

F. O. WOODLAND.
 LABELING MACHINE.
 APPLICATION FILED DEC. 10, 1913.

1,133,602.

Patented Mar. 30, 1915.

6 SHEETS—SHEET 1.

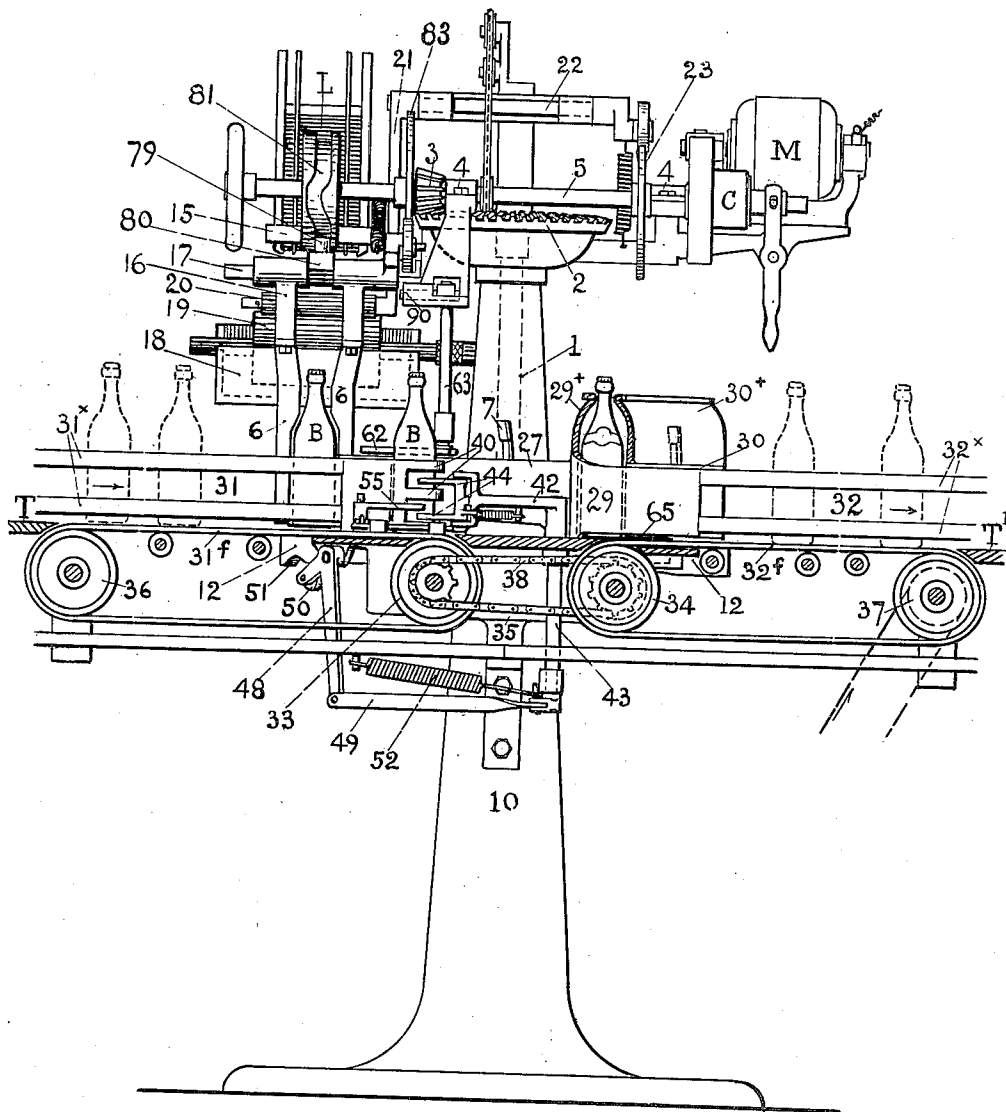


FIG. 1.

Witnesses.

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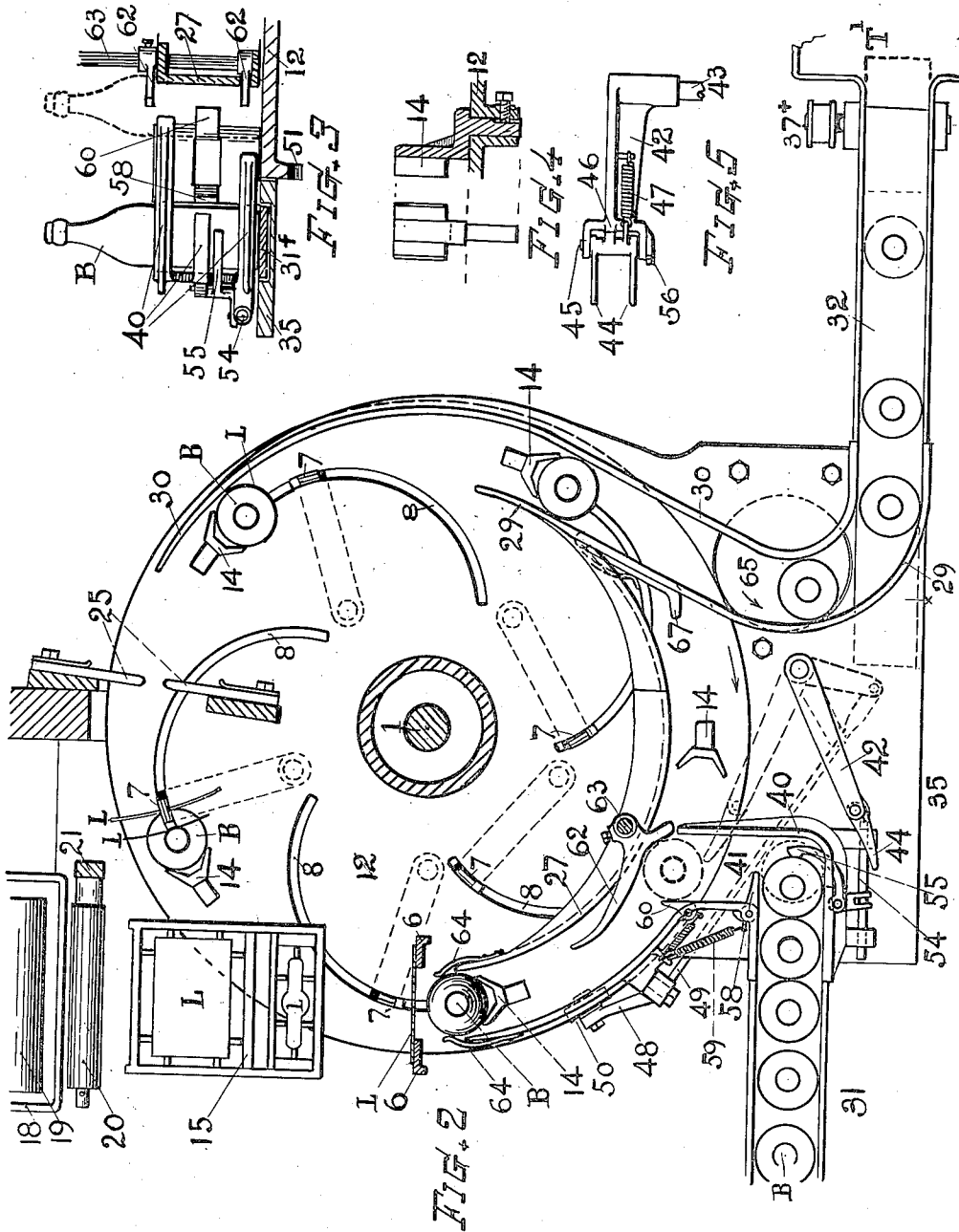
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5 SHEETS-SHEET 2.



