Oct. 8, 1940. G. W. VON HOFE 2,217,325

MACHINE FOR APPLYING LABELS AND THE LIKE

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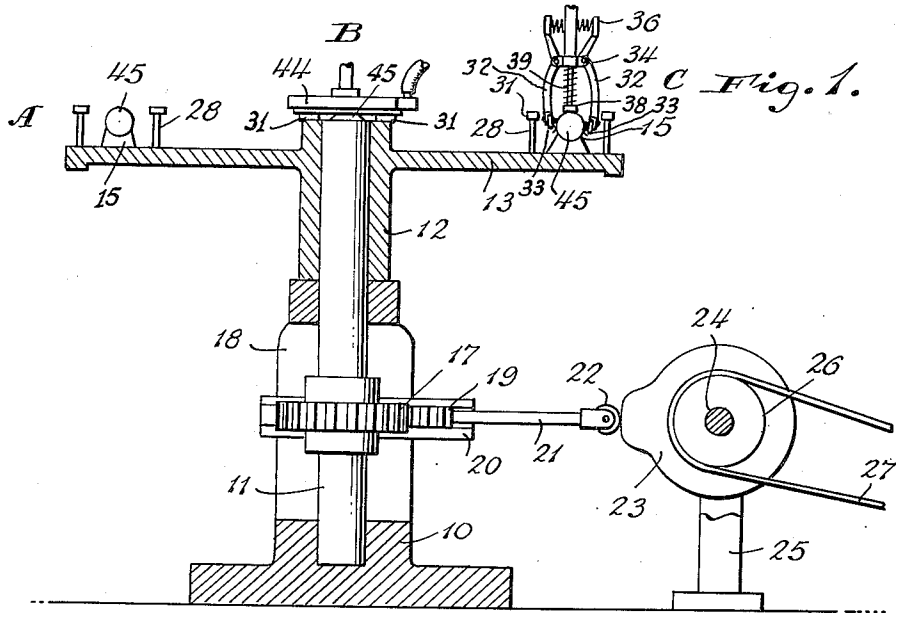


Fig. 1.

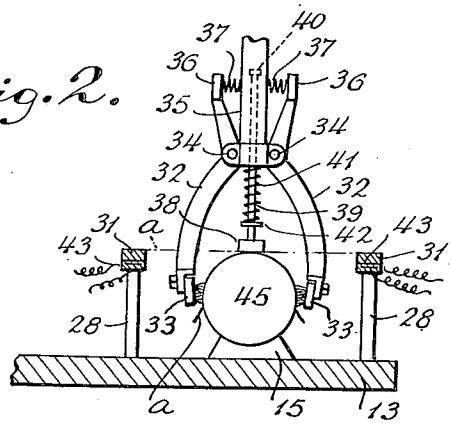


Fig. 2.

Fig. 3.

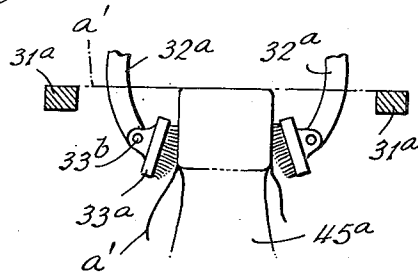
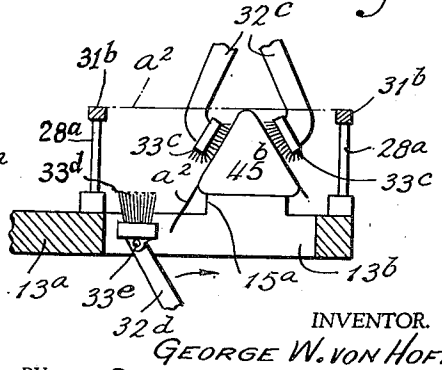


Fig. 4.



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Fig. 6.

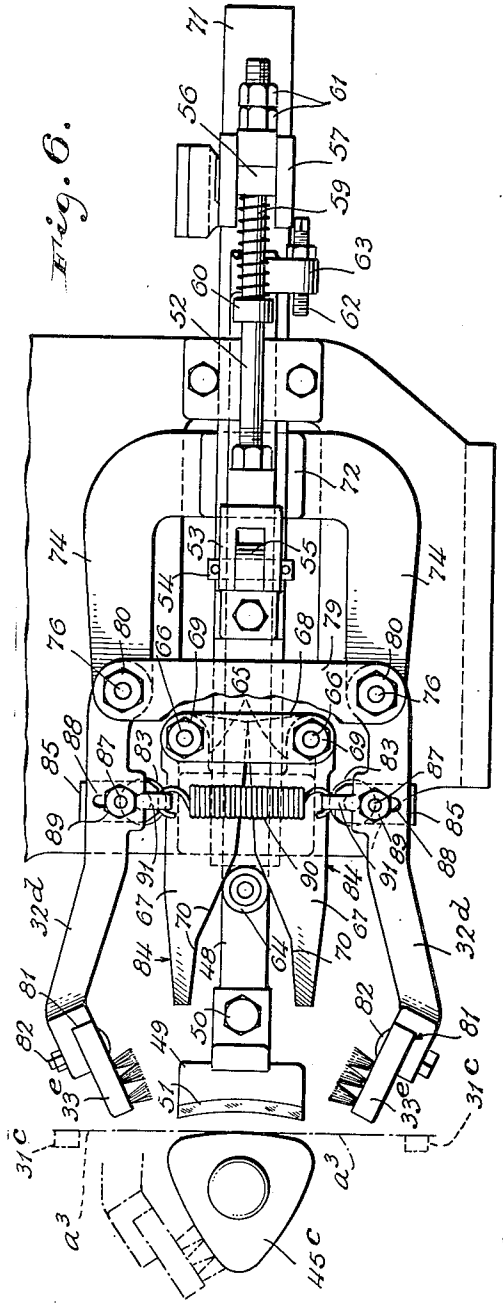
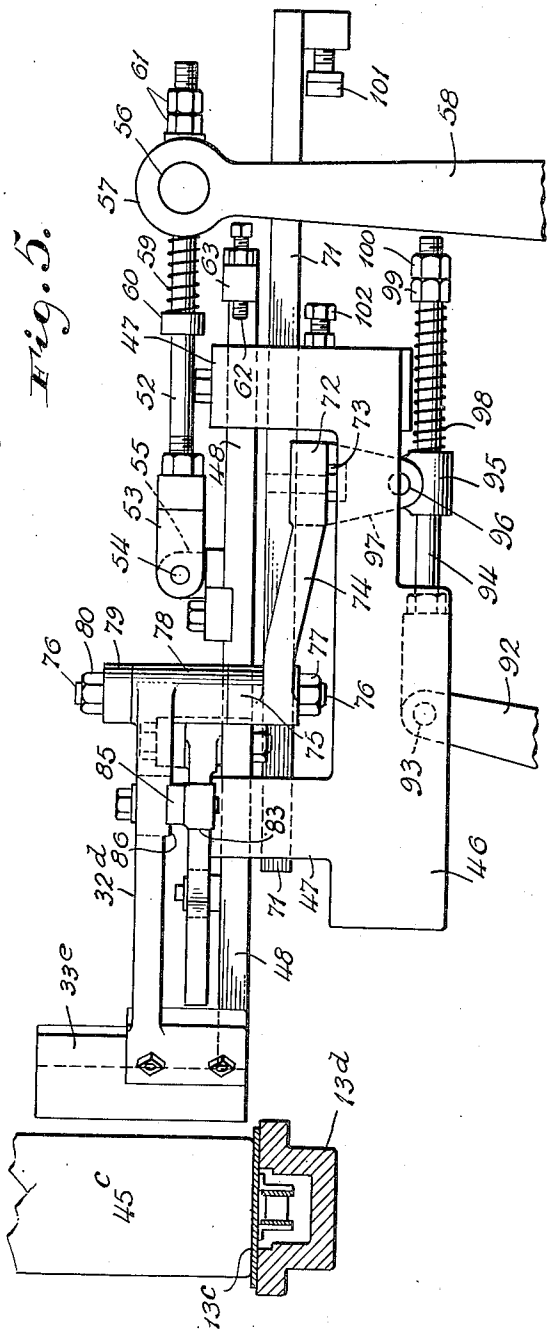


Fig. 5.



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Fig. 8.

