June 20, 1944. T. R. GAUTIER 2,352,149

STRIP DISPENSER AND MOISTENING MEANS FOR SAME

Filed Nov. 14, 1941 3 Sheets-Sheet 1

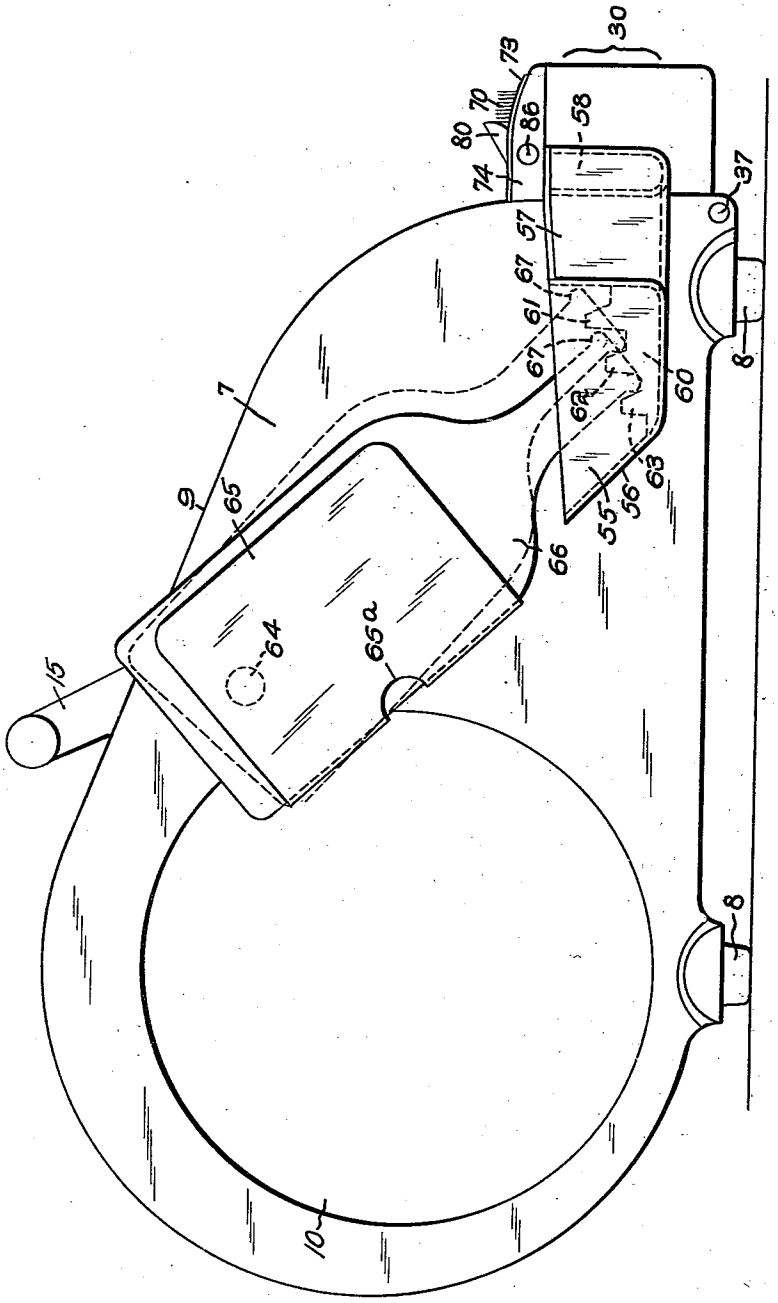

Fig. 1.

Inventor:
Trevor R. Gautier,
by Emery, Booth, Townsend, Miller & Weidner
Attys.

