July 7, 1942. J. M. BROWN 2,289,237

LABELING MACHINE

Filed March 27, 1940 3 Sheets-Sheet 1

Fig. 1.

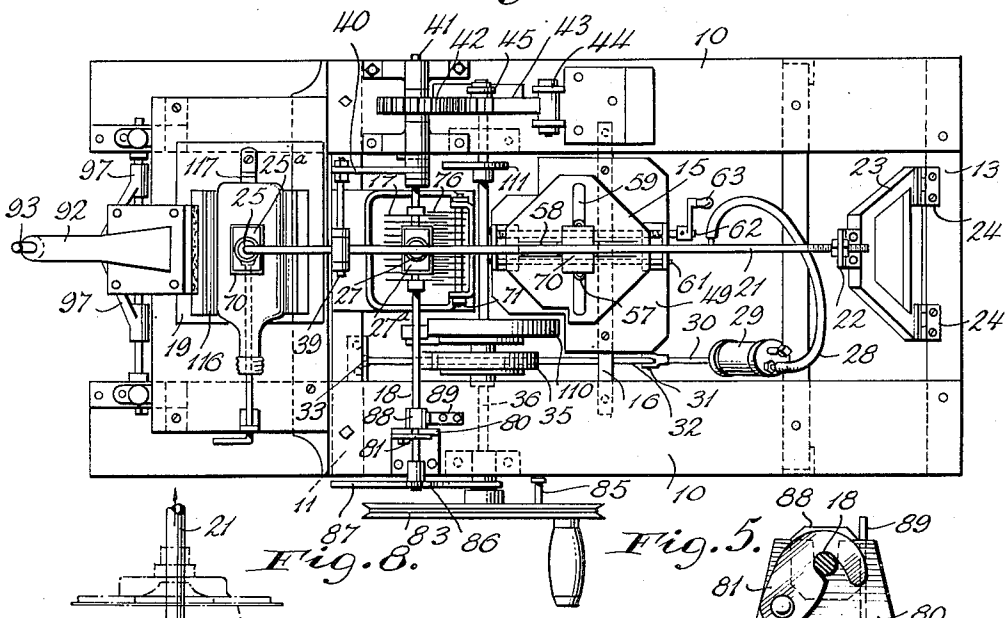


Fig. 8.

Fig. 5.

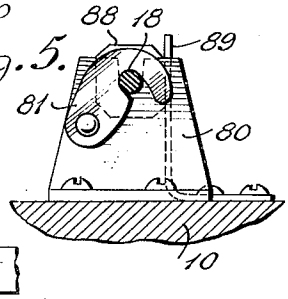
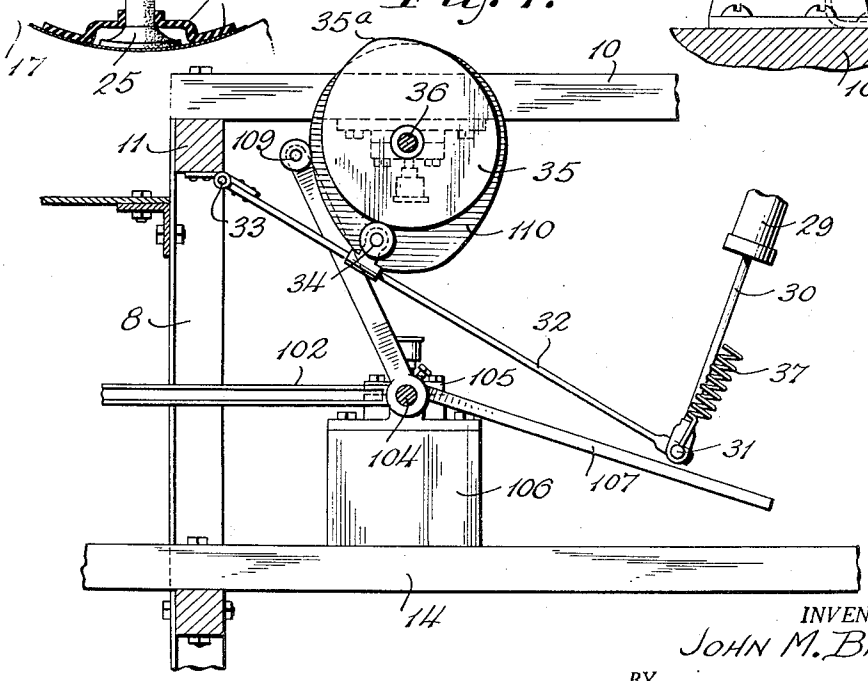


Fig. 4.



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Fig. 2.