Witnesses.

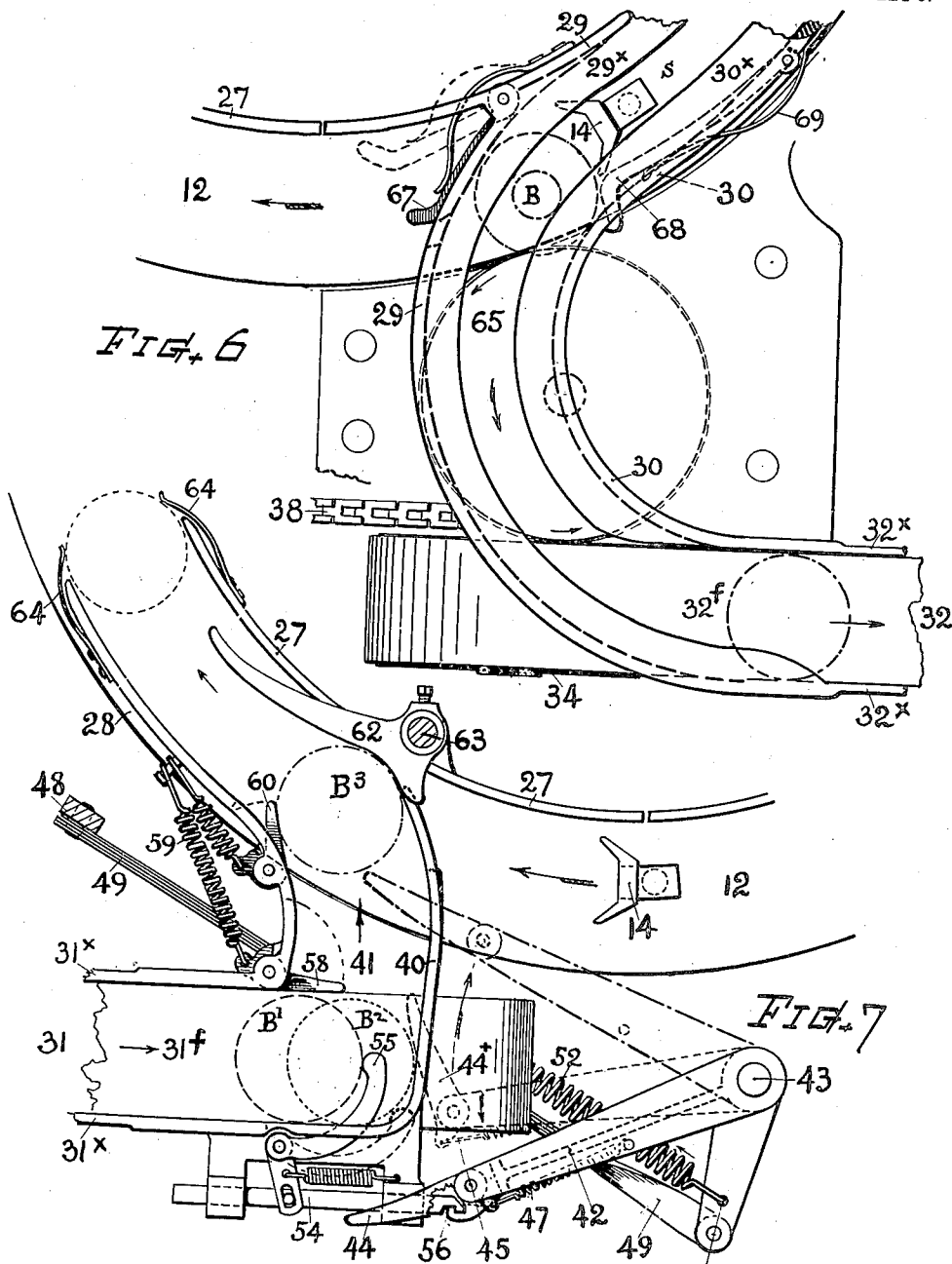
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 6 SHEETS—SHEET 3.



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5 SHEETS—SHEET 4.