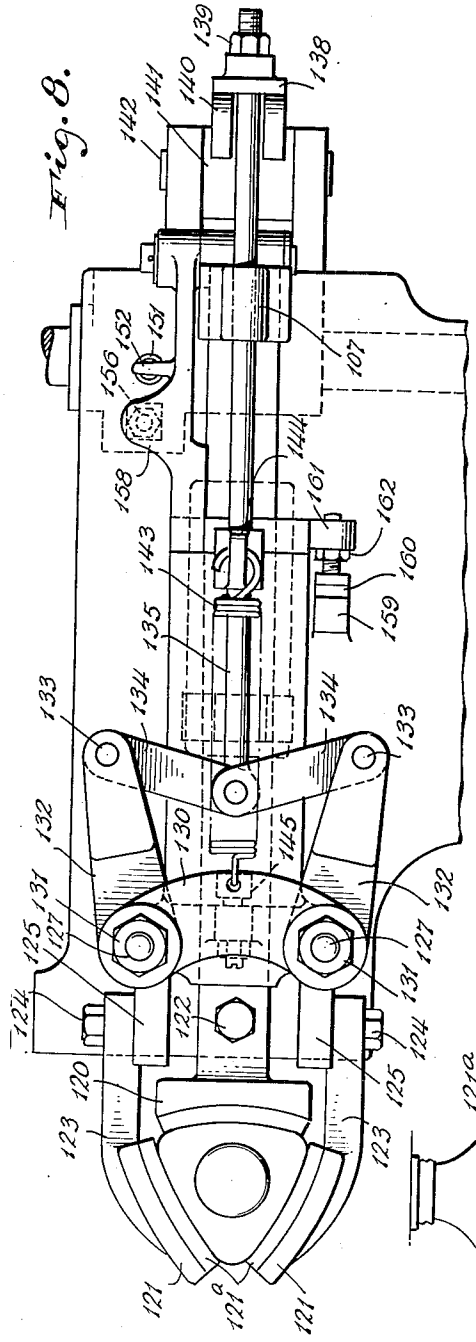
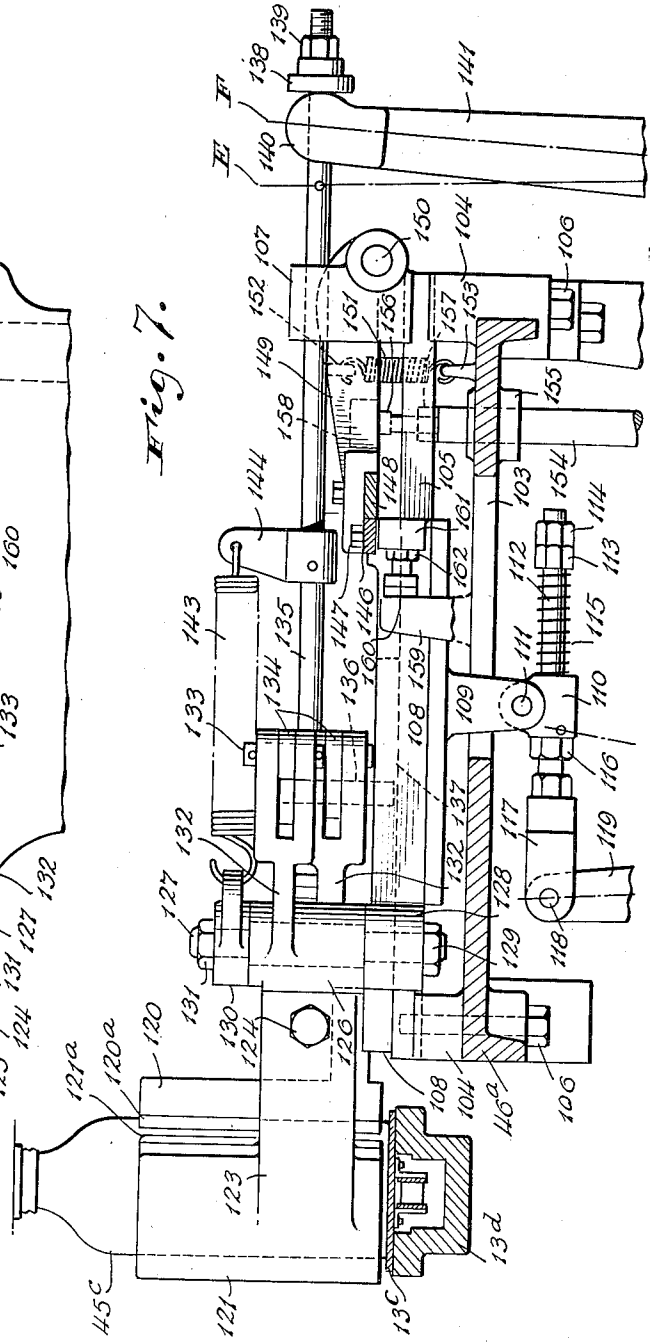


Fig. 7.



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Patented Oct. 8, 1940 2,217,325

UNITED STATES PATENT OFFICE

2,217,325

MACHINE FOR APPLYING LABELS AND THE LIKE

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Application March 26, 1938, Serial No. 198,187

18 Claims. (Cl. 216—38)

The invention relates to machines for applying labels and the like, and more particularly to adhesive coated labels, to the articles or elements for which the labels and the like are designed and has for its object to provide improved mechanism whereby the labels and the like, subsequent to the application of adhesive thereto, are supported in a novel manner to facilitate the application of said labels to predetermined articles or elements. The invention contemplates further the provision of simplified means for efficiently applying labels and the like having inherent characteristics, with respect to dimensions, shape and the like, which increase the difficulty of their application. In addition, the invention has for its purpose the provision of novel means for simplifying the application of labels and the like to articles or elements which, because of their shape or dimensions or both, or because of the predetermined position of the labels and the like thereon, complicate the applying operations. Other more specific objects will appear from the description hereinafter and the features of novelty will be pointed out in the claims.

The instant application is a continuation-in-part of another application filed by me in the United States Patent Office on July 15, 1936, Serial No. 90,921, and issued on May 31, 1938 as United States Patent No. 2,119,371.

In the accompanying drawings, which illustrate examples of the invention without defining its limits, Fig. 1 is a sectional elevation partly diagrammatic of one form of the novel machine; Fig. 2 is a fragmentary detail view of the novel arrangement; Figs. 3 and 4 are fragmentary detail views illustrating other forms of the label applying means; Fig. 5 is an elevation of another form of the label applying means; Fig. 6 is a plan view thereof; Fig. 7 is a sectional elevation of associated label applying means, and Fig. 8 is a plan view thereof.

The machine includes a support for the articles to be labeled, preferably movable in intermittent steps to transport said articles over a predetermined path at different points of which the labeling operations and associated steps are performed; in the selected example, which is diagrammatically illustrated in Fig. 1, the machine comprises a supporting frame or pedestal 10 of suitable type and dimensions in which an upright shaft 11 is journalled in any conventional manner. The shaft 11 projects upwardly beyond the frame 10 and is in keyed or equivalent connection with a bearing sleeve 12 which, in the illustrated example, rests upon the upper end portion of the frame 10 for rotation with said shaft 11 as will appear more fully hereinafter. The sleeve 12 carries and preferably comprises an integral part of a horizontal table 13 constituting the movable support and adapted to be intermittently rotated in a horizontal plane for transporting the articles to be labeled over said predetermined path and provided with a predetermined number of seats 15 located, for instance, at 90° intervals in a circle on said table 13.

In the operation of the specific form of the machine shown in Fig. 1 and selected for purposes of description, the shaft 11 and with it the table 13 is rotated intermittently in steps, each of which rotatively advances the table 13 through 90°, so as to shift the seats 15 over said predetermined path successively to the various stations, of which there are four in the illustrated machine; each of said stations, in the illustrated example, are located in associated relation to the predetermined path, at those points at which the table 13 temporarily comes to rest at the end of each 90° operation thereof. The first of the aforesaid stations may be termed the feeding station indicated at A, the second the label depositing station B, the third the wrapping or applying station C, the fourth station, which is not illustrated, may in practice be located, for instance, at a point diametrically opposite the station B, and may constitute an ejecting station at which the labeled articles are removed from the machine, or at which certain final steps to apply the labels to the articles may be performed. It will be understood that the various station designations are used merely for purposes of description and that they accordingly may vary in accordance with the different operative steps performed thereat, or at equivalent stations, in other specific types of the novel machine.