June 20, 1944. T. R. GAUTIER 2,352,149

STRIP DISPENSER AND MOISTENING MEANS FOR SAME

Filed Nov. 14, 1941 3 Sheets-Sheet 2

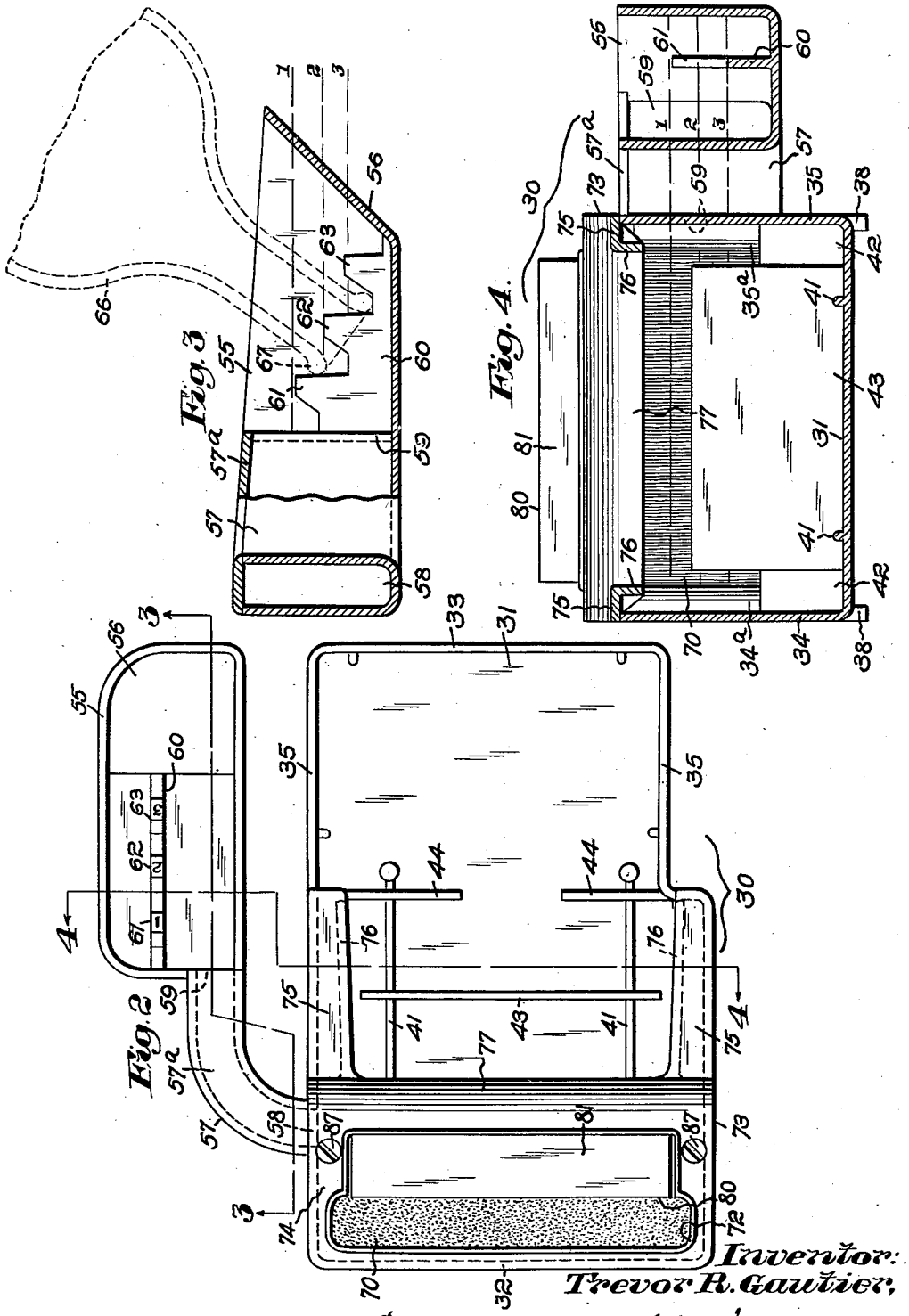

Fig. 3

Fig. 4.

Fig. 2

Inventor:
Trevor R. Gautier,
by Emery, Booth, Townsend, Miller & Weidner Attys.

