 40 apart and wiping the coated label 32 onto the container 25, which label 32 has been coated with the liquid adhesive by passing along the roller 52, as hereinbefore described, in the rotation of the cylinder 43 and the arms 41 and 42 attached thereto.

The continued advance of the conveyer belt 22 causes the labeled container 25 and standard 23 to pass beneath a second elevated track 70 which engages the raised crosswise pin 30 of the standard top 23, thereby raising the grip top 24 thereon from the container 25 and releasing said container so that it may be transferred from the main conveyer belt 22 to the distributing or storage conveyer 64 by the levers 65, 66 and 67, as hereinbefore described. As the main conveyer belt 22 continues to advance, the cross pin 30 passes down the inclined end of the track 70, permitting the grip top 24 to assume its normal position and the empty standard moves forward in line with the spaced standards until it again encounters the elevated track 29 and is again raised to permit the insertion of a fresh container 25, to repeat the labeling operation as hereinbefore described.

I claim as new:

1. In a labeling machine in combination with labeling mechanism, a main conveyer belt for the containers to be labeled, a feed conveyer belt alongside the initial end of said conveyer belt to feed said containers thereonto, a distributing belt alongside the rear end of said conveyer belt, and means to guide said containers onto said main conveyer belt from said feed belt and to remove said containers from said main conveyer belt to said distributing belt and labeling mechanism associated with said main conveyer belt.

2. In a labeling machine, a conveyer, article holding devices on the conveyer, rotatable label affixing means having a plurality of label holders thereon, label supplying means, adhesive supplying means, and means actuated by the holding devices to effect step-by-step partial rotation of the rotatable label affixing means to cause the label holders thereof to be successively operatively related to the supplying and adhesive applying means.

3. The combination in a labeling machine of a main sprocket chain conveyer, a feed sprocket chain conveyer alongside the initial end of said main chain conveyer to feed the articles to be labeled onto said main conveyer belt, a storage or distributing sprocket chain conveyer belt alongside the rear end of said main conveyer belt to receive said containers thereon and carry the same to a distributing point after labeling, and means for actuating said sprocket chains and labeling mechanism associated with said main conveyer belt.

4. The combination in a labeling machine of a sprocket chain conveyer belt having standards attached thereto at spaced distances, spring grip tops on said standards, a track over said chain conveyer belt to raise and lower said spring grip tops into holding position on the container to be labeled, labeling mechanism for said container adjacent to said chain conveyer, and means for removing said containers from said chain conveyer.

5. In a labeling machine, an endless article conveyer, a rotatable label carrier having a series of label holders which operate transversely of the conveyer, label supplying means and adhesive applying means on opposite sides respectively of the conveyer, and means to actuate the carrier periodically to cause the holders thereof to be successively operatively related to the supplying and adhesive applying means.

6. In combination with a labeling machine, a main sprocket chain conveyer belt and means for actuating the same, spaced standards attached to said main conveyer belt, spring actuated grip tops on said standards, a track over the initial portion of said main conveyer belt to raise said grip top and lower it upon the articles to be labeled to grip and hold the same, labeling mechanism along said belt, a second track over said main conveyer belt to raise said grip top and release the articles after labeling, and means of removal for said released articles from said main conveyer belt.

7. In combination with a labeling machine, a main sprocket chain conveyer belt and means for actuating the same, spaced standards attached to said main conveyer belt, spring actuated grip tops on said standards to hold the containers on said conveyer belt having crosswise projections thereon, a feed conveyer belt alongside said main conveyer belt to feed the containers thereonto, a track over the initial portion of said main conveyer belt to engage said crosswise projections on said grip tops to raise and lower said grip top onto said containers and to admit the same to said main conveyer belt, labeling mechanism in connection with said belt, a second track over said main conveyer belt to engage said crosswise projections on said grip top and release said containers from said conveyer belt after labeling, and a distributing conveyer belt alongside said main conveyer belt to receive said containers from said main conveyer belt when released.

8. In a labeling machine, article conveying means, spaced hollow members arranged in pairs to overlie the conveying means, picker plates borne by the members, means whereby to allow the plates to yield to allow the articles to pass therebetween and completely therepast, and vacuum means communicating with said hollow members to hold the labels onto the members.

9. The combination in a labeling machine of a conveyer belt for the containers to be labeled, spaced tubular arms over said conveyer belt to pass the container to be labeled

therebetween, resilient picker plates for the labels on said tubular arms one to each arm, and vacuum suction connection to said arms and picker plates to operate therethrough and hold a gummed label and press it onto the container as it is drawn through said resilient picker plates by said conveyer belt.