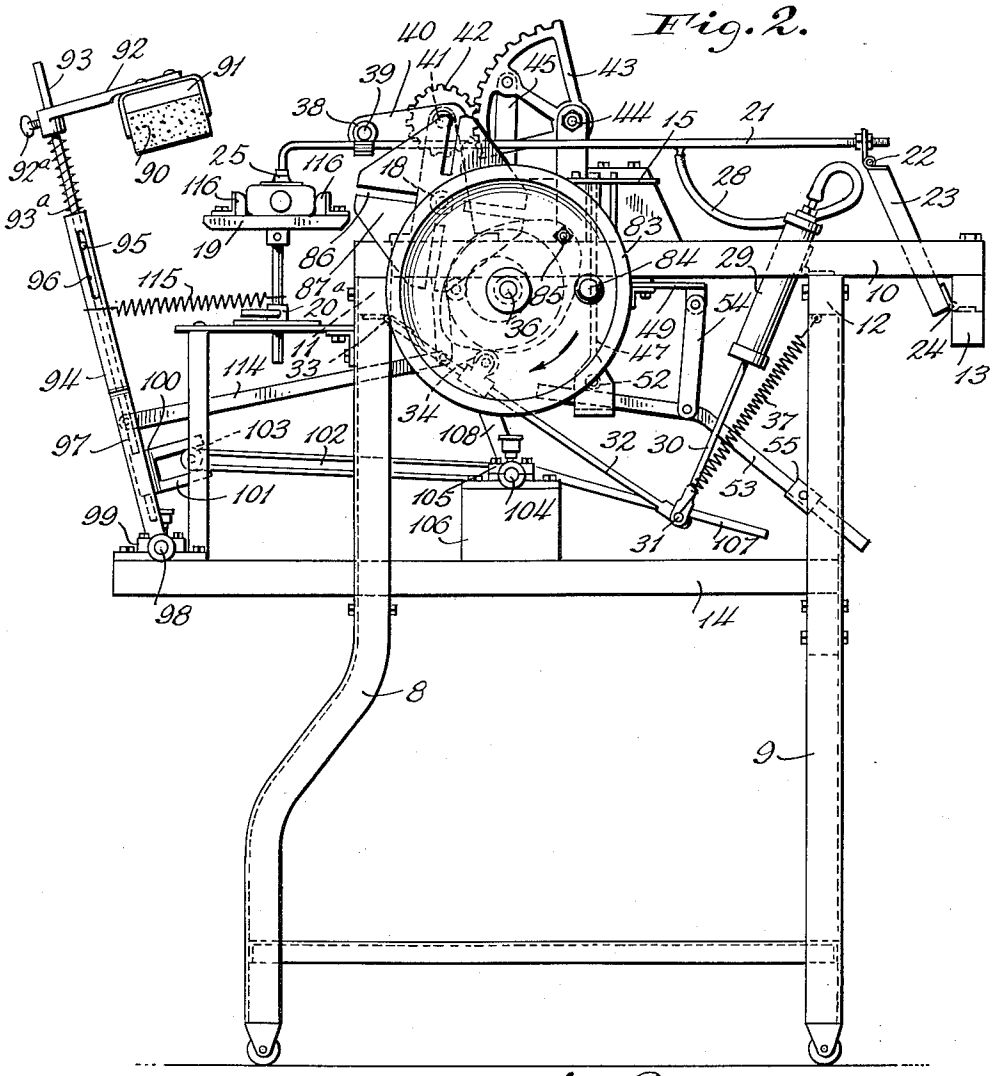


Fig. 6.

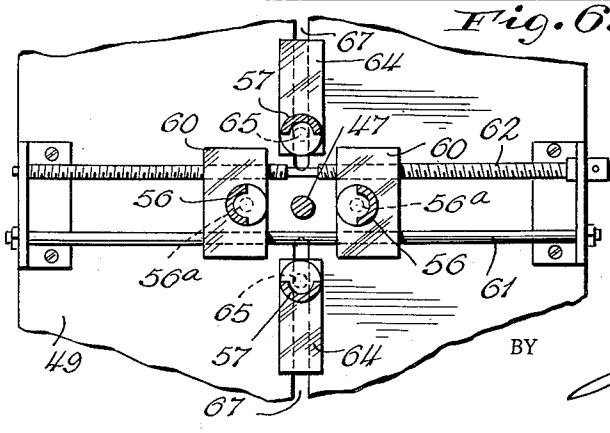
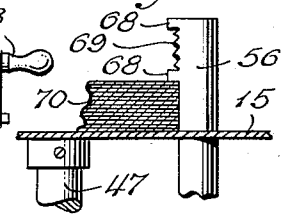


Fig. 7.