Any suitable mechanism may be provided for effecting the intermittent rotation of the table 13 in the desired manner. For instance, as shown in Fig. 1 of the drawings, the shaft 11 at an intermediate point may be provided with a gear wheel 17 fixed upon said shaft 11 in any suitable manner to rotate therewith, it being understood that the illustrated support or pedestal 10 is constructed to accommodate said gear wheel 17 and its associated mechanism as indicated at 18. The gear wheel 17 is arranged in mesh with a rack 19 mounted for horizontal reciprocation in a suitable guide 20 fixed upon the support 10 in any convenient manner; it is to be understood

that suitable provision is made so that during its one stroke the rack 19 will rotatively actuate the gear 17 and with it the shaft 11 and the table 13, while during its reverse movement the rack 19 will simply develop a recovery stroke without operatively effecting the shaft 11 and table 13. In other words, the arrangement is such that each operation of the table 13 is followed by a period of rest during which the operative steps at the various stations A, B, C etc. may be effected. For the purpose of illustrating the mechanism whereby the rack 19 is reciprocated, said rack 19 is provided with a rod 21 projecting from one end thereof and carrying a roller 22 in rolling engagement with a cam 23 fixed upon a driving shaft 24 journalled in conventional bearings upon an upright frame 25; any customary means may be provided for maintaining the roller 22 in operative engagement with the cam 23. The latter may be driven as illustrated by means of a pulley 26 mounted upon the shaft 24 and a belt 27 connected with any selected form of driving mechanism such as a motor or the like.

In the novel machine in all of its forms, successive labels are carried by a transferring means, preferably first into adhesive receiving relation with an adhesive applying means, and subsequently to the application of the adhesive are delivered by said transferring means to a label supporting means with which the machine is provided; the label supporting means supports a label in applying relation to the article for which it is designed or to put it more specifically, means is included in the machine for detachably supporting at least one end and preferably both ends of a previously gummed label, while the latter is in position for application to said article. The machine in question is designed specially for applying labels provided on one surface with a coating of adhesive either as indicated above or in any other well-known way.

In the example of the machine now being described, the previously mentioned label supporting means is illustrated in the form of upright posts 28 located upon opposite sides of each seat 15 in spaced relation thereto, or in other words, in operative position upon opposite sides of the article to be labeled, at distances dependent upon the dimensions of the articles and labels for which the machine is primarily designed. At their upper ends the upright posts 28 are provided with supporting members 31, the upper surfaces of which preferably are located at a common level predetermined for instance with respect to the article to which the labels are to be applied. The form under discussion further includes applying or wrapping means whereby the label is applied to or wrapped about the article, said wrapping means being located at a station corresponding to the station C of Fig. 1, or being otherwise disposed in dependence upon the type of machine in which said wrapping means is incorporated. In the illustrated example the wrapping means comprises levers 32 provided with brushes 33. It will be understood that any suitable mechanism operating in properly timed relation to the other parts of the machine may be provided for vertically operating the levers 32 and brushes 33 for the purpose to be more fully set forth hereinafter. In addition, a pressure member 38 is mounted upon a rod 39 which itself is slidably mounted and guided in its vertical movement in any convenient manner. In the preferred form the machine as shown diagrammatically in Fig. 2 may be provided with means for heating the supporting members 31 for the purpose of maintaining the adhesive coating of the labels in a tacky condition whereby the manipulation and application thereof is facilitated. Such heating means may be of any suitable character and as indicated at 43 is of an electrically operated type.

The machine further includes any conventional means for bringing successive labels into the applying position at the applying station B, which means may comprise the previously mentioned transferring means; in such case the latter may operate to carry the labels into adhesive receiving relation with an adhesive applying means, and subsequently to the application of the adhesive, to deliver the gummed labels to the secondary supporting means referred to above. Generally, such transferring means may consist of or include a suitably actuated suction controlled transfer head 44 arranged to remove the terminal label from a stack or other supply of labels and to pass said label over an adhesive applying roll in any well-known way, for instance in tangential contact therewith, whereby a coating of adhesive or its equivalent is applied to said label, and to then carry the adhesive coated or gummed label to the depositing or delivery position at station B. As the mechanism for transferring individual labels successively from a supply thereof to the adhesive applying means and subsequently to the applying position at station B per se forms no part of the instant invention and as the mechanism in question may be of any conventional type, it has not been deemed necessary to illustrate the same in detail.

In practice the table 13 may be intermittently operated by means of the cam 23, the rack 19, the gear 17 and associated elements to intermittently rotate the shaft 11 in successive quarter turns about its axis to bring the seats 15 to the successive stations corresponding to the stations A, B, C, etc. In such case, the article 45, illustrated as of cylindrical form, is placed in position on a seat 15 at the station A and is then carried to the depositing station B, it being understood that when this transfer takes place the levers 32 and associated elements will occupy a raised position at station C so as not to interfere with the described movements of the table 13. When the article 45 reaches the depositing station B, a label *a* is carried by suitable prime supporting means, for instance, such as the transfer head 44 hereinbefore referred to, into adhesive receiving relation with an adhesive applying means as exemplified by the previously mentioned adhesive roll, and subsequently to the application of the adhesive is transferred by said prime supporting means to a position in which the opposite ends of said gummed label *a* are deposited upon and adhesively attached to the upper surfaces of the carrying members 31 with an intermediate portion of the label *a* for instance though not necessarily, in tangential contact with the surface of the article 45. Because of the tacky condition of adhesive coating at this stage, the label *a* at its opposite ends will adhere lightly to the carrying members 31 in temporary adhesive connection therewith and accordingly will be held in position thereby for application to the article, the latter in the illustrated example co-operating with said supporting members 31 in thus supporting said label *a*. When the aforesaid operation of positioning a label *a* has been completed, the table 13 will be actuated to bring the article 45 with the label *a* in applying relation thereto, to the wrapping station C. At this stage and in

proper operative synchronism with the other parts of the machine, the pressure member 38 will be moved downwardly into initial contact with the label *a* at the point of registry thereof with the article 45 to thereby press said label *a* into firm adhesive engagement with said article at this point and to maintain said label *a* against displacement thereon, as will be apparent. At the same time the levers 32 will be given a downward movement to cause the rollers 33 to engage the label *a* on opposite sides of the pressure member 38 and to withdraw the opposite ends of said label from the carrying members 31; in the continuing downward movement of the parts the brushes 33 will follow the outer shape of the article 45, which in the illustration is cylindrical, and accordingly will wrap the label *a* about said article 45 or in other words, apply said label thereto as indicated in Fig. 2. During these operative steps the brushes 33 will develop a pressure upon the label *a* to cause it to firmly adhere to the article 45 and to effect an efficient application of said label *a* to said article 45. In some instances the label *a* may be adhesively deposited upon the carrying members 31 and applied to the article 45 in operative succession at a given station instead of having these successive operative steps carried out at different stations.

The form of the applying means illustrated in the fragmentary manner in Fig. 3 is designed especially for applying labels as exemplified for instance, by revenue stamps to the heads of bottles or the like. The machine under discussion accordingly also includes label supporting means for supporting a previously gummed label in position for application to an article, which supporting means, as illustrated, includes supporting members 31^a corresponding to the carrying members 31 and similarly mounted upon a movable support whereby the articles to be labeled are transported, for instance in intermittent steps, over a predetermined path, such as the table 13. In addition suitable provision may be made upon the movable support for supporting the article 45^a in position between the carrying members 31^a. The machine furthermore also includes label transfer means, for instance, such as the previously mentioned transfer head 44, for similarly carrying a label into adhesive receiving relation with adhesive applying means and subsequently depositing the adhesive coated label upon the label supporting means in applying relation to an article and with the opposite ends of said label in temporary adhesive contact with the supporting members 31^a. The machine is also provided with applying or wrapping means illustrated in the form of levers 32^a which may correspond in construction and operation to the levers 32 and carry at their free ends wrapping devices shown in the form of brushes 33^a pivotally secured at 33^b to the levers 32^a; it will be understood that the aforesaid wrapping means may, as in the previous forms, be located at a wrapping station C.

As the article 45^a is brought to the label depositing station corresponding to the station B, a label *a'* is brought by the label transfer means, such as the transfer head 44, into position for deposit upon the label supporting means and for application to the article, with the opposite ends of said label *a'* in adhesive temporary connection with the supporting members 31^a; in the preferred arrangement an intermediate portion of said label *a'* at this stage rests upon the article 45^a. In such case the latter thus co-operates with the supporting members 31^a in supporting the label *a'* in applying position. After the label *a'* has been placed in position as described, the movable support corresponding for instance to the table 13, is rotatively actuated or otherwise manipulated to bring the article 45^a with the label *a'* in the applying position previously mentioned, to the wrapping or applying station corresponding to the station C of Fig. 1. The levers 32^a are then moved downwardly into contact with the label *a'* which, as the downward movement of the levers 32^a continues, is withdrawn from the carrying members 31^a and wrapped upon or applied to the article 45^a, as will be apparent. It will be understood that the levers 32^a are preferably under the influence of springs, so that the brushes 33^a develop a yielding pressure upon the label *a'* as it is being applied to the article 45^a; it will similarly be obvious, because of the pivotal connection of the brushes 33^a with the levers 32^a that said brushes will automatically accommodate themselves to the progressive wrapping or applying operation and to the surface contour of the article 45^a to which the label *a'* is being applied.