10. The combination in a labeling machine of a main conveyer belt for the containers to be labeled, means on said belt for holding said containers in spaced relation to one another, a rotatable cylinder supported above said conveyer belt, a plurality of pairs of spaced tubular arms connected to said cylinder, spring label picker plates on the outer ends of said pairs of spaced tubular arms, a label container and a liquid adhesive container alongside said arms, means for rotating said cylinder and arms, vacuum suction devices connected to said cylinder and the arms extending out therefrom to pick a label from said label container and coat it with liquid adhesive and hold it in the path of said container on said belt to press it thereonto.

11. In a labeling machine, the combination of a vacuum cylinder, a plurality of pairs of tubular arms extending out from said vacuum cylinder, rotatable spring picker plate ends on said tubular arms, a label container adjacent the path of said picker plates on said arms disposed to allow the plates to pick a label from the container, a liquid adhesive roll adjacent the path of said picker plates and label to coat the same, a conveyer belt for containers to be labeled passing beneath said picker plates to press the container as it passes between said picker plates against the coated label held thereon by vacuum suction.

12. The combination in a labeling machine of a conveyer belt, spaced standards on said conveyer belt to hold the containers to be labeled, a vacuum cylinder revolubly mounted a spaced distance above said conveyer belt, cam-shaped grooves lengthwise of the outer periphery of said revolubly mounted cylinder to receive the tops of said standards and rotatably move said cylinder through the draw of said conveyer belt and standards, and tubular label applying arms connected to said cylinder to apply the labels to said containers as they are moved forward by said conveyer belt.

13. In combination with a main conveyer belt for containers to be labeled, grip top standards for said containers attached to said belt in spaced relation, a vacuum cylinder rotatably mounted a spaced distance above said belt having cam-shaped grooves in the periphery thereof to receive the tops of said standards therein and give said cylinder a quarter turn with the passage of each standard, tubular arms connected in pairs to said cylinder, rotatable spring label picker plates attached one to each arm to press the container as it passes between said arms against the label, a label holder and liquid adhesive roll in the path of said rotatable picker plates to coat the label with liquid adhesive so that the label may be pressed onto said container as it passes between said arms, and means above said conveyer belt to raise and lower said grip tops on said standards both before and after labeling said container to receive and release the same.

14. The combination in a labeling machine of vacuum suction label picker plates, a label holder having resilient link connection to a lever extending over the path of said container to be labeled, a conveyer belt for said container and means for actuating the same, and means on said conveyer belt to actuate said lever to move said label container forward and press a label onto said picker plates.

15. The combination in a labeling machine of vacuum suction label picker plates, a label holder having gravity pressure therein for the labels, said label holder having link connection to an actuating lever, a conveyer belt for said container and means for actuating the same, and means on said conveyer belt to actuate said lever and move said label container forward to press a label onto said vacuum suction picker plates.

16. The combination in a labeling machine of vacuum suction label picker plates of a label holder having resilient link connection to a lever extending over the container to be labeled, a conveyer belt for said container and means for actuating the same, means on said conveyer belt to actuate said lever and move said label container forward to press a label onto said picker plates, a liquid adhesive receptacle having a grooved roller in the path of said picker plates and label, and wires in said grooved roller to prevent said label wrapping around said roller while coating the same.

17. In a labeling machine, the combination of a main conveyer belt, spaced standards having spring grip tops attached on said conveyer belt to hold the containers, a raised track a spaced distance above said conveyer belt to raise the spring grip tops on said standards to admit the containers at the feeding end of said belt, a vacuum cylinder rotatably mounted a spaced distance above said conveyer belt having cam-shaped grooves in the periphery thereof to give said vacuum cylinder a quarter turn in the passage of each standard through one of said grooves, four pairs of tubular label attaching arms connected to said vacuum cylinder, rotary spring picker plates on the outer ends of said arms spaced to receive and hold the label by vacuum suction there-

on and press the same onto the container to be labeled as it is drawn through between said rotary picker plates by the advancement of said conveyer belt, means actuated by said standard to press a label forward to said picker plates during the rotation of the same, means for coating said label with liquid adhesive in the path of rotation of said picker plates, and means for removing said containers from said conveyer belt.

18. The combination in a labeling machine of a main conveyer belt, means for holding and releasing the containers to be labeled, a distributing conveyer belt alongside the end of said main conveyer belt to receive the labeled containers, and a series of link levers actuated by said belt to guide and press said containers from said main conveyer belt onto said distributing belt when released on said main conveyer belt and labeling mechanism associated with said main conveyer belt.

19. In a labeling machine, an article conveyer, article holders thereon, a label container, a label carrier having a series of label holders, means to feed the labels in the container to the label holders, means actuated by the article holders to operate said feeding means, and means to actuate the carrier.