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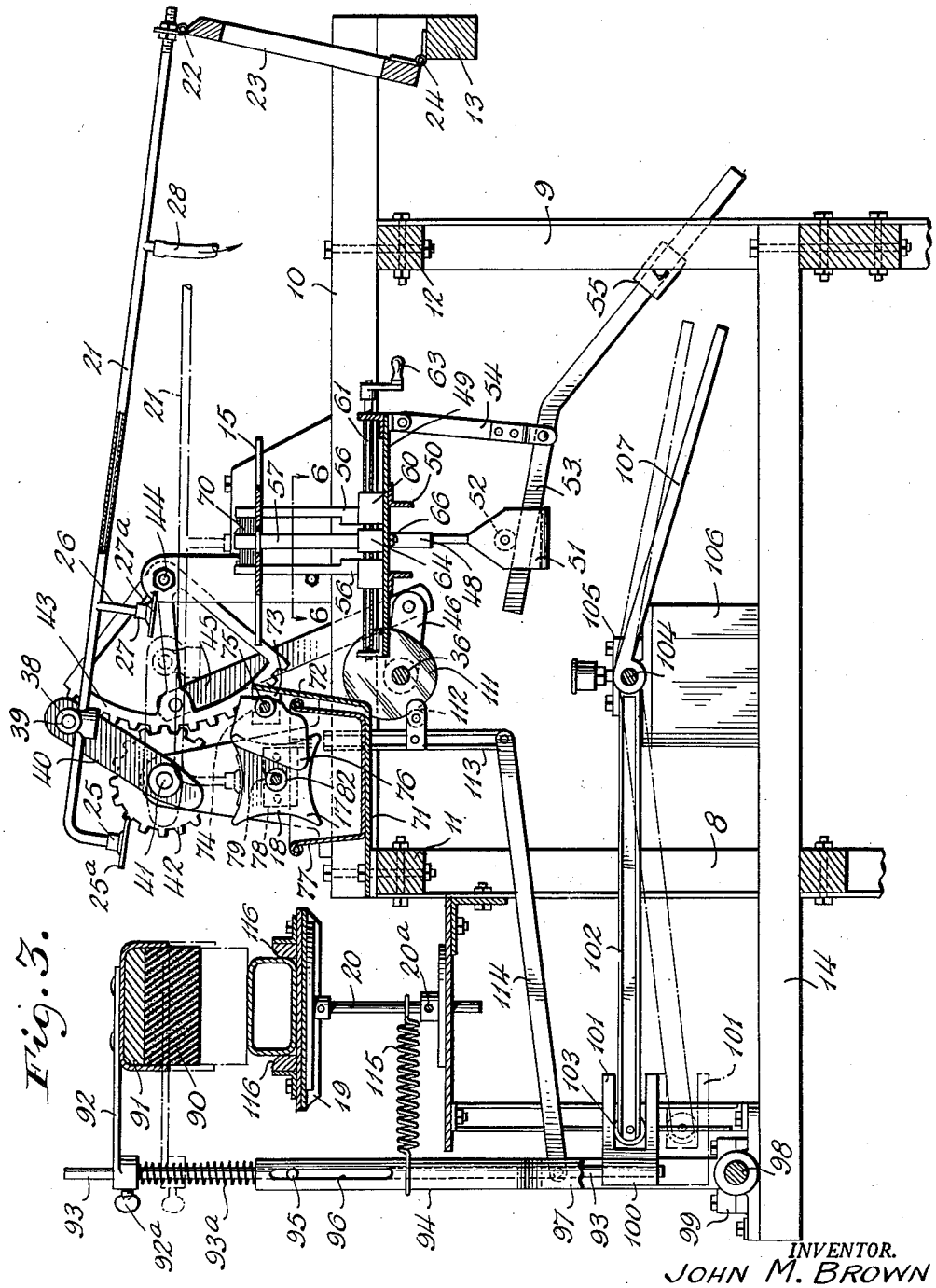


Fig. 5.

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UNITED STATES PATENT OFFICE

2,289,237

LABELING MACHINE

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Application March 27, 1940, Serial No. 326,143

25 Claims. (Cl. 216—55)

This invention relates to machines for labeling bottles and other articles. Labeling machines in use today apply adhesive to the labels usually with a roller or with a spray. In the case of the roller adhesive applicator it is difficult to apply the proper amount of adhesive without getting an excess which causes smearing of the container and frequently the roller applies adhesive principally to the side edges of the label leaving the center section with no adhesive. Furthermore, when labels are fed to rollers, the leading edge frequently is creased or folded and the label applied in that manner. With the spray-gun type of applicator there is a heavy concentration of adhesive in the center part of the label and a light deposit at the edges where adhesion is extremely important. This type of applicator usually requires several heavy pressing operations to firmly fix the label.

One of the objects of my invention is the provision of a labeling machine which overcomes the above objections and which is relatively simple in operation and which is extremely compactly arranged.

Another object of the invention is the provision of a machine the various parts of which are so synchronized for movement that it is impossible to cause any jamming of the apparatus.

A further object of the invention is the provision of an adhesive applicator which will supply an adequate amount of adhesive to each label without creating an excess thereof, and which will positively evenly distribute the adhesive and also apply it in such a way that the label will not curl.

A still further object of the invention is the provision of picker mechanism for handling the labels which will securely hold the labels while they are being moved and release them at the right time and which will also rapidly move labels between the label holder, the adhesive applicator and the container without lost motion and without requiring complicated mechanism for causing the movement of said picker mechanism.

Another object of the invention is the provision of a label holder which is so arranged that labels will be fed into picking position with automatic compensation for variations in the size of the stack of labels.

These and other objects and advantages of the invention will more fully appear from the following description made in connection with the accompanying drawings, wherein like reference characters refer to the same or similar parts throughout the views, and, in which Fig. 1 is a plan view; Fig. 2 is a side elevation; Fig. 3 is an enlarged longitudinal vertical section; Fig. 4 is an enlarged fragmentary detail of two of the operating cams with their cooperating levers; Fig. 5 is an enlarged detail of the mounting for one end of the adhesive applicator shaft; Fig. 6 is a section taken on the line 6—6 of Fig. 3; Fig. 7 is an enlarged fragmentary detail of one of the label holding elements and a portion of the label supporting table, and Fig. 8 is a detail view of an element of the picker means.