In Fig. 4 the machine is diagrammatically illustrated in a form designed specially for applying labels to or wrapping labels upon articles of triangular, rectangular or polygonal form; for purposes of description an article 45^b of triangular shape in cross-section has been selected. The form of the machine under discussion may be of the same general type and operate in the same general manner as those previously described herein, and embodies a label transfer means, such as for instance, the transfer head 44, for carrying a label into adhesive receiving relation with an adhesive applying means, and subsequently depositing the adhesive coated label in applying relation to the article for which it is intended. The form of machine being described may further include a table 13^a similar to the previously mentioned table 13, and also provided with label supporting means for receiving the gummed labels from the label transfer means and supporting said labels in position for application to the articles for which said labels are designed; as illustrated, the aforesaid label supporting means comprises upright posts 28^a located upon the upper surfaces of said table 13^a in spaced parallel relation to each other as shown; the upright posts 28^a at their upper ends are provided with supporting members 31^b adapted, as in the forms shown in Figs. 2 and 3, to support the label a^2 in wrapping or applying position. The table 13^a further includes seats 15^a arranged upon opposite sides of an opening 13^b with which the table 13^a is provided as illustrated in Fig. 4; the seats 15^a are arranged to support the article 45^b over the opening 13^b so as to extend across the same for the purpose to be more fully set forth hereinafter. In the form now being described, the seats 15^a are closer to one of the carrying members 31^b of a given pair than to the other one of the carrying members of said pair, as indicated in Fig. 4. The machine illustrated in Fig. 4 further includes wrapping or applying means located, for instance at a station C, for applying or wrapping the label to or upon the specific articles; in its illustrated form this wrapping means consists of levers 32^c corresponding to the levers 32 of Fig. 2 and mounted and operated in the same or an equivalent manner to secure the desired results. At their free ends, the levers 32^c are provided with wrapping members illustrated in the form of

brushes 33c which may be fixed upon said levers 32c, or otherwise supported thereon as may be found necessary in any given machine. In addition the machine of Fig. 4 includes an additional lever 32d provided at its free end with a wrapping member shown also in the form of a brush 33d pivotally connected with the lever 32d at 33e; the lever 32d is operated in any convenient manner to reciprocate the brush 33d lengthwise of the opening 13b of the table 13a.

In practice after the article 45b has been placed in position upon the seats 15a at a feeding station corresponding to the station A of Fig. 1, the table 13e may be rotatively actuated to bring the article to the delivery or depositing station such as the station B in Fig. 1. At this point the label is carried by a label transfer means for instance into adhesive receiving relation with an adhesive applying means, and the adhesively coated label a^2 is then carried by the label transfer means such as hereinbefore described into position for deposit upon the label supporting means whereby said label a^2 is held in position for application to the article 45b; in this position the label a^2 has its opposite ends in temporary adhesive connection with the carrying members 31b and at an intermediate point nearer its one end may be in contact with the outer surface of the article 45b as shown in Fig. 4. The article 45b, as here shown may thus also cooperate with the supporting members 31b in supporting the label a^2 in position for application to said article 45b. When the label a^2 has been placed in applying position at the station B, the table 13a is again actuated to shift the article 45b and the label a^2 in the applying position to the wrapping or applying station corresponding for instance, to the station C of Fig. 1. When this has been done, the levers 32c are moved downwardly by suitable means to bring the brushes 33c into contact with the label a^2 which, as the downward movement of the levers 32c continues, is withdrawn from the carrying members 31b and applied to the two diverging outer surfaces of the article 45b. At the completion of this step the label a^2 will be adhesively connected with the two aforesaid surfaces of the article 45b and will project downwardly beyond one of said surfaces as indicated by solid lines in Fig. 4; this is due to the fact that the article 45b is located nearer to the one carrying member 31b than to the other, or in other words, is closer to one end of the label a^2 than to the other. As the next step in the wrapping or applying operation the lever 32d is operated in the direction of the arrow in Fig. 4 to cause the brush 33d to bring the depending portion of the label a^2 into adhesive contact with the lower surface of the article 45b; the aforesaid depending portion of said label a^2 will thereby be adhesively connected with said lower surface of the article 45b and accordingly will complete the application of the label to such article. It will be understood that the machine may be adapted for applying labels to articles of rectangular or polygonal form in a corresponding manner by arranging the applying mechanism accordingly.

In Figs. 5 and 6 is illustrated another form of mechanism for applying the labels to the articles for which they are designed, and which may be substituted for the means shown in Figs. 1 and 2, and at the same time illustrates in detail an example of the means whereby the brushes 33a of Fig. 3 and the brushes 33c of Fig. 4 may be operatively actuated. The mechanism or means disclosed in Figs. 5 and 6 furthermore is capable of being utilized in other ways, as shown by way of example in the two figures hereinbefore referred to. For purposes of simplicity the mechanism or means under discussion will be described, as to construction and operation, with respect to the specific arrangement illustrated in Figs. 5 and 6; it is to be understood that this is not to be construed as defining the limits of utility of such mechanism or means which, as will appear more fully hereinafter, may be substituted for the corresponding mechanism shown in Figs. 1 to 4 inclusive, and in addition, may be embodied with equal efficiency in many other types of labeling machines or their equivalent.

In describing the arrangement illustrated in Figs. 5 and 6, it will be assumed that labels a^3 are being applied to articles 45c, exemplified by bottles of triangular form in cross-section, the labels a^3 being caused to adhere to the base and two sides of the triangular body as indicated in Fig. 6. The bottles 45c are carried for instance in an upright position, upon a movable support 13c, which may be an endless conveyor having its one run supported upon a grooved supporting rail 13d arranged to accommodate portions of the advancing means; in any case, the movable support 13c is operated periodically in any conventional manner to intermittently transport said bottles 45c over a predetermined path which extends in associated relation to a plurality of stations, for instance, as exemplified by the stations A, B, C, etc. of Fig. 1. It will be understood, in such event, that the several stations or their equivalents are located at points corresponding to those at which the movable support 13c is temporarily at rest subsequent to each intermittent advance thereof.

Thus the applying mechanism or means illustrated in Figs. 5 and 6 may for instance be located at an applying station corresponding to the label applying station C of Fig. 1. Suitable provision is made to maintain the bottles 45c in an upright position on the movable support 13c and suitable means operating in properly timed synchronism with the label applying means is provided at the label applying station as shown for instance in my United States Patent No. 2,153,355 of April 4, 1939, to prevent displacement of the bottles 45c on the support 13c during the application of the labels a^3 at said applying station.

In the selected example, the mechanism or means under discussion comprises a supporting base 46 of suitable form and dimensions, provided with spaced upright guide brackets 47 for slidably accommodating a main slide member 48. The latter at its one end carries a pressure member or plate 49 preferably removably fastened in place, for instance, by means of a cap screw 50 as shown in Fig. 6; in the preferred arrangement the pressure plate 49 is faced with a cushion 51, the active surface of which is shaped to correspond to the contour of the surface against which the label a^3 is to be pressed by the pressure member 49 as will appear more fully hereinafter.

Any convenient means may be provided for operating the main slide member 48 and its associated elements in propely timed synchronism with the rest of the mechanism. For example, as shown, an operating rod 52 may have its one end formed at 53 and pivotally connected at 54

with a lug 55 projecting upwardly from said slide member 48. At its other end the rod 52 is slidably connected with a swivel 56 pivotally mounted in the forked end 57 of a rocking operating lever 58 operated and controlled in properly timed synchronism with the other mechanism in any suitable manner to provide the desired results. To yieldingly control the connection between the rod 52 and the lever 58 as may be necessary in the operation of the parts, the rod 52 may carry a coil spring 59 having its one end in engagement with the swivel 56 and its other end in contact with a collar 60 fixed upon the rod 52; the latter may be threaded for the accommodation of a plurality of nuts 61 whereby the tension of the spring 59 may be selectively adjusted at will. In order to arrest the movements of the main slide member 48 in one direction and thereby correspondingly control the pressure member 49, the slide member 48 may be provided with a stop, preferably in the form of a screw 62 adjustably mounted in a lug 63 projecting from the member 49, said screw 62 being arranged to engage the one guide bracket 47 as shown in Figs. 5 and 6.