June 20, 1944. T. R. GAUTIER 2,352,149

STRIP DISPENSER AND MOISTENING MEANS FOR SAME

Filed Nov. 14, 1941 3 Sheets-Sheet 3

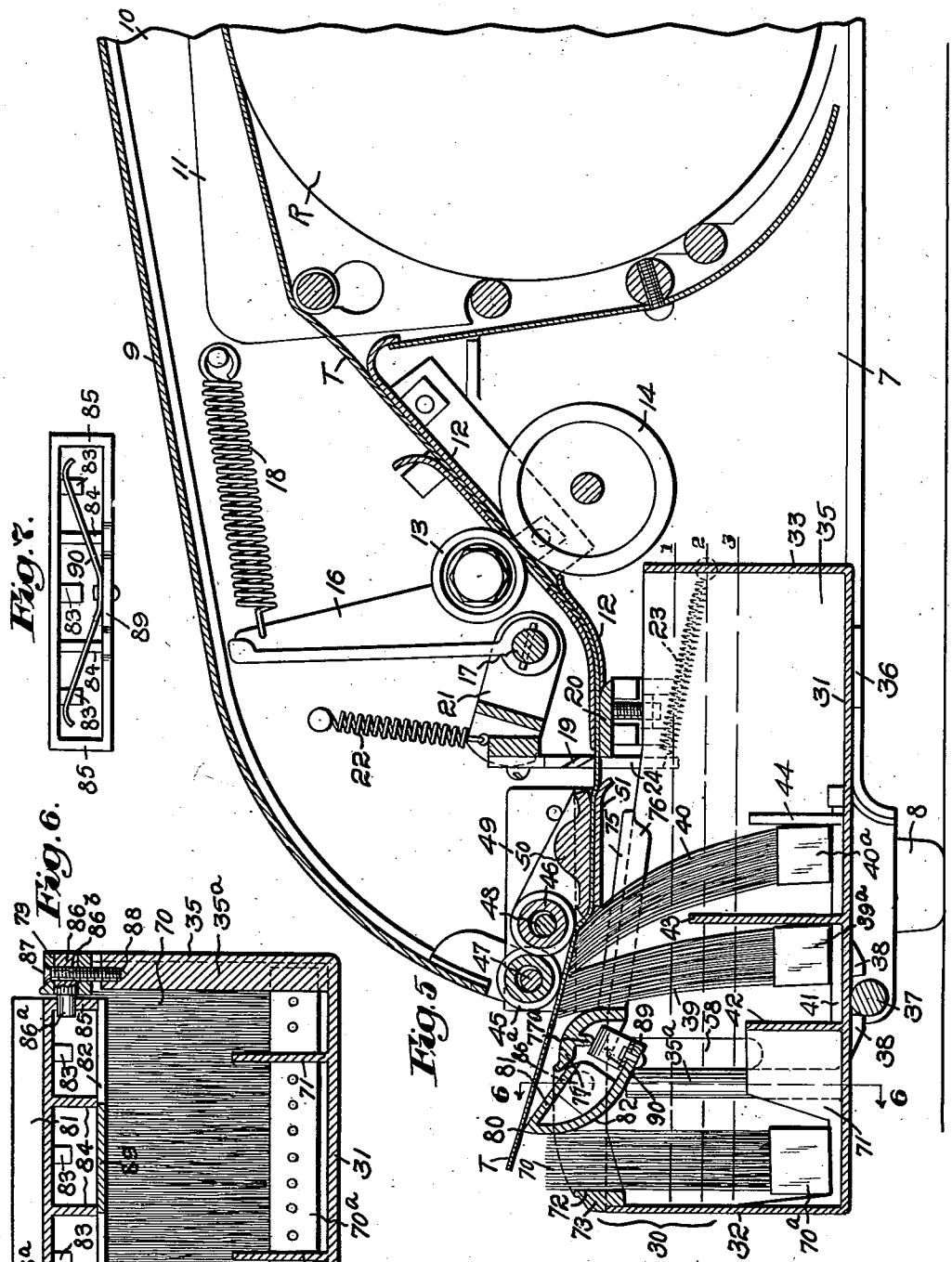

Fig. 5

Fig. 6.

Fig. 7.

Inventor:
Trevor R. Gautier,
by Emery, Booth, Townsend, Miller & Weidner
Attys.

Patented June 20, 1944 2,352,149

UNITED STATES PATENT OFFICE

2,352,149

STRIP DISPENSER AND MOISTENING MEANS FOR SAME

Trevor R. Gautier, Nashua, N. H., assignor to Nashua Gummed and Coated Paper Company, Nashua, N. H., a corporation of Massachusetts

Application November 14, 1941, Serial No. 419,111

9 Claims. (Cl. 91—14.5)

My present invention pertains to apparatus and devices for dispensing or serving strip material such as gummed paper and other tape for package sealing, labeling and like purposes. More particularly it aims to simplify and otherwise improve machines and devices of the class mentioned, having among its important objects that of affording more efficient and positively controlled means for moistening the tape or rendering it adhesive.