The mechanism may be supported on a suitable frame composed of corner posts 8 and 9, upper side frame members 10 and cross members 11, 12 and 13. Intermediate the upper and lower portions of the frame are horizontally disposed side elements 14.

A label holder 15 is supported by a cross strip 16, an adhesive applicator 17 is positioned adjacent the label holder and supported by a rotatably mounted shaft 18, and a container or other article support 19 is located at the label applying station of the machine and is mounted on the upper end of a vertically adjustable rod 20. These elements will be explained in more detail below.

Picker mechanism

The picker mechanism serves to transfer the labels from a supply stack to the label applying station of the machine, and in the illustrated example is used to transfer the labels from the label holder to the adhesive applicator and from the applicator to the container positioned on the container support. The picker mechanism, as shown, includes a tubular element 21, one end of which is closed and secured by a hinge 22 to a rocking support 23, the latter being connected by a hinge 24 to the rear cross member 13. The other end of the picker tube 22 is bent downwardly at right angles, as shown in Figs. 2 and 3, and a rubber cup 25 is secured thereto. The end of the tube is left open and the cup in its natural position is adapted to flare outwardly and downwardly a little below the end of the downwardly turned portion of the picker tube 21. A branch tube 26 extends downwardly from the main tube a distance equal to that of the bent end of said tube, and this branch tube 26 is provided with a picker cup 27 constructed similarly to the left-hand picker cup 25. In the preferred arrangement, flexible members 25a and 27a are associated with the picker cups 25 and 27 respectively in adjacent relation thereto and so as to surround each of said picker cups as shown

in Fig. 8. Rearwardly of the picker cup 27 is connected a hose 28 which extends from the tubular element 21 to the upper end of a cylinder 29, as best shown in Figs. 1 and 2. A piston rod 30 extends into the bottom of the cylinder 29 and carries a piston which is adapted to reciprocate in the cylinder to provide a suction pump. The cylinder 29 is closed to the atmosphere and its only opening is provided in connection with the tube 28. The lower end of the piston rod 30 is pivotally secured at 31 to a lever 32 which extends upwardly therefrom and has its opposite end hingedly connected at 33 to the frame cross member 11. This lever is best illustrated in Fig. 4. Intermediate the ends of the lever 32 is mounted a roller 34 which is adapted to ride against the edge of a cam 35, the latter being mounted for rotation with a power shaft 36. A spring 37 is connected between the lower end of the piston rod 30 and a suitable portion of the frame to normally urge the piston rod upwardly in the cylinder 29 and to hold the roller 34 against the cam 35.

The forward or left-hand portion of the picker tube 21 is journalled at 38 to a stub shaft 39, the opposite end of said shaft being connected to a crank arm 40 at one end thereof. The other end of the crank arm is secured upon a shaft 41 which also carries a gear 42. The gear 42 meshes with a gear segment 43 which is journalled at 44 and is connected by means of a lever 45 to a small crank arm 46, the latter being mounted for rotation with the power shaft 36. Rotation of the power shaft 36 will rotate the short crank arm 46 and oscillate the lever 45 and gear segment 43. The oscillatory motion of the gear segment 43 causes a similar oscillation of the gear 42, and this movement is transmitted through the crank arm 40 to the picker tube 21 with its picker elements 25 and 27 and flexible members 25^a and 27^a. In one extreme position of the picker elements the picker 27 and its flexible member 27^a will be in contact with the uppermost label on the label holder 15 and the picker 25 and flexible member 25^a will be in contact with the adhesive applicator 17, and in the other extreme position of the picker mechanism the picker elements will have rocked forwardly so that the picker element 27 will have deposited its label upon the adhesive applicator 17 and the picker element 25 will have moved a label from the applicator and deposited it on the container or other article held by the container or article support 19; in the last mentioned position of the picker elements 27 and 25 the flexible members 27^a and 25^a will coincidentally engage the applicator 17 and article respectively. The first position just described is shown in dotted lines in Fig. 3, and the second position is shown in full lines in Figs. 1 and 2. An intermediate position of the picker mechanism is shown in full lines in Fig. 3.

When the picker mechanism is being moved from the dotted line position in Fig. 3 to the full line position in Fig. 2, the cam 35 will be operated against the roller 34 to pull the piston rod 30 downwardly to produce suction in the cylinder 29, in the tube 28 and in the tubular element or hollow picker tube 21. A label is placed preferably by hand upon the adhesive applicator to begin operation so that both of the cups 25 and 27 will be in contact with labels to prevent the loss of suction. The suction producing piston 30 is drawn downwardly throughout the movement of the picker mechanism over to the full line position shown in Fig. 2. As soon as this last position is reached the high part 35^a on the cam 35 will rotate past the roller 34 and continued rotation of the cam 35 will cause a sharp reversal of the piston rod 30 to suddenly relieve suction in the picker mechanism whereupon the labels will be released by the picker cups 25 and 27. It will be noted that the suction apparatus and picker mechanism are entirely closed except for the open picker cups. As the cups 25 and 27 respectively engage the labels, the respective flexible members 25^a and 27^a will likewise engage said labels.