For the purpose to be more fully set forth hereinafter, the main slide member 48 carries a roller 64 mounted to rotate about an axis perpendicular to said member 48 as shown. The one guide bracket 47 is formed with two spaced lugs 65 having studs 66 on which cam members 67 are pivotally mounted; a bridge 68 and nuts 69 serve to maintain said cam members 67 on said studs 66 without interfering with the pivotal movements thereof. The cam members 67 include opposed inner cam surfaces 70 with which the previously mentioned roller 64 cooperates in a manner and for the purpose to be more clearly explained hereinafter.

The mechanism under discussion further includes a secondary slide member 71 slidably mounted in the guide brackets 47 in spaced parallel relation to the main slide member 48; in the specific arrangement illustrated in Figs. 5 and 6 the secondary slide member 71 is beneath the main slide member 48. A supporting bracket 72 is fastened to the lower face of the secondary slide member 71 for instance by means of a screw 73, and carries arms 74 which project from said bracket 72 in a given direction in spaced relation to the slide member 71 upon opposite sides thereof as illustrated in Fig. 6.

The arms 74 of the bracket 72 serve to support the label applying members and in the arrangement shown terminate at their free ends in hubs 75 in which pivot studs 76 are mounted and fastened in place in any convenient manner as by means of nuts 77. The label applying members, in the illustrated example, comprise levers 32^e corresponding to the levers 32, 32^a and 32^b of the forms shown respectively in Figs. 2, 3. and 4, and pivotally connected with the studs 76; to properly position the levers 32^e relatively to the associated elements, said levers 32^e may be provided with sleeves 78 resting upon the hubs 75 as illustrated in Fig. 5. The levers 32^e are maintained against axial displacement on the studs 76 without interference with the pivotal movements of said levers in any suitable manner, as by means of a bridge 79 fixed in place on said studs 76 by nuts 80 as shown in Figs. 5 and 6. At their free ends the levers 32^e carry label applying devices which, in the specific example, are shown in the form of brushes 33^f seated in recesses 81 and preferably removably fastened in place as by means of bolts 82 or the like. It will be understood that the brushes 33^f may be replaced by other types of label applying devices as for instance rollers such as the rollers 33 of Figs. 1 and 2.

At intermediate points the levers 32^e carry rollers 83 located in rolling contact with outer cam surfaces 84 with which the cam members 67 are provided as shown in Fig. 6. In the preferred arrangement the rollers 83 are adjustable relatively to the levers 32^e in directions transversely thereof, and in the illustrated example accordingly are journalled on bearing blocks 85 slidable between guide ribs 86 or the like formed on a given surface of each of said levers 32^e as illustrated, for instance, in Fig. 5. Any suitable means may be provided for fixing the blocks 85 and rollers 83 in adjusted positions; as shown by way of example, the blocks 85 may carry screw-threaded studs 87 projecting through slots 88 with which the levers 32e are provided, and accommodating nuts 89 whereby said blocks 85 are secured against relative movement. The rollers 83 are yieldingly held in engagement with the outer cam surfaces 84 of the cam members 67 in any conventional manner, as by means of a coil spring 90 having its opposite ends attached to lugs 91 projecting toward each other from the respective levers 32^e; the spring 90 or its equivalent serves also to yieldingly pull the brushes 33^f or equivalent applying device inwardly toward each other for the purpose to be more fully described hereinafter.

Any suitable operating means may be provided for operating the secondary slide 71 and its associated elements in properly timed synchronism with the cooperating parts of the machine. In the illustrated example the operating means includes a rocking lever 92 controlled and operated, for instance, by a suitable cam (not shown), and having its one end pivotally connected at 93 with the forked end of an operating rod 94 which is slidable in a swivel-head 95 pivotally fastened at 96 in a forked projection 97 projecting from the supporting bracket 72 as shown in Fig. 5. A coil spring 98 is mounted on the rod 94 with its one end in contact with the swivel-head 95 and its other end in engagement with a nut 99 threaded upon the free end of the rod 94 and fixed in place by a lock-nut 100. With this arrangement the connection between the rod 94 and swivel-head 95 is capable of yielding when necessary; the tension of the spring 98 to vary the yielding resistance thereof may be selectively varied by adjusting the nuts 99 and 100 on the rod 94 as will be apparent. For the purpose of arresting the movement of the secondary slide member 71 in one direction, said member may carry a stop 101 arranged to engage a preferably adjustable stop 102 projecting from the one guide bracket 47 as illustrated in Fig. 5.

Inasmuch as the specific means whereby the operating levers 58 and 92 are controlled and operated per se forms no part of the invention, it has been deemed unnecessary to illustrate the same, as the desired operative results obviously may be secured in any conventional manner, as by means of suitable cams actuated in any well-known way. In the operation of the illustrated mechanism, the levers 52 and 92 are merely rocked to reciprocate the main and secondary slide members 48 and 71 respectively in properly timed operative synchronism to cause the elements associated with the respective slide members 48 and 71 to function in the desired manner.

In practice the movable support 13c is intermittently operated to advance said support 13c in successive steps over a predetermined path extending in associated relation to different stations corresponding for instance to the stations A, B, C, etc. of Fig. 1. A bottle 45c or equivalent article to be labeled may accordingly be placed in position upon the support 13c during a rest period in which the latter is stationary, for instance at a feeding station such as the station A. During the next subsequent advance of the support 13c the bottle 45c is carried to the next station such as for instance the label depositing station B of Fig. 1 and comes to rest thereat. At this last named station a previously gummed label a^3 is deposited, for instance, in the manner previously described herein upon carrying members 31c so as to be supported thereby in applying relation to the bottle 45c or its equivalent; at this stage, the label a^3 at an intermediate point may be in contact with the bottle 45c or other article as shown in Fig. 6, although this is not essential.

When the operations at the depositing station such as the station B, have been completed, the support 13c is again advanced to carry the bottle 45c or other article with the label a^3 in applying relation thereto, to the next station, which may correspond for instance to the applying or wrapping station C of Fig. 1. At this applying station, such as C, the mechanism shown in Figs. 5 and 6 may, as previously stated, be located; during the rest period at said applying station, the mechanism illustrated in Figs. 5 and 6 will operate in the following manner to apply the label a^3 to the bottle 45c or its equivalent.

As the initial step the operating lever 58 is actuated to shift the main slide member 48 to the left in Figs. 5 and 6 to thereby correspondingly move the pressure member 49 toward the bottle 45c until the cushion 51 thereof engages the surface thereof. When this occurs the label a^3 will be adhesively applied and pressed against the bottle surface, and as the pressure member 49 remains temporarily in the aforesaid engagement with said bottle 45c, the label a^3 will be securely held in position thereon. As the main slide member 48 is moved in the indicated manner toward the left in Fig. 6, the roller 64 will be correspondingly shifted along the inner cam surfaces 70 of the cam members 67. Because of the contour of said cam surfaces 70, the cam members 67 will be relieved from the restraining action of said roller 64 as the latter moves with the slide member 48 toward the left in Fig. 6. As these operations take place the cam members 67 will be pivotally actuated inwardly toward each other under the influence of the spring 90 transmitted through the rollers 83 to the levers 32e. At the same time the latter, by the action of the spring 90, will follow this inward movement of the cam members 67, and thereby will correspondingly adjust the brushes 33f or their equivalent inwardly to label applying positions. When this operative stage has been reached, the operating lever 92 will be actuated to slidably shift the secondary slide 71 toward the left in Figs. 5 and 6, and thereby correspondingly move the bracket 72 and arms 74 in a direction toward the bottle 45c. As these operative steps take place, the levers 32e will be carried along in the same direction, and the rollers 83 will traverse the outer cam surfaces 84 of the cam members 67, so that the brushes 33f or their equivalent will engage the label a^3 at points between the bottle 45c and the carrying members 31c. Continuing the movement in the indicated direction, the brushes 33f will develop a pressure upon the label a^3 and thereby withdraw the opposite ends thereof from the carrying members 31c and then fold the opposite end portions of said label a^3 into contact with the two converging surfaces of the specific bottle 45c shown in Fig. 6. The brushes 33f will continue to travel in the manner described and will follow the surface contour of the bottle 45c or other article as shown by dotted lines in Fig. 6, with an even pressure thereon under the influence of the spring 90, the rollers 83 meantime following the outer cam surfaces 84 of the cam members 67. The aforesaid end portions of the label a^3 will thereby be brushed on or applied to said two converging surfaces of said bottle 45c, or in a corresponding manner to other types of articles.