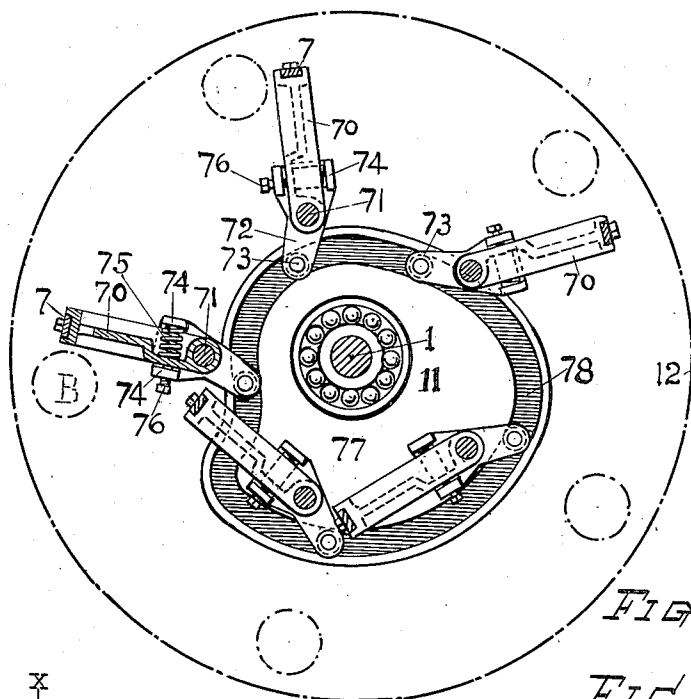


FIG. 8

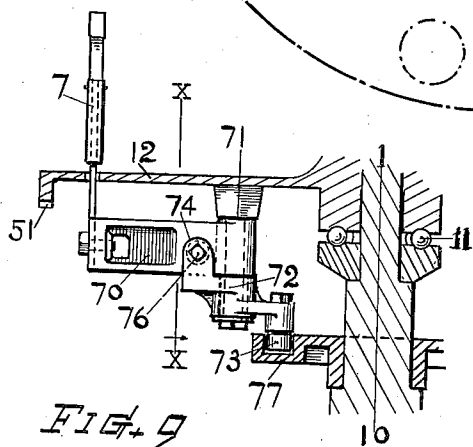


FIG. 9

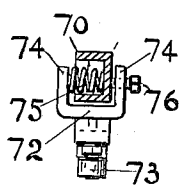


FIG. 10

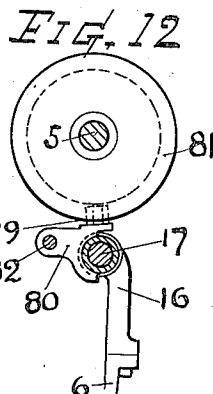


FIG. 12

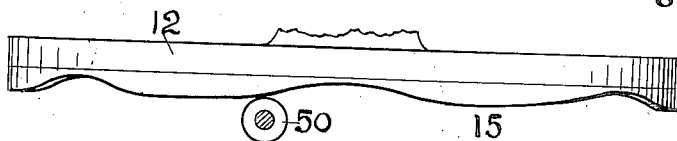


FIG. 11

Witnesses.

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6 SHEETS—SHEET 5.

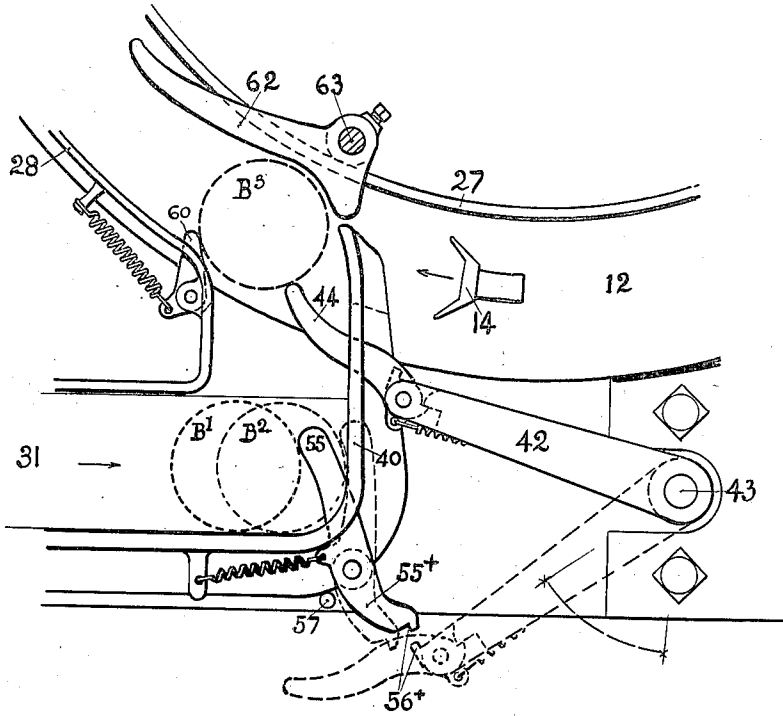
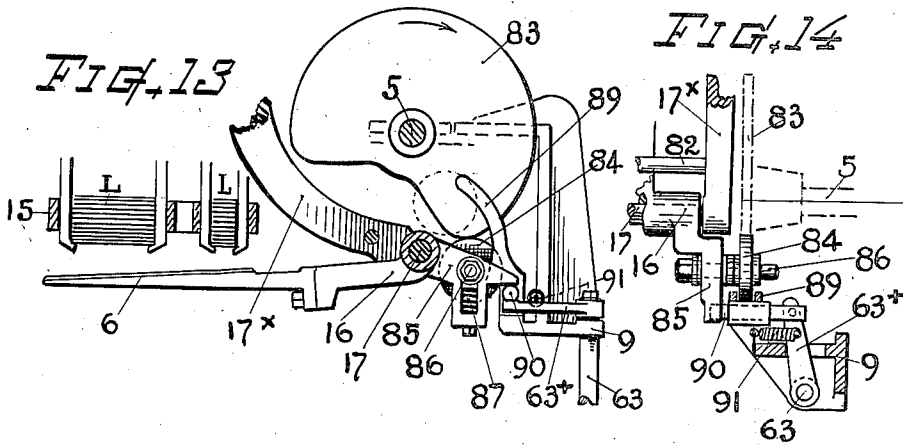


FIG. 15



Witnesses.
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UNITED STATES PATENT OFFICE.