Label holder

The label holder 15 is in the form of a flat table as shown, said table being supported by a rod 47 which is slidably mounted in a tube 48. This tube extends downwardly from a plate 49, the latter being supported by angle irons 50 which extend between the upper frame side members 10. The rod 47 carries a U-shaped element 51 at its lower end, the latter having a roller 52 journalled therein and said roller being adapted to rest upon an angular lever 53 which extends into the U-shaped element 51. The lever 53 is pivotally connected to a supporting strip 54 and said strip is in turn pivotally secured at its upper end to the stationary plate 49. As has been stated, the lever 53 is bent at an angle and an adjustably positioned weight 55 is mounted adjacent the lower end of said lever. When the plate holder 15 is pressed down, the weighted end of the lever 53 will swing upwardly. Therefore, when a relatively large stack of labels is placed on the holder 15, the weighted end of the lever will be nearer a horizontal position than when the table has approached its limit of upward movement. In this upward position there is less leverage exerted by the lever 53 for the reason that the weighted end thereof is closer to a downward vertical position.

Two pairs of label positioning fingers 56 and 57 are provided to hold the labels in proper position on the holder 15. These fingers extend through slots 58 and 59 which are formed in the label holder 15. The fingers 56 extend upwardly from blocks 60, said blocks being slidable on a horizontally positioned rod 61 which is supported by the stationary plate 49. The blocks 60 are also in screwthreaded engagement respectively with opposite halves of a reversely threaded rod 62. The rod 62 is provided at one end with a crank 63 to permit rotation thereof with a resulting movement of the blocks 60 and the positioning arms 56 toward and away from each other as desired.

The positioning fingers 57 are mounted upon blocks 64 and bolts 65 extend through the lower portions of the positioning fingers 57, through said blocks 64 and are retained by suitable nuts 66 which are adapted to abut against the underside of the plate 49. Slots 67 in the latter permit sliding movement of the blocks 64 so that the positioning fingers 57 may be moved toward or away from each other. The first mentioned positioning fingers 56 are secured by bolts 56^a to the blocks 60 which support them and all of the positioning fingers may be loosened at will so that they can be turned to different angles to accommodate different shapes of labels.

As best shown in Fig. 6, the positioning fingers are preferably semi-circular in cross section with their edges facing inwardly and the upper end of each positioning finger is provided with a pair

of projections 68 between which are disposed a series of teeth 69. As best indicated in Fig. 7, when the label holder 15 moves a stack of labels upwardly, the uppermost label 70 will come up beneath the lower stop 68 on each of the positioning fingers. The teeth 69 and upper projections 68 are provided to separate the upper label from the one lying directly beneath it should the labels have a tendency to stick together.

Adhesive applicator

A plate 71 is secured at one edge to the frame cross member 11, and the opposite edge of the plate is bent upwardly to provide a supporting element 72. The support 72 has a pair of inwardly turned ears 73 which are provided with notches 74 within which are supported the ends of a rod 75. This rod carries a plurality of thin sheet-like elements 76 which are preferably spaced slightly apart by washers which are placed between them. The flat portion of the plate 71 carries an adhesive container 77.

The shaft 18 has one end supported by a plate 78, said shaft lying in a notch 79 so that it is easily removable. The opposite end of the shaft is supported in a notched plate 80, and a pivoted catch 81 is provided to hold the shaft in proper position but to render it easily removable. This catch is best shown in Fig. 5.

Mounted on the shaft 18 is the applicator element 17, the latter comprising a plurality of spaced thin plates arranged vertically and held apart by washer elements 82. At least the edges of the plates comprising the applicator 17 are preferably rather thin and in Fig. 3 the configuration of the plates is clearly shown. A plurality of such plates disposed in spaced relation provide four concave label contact surfaces upon which the labels are deposited as each face of the applicator is brought to its upper position. The plates comprising the applicator are adapted to lie between the elements 76 which are supported by the rod 75 and the adhesive container 77 is so positioned relative to the applicator that the lower portion of each applicator plate will lie in the liquid adhesive. In Fig. 3 with the turning with its shaft 18 in a counterclockwise direction, those portions of the plates which have been immersed in the adhesive will pass between the stationary plates 76, the latter acting as wipers to remove most of the adhesive from between the applicator plates. This will leave a sufficient quantity of adhesive on the edges of the plates but removes the excess from between them. It has been found that if the upper corners of the wiper plates terminate adjacent the corners of the applicator plates adjacent thereto, the wiping is more uniform than if the applicator plates had their corners extending above the uppermost corners of the wiper plates.

In Figs. 1 and 2 a wheel 83 is shown secured on the near end of the power shaft 36. The wheel 83 is provided with a crank 84, but, of course, may be power driven if desired. A pin 85 extends toward the machine from the face of the wheel 83, and as the wheel is rotated the pin is adapted to slip into one of the slots 86 in a substantially rectangular plate 87. The plate 87 is secured to the applicator shaft 18 and movement of the applicator shaft in a step by step manner is provided. The wheel 83, pin 85 and slotted plate 87 are constructed along the lines of the well known Geneva movement. This provides for 90° movement of the applicator shaft with each revolution of the power shaft 36 and power wheel 83.