When the application of the label a^3 to the bottle 45c or its equivalent has been completed, the main slide member 48 is shifted to the right in Figs. 5 and 6, to thereby correspondingly move the pressure member 49 away from the bottle 45c or other article. The roller 64 will move with the main slide member 48 toward the right and by acting on the inner cam surfaces of the cam members 67 will force the latter apart or, in other words, in directions away from each other. This outward movement of the cam members 67 will be communicated to the rollers 83 and by the latter will be transmitted to the levers 32e which accordingly will likewise be pivotally shifted in directions away from each other; as a result of this, the brushes 33f will be moved to inoperative positions outwardly beyond the bottle 45c or its equivalent. At this stage, the secondary slide member 71 is shifted to the right with its associated elements to thereby restore the brushes 33f to the normal position illustrated by solid lines in Fig. 6 after which the operations of the mechanism described above are repeated at the proper time in the succeeding operative cycle.

In some instances the aforesaid operations may complete the application of the label a^3 to the bottle or other article 45c, in which case the labeled article is carried away from the station at which the mechanism of Figs. 5 and 6 is located, by the next advance of the support 13c and removed from the latter either manually by an operator or automatically by suitable mechanical means.

In other instances the application of the label a^3 by the mechanism described above may be followed by a subsequent operation at another station whereby the label a^3 is subjected to the action, for instance, of pressure elements to firmly and uniformly press the label a^3 in place and thereby complete the application thereof. An example of means whereby such pressure elements are controlled and operated is shown in Figs. 7 and 8 which accordingly may illustrate a pressure station located in associate relation to the predetermined path over which the bottles or equivalent articles 45c are transported by the movable support 13c. It will be understood that the so-called pressure station is located so that the labeled bottle or other article 45c will be in proper registry therewith during a rest period between successive advances of the support 13c; for instance, the illustrated mechanism of the pressure station may be located in associate relation to the aforesaid predetermined

path at a point thereof beyond the previously mentioned applying station C.

In the specific arrangement shown in Figs. 7 and 8, the mechanism is mounted on a supporting base 46a having a slot or opening 103 for the purpose to be more fully set forth hereinafter, and provided with spaced bosses 104 on which a stationary guide rail 105 is fastened in any suitable manner as by means of bolts 106. One of the latter, as illustrated, screws into one reduced end portion of the rail 105, while the other may pass through the other reduced end portion thereof into screwthreaded engagement with a slide bracket 107, as shown at the right in Fig. 7. A carriage 108 of suitable type and dimensions is slidably mounted on the rail 105 for reciprocation thereon by conventional means operating in predetermined time synchronism with the associated elements. To exemplify the manner in which said reciprocation may be effected, the carriage 108 may be provided with a lug 109 projecting through and movable lengthwise of the slot or opening 103 of the base 46a, and carrying a swivel-head 110 pivotally connected with said lug 109 at 11. An operating rod 112 projects through said swivel-head 110 so as to be slidable therein, and is threaded at its free end for the accommodation of an abutment nut 113 and a lock nut 114. A coil spring 115 is carried by said rod 112 with its one end in engagement with the abutment nut 113 and its other end in contact with one side of the swivel-head 110, to provide a resilient yielding connection between the latter and said rod 112; a stop nut 116 or its equivalent is carried by the rod 112 for engagement with the other side of said swivel-head 110 to arrest the sliding movement of said rod 112 under the influence of the spring 115. At the end opposite to its free end the rod 112 is formed with a fork 117 pivotally connected at 118 with an operating lever 119 operatively controlled for instance by a suitable and conventional cam (not shown) in a manner to reciprocate the carriage 108 on the rail 105 in properly timed relation to the associated elements.

The carriage 108 constitutes a movable support for a relatively fixed pressure member 120 and cooperating relatively movable pressure members 121, all of which function in a manner to be more fully described hereinafter; as shown in Fig. 8, the pressure members 120 and 121 may be provided with pads or cushions 120a, 121a upon their respective active faces, the exposed faces of said pads 120a and 121a preferably conforming to the surfaces of the articles 45c for which the pressure members 120 and 121 are designed. The pressure member 120 is mounted on the carriage 108 for instance by means of a screw 122, so as to be removable at will, and in the illustrated example is located between the pressure members 121.

The latter are carried by arms 123 detachably fastened by means of screws 124 or the like, to lugs 125 projecting outwardly from sleeves 126 preferably as integral parts thereof. The sleeves 126 are pivotally mounted upon pivot pins 127 supported upon projections 128 forming part of the carriage 108 and spaced apart transversely thereof; in the illustrated example the pins 127 project perpendicularly to the carriage 108 and are secured in place by means of nuts 129. The sleeves 126 are maintained against displacement on said pins 127 without interference with their pivoted movements thereon, by a bridge 130 and nuts 131.

The movable pressure members 121 may be relatively operated to effect the desired results, in any suitable manner, and preferably are operatively controlled by the mechanism shown in Figs. 7 and 8. In the illustrated example the sleeves 126 are provided with preferably integral levers 132 extending therefrom in directions away from the pressure members 121. At their free ends the levers 132 are forked for pivotal connection at 133 with links 134 which themselves are pivotally connected with each other and with a control rod 135 by means of pivot pin 136; the latter projects into and is guided in a groove 137 extending lengthwise of the carriage 108, for reasons which will appear hereinafter.

The control rod 135 is slidably supported in the slide bracket 107 and is screwthreaded at its free end for the threaded accommodation of an abutment 138 fixed in an adjusted position on said rod 135 by means of a lock nut 139 or its equivalent. As shown in Figs. 7 and 8, the rod 135 extends loosely through the forked end 140 of an operating lever 141 pivoted at 142 and arranged to be rocked as indicated by the broken lines E and F in Fig. 8 by means of a suitable and conventional cam (not shown) to operate the rod 135 and its associated elements in the manner and for the purpose to be more fully set forth hereinafter. A coil spring 143 has its one end connected with the bridge 130, and its other end attached to a bracket 144 fixed upon the rod 135, and serves to normally maintain the toggle formed by the links 134 in a broken position in contact with an adjustable stop 145 on the carriage 108, to thereby swing the pressure members 121 in directions away from each other to normal inoperative positions outwardly beyond the bottle 45c or its equivalent, and to return said members 121 thereto.

The arrangement further includes means for locking the carriage 108 against movement toward the left in Figs. 7 and 8 during the operation of the pressure members 121 to apply pressure to the label a^3 on the bottle 45c or its equivalent. In the illustrated example the aforesaid locking means comprises a locking bar 146 suitably fixed on the carriage 108 for instance by means of screws 147 and cooperating with a stop member 148 to maintain said carriage 108 in its left hand operative position as shown in Fig. 7. The stop member 148, in the illustrated example, is carried by a lever 149 pivoted at 150 on the slide bracket 107 and yieldingly maintained in and returned to its operative position by a spring 151; the latter has its one end connected with a lug 152 on the lever 149 and its other end fastened to a lug 153 on the supporting base 46a.

Suitable releasing means is also provided operating in timed synchronism with the associated elements to pivotally actuate the lever 149 in a manner to shift the stop member 148 to an inoperative position relatively to the locking bar 146 to thereby release the carriage 108. In the example shown in Figs. 7 and 8 the aforesaid releasing means includes a releasing rod 154 slidably mounted in a bearing 155 on the supporting base 46a and operated for instance by means of a suitable and conventional cam (not shown). The rod 154 is provided with a releasing abutment which preferably is adjustable and is shown in the form of a screw 156 secured in an adjusted position on the rod 154 by means of a lock

nut 157 or the like. The screw 156 or its equivalent is arranged to engage a lug 158 projecting from the lever 149 and illustrated in Fig. 8, for the purpose of pivotally actuating said lever 149 against the tension of the spring 151 as will appear more fully hereinafter.

In order to arrest the movement of the carriage 108 and the pressure members 120 and 121 as well as the associated elements to the left in Figs. 7 and 8, suitable arresting means may be provided. The latter, as shown in the illustrated example, may consist of a stationary stop 159 projecting from the supporting base 46a in the path of a cooperating stop 160 adjustably mounted on a lug 161 on the carriage 108 and fixed in position thereon, for instance, by means of a lock nut 162.