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LABELING-MACHINE.

1,133,602.

Specification of Letters Patent.

Patented Mar. 30, 1915.

Application filed December 10, 1913. Serial No. 805,737.

To all whom it may concern:

Be it known that I, FRANK O. WOODLAND, a citizen of the United States, residing at Worcester, in the county of Worcester and State, of Massachusetts, have invented a new and useful Labeling-Machine, of which the following is a specification, reference being made therein to the accompanying drawings.

My present invention relates to a novel construction and organization of mechanism more especially adapted for embodiment in that class of labeling machines employing a rotary or traveling carrier, and means for supporting the bottles or the like thereon; the prime object of this invention being to provide a labeling machine which can be successfully operated at a high rate of speed, and with practical efficiency and economy.

A further object is to provide an efficient and improved organization of mechanism for automatically conducting and feeding bottles, or other containers and similar articles, onto and from the moving carrier, by which said bottles or articles are presented to and advanced through the label-affixing mechanisms in continuous order.

Another object of my invention is to provide an automatic labeling machine with a continual feed mechanism, and means for controlling the label-delivery in accordance with the delivery of bottles or the like; and for preventing derangement in the proper operation owing to the absence or disarrangement of the bottles at the feed-delivery, or labeling positions.

Other objects and features of invention will appear as set forth in the following detailed description with reference to the accompanying drawings; the particular subject matter claimed as of my invention being definitely expressed in the summary.

In the accompanying drawings (five sheets) Figure 1 represents an elevation view of a bottle labeling machine illustrating my invention. Fig. 2 represents a horizontal section or plan view of the conveyor, rotary carrier and adjacent parts; on a somewhat larger scale. Fig. 3 is a sectional view showing the barrier at the end of the feed-way. Fig. 4 shows the front

and side of the bottle-pushing rest separate from other parts. Fig. 5 represents a separate side view of the feeding lever. Fig. 6 is a plan diagram on somewhat larger scale, illustrating the action of the discharging devices. Fig. 7 is a plan diagram illustrating the action of the automatic feeding devices. Fig. 8 is a section just below the carrier table, and showing, in plan view, the yieldable levers that support the grip-devices, and the stationary actuating cam therefor; the relative positions of the carrier-table and bottle locations thereon being indicated by broken lines. Fig. 9 is a fragmentary sectional view showing a side elevation of one of the grip-carrying levers. Fig. 10 is a cross section of the lever at line X X on Fig. 9. Fig. 11 is a fragmentary detail showing the edge of the carrier-table having the feeder-actuating cam as arranged thereon. Fig. 12 is a detail view of devices for moving the picker-carrier sidewise during its swinging action. Fig. 13 represents a section detail view of the picker mechanism, its actuating devices, and means for intercepting the backward movement of the picker-carrier before the pickers reach the label holder, thus preventing the taking of labels when there is no bottle or the like approaching the labeling position. Fig. 14 is a fragmentary plan view showing some of the parts included in the preceding figure, and Fig. 15 is a plan diagram of the feeding-in mechanism, illustrating a modification in the construction of the controlling catch and adjacent mechanism.

The labeling mechanism, to which my invention as herein illustrated is applied, is in general character and in some parts substantially similar to that described in my prior applications for Letters Patent, Serial Numbers 720,913 and 741,624; but it will be understood that some features of the present invention may be employed with labeling mechanism of other construction, and of a character to which the same may be applied without substantial change in the nature of the defined invention set forth in the subjoined claims.

Referring to the drawings, the numeral 10 indicates the standard frame or supporting column having a broad foot or base.

12 indicates the moving carrier or rotary table mounted to revolve about a vertical axis or shaft 1, fixed in said column, and supported by a ball-bearing 11 at its under part. The carrier is provided with a series of rests or pusher devices 14 arranged at intervals near its periphery, which rests are adapted, as shown, for supporting bottles or the like in upright position, and to move or travel in a circular or predetermined path as the carrier is operated.

5 indicates the operating shaft mounted in bearings 4 on the upper frame, and to which shaft power is applied by means of an electric motor M, or by a driving belt and pulley, gearing, or other power applying means, through a suitable clutch C that may be thrown into and out of action by a suitable lever, or other means. Said shaft is connected for operating the carrier by a beveled pinion 3 and gear 2, as shown on Fig. 1.

15 indicates the label-supply holder; 16 the picker-carrier mounted on the fixed shaft 17 and having glue-applying pickers 6 attached thereto, which take labels adhesively from the bottom of the pack or packs of labels L on the label-holder, and move to meet the advancing bottle B upon the carrier, presenting the label or labels thereto at or about the position where shown on Fig. 2, then retreating at a speed greater than that of the carrier movement, and 7 indicates the grip devices that primarily clamp the labels to the bottles and assist in stripping the freshly glued labels from the faces of the pickers 6, in a manner substantially as described in my prior application for Letters Patent.

18 indicates the glue-box or reservoir for the glue, gum, or adhesive substance; 19 the delivering roller therefor; and 20 the glue-distributing roller that deposits the glue or adhesive film upon the faces of the pickers 6 as they move toward the label-holder. The distributing roller is carried by an arm 21 attached to a rocker shaft 22 which is actuated by suitable cam mechanism 23 in connection with the operating shaft.

25 indicates the label affixing wipers, which may be of any approved kind, arranged in suitable manner for wiping on the labels as the traveling carrier passes the bottle or the like between them; said wipers being preferably located at opposite sides of the path along which the bottles are advanced by the carrier.

Above and adjacent to the face of the carrier 12, extending along the portions at and near where the bottles or articles to be labeled are entered thereon, and where discharged therefrom, I provide curved stationary guards or fenders 27, 28, 29 and 30, forming inner and outer walls inclosing the carrier path or way along which the bottles

are advanced; said guards being of suitable form and height to prevent the bottles from tipping over, or from lateral displacement as they are moved along by the action of their propelling mechanism.