In Figs. 1 and 5 it will be noted that the applicator shaft 18 has a block 88 secured thereon. The block is four sided with its corners rounded or bevelled as desired. A relatively strong flat spring 89 is secured to one of the frame side members 10 and is adapted to bear against successive faces of the block 88 so that the Geneva gear plate 87 will be in proper position for the pin 85 to slip into one of the slots 86. Not only does the spring keep the Geneva movement in proper position, but it also acts to hold the applicator plates in proper position for receiving a label. The applicator and its shaft 18 as well as the wiper element are made easily removable so that after a labeling operation has been completed the applicator and wiper can be easily detached to permit them to be cleaned. Cleaning of the applicator and wiper is important if the machine is to be left standing for any length of time to prevent adhesive from hardening between the plates.

Presser

The presser mechanism is used to press the label down on the container to which it is applied by the picker finger 25 and its flexible member 25a after adhesive has been applied to the label by the applicator. The presser element itself includes a soft resilient pad 90 which is preferably of sponge rubber. The lower face of the pad may be flat or concave. A concave face is better for use with rounded containers. The resilient pad 90 is secured to a block 91 and the latter is supported by a bracket 92 which is adjustably secured on a vertically positioned rod 93. A thumb screw 92a is provided to permit easy adjustment of the bracket 92 on said vertical rod. The rod 93 is slidably mounted in a sleeve 94 and a spring 93a is interposed between the top of the sleeve and the bracket 92 to normally urge the rod and the presser pad upwardly. A pin 95 extends from the rod 93 through a slot 96 in the sleeve 94. The pin 95 not only limits the upward movement of the rod 93, but also prevents it from twisting so that the presser pad will be maintained in its correct position. A pair of downwardly diverging arms 97 support the sleeve 94 and said arms are mounted on a shaft 98 which is mounted in suitable journals 99 on the intermediate frame portion 14. Thus the entire presser mechanism can be swung away from the container support 19.

The lower end of the rod 93 extends below the sleeve 94 and is provided with an element 100 which carries a pair of spaced arms 101. A lever 102 extends between the spaced arms 101 and carries a roller 103 which is adapted to contact one or the other of the arms 101. The lever 102 extends rearwardly or to the right in Figs. 3 and 4, and is connected to a shaft 104, the latter being mounted in journals 105 which are secured to blocks 106, the latter being supported by the intermediate frame elements 14. The rearwardly extending portion 107 of the lever 106 is provided as a counterweight. Extending upwardly from the shaft 104 is a lever 108 shown in Fig. 4, the upper end of said lever carrying a roller 109 which is adapted to bear against the edge of a cam 110. The cam is normally urged for rotation with the power shaft 36. When said power shaft is rotated the cam 110 will swing the lever 108 to the left causing partial rotation to the shaft 104 and depression of the lever 102 and also the vertical presser shaft 93. The low-

ered position of the shaft 102 and the presser are shown in dotted lines in Fig. 3.

A third cam 111 is mounted on the power shaft 36 as indicated in Fig. 3. This cam bears against a roller 112 which is mounted upon a lever 113, the upper end of which is hingedly secured to a convenient portion of the frame. The lower end of the lever 115 is pivotally connected to a lever 114 which is pivotally secured to one of the arms 97 which support the sleeve 94 in which the presser rod reciprocates. When the cam 111 is rotated to push the levers 113 and 114 to the left, the presser element will be swung to the left from its position above the container support 19 at the same time the presser is in its elevated position away from the container. A spring 115 normally maintains the presser mechanism in vertical position.

Container or other article support

The details of the container or other article support are of no particular importance in view of the fact that the apparatus will probably be most conveniently used with a conveyor mechanism of any well-known type to bring containers into proper position relative to the adhesive applicator, the presser mechanism, and the picker mechanism. The support illustrated is merely a table 19 held by a vertical rod 20 which is adjustably mounted in a base 20a. The support is adjustable for the reason that if containers of different sizes or other articles of varying dimensions and shapes are labeled it is necessary to adjust the height of the container support to bring the label receiving portion of the container or other article to a proper receiving position relative to the other mechanism. As shown, the container or other article support 19 has a pair of side rails 116 and one end stop 117 to properly position the container or other article. Such a container or other article support can be used if the containers or other articles are to be fed to the machine by hand.

Operation

The operation of the machine is probably apparent from the description above, but there are some points which should be carefully noted.