The mechanism is shown in Figs. 7 and 8 at that stage of the operative cycle during which the pressure members 120 and 121 are functioning to develop pressure upon the label a^3 whereby the latter is pressed into firm and even engagement with the bottle 45c or its equivalent, to complete the adhesive application of said label a^3 thereto. When the pressing of the label a^3 on the bottle 45c, or its equivalent, has been completed, the operating lever 141 is rocked to the position indicated by the broken line E in Fig. 7 to thereby permit the spring 143 to correspondingly actuate the control rod 135 and break the toggle formed by the links 134 to the left in Fig. 8 and shift the pivotally connected ends thereof into contact with the stop 145 on the carriage 108. During these operations, the control rod 135 is slidably guided in the guide bracket 107, and at the same time th e pivot pin 136 travels lengthwise of the groove 137 of the carriage 108 to prevent displacement of said rod 135 during the application of power thereby to break the toggle formed by the links 134. As this toggle is broken in the indicated manner, the levers 132 will be drawn toward each other to rock the sleeves 126 on the pivot pins 127 in a manner to inversely operate the arms 123 and swing the pressure members 121 away from each other and from the bottle 45c, or its equivalent, to an inoperative spread position beyond the dimensional limits thereof.

As the next step in the operative cycle, the releasing rod 154 is actuated to cause the releasing abutment 156 to exert an upward force on the lug 158 whereby the lever 149 is pivotally swung in an upward direction to thereby shift its stop member 148 away from the locking bar 146 to an inoperative releasing position. It will be understood that the rod 154 is maintained in its raised position to correspondingly maintain the lever 149 and its stop member 148 in said inoperative releasing position against the tension of the spring 151 until the mechanism is again operated to the left as will be explained hereinafter.

When this stage has been reached, the operating lever 119 is rocked from the position shown in Fig. 7 to the position indicated approximately by the broken line G in said figure. Pressure to the right is thereby exerted on the operating rod 112 which is transmitted by the stop nut 116 to the swivel-head 110 and in turn to the lug 109; the carriage 108 accordingly is correspondingly shifted to the right along the rail 105. As a result of this shifting of the carriage 108, the pressure members 120 and 121 will be carried to the right in a direction away from the bottle 45c or its equivalent, and to a point beyond the predetermined path over which said bottle 45c or its equivalent is transported by the support 13c. At the same time the control rod 135 is slidably shifted in the slide bracket 107 and in the forked end 140 of the operating lever 141 whereby the abutment 138 is correspondingly moved away from said forked end 140. While the parts remain in the aforesaid inoperative positions, the movable support 13c is actuated to carry the labeled bottle 45c or its equivalent away from the pressure station, and at the same time to transport a succeeding bottle 45c or its equivalent to said station. During the rest period which follows such actuation of the movable support 13c, the mechanism at the pressure station is operated in the following manner to cause the pressure members 120 and 121 to press a previously applied label a^3 to said succeeding bottle 45c or its equivalent.

As the first step, the operating lever 119 is actuated to rock it from the position indicated by the line G to the position illustrated in Fig. 7, and to thereby develop a pull upon the operating rod 112 which is communicated to the carriage 108 and accordingly shifts the latter on the rail 105 to the left in Figs. 7 and 8. This movement of the carriage 108 brings the pressure member 120 into engagement with the bottle 45c, the movement of the operating lever 119 being continued somewhat beyond this point to compress the spring 115 and thus cause the pressure member 120 to develop a yielding pressure on the bottle 45c whereby a portion of the label a^2 is firmly and evenly pressed against said bottle 45c or its equivalent; as previously stated herein, suitable provision is made to maintain the latter in position during the application of pressure by the member 120. At the same time, the pressure members 121 in their inoperative spread condition are carried into operative relation to the bottle 45c or other article, and the stop member 148, under the influence of the spring 151 or the lever 149, drops in front of the locking bar 146 and thereby locks the carriage 108 against movement to the right in Figs. 7 and 8; it will be understood that the releasing rod 154 operates in proper synchronism with the other elements to permit the aforesaid locking operations to be effected.

During the movement of the carriage 108 and its associated parts to the left as described above, the control rod 135 slides in the same direction relatively to the slide bracket 107 and forked end of the lever 141 and accordingly shifts the abutment 138 into proximity to or even in engagement with the forked end 140 of the lever 141 which at this stage is in the position indicated by the line E.

As the next step in the operative cycle, the operating lever 141 is rocked from the position indicated by the line E to the position on the line F illustrated in Fig. 7. A pull to the right is thereby developed on the control rod 135 against the tension of the spring 143 which pull is transmitted to the pivot pin 133 and shifts the toggle formed by the links 134 to the position shown in Fig. 8; during these operations, the carriage 108 is locked against movement to the right by the locking bar 146 and stop member 148.

As the links 134 are thus shifted, the levers 132 will be swung on the pivots 127 in directions away from each other and accordingly will rock the sleeves 126 in a manner to inversely swing the arms 123 and bring the pres-

sure members 121 into contact with the bottle 45c or its equivalent. At this stage the pressure members 121 will develop a pressure upon said bottle 45c or the like to firmly and evenly press the remaining portions of the labels a^3 against the same.

In proper operative synchronism the mechanism will be operated to restore the parts to their inoperative position in the manner described above, and the movable support 13c will be advanced another step to remove the completely labeled bottle 45c or the like from the pressing station and to transport another one thereto, whereupon the operative cycle is repeated.

While the mechanism shown in Figs. 7 and 8 is described as a means for performing operative steps subsequent to the application of a label to an article, said mechanism may itself constitute the means whereby the label is applied to the article, independently of any prior applying action by any other means, such as for instance that shown in Figs. 5 and 6.

The novel machine in all of its forms is simple in construction and provides for the deposit of previously gummed labels upon carrying members in temporary adhesive connection therewith, whereby the gummed labels are efficiently supported in position for application to articles, and furthermore provides for the rapid and efficient removal of the labels from said carrying members and their application to the articles for which said labels are designed. The machine is particularly adapted for handling labels of unusual dimensions, particularly small size labels, and for applying the same to articles of unusual size and shapes, and is of maximum efficiency in applying labels to cylindrical articles of small diameter and to articles having a cross-sectional form other than cylindrical. In all the forms of the machine the label is held by the aforesaid carrying members in position for application to an article, generally by the adhesive coating of such label while such coating is still tacky, so as to be easily released from such carrying members, and applied to the article in a uniform and efficient manner. Provision is also made, in the form of suitable heating means, for utilizing heat to maintain the adhesive coating of the label in a tacky condition and for thus facilitating the adhesive application of the label to said article.

The arrangement also provides novel and simple means for efficiently applying the labels to the articles, and for evenly and uniformly pressing the same thereon in cases where this may be necessary.

Various changes in the specific forms shown and described may be made within the scope of the claims without departing from the spirit of the invention.

I claim:

1. The combination of a support for an article to be labeled, a pressure member for adhesively applying a predetermined portion of a label to said article, and for maintaining said label against displacement relatively to said article, means whereby the remainder of said label is adhesively applied to said article while said label is subjected to the action of said pressure member, mechanism for operating said pressure member, and independent mechanism for operating said means to develope an applying action on said remainder of the label.

2. The combination of a support for an article to be labeled, a pressure member for adhesively applying a predetermined portion of a label to said article, and for maintaining said label against displacement relatively to said article, resiliently controlled applying members arranged to follow the surface contour of said article to adhesively apply the remainder of said label thereto while said label is subjected to the action of said pressure member, mechanism for operating said pressure members, and independent means for actuating said applying members relatively to said article.

3. The combination of a support for an article to be labeled, a pressure device, means for operating said pressure device to adhesively apply a predetermined portion of a label to said article and to maintain said label against displacement thereon, a pair of cooperating applying members, means controlled by said pressure device whereby said applying members are adjusted relatively to each other to and from operative relation to said article and vice versa, and means whereby said applying members are actuated and caused to follow the surface contour of said article to adhesively apply the remainder of said label thereto while said label is subjected to the action of said pressure device.

4. In a labeling machine for applying adhesive coated labels, the combination of a table, a seat on said table for supporting an article in label receiving position, secondary supporting means including a pair of supporting members on said table located upon opposite sides of said seat for supporting a label in position for application to said article, said label having its opposite ends in temporary adhesive connection with said supporting members for maintaining said label in said position, primary supporting means for carrying said label during application of adhesive thereto and for subsequently transferring said label to a position for adhesive engagement with said secondary supporting means, and means for releasing said label from the supporting members of said secondary supporting means and for applying it to said article.

5. In a labeling machine for applying adhesive coated labels, the combination of a table provided with an opening, means on said table for supporting an article to be labeled in registry with said opening, secondary supporting means including a pair of supporting members mounted upon said table in spaced relation to each other upon opposite sides of said article supporting means, one of said supporting members being closer to the article supporting means than the other, said supporting members being adapted to support a label in position for application to an article on said article supporting means, the opposite ends of said label being in temporary adhesive connection with said supporting members for maintaining said label in said position, primary supporting means for carrying said label during application of adhesive thereto and for subsequently transferring said label to a position for adhesive engagement with said secondary supporting means, wrapping means arranged to release said label from the supporting members of said secondary supporting means and partially apply it to said article, and additional wrapping means movable in the opening of said table for completing the application of the label to said article.