Near one side of the carrier I arrange a feed-way 31 comprising side guards 31* and an endless traveling conveyer or belt 31' that runs over a pulley 33 supported upon a stationary frame or stand 35, preferably connected with the main standard 10, or permanent part of the machine frame. I also arrange with the carrier exit a discharge way 32 comprising side guards 32* and an outwardly traveling conveyer or belt 32' that runs over a pulley 34 axially supported upon the stand or frame 35. The outer end loops of said conveyer belts respectively run over pulleys 36 and 37, which can be located at any convenient distance away from the stand 35; and suitable intermediate supports or rollers are provided for sustaining the upper run of said belts. The conveying surfaces are disposed approximately level with the top face of the carrier 12. The parallel guards 31* and 32* are arranged above the conveyer belts at either side, and to embrace a guide-way space the width of which is slightly greater than the diameter of the bottles or containers to be labeled, and within said space the bottles are caused to travel while standing upon the moving belt.

The driving power for operating the conveyer-belts is applied to the axle of one of the pulleys, as 37, while the axles of the pulleys 33 and 34 at the adjacent ends of the conveyers are provided with sprocket gears and connected by a drive-chain 38, or other suitable operating connections. The portion of the sprockets, or connecting gearing, is preferably made so that the feed-way conveyer will travel at slightly greater velocity than the discharge-way conveyer; such velocity being gaged at a speed sufficient to normally bring forward a supply of bottles or the like, equal to the full capacity of the carrier and labeling mechanisms. Suitable tables T T' may be provided at the outer ends of the feed-way and discharge-way conveyers, to facilitate handling the bottles; or said conveyers may be arranged to take and deliver from and to other machines in a bottling plant.

At the inner end of the feed-way 31 there is provided a transverse guard or barrier 40 and lateral pass-way 41 leading to the carrier path, or into the space between the curved guards 27 and 28, as best shown in Figs. 2 and 7. An intermittently operating means is combined therewith for automatically feeding successive bottles or the like from the feed-way conveyer to the carrier. The inner end of said pass-way is preferably curved or inclined toward the direc-

tion in which the carrier moves, thus giving a forward trend to the in-coming bottle as it is projected onto the carrier.

The barrier 40 is preferably of skeleton structure, (see Fig. 3) and the feeding-in device 42 is arranged adjacent thereto for driving or shunting the bottles successively from the feed-way 31 through the passage 41, and into the path of the advancing pushing rests 14. In the present instance, and preferably, said feeding-in device consists of a horizontally swinging arm or lever fulcrumed upon an upright shaft or axis stud 43, and provided at its end with fingers or prongs 44 that extend between the bars of the barrier, and sweep along the passage way 41, when in operation.

The furcated end of the lever is best made of appropriate size and shape for taking or shunting a single bottle only at each forward stroke. The fingers can be jointed to the arm by a hinge or pivot 45, and provided with a back stop 46 and a retracting spring 47, (see Fig. 5) so that during the backward swing of the arm the fingers 44 can fold inward to pass any obstruction, as indicated by dotted lines 44* on Fig. 7, and then assume normal relation as the arm reaches its primal position. Actuating means is provided for working the feeding-in devices in coöperation with the carrier, and to act at intervals corresponding to the series of bottle pushing rests 14. Said means, as illustrated, includes an angle-lever 48 fulcrumed upon a stationary support, one of its arms being connected by a rod 49 to an arm fixed on the upright shaft 43, while its other arm is provided with a roller 50 that runs against a cam or shaped surface 51 upon the rim of the movable carrier 12. A spring 52 is suitably combined with the feeding-in devices for exerting pressure and moving the lever in opposition to the cam and to give relief action.

A bottle-actuated catch device 54 is arranged at or near the end of the feed-way 31, for holding the feeder arm or member at outward idle position, except when a bottle or the like is brought into position to be transferred to the carrier. For this purpose a spring pressed movable catch member 54 is arranged to move past a lug or member on the arm 42 when the latter swings back, and thus prevents action of the feeding device until said catch is retracted; the retraction being effected by a feeler member 55 that projects into the feed-way, and is engaged by the approaching bottle just previous to its reaching the barrier 40. The faces of the engaging members may, in some instances, be made to merely latch one against the other as a stop; but preferably said parts are formed as interlocking hooks, or counter-matching offset lugs, substantially as illustrated at 56 on

Fig. 7, and at 56* on Fig. 15, so that the arrested feeding-in lever or arm 42 prevents withdrawal of the catch-device and feeler 55, while the catch-device prevents forward movement of the feeding-in lever.

58 indicates a swinging gate or guard member, at the junction of the feed-way 31 and pass-way 41; the purpose of which is to keep the bottles in line until they reach the barrier 40. A spring 59 is provided for giving a yielding force upon said gate sufficient to normally maintain the alinement, but weak enough to permit the gate to swing out of the passage when the feeder lever 42 acts.

60 indicates a swing spring-pressed gate or member arranged to project into the passage at the position where the pass-way merges with the carrier path. The purpose thereof is to obviate any liability of the bottle escaping from the end of the feeding-in device before it has been fed fully into alinement with the pushing rests 14, or is completely up to the required position before taking the carrier movement.

62 indicates the feeler devices for actuating the picker-stop and controlling the label supply action. Said feeler devices, as herein employed, comprise an upper and lower feeler finger mounted upon an oscillatable upright shaft 63 journaled in bearings upon the inner guard or fender 27, approximately opposite to the in-feed passway, (see Figs. 2 and 7) and said feelers extend with a curved form into and along the carrier path in such manner that an advancing bottle or the like will force back the feelers and thereby prevent the acting engagement of the stop members. The locking means or catch lug 56 can, if desired, be formed upon the same part which serves as the bottle-actuated trip-finger; said part 55* being made in suitable shape to bring its end into proper relation for engaging with the feeding-in member, an example of which is illustrated in Fig. 15.