When the machine is first started, a supply of adhesive is placed in the container 17 and a stack of labels is placed in the label holder. One label is placed preferably by hand on the adhesive applicator and the power shaft is rotated to cause the picker mechanism to pick up a label from the label holder with the picker 27 and a label from the applicator with the picker 25. Because each of the suction pickers has a label thereon, of course, the suction produced by the piston and cylinder will be maintained. As the power shaft 36 rotates the picker mechanism carries over to deposit the label picked up from the applicator 17 on the container or other article on the container or other article support and a label is also being transferred from the label holder to the applicator by the picker 27. As the labels are thus deposited respectively on the container or other article being labeled and the adhesive applicator, the flexible members 25a and 27a will engage the respective labels and will be caused to develop a pressure thereon to thereby press said labels into surface engagement with said container or other article and said adhesive applicator respectively as illustrated by solid lines in Fig. 8. The picker mechanism then moves toward the right to pick up another pair of labels and progress them, and as said picker mechanism moves toward the right the adhesive applicator will describe a 90° movement to bring another face of the applicator to its upper position to receive another label. Thus a freshly immersed label contacting or adhesive applying portion of the adhesive applicator is presented to each succeeding label. Also during the movement of the picker mechanism toward the right and the movement of the applicator, the presser mechanism swings to a vertical position from the slanting position shown in Fig. 2, and the presser pad 90 or its equivalent is brought down to cause the label to be pressed firmly against the container or other article. Conversely as the picker mechanism moves to the left to deposit a label on the container or other article the presser mechanism swings to the left as in Fig. 2 so it will be out of the way of the left-hand picker element 25. In the description of the picker mechanism it was pointed out that just before the picker elements move from the dotted line position in Fig. 3 to the full line position in Fig. 2, the piston on the piston rod 30 will be drawn downwardly in the cylinder to apply suction to the labels to retain them on the picker elements 25 and 27, and as soon as the picker elements reach the position shown in Fig. 2, the cam controlling the operation of the piston in the cylinder will cause the piston to be pushed upwardly sharply at least at the beginning of its upward stroke to suddenly relieve suction on the labels so they will be deposited by the picker elements. This sudden relief of the suction on the labels or in other words, the sudden change from negative to positive pressure in the pick up means insures efficient deposit of the label on the container or other articles and also avoids the possibility of disturbing the position of the label after it has been deposited on the applicator 17.

The method of applying adhesive to the labels is important. As has been pointed out above, the adhesive applicator is made up of a plurality of spaced plate-like elements which are relatively thin and the labels deposited on the applicator come into contact only with the adhesive which is on the edges of said plates. This deposits a plurality of lines of adhesive across the back of the label in spaced relation to each other, and when the label is deposited on a container and pressed thereon, the label will be connected to the container by a plurality of lines of adhesive and since the lines are spaced from each other the presser will squeeze all of the air from beneath the label along the spaces between the lines of adhesive. The air can readily escape because the lines do not intersect and because they extend to the edges of the label. The movement of air between the lines of adhesive, plus the fact that a very slight amount of air will, of course, remain, insures more rapid setting of the adhesive. The applicator guarantees a uniform supply of adhesive to each label and uniform distribution of adhesive on the back thereof. When the label is picked up from the applicator the surface tension of the liquid adhesive will cause the lines of adhesive to form very slight ridges of adhesive material and when the label is pressed upon the container by the presser these slight ridges of adhesive will spread laterally into the spaces between said lines. Of course, the amount of space between the lines of adhesive can be determined by the spacing of the applicator plates.

It will, of course, be understood that various

changes may be made in the form, details, arrangement and proportions of the various parts without departing from the scope of the invention.

This application is a continuation in part of another application filed by me in the United States Patent Office on August 22, 1938, Serial No. 226,011.

I claim:

1. In a labeling machine, a label holder, an adhesive applicator and a container support, picker mechanism comprising a first picker element adapted to pick up a label from said holder and move it to said applicator, a second picker element adapted to remove said label from said applicator and move it to said container support, and means for synchronously operating said picker mechanism.

2. In a labeling machine, a label holder, an adhesive applicator, and a container support, said elements being in substantial alignment and substantially equally spaced, and label picker means adapted to move longitudinally to carry labels from said holder to said applicator and from said applicator to said container, said label picker means including an operating element adapted to move said picker means toward and away from said label holder, adhesive applicator and container support on lines substantially perpendicular to the planes of their working surfaces.

3. The structure in claim 2 and said picker means comprising a pair of picker elements spaced substantially equally to the spacing between said holder and said applicator and between said applicator and said container support, and said picker elements being movable in unison along the line of said holder, applicator, and container support.

4. In a labeling machine, a label holder, an adhesive applicator, a container support, and picker mechanism movable through a definite path between said label holder and said applicator and between said applicator and said container support, said label holder being automatically adjustable to maintain the uppermost of a stack of labels in a definite position relative to said picker mechanism regardless of variations in the size of the stack of labels.

5. The structure in claim 4 and said container support being adjustable relative to the defined path of said picker mechanism to permit variation of said support relative to the size and shape of the container supported thereby to maintain a surface of said container in a definite position relative to the defined path of movement of said picker mechanism.

6. In a labeling machine, a label holder, an adhesive applicator, a container support, suction picker means for moving labels between said label holder, adhesive applicator and container support, presser mechanism for pressing labels against containers upon which they are deposited after the application of adhesive, and a single power shaft operatively connected to said picker mechanism, adhesive applicator and said presser device to operate said elements in synchronism.

7. In a labeling machine, a label holder, an adhesive applicator, a container support, a pair of picker elements adapted to move labels from said label holder to said adhesive applicator and from said adhesive applicator to said container support, said picker elements having a common actuator and means for applying suction to said picker elements to permit labels to be picked up thereby.

8. In a labeling machine, a label holder comprising a vertically movable label supporting element and arranged to hold a vertically disposed stack of labels, means for limiting the upward movement of the stack of labels and said label support, and means for urging said label support upwardly toward said movement limiting means, said label support urging means being constructed to exert a greater upward pressure on said label support when the latter is in a lowered position with a relatively tall stack of labels thereon and being further arranged to exert a proportionally decreasing upward pressure upon said label support as the height of said stack of labels diminishes.