In the drawings illustrating by way of example one embodiment of my invention:

Fig. 1 is a left side elevation of the strip or tape dispenser as a whole;

Fig. 2 is a top plan of the moistening assembly of the machine of Fig. 1, shown separately and on a larger scale;

Figs. 3 and 4 are respectively longitudinal and transverse vertical sections on the lines 3—3 and 4—4 of Fig. 2;

Fig. 5 is a vertical longitudinal section substantially centrally through the front portion of the machine of Fig. 1, upon the scale of Figs. 2 to 4;

Fig. 6 is a vertical cross-section on the line 6—6 of Fig. 5; and

Fig. 7 is a detail view, in rear elevation, of a guiding and shielding element of the invention.

The strip server or tape dispenser as here illustrated may be regarded as typical of the machines and devices of that class, in so far as concerns the general construction and arrangement of the tape supply receiving means and the mechanism for advancing and severing selected lengths of the tape. In the example shown the machine is generally similar in those respects to those of my Patents Nos. 2,192,132 and 2,244,105, dated February 27, 1940, and June 3, 1941, and of my herewith copending application Serial No. 320,301, filed February 23, 1940, now Patent No. 2,293,433, dated August 18, 1942, said application filed as a division of the application from which said Patent No. 2,192,132 resulted.

Noting more particularly Figs. 1 and 5, the machine comprises a main frame or housing including laterally spaced side frames 7 having cushioned or other supporting feet 8 and a removable top or cover plate 9. The rear portion of the housing defines a well 10 for a supply of tape such as the roll R here assumed to be wound with its gummed face in.

The tape T is led forwardly from the roll between adjustable lateral guide plates 11 and through a feed throat 12 at an open portion of which the tape passes between upper and lower feed rolls 13 and 14 drivingly connected with a manual operating lever, the handle end of which is seen at 15 in Fig. 1. The upper feed roll 13 is rotatably carried on a lever 16 pivotally supported by a shaft 17 extending between the side frames. This lever normally is held rearwardly as by a spring 18 so as to engage the upper feed roll yieldingly against the tape opposite the driven lower feed roll 14.

Selected lengths of the strip or tape T are severed by appropriate cutting mechanism, herein including a vertically movable blade or cutter 19 normally elevated above the tape path and cooperable with an underlying fixed blade 20. This movable blade is supported on a carrier yoke 21 pivoted on the shaft 17 already mentioned and normally held in elevated position as by a spring 22. One or more springs such as 23 attached to depending portions 24 of the movable blade or its carrier serve to bias the movable cutter for efficient shearing action.

Forwardly of the described cutting mechanism the under face of the tape is adapted to be moistened, through the meduim of the guiding and moistening mechanism with which my present invention is more particularly concerned. Said mechanism comprises a capillary moistener unit or assembly constructed and arranged to be readily removed from and installed in the machine.

This moistening assembly comprises a tank or reservoir indicated as a whole by the numeral 30 having a main portion, compartment or body of generally rectangular form. It is illustrated as cast or otherwise formed as an integral one-piece element including a bottom wall 31, upright front and rear walls 32, 33 and connecting side walls 34, 35.

It is proportioned and arranged to be removably supported between the lower front portions of the side frames 7, with its forward end protruding, as seen for example in Figs. 1 and 5. In this installed position the inner or rear portion of the reservoir rests upon positioning projections on the side frames, one of which is seen at 36 in Fig. 5. At a forward portion of the reservoir is further supported by a cross rod 37 on the side frames, depending slotted or longitudinally spaced lug formations 38 at the bottom of the reservoir being adapted to straddle said rod and so to hold the reservoir in the longitudinal direction, against unintentional displacement. To remove the reservoir and entire moistening assembly bodily it is merely necessary however to raise its front end sufficiently to clear the positioning formations 38 with respect to the

rod 37, whereon the whole unit may be withdrawn forwardly.

The main compartment defined by the bottom and upright walls 31 to 35 of the tank 30 is to be supplied with water or other liquid for moistening the under face of the tape. It also is to carry the moistener means or element proper and to present the latter in operative position to transfer and apply the moisture to the tape. Such means is here of the capillary type, in this case an inverted brush moistener element comprising one or more brush sections 39 and 40 having supporting butts 39a, 40a. These two brush sections of the main moistener element proper stand in an upright position, with their butts on the reservoir bottom wall 31 or on shallow longitudinal ribs 41 on the latter. They are operatively positioned lengthwise the machine between transverse upstanding fins 42, 43, 44 herein formed integrally with the tank walls. As best seen in plan in Fig. 2, these positioning fins are interrupted and of less extent laterally than the width of the reservoir, so that the water or moistening liquid may pass freely to all portions of the latter.