Located upon the ends of the fenders 27 and 28, or at a position preceding that at which the labels are presented to the bottles, there is preferably arranged a detaining means or set of finger springs 64, adapted for giving a moderate degree of friction or resistance against the moving bottle; the object or purpose of which is to insure that the bottle is close seated against its pushing rest 14, before the label-gripping device 7 is brought into contact with said bottle for clamping the label thereto by its oppositely directed pressure. Thus, if a bottle starts forward by movement of the carrier table, before the pusher rest reaches it, the spring-fingers will detain the bottle until the pusher-rest overtakes it and forces its advance in due order; consequently insuring the firm support of the

bottle as the grip-device strikes its opposite side. For discharging the bottles from the carrier 12 the guiding fenders or guards 29 and 30 are continued in a compound curve to connect with the guiding members 32* of the discharge-way, as illustrated in Figs. 2 and 6.

Between the side of the carrier 12 and the discharge conveyer 32 there is arranged a whirler disk 65, or flat horizontal circular plate that is rotatable on a vertical axis spindle, and having its peripheral edge in rolling contact with the edge of the carrier whereby rotary motion is imparted to said whirler in the direction indicated by the arrow. The flat top surface of the whirler is substantially level with the surface of the carrier and conveyer.

The guard fenders 29 and 30 inclose a curved guide-way from the path of the carrier to the discharge-way across the advancing side of the whirler. The fender 29 is provided with an opening to allow the series of pushing rests 14 to pass through, but is made continuous above the height of said rests, and is provided with a swinging spring-pressed gate 67 at its lower edge that keeps the bottle in proper relation to follow the discharge passage, but allows the pusher rests to pass in their regular path. The portion of the guiding fender at the outer curve near the whirler, is preferably provided with a swinging bar or section 68, (see Fig. 6) pivoted at its leading end and adapted to swing inward at its other end, and having a spring 69 combined therewith for giving a yielding inward pressure that tends to force the bottles toward the opposite guard as they leave the pusher rest and approach the whirler plate. In Fig. 2 the guard fender 30 is shown with the swinging bar 68 omitted, since such construction may in some instances be employed.

The curved guards or fenders 29 and 30 may, in some instances, be made of the same height as that shown for the in-feed guards 27 or 28, which is about the height of the body of the bottle, more or less. But as an effective improvement I preferably form said guards along the discharging side of the carrier, or a portion thereof, with upwardly extended inwardly overhanging top portions 29* and 30*, each having a guiding edge disposed at about the height of the neck of the bottle just below the swell of its head, (see Figs. 1 and 6) the two opposite members being arranged with a space S between their top edges sufficient for loosely embracing and guiding the necks of the bottles; thereby obviating liability of a bottle being tipped over while being carried rapidly along the path and across the whirler 65 to the discharge conveyer 32. If desired the top or upwardly extended portion of the guard can be made adjustable

in relation to the lower or body guiding part. Fig. 2 illustrates the guards as made without, and Fig. 6 as made with the extended top or neck-guiding portion.

The swinging levers, upon which the grip devices 7 that project up through the curved slots 8 in the carrier 12 are mounted are, in accordance with my invention, constructed as shown in Figs. 8, 9 and 10. Said levers are each composed of an outer arm member 70, to which the grip device is attached, and an inner arm member 72 having the cam-engaging stud or roller 73 at its inner end, and provided at a position forward of the fulcrum with opposite ears or projecting lugs 74, between which the first named arm, or a portion thereof, is located and has limited movement. A spring 75 disposed between the lug 74 and web of the arm 72 and an adjusting screw 76, is arranged in the ear opposite said spring, for regulating the relation of the outer end of the arm in respect to the roller stud 73. The roller studs of the several arms travel in the channel or groove 78 of a stationary cam 77, whereby both the backward and forward swing of the grip devices is positively effected, while the yielding of the two-part lever, permitted by action of the spring 75, affords a limited but sufficient cushioning effect as the grip device contacts with the bottle.

Fig. 15 illustrates a modification in the construction of the feed-controlling catch and interlock members, wherein the feeler 55 and catch member are a single piece or lever, as 55*, the engaging lugs on said part and the feeding-in lever being formed as indicated at 56*. Dotted lines show the lever 42 as swung back for releasing the interlock of the lugs. This Fig. 15 also shows an instance omitting the swing gate at the back of the feed-way. 57 indicates a pin for limiting the range to which the arm may be thrown back. In some instances, as when very long labels are to be used, it is desirable to give the pickers a limited lateral movement to avoid interference with the previously advanced bottle. For this purpose the hub of the picker-carrier 16 is arranged so that it can slide endwise on its axis stud 17. A circumferential groove is formed around the hub in which there is arranged a collar-block 80 provided with a roller or stud 79, and a grooved cam 81 is secured on the extended end of the operating shaft 5. The periphery of said cam is provided with a groove or working portion having, at one side, a lateral offset that engages said collar-block or its roller-stud, as indicated in Figs. 1 and 12. The collar-block is prevented from rotating by a stationary pin or guide 82 fixed in the bracket or frame that supports the axis-stud 17. When the offset in the grooved cam comes into conjunction with the roller 79 the pickers are

moved sidewise to a predetermined extent corresponding to the offset of the cam groove and back into normal alinement without interfering with the swinging action of the pickers. The swinging movement is imparted to the picker-carrier and pickers by the cam 83 fixed upon the operating shaft 5, and acting against a roller 84 and suitable connections with an arm or projecting member 85 upon the picker-carrier head. As herein shown (see Figs. 13 and 14) said member is chambered or slotted and the stud 86, upon which the cam-engaging roller 84 is mounted, is arranged to slide in said slot, being retained by flanges or washers at opposite sides of the arm. Its spring 87 is arranged beneath the stud for pressing it up to normal position; said spring having sufficient tension to keep the picker-carrier to its work under normal conditions, but yieldable when the picker-carrier is arrested. A slotted guide or clip 89, fixed to the frame, keeps the roller 84 in alinement with the cam 83, while the center stud 86 can have endwise movement within the roller. A movable catch or stop-bolt 90 is mounted upon a stationary part of the frame, and provided with a spring or means that normally projects said stop-bolt. The picker carrier, or its arm 85, is provided with a lug or member adapted to contact with the end of said stop-bolt when the latter is not retracted by operation of the bottle actuated feeler 62 and shaft 63; the upper end of which is furnished with a crank arm 63^a to which the stop-bolt is suitably connected. By this means the backward swing of the picker-carrier is intercepted before the pickers 6 reach the label holder; (see Fig. 13) thus preventing the taking of labels therefrom if there is no bottle or the like approaching the position for receiving the labels. If a bottle is coming forward in due order then the feeler 62 is thereby pressed back and the stop-bolt is held from interference with the picker-carrier. When the picker-carrier is intercepted the yielding of the spring 87 permits the stud 86 to move down the slot, so that full swing of the actuating cam 83 occurs without effecting undue strain on the mechanism. The portion of the fender 30 along the edge of the carrier 12, may be of skeletonized structure or formed of a number of longitudinal ribs with open spaces between them; so that any waste material or chips of glass falling upon the carrier will be centrifugally thrown off through or beneath the open fender, and without passing to the bottle-delivering conveyer.

In the operation, the bottles are placed in any manner, in upright position, upon the feed-way 31, and are brought forward to the barrier or position B¹, indicated by dotted lines on Fig. 7 where they are temporarily arrested by the locked catch device 54—55 until the feeding-in member or lever 42 is, by the action of cam 51 and connections 48 and 49, moved slightly backward, sufficient to release the lugs 56. Then the traveling conveyer belt immediately advances the bottle up to the barrier, or to position B², forcing back the finger 55 and unlocked catch device 54, thus permitting the spring 52 to throw forward the feeding-in lever 42, the movement of which projects the bottle along the face of the barrier 40 through the pass-way 41 to the position B² within the path of the carrier as defined by the guard fenders 27 and 28, and in line with advancing pusher rests 14, one of which then pushes the bottle forward, crowding back the feeler 62, and passing the detainer fingers 64, which insures the proper positioning of the bottle in relation to the rest. The bottle then meets the pickers 6 which present the glued labels to the face thereof just as the grip device comes into contact with the central part of the label, clamping it in place as the pickers are retracted and leaving the label, or labels, held by the grip device while the bottle is pushed forward between the wipers 25 which affix the label smoothly to the surface of the bottle. After passing the wipers the grip device is retracted and the bottle passes between the guard or fenders 29 and 30, which guards are of such form that they crowd the bottle from in front of the pusher 14 and shunt it onto the whirler 65, the rotary motion of which gives to the bottle an impetus that delivers it onto the traveling belt 32^a of the discharge-way or conveyer 32, by which it is carried to the packers table T¹, or any predetermined place of delivery. In like manner successive bottles or the like are passed through the labeling operation as fast as the series of pushing rests 14 on the moving carrier can take them away from the position B³, to which they are continually successively fed by a synchronous action of the automatic feed mechanism. If a bottle is absent from the position B¹ on the conveyer the feeding-in lever and trip 55 remain locked and there is no action of the feeding-in mechanism; then there being no bottle at the position B³ the pusher, which would otherwise take the bottle, simply passes along idle, and since the feeler 62 is not then pressed back the pickers are intercepted and do not reach the label-holder, but simply carry the label which has previously been taken thereon until another bottle is fed to the carrier. Hence, while the mechanism can operate fed to the full capacity of the series of pushing rests, no derangement in the perfection of action or quality of the labeling is liable to occur should the supply of bottles be irregular, or occasional bottles missing from the regular

succession of machine actions. When the machine is running at a very high speed the bottles come to the barrier 40 with such velocity that there is practically no delay by the locking action of the catch device 56 and feeding-in device 42, except when the approaching bottles are at some distance apart, or varying in such distances; then the locking and unlocking is effective for regulating the instants of feeding-in action to properly correspond to positions of the supporting or pushing rests on the continuously moving carrier.

As I am aware that some mechanical changes and modifications may be made in practising my invention, by persons skilled in the art, without departing from the spirit and scope of the invention as expressed in the claims, it will be understood that I do not wish to be limited to the particular form of construction herein shown.

What I claim and desire to secure by Letters Patent, is—

1. In a labeling machine, in combination with a movable carrier provided with a series of devices fixed thereon for supporting bottles or the like, and means for presenting and affixing labels to the same in successive order, guide fenders above said carrier along a portion of the path in which said supporting devices travel, a feed-way having guiding means and an endless traveling-belt bottom for conveying or advancing the bottles or the like to the carrier, said feed-way terminating with a barrier and an offset pass-way communicating with the carrier-path, a laterally movable transferring means adapted for forcing the foremost bottle along said pass-way to a position approximately in line with the supporters upon said carrier, and mechanism for operating said transferring means synchronously with the approach of said supporter devices.

2. In a labeling machine, in combination with means for gluing, delivering and affixing labels, a continuously moving carrier provided with a series of supporting rests individually disposed at intervals thereon, for carrying bottles or the like, and a traveling conveyer for the supply of bottles; of a feeding-in mechanism for passing the bottles from the conveyer to said carrier, including means controlled by the bottles upon said conveyer and adapted for regulating the instant of feeding-in action to relatively correspond with positions of the supporting rests upon the continuously moving carrier without regard to the regularity or variability with which the bottles or the like are brought forward by said conveyer.

3. In a machine of the class described, in combination with means for gluing, delivering and affixing labels, a movable carrier provided with bottle-carrying means; an in-feed way including guiding members and a

traveling conveyer means, a lateral pass-way and guiding barrier from said conveyer to said carrier, means for transferring or shifting bottles successively through said pass-way from the conveyer to the carrier, and means for preventing action of said shifting element when no bottle is in position at the mouth of said pass-way.

4. In a labeling machine, in combination with means for gluing, delivering, and affixing labels; a rotary carrier having pushing rests for bottles or the like at predetermined intervals thereon, and label-grip-devices co-acting therewith, stationary path-defining fenders above said carrier, a bottle-supply feed-way or conveyer, means for automatically transferring single bottles therefrom to the defined path on the carrier, and yieldable means for frictionally detaining the bottle to insure close contact thereof with said rest.