6. The combination of a support for an article to be labeled, a pressure device, means for operating said pressure device to adhesively apply a predetermined portion of a label to said article and

to maintain said label against displacement thereon, a pair of cooperating members, and mechanism operating independent of said pressure device operating means for actuating said co-operating members to complete the adhesive application of the label to said article.

7. The combination of a support for an article to be labeled, a supporting base, cam members pivotally mounted on said base and provided with inner and outer cam surfaces, guide brackets projecting from said base in spaced registry with each other, a main slide member slidable in said guide brackets, a pressure member carried by said main slide member, an operating roller mounted on said main slide member in rolling engagement with the inner cam surfaces of said cam members, a secondary slide member slidable in said guide brackets in spaced parallel relation to said main slide member, a supporting bracket carried by said secondary slide member, label applying members pivotally mounted on said supporting bracket, label applying devices at the free ends of said label applying members, controlling rollers adjustably supported on said label applying members in rolling engagement with the outer cam surfaces of said cam members, a spring connecting said label applying members for yieldingly maintaining said rollers in engagement with said outer cam surfaces, means for reciprocating said main slide member in said guide brackets to shift said pressure member toward said article to adhesively apply a predetermined portion of a label thereto and to maintain said label against displacement on said article, and subsequently to move said pressure member away from said article, said operating roller in cooperation with said inner cam surfaces pivotally actuating said cam members during the reciprocation of said main slide member to pivotally adjust said label applying members toward and away from each other, and means for reciprocating said secondary slide member in timed relation with said main slide member to shift said controlling roller along said outer cam surfaces and to cause said label applying devices to follow the surface contour of said article and thereby adhesively apply the remainder of said label thereto and to return said label applying members to an inoperative position, said operating roller in cooperation with said inner cam surfaces pivotally actuating said cam members to pivotally adjust said label applying members away from each other to thereby shift said label applying devices away from said article prior to the return of said label applying members to their inoperative positions by said secondary slide.

8. The combination of a support for an article to be labeled, a supporting base, cam members pivotally mounted on said base, spaced guide brackets projecting from said base, a main slide member slidable in said guide brackets, a pressure member carried by said main slide member, a secondary slide member slidable in said guide brackets in spaced parallel relation to said main slide member, spring controlled label applying means pivotally mounted on said secondary slide member, means for reciprocating said main slide member to shift said pressure member toward said article to adhesively apply a predetermined portion of a label thereto and to maintain said label against displacement on said article, means for reciprocating said secondary slide member to shift said label applying means toward and away from said article, and means on said main slide member cooperating with said cam members to adjust said label applying means into and out of applying relation to said article whereby said label applying means is caused to follow the surface contour of said article to adhesively apply the remainder of the label thereto.

9. The combination of a support for an article to be labeled, a supporting base, a pair of slide members slidably mounted on said base, a pressure member carried by one of said slide members, label applying means pivotally mounted on the other slide member, operating means for reciprocating said one of said slide members, actuating means for reciprocating said other slide member in timed relation thereto, and means operated by said one of said slide members to operatively adjust said label applying means on said other slide member, said operating means actuating said one of said slide members in an operative movement to shift said pressure member toward said article to adhesively apply a predetermined portion of a label thereto and to maintain said label against displacement on said article, and to coincidentally adjust said label applying means into applying relation to said article, said actuating means subsequently operating said other slide to cause said label applying means to adhesively apply the remainder of said label to said article, said operating means subsequently actuating said one of said slide members in a return movement to shift said pressure member away from said article and to coincidentally adjust said label applying means out of applying relation to said article, and said actuating means subsequently operating said other slide members in a return movement to restore said label applying means to its initial inoperative position.

10. The combination of a support for an article to be labeled, pressure means for adhesively applying a predetermined portion of a label to said article and for maintaining said label against displacement thereon, label applying means for subsequently adhesively applying the remainder of said label to said article, and means operatively controlled by said pressure means to adjust said label applying means into and out of applying relation to said article.

11. The combination of a support for a previously labeled article, a supporting base, a guide rail fixed on said base, a carriage slidable on said rail, a relatively fixed pressure member on said carriage, cooperating relatively movable pressure members pivotally mounted on said carriage, levers pivotally movable with said cooperating pressure members, a control rod, links pivotally connected with said levers and with each other and with said control rod, a spring connected with the latter whereby said links are operated to normally break the toggle formed by said links whereby said levers are actuated to normally maintain the cooperating pressure members in outwardly spread inoperative relation to each other, a stop on said carriage cooperating with said links to arrest the outward movements of said cooperating pressure members, means for moving said carriage on said rail to shift said relatively fixed pressure member into engagement with said labeled article to develop pressure on a portion of the label thereon, said means coincidentally shifting said cooperating pressure members into operative relation to said article, releasable means for locking said carriage against return movement when said relatively fixed pressure member is in engagement with the labeled article, means for operating said control rod to actuate said links and levers in a

direction to swing said cooperating pressure members into engagement with said labeled article to develop pressure upon the remainder of the label thereon, and means for operating said releasable locking means to release said carriage and thereby permit the latter with its associated elements to be returned to an inoperative position.

12. The combination of a support for a previously labeled article, a supporting base, a guide rail fixed on said base, a carriage slidable on said rail, a relatively fixed pressure member on said carriage, cooperating relatively movable pressure members pivotally mounted on said carriage, means for moving said carriage on said rail to shift said relatively fixed pressure member into engagement with said labeled article to develop pressure on a portion of the label thereon, said means coincidentally shifting said cooperating pressure members into operative relation to said labeled article, releasable means for locking said carriage against return movement when said relatively fixed pressure member is in engagement with the labeled article, and means for swinging said cooperating pressure members into engagement with said labeled article to develop pressure upon the remainder of the label thereon.

13. The combination of a support for a previously labeled article, a supporting base, a guide rail fixed on said base, a carriage slidable on said rail, a relatively fixed pressure member on said carriage, cooperating relatively movable pressure members pivotally mounted on said carriage, and normally diverging relatively to each other from the respective pivots, means for moving said carriage on said rail to shift said relatively fixed pressure member into engagement with said labeled article, and to coincidentally shift said cooperating pressure members into operative relation to said labeled article upon opposite sides thereof, and means for swinging said cooperating pressure members toward each other into engagement with the labeled article, said pressure members all cooperating to firmly and uniformly press the label into engagement with said article.

14. The combination of a support for a previously labeled article, a supporting base, a guide rail fixed on said base, a carriage slidable on said rail, pressure means on said carriage, means for reciprocating said carriage on said rail to shift said pressure means into operative relation to the labeled article, locking means for locking said carriage against return movement on said rail, means for operating said pressure means in the locked position of said carriage to develop pressure on the labeled article whereby the label is firmly and uniformly pressed thereon, and means operative after the finish of the pressing operation to release said locking means to thereby permit said carriage with its associated elements to be returned to an inoperative position.

15. The combination of a support for a previously labeled article, pressure means comprising relatively movable pressure members and a relatively fixed pressure member, means for shifting said relatively fixed pressure member into engagement with said labeled article to develop pressure thereon and for coincidentally shifting said relatively movable pressure members into operative relation to said labeled article, and means for operating said relatively movable pressure members to develop pressure on said labeled article, said pressure members all cooperating to press the label firmly and uniformly on said article.

16. The combination of a support for an article to be labeled, movable carrying means, a pressure member carried by and movable with said carrying means, pivoted members carried by and movable with said carrying means and movable relatively thereto in directions toward and away from each other, label engaging devices carried by said pivoted members, and operating means including mechanism for operating said carrying means to bring said pressure member into engagement with said article and independent mechanism for actuating the said pivoted members and the label engaging devices thereof into operative relation to said article, said operating means operating subsequently to return said carrying means and associated elements to an inoperative position beyond said article support.

17. The combination of a support for an article to be labeled, reciprocable means movable toward and away from said support, and including a pressure member and label engaging devices movable toward and away from each other, and means including mechanism for operating said reciprocable means to shift said pressure member into engagement with said article, and independent mechanism for adjusting the label engaging devices into operative relation with said article upon opposite sides thereof, said operating means subsequently moving said reciprocable means in a return direction to shift said pressure member and label engaging devices to an inoperative position beyond said article support.

18. In a labeling machine for applying adhesive coated labels, means for supporting a label in applying position, and heating means combined with said supporting means whereby the adhesive coating of the label on said supporting means is heated.

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