20. In a labeling machine, an article conveyer, article holders thereon, a label container, a label carrier having a series of label holders, means to feed the labels in the container to the label holders, means actuated by the article holders to operate said feeding means, and means actuated by the article holders to operate the carrier to cause the latter to move into label-receiving position with respect to the lable container.

21. In a labeling machine, a main conveyer, article holders thereon, label affixing mechanism associated with said conveyer, an article removing conveyer alongside the main conveyer, means to deflect the articles from the main onto the removing conveyer, means to positively move the articles subsequent to said deflection onto the removing conveyer, and means actuated by the article holders to operate said article moving means.

22. In a labeling machine, a main conveyer, article holders thereon, label affixing mechanism associated with said conveyer, an article removing conveyer alongside the main conveyer, pivoted means to engage the articles as same approach the removing conveyer, and pivoted means actuated by the holders to operate the first pivoted means to move the articles onto the removing conveyer.

23. In a labeling machine, a main conveyer, article holders thereon, label affixing mechanism associated with said conveyer, an article removing conveyer alongside the main conveyer, article engaging means to move the articles from the main to the removing conveyer, and means operated by the article holders to actuate said article engaging means.

24. In a labeling machine, a main conveyer, article holders thereon, label affixing mechanism associated with said conveyer, an article removing conveyer alongside the main conveyer, spring tensioned article engaging means to move the articles from the main to the removing conveyer, and pivoted means operated by the article holders to actuate said article engaging means.

25. In a labeling machine, a main conveyer, article holders thereon, label affixing mechanism associated with said conveyer, label feeding means coöperating with the affixing mechanism and actuated by the article holders, a removing conveyer, and means actuated by the article holders to transfer the articles after labeling from the main to the removing conveyer.

26. In a labeling machine, a conveyer, article holders thereon, a label affixing means including a vacuum cylinder, tubular arms arranged in pairs and each communicating with the cylinder and radiating therefrom, label engaging means on the arms, and means to rotate the cylinder to bring the labels in a position to be applied to the articles borne by the conveyer.

27. In a labeling machine, a conveyer, article holders thereon, a label affixing means including a vacuum cylinder, tubular arms communicating with the cylinder and radiating therefrom, label engaging means on the arms, and means borne by the cylinder and engageable with the article holders whereby the latter effect partial rotation of the cylinder.

28. In a labeling machine, an article conveyer, label affixing means including a rotatable member having a series of pairs of label engaging means, label supplying means, means to rotate said member to bring the pairs of label engaging means into successive register with the label supplying means and the articles, and means to mount the pairs of label engaging devices so as to allow the articles to be carried in a continuous movement into register with the label engaging means and then completely past the latter and to allow the pairs of devices to return to normal position after the articles have completely moved from behind the devices.

29. In a labeling machine, an article conveyer, label affixing means including pairs of spaced label engaging and holding means arranged over the conveyer and formed to hold the label across said space by engaging the respective ends of the label, means to mount the label engaging means to allow the articles to be carried in a continuous move-

ment against said pair of means and by engagement with the latter to move the pair of means so as to allow the articles to completely move past the pair of means, means to move the pair of means to return to normal position after the passage of the articles, label supplying means, means to rotatably mount the pairs of label engaging and holding means, and means to rotate said pairs of label engaging and holding means in a plane transverse to the longitudinal axis of the conveyer so as to first register with the label supplying means and then with the conveyer.

30. In a labeling machine, an article conveyer, rotatable label affixing means arranged to overlie the conveyer and register therewith and having a plurality of independent label engaging devices, label supplying means, and means to rotate the label affixing means to cause same to rotate in a vertical plane and to successively register with the label supplying means and with the conveyer.

31. In a labeling machine, an article conveyer, label supplying means, adhesive applying means, a rotatable label picker having a series of pairs of spaced picker devices thereon, means to operate the picker to cause the devices thereof to successively register with the label supplying means; the adhesive applying means and the articles, and means whereby to allow the devices of the pairs to be moved by the articles to allow the latter to pass therebetween.

32. In a labeling machine, an endless belt article carrier, an endless article feed to one side of the carrier and leading thereonto, an endless article removing device, means to transfer the articles from the first carrier to the removing carrier and labeling mechanism between the feed carrier and the removing device.

33. In a labeling machine, an endless belt article carrier, an article feed device adjacent one end of said carrier, an article removing device adjacent the opposite end of the carrier to receive the labeled articles, and labeling mechanism between the feed device and the removing device.

In testimony whereof I have affixed my signature in the presence of two witnesses.

LINUS F. BURGHARDT.

Witnesses:
C. V. SWANSON,
THEO. HAAG.