5. In a labeling machine, the combination with a label-supply means, pickers that adhesively take labels therefrom and present the same for affixment, means for supplying adhesive to said pickers, a rotary carrier provided with a series of bottle-pushing devices adapted for advancing bottles or the like to meet said pickers, grip-devices mounted upon said carrier and acting to hold the presented labels against the bottle while the pickers move away therefrom, means for actuating said grip-devices, means for wiping-on the labels, curved guides above said carrier along the path of the bottle-pusher means, a traveling bed feed-way having a pass-way into the path between said curved guides, means for arresting the bottles in said feed-way at a position in alignment with said pass-way, and an automatically operated element adapted for passing a bottle from said feed-way to the carrier, means for actuating said element controlled by the revolving carrier, a picker-arresting stop, and an operating member therefor that projects within said curved pathway for contact with the in-fed bottle.

6. In a machine of the character described, in combination with mechanisms for gluing, delivering and affixing labels, a rotating carrier having a series of pushers fixed thereon, stationary path-defining guards adjacently above said carrier, the latter portions of said guards forming an exit guide-way leading out from the carrier, a discharge-way including a traveling conveyer belt onto which said exit guards are directed, and a rotating whirler forming a portion of the bed between the carrier and discharge way belt.

7. In a labeling machine, in combination with means for gluing, delivering, and affixing labels, a rotatable carrier, a series of upright bottle-pushing rests carried thereon to move in a circular path, label-gripping de-

vices mounted in connection with the carrier to move toward and from said pushing rests, and means for automatically feeding bottles onto said carrier; of guides for directing bottles away from said carrier, a horizontal rotatable whirler element in peripheral contact with said carrier, said whirler element forming a portion of the bottom of the guide-way, means for rotating said carrier, and means for controlling said grip-devices.

8. In a mechanism of the character described the combination, with label-affixing means, a moving carrier for bottles or the like, a discharge-way comprising a traveling-bed conveyer, and a horizontal rotatable whirler disk located between said moving carrier and conveyer; of an outwardly curved guiding fender having, adjacent to said whirler, an upwardly-extended inwardly-overhanging top portion formed to direct the necks of bottles, for the purpose set forth.

9. In a machine of the class described, in combination, a rotary carrier provided with bottle pushing means thereon, means for gluing and presenting labels, label affixing devices, means for automatically feeding bottles to said carrier, and a delivering conveyer; of means for directing the bottles from said carrier to said delivering conveyer consisting of curved guards or fenders, said guards being adapted for supporting the body part of the bottles and having elevated top portions that embrace and guide the necks of the bottles.

10. In a labeling machine, in combination, substantially as described, a rotary carrier with bottle-pushing rests thereon, guiding fenders along the path traversed by said rests, an automatic continuous-feed mechanism having means for intermittently projecting bottles into said path between the guiding fenders, a bottom-delivering label-supply holder, a swinging picker-carrier mounted upon an axis support above said path and having glue-applying pickers attached thereto, for taking labels from the label-holder and presenting the same to the advancing bottles, said picker-carrier comprising a yielding swivel connection for its actuating member, a spring-pressed catch for intercepting the picker-carrier without stopping its actuator member, a swinging controlling finger mounted upon the guiding fender and against which the bottles are fed, said finger being retractable by the oncoming bottles, and an upright shaft connecting said controlling finger with said intercepting catch.

11. In a machine of the class described, the combination with means for presenting and affixing labels, a rotary carrier having pushing rests for the support of bottles or the like at predetermined intervals thereon,

and swinging grip-devices; of means for actuating said grip-devices with positive inward and outward movements; and carriers for said grip-devices each provided with means for affording a limited yielding action within the carrier between the grip-device and said actuating means.

12. In a labeling machine for bottles or the like, the combination with means for gluing and delivering labels, means for affixing the labels to the bottles, a rotary carrier-table having a series of bottle-pushing rests thereon, and a series of grip-devices that move in curved slots in said table; of swinging grip-supporting levers pivoted to the under side of said table, each of said levers comprising a main grip-supporting arm and a concentrically pivoted actuating arm having a jaw laterally embracing said main arm, a spring arranged in said jaw and pressing against said main arm, a roller-stud at the extremity of said actuating arm, and a stationary cam having a groove or track that engages said roller-stud for controlling the operation of the grip-devices.

13. In a labeling machine, in combination with means for wiping-on or affixing labels, a rotating carrier adapted for supporting and carrying bottles or the like in a circular path, a label-supply-holder positioned out of the circle of said path, oscillating picker-devices provided with pickers that take labels from said label-supply and deliver the same to the bottles at a predetermined position in the path of the carrier, means for oscillatively actuating or moving said picker-devices back and forth, and means for imparting lateral movement to said picker-devices at or between the limits of the oscillative action.

14. In a machine of the class described, the combination, with a rotatable carrier provided with means for supporting bottles or the like thereon, label-affixing wipers and a label supply holder; of a movable picker-carrier, pickers fixed thereon that take labels from said label-supply holder and present them at a predetermined position in relation to said rotatable carrier, an axis support for the picker-carrier, means for imparting a swinging action to said picker-carrier and means for sliding said picker-carrier sideways on its axis-support during the swinging action, for the purpose set forth.

15. In a machine of the class described, the combination, with a rotatable carrier provided with means for supporting bottles or the like thereon, label-affixing wipers and a label supply holder; of a swinging picker-carrier, pickers fixed thereon that take labels from said label supply holder and present them at a predetermined position in relation to said rotatable carrier, an axial support for the picker-carrier, means for imparting swinging action to said picker-carrier con-

sisting of a rotating shaft, a cam mounted thereon, a cam-engaging roller, its axis stud yieldingly connected with an arm on the picker-carrier head, a collar member in circumferential groove engagement with the
5 picker-carrier head and provided with a projecting roller-stud, a cam fixed upon said actuating shaft and having an offset circumferential groove embracing the roller stud
10 on said collar member for imparting side-

wise reciprocal movement to said picker carrier at a predetermined stage of its swinging action.

Witness my hand this 8th day of December, 1913.

FRANK O. WOODLAND.

Witnesses:

CHAS. H. BURLEIGH,
E. W. JENKINS.