The described moistener element 39, 40 is herein located at a lengthwise intermediate portion of the reservoir as a whole, below and substantially vertically opposite a pair of floating corrugated guiding and weighting rolls 45, 46, which may be generally similar as in my patents previously mentioned. They are rotatably and vertically movably disposed on pins 47, 48 extending between carrier blocks on the side frames, one of which blocks is seen at 49, Fig. 5. Behind the guide rolls 45, 46 is an upper guide plate 50 adapted to rest on the top face of the tape T, opposite an underguide 51. Said upper guide 50 is vertically movable, being herein pivotally associated with the positioning pin 48 of the rear roll 46. These upper and lower guide members 50, 51 constitute in effect a forward extension of the feed throat, beyond the severing means up to the moistening element. It will be understood that the advancing length of tape, as it passes from between the guides 50, 51 moves across the capillary moistener 39, 40 with its face in moistening contact therewith, the rolls 45, 46 serving as pressure means resting by gravity on the upper face of the tape and insuring proper moistening coaction between the under gummed face of the latter and the moistener.

The correct amount of moisture for rendering the gummed face of the tape efficiently adhesive depends on a number of variable factors. Important among these are the thickness of the gum or glue coating, and the character of such coating, that is, its particular formula. These factors may vary as between different tape manufacturers or as between different tape products of a given manufacturer. Other factors are the weight, thickness and relative rigidity of the paper or other base web of the tape. Still others are the character of the moistening liquid, generally water, and the nature of the surface to which the moistened tape is to be applied. For example, the available water may be relatively hard or it may be soft, requiring a greater or a less quantity for optimum adhesive-rendering purposes, as further dependent on the given glue formula and thickness of the glue coating. The terms water and liquid are herein intended to include any preferred moistening fluid such for example as that including a percentage of glycerine. Further, if the surface of the article to which the tape is to be adhered is glossy and hence relatively non-absorptive, a less quantity of the moistening fluid is needed than where such receiving surface is more absorptive.

Depending on these various factors and circumstances, a predeterminable and rather definite quantity of moisture will give best tape-moistening results in any particular case. The quantity of liquid furnished by the moistening means such as a brush or like capillary conveyor and applying device is in turn dependent on the level of the water supply in the brush chamber. Accordingly I herein provide for selecting and maintaining one of an available plurality of water levels in said chamber or moistener reservoir. In some instances two selective levels, one relatively high and the other relatively low will take care of the majority of the variable factors above mentioned. As a result of extensive tests, however, it has been established that within the range of three different liquid levels the entire requirement, as to quantity of moisture application, can be effectively covered, for all practical purposes. And it has further been determined that levels of approximately 1.3 in., 1.7 in. and 2.00 in. below the top or tape-engaging portion of the capillary moistener or brush as measured downwardly along it, are the ones appropriate. That is, those particular high, medium and low levels are the most representative and will afford the desired moisture-quantity application, within the limits of efficient moistening, for the greatest number of situations as to the above mentioned variations in glue thickness, formula, weight of stock, surface for application and the others, including atmospheric conditions.

Accordingly my present invention provides for positive maintenance and control of the liquid level in the brush compartment, at any of a plurality of selectively available predetermined levels below the upper free end of the brush element.

For this purpose I have provided the reservoir 30 with a level-controlling portion herein illustrated as an auxiliary chamber or compartment 55 in the nature of a trough or the like open at the top and having an inclined rear wall 56. This level-controlling chamber communicates with the main compartment of the reservoir 30 through a curved neck 57 of laterally flattened tubular form in cross-section. The inner end of this attaching neck opens at 58 into the main chamber of the reservoir herein through its side wall 35, as best seen in Fig. 5, while its outer end opens at 59, Fig. 4, into the auxiliary chamber 55 through its adjacent vertical wall portion.

This laterally offset control chamber 55 and the neck or conduit 57 are rigidly united with each other and with the reservoir 30 in supported and liquid-tight relation to it. As illustrated they are cast integrally with the main compartment so that the whole constitutes a structural unit. To facilitate such casting the neck 57 may initially be made open at the top and then capped by a top piece 57a. While any other convenient construction may be employed desirably it is such that the level-controlling element 55 is a self-supporting connected part of the moistening assembly as a whole so as to be removable and replaceable with the latter and requiring no separate manipulation or adjustment relative to it.

This auxiliary or level-controlling compartment or trough 55 . so located vertically relative to the main compartment, of which it is in effect

a portion, and is itself of such vertical extent that its bottom wall is at least somewhat below the lowest level and its circumferential wall extends substantially above the highest level desired for the liquid in the reservoir **30**. The same also applies to the connecting neck **57**, the passage in which is here shown as substantially co-extensive in height with the trough **55**.

Within the control compartment **55** is a plurality of stops or positioning formations, herein a series of three such elements corresponding respectively to three different predetermined levels for the liquid. For simplicity in manufacture these several stops or seating formations are formed as parts of an upright longitudinal flange **60** rising centrally from the bottom wall of the trough **55**. Along its upper portion this flange **60** is notched to provide a series of step-like seats each having a central positioning and level-indicating lug or post **61**, **62**, **63** respectively.

On the adjacent side frame **7** of the machine, herein the left side, avoiding interference with the operating lever **15**, there is swiveled on a horizontal pivot as at **64** a U-shaped clamp or clip **65**. This clip is adapted to receive the body of an inverted container illustrated as a flat bottle or flask **66** having a restricted mouth **67** of a size to fit over and seat around any selected one of the series of three level-indicator stops **61**, **62**, **63**. The holding means such as the clip **65** may be otherwise located than on the side frame, as for instance on or as a part of the control chamber **55** itself. It is constructed and arranged to support the flask in different upright positions, substantially as shown in Fig. 1; see also Fig. 3. In this instance the swivel mounting **64** for the clip permits the container or flask **66** to adjust itself to different angular positions, corresponding to the several selective stops **61** to **63**.

As seen in the full line position in Fig. 1 and also in Fig. 3, the flask **66**, which it will be understood contains a reserve supply of water or moistening liquid, is set for maintaining the medium liquid level. This container desirably is of glass or other transparent material, so that the supply of water or other moistening fluid in it may readily be observed. As a further aid in that connection the holding member **65** may have one or more recesses or windows **65***a* which also give access to the container to aid in removing it from or adjusting it in the clip.

As best seen on the larger scale in Fig. 3, the mouth **67** of the flask **66** stands at an angle to the horizontal, at about 45° as illustrated, with its lower part in the notch below and behind the middle or medium level stop **62** and its upper part in the notch in front of said stop **62** and against the next adjacent or top-level stop **61**. Said occupied medium stop **62** is enclosed by the flask mouth. It will be seen that the actual level at which the liquid will be maintained is determined by the highest point of the flask mouth, that is, the point or level at which air can first enter the flask when the level of the liquid outside the flask so permits. For the operator's convenience and in order to serve as a positive indicator of the level at which the liquid will be maintained when a given stop is selected such as the medium stop **62** in Fig. 3, the flask mouth and associated stops are so proportioned and arranged that the top faces of the several stops lie at or approximately at the corresponding levels of the topmost portion of the flask mouth when the flask is set in position on them. Hence said top faces of the stops are also in fact disposed at the several corresponding liquid levels, and serve as accurate indicators of the true liquid level in the reservoir **30**, so long as some liquid remains in the flask. Thus it is not necessary to withdraw the reservoir to inspect the water level.

Assume now that the reservoir has initially been filled roughly to the level selected, for example, the medium level corresponding to the indicator-stop **62**. This may be done by withdrawing the moistening assembly and filling directly into the main chamber or the reservoir may be left in place in the machine and the control trough **55** used as a filling spout. The flask **66**, filled with water, is then inverted and set down over the stop **62** and into the clip **65**, as in the full line showing of Fig. 1. In the subsequent use of the machine and through evaporation the water level will drop in the main chamber and in the connecting neck and auxiliary trough **55**, in all of which it stands the same, but will descend only to the selected control level, at which the then uppermost point of the flask mouth is exposed just sufficiently to permit air to bubble into the flask. Simultaneously sufficient water is released from the supply in the flask to restore and maintain the desired level, in this instance the medium level, indicated by the central stop **62**, the released water serving also to reestablish the air seal at the flask mouth and so cut off further discharge for the time being. This periodic balancing level-controlling action continues automatically so long as any appreciable quantity of water remains in the flask, the latter as shown being ample for any ordinary operating period, such as a working day.

As seen in Fig. 2, the level-indicating top faces of the several stops **61**, **62**, **63** may bear indicia such as the numerals **1**, **2** and **3** or H, M and L for high, medium and low, to assist the operator in selecting the proper control level. The several corresponding levels of the liquid are represented