9. In a labeling machine, a label holder, an adhesive applicator and a support for an article to be labeled, a pair of picker elements adapted to concurrently pick up labels from said label holder and adhesive applicator respectively, and means for operating said picker elements to concurrently transfer the picked up labels respectively to said adhesive applicator and to the article on said support.

10. In a labeling machine, a label holder, an adhesive applicator intermittently actuated to move different surface sections thereof to stationary adhesive applying positions, a support for an article to be labeled, and transfer means for transferring a label from said holder to and into surface contact with the stationary surface section of said adhesive applicator to receive an application of adhesive therefrom and subsequently into adhesive contact with the article on said support in successive intermittent steps.

11. In a labeling machine, a support for articles to be labeled, means for depositing labels upon the articles on said support, and pressure means movable to and from operative relation with said support and operable vertically relatively thereto in said operative relation to develop pressure on said deposited labels to apply the same to said articles.

12. In a labeling machine having a label applying station, movable pressure means including a pressure pad adapted to occupy an inoperative position relatively to said applying station, means for operating said pressure means to shift said pressure pad into operative relation to said applying station, and means for operating said pressure pad in said operative relation to develop pressure whereby labels are applied to articles at said applying station.

13. In a labeling machine having a label applying station, pivotally movable pressure means including a pressure pad slidably mounted thereon, means for pivotally operating said pressure means to shift said pressure pad into operative relation to said applying station, and means for slidably operating said pressure pad in said operative relation to develop pressure whereby labels are applied to articles at said applying station.

14. In a labeling machine, a label holder, an adhesive applicator, a container support, suction picker means adapted to pick up and carry labels from said label holder to said adhesive applicator and thence to said container support, means for applying negative pressure to said picker means during the pick up and carrying of labels, and means for suddenly subjecting said picker means to positive pressure at predeter-

mined positions of the picker means to quickly release labels held thereby.

15. In a labeling machine, a label holder, an adhesive applicator, and a container support, label picker means adapted to carry labels from said holder to said applicator and thence to said container support, and said label picker means including a movable picker support adapted to oscillate said picker means in a substantially arcuate path, and said container support being positioned to hold containers with their label receiving surfaces substantially normal to the path of movement of said picker as it approaches and leaves said container support.

16. In a labeling machine, a holder for a supply of labels, a support for articles to be labeled, a first device for removing individual labels from said supply thereof to a predetermined point of said machine, and a second device for transferring said labels from said predetermined point and applying said transferred labels to the articles on said support subsequently to the removal of said labels from said supply by said first device.

17. In a labeling machine, a holder for a supply of labels, a support for articles to be labeled, a first suction device for removing labels from said supply to a predetermined point of said machine, and a second suction device for transferring said labels from said predetermined point and applying the transferred labels to the articles on said support.

18. In a labeling machine, a holder for a supply of labels, and a plurality of suction devices operating in succession on a given label to remove it from said supply to a predetermined point of said machine and to transfer said label from said predetermined point and to apply said transferred label to an article.

19. In a labeling machine, a label holder, an adhesive applicator, a label transfer device for transferring a label from said holder to the adhesive applicator to receive an application of adhesive therefrom, and means associated with said transfer device for pressing the label adjacent thereto into surface engagement with said adhesive applicator.

20. In a labeling machine, a label holder, an adhesive applicator, a suction picker device adapted to pick up and carry labels from said holder to said adhesive applicator to receive an application of adhesive therefrom and a flexible member carried by said picker device for pressing the labels into surface engagement with said adhesive applicator.

21. In a labeling machine, a label holder, an adhesive applicator intermittently actuated to adjust different surface sections thereof to a stationary adhesive applying position, a suction picker device for transferring individual labels from said holder to the stationary surface section of said adhesive applicator to receive an application of adhesive therefrom, and a flexible member carried by said picker device for pressing the labels into surface engagement with said adhesive applicator.

22. In a labeling machine having mechanism to supply gummed labels to a given point on a support for a container, a label pressing element movable in a flat plane to and from said point, means to move the element from said point while a gummed label is being supplied to a container at said point by said mechanism, and means thereafter to move the element in a flat plane to said point, to press a label in place.

23. In a labeling machine having mechanism to supply gummed labels to a support for a container, an element to press upon a container a label supplied by said mechanism, a pivotally mounted support for said element having a movement in a defined plane, apparatus to effect pivotal movement of said support out of the path of said mechanism during the label supplying step, and means to effect the defined plane movement of said support to impress said element directly against a label on the container.

24. In a labeling machine having a support for containers to be labeled and having means for supplying gummed labels to containers on the support, a label-pressing element mounted to swing about an axis, means to move the element radially while pressing a label against a container and mechanism to swing the element away from said radial, label-pressing plane while a gummed label is being supplied to a container on the support.

25. In a labeling machine, a holder for a supply of labels, a support for articles to be labeled, a first device for removing individual labels from said supply thereof to a predetermined point of said machine, a second device for transferring said labels from said predetermined point and applying said transferred labels to the articles on said support subsequently to the removal of said labels from said supply by said first device, and means for applying adhesive to the labels subsequent to their removal from said supply by said first device and prior to the application of said labels to the articles by said second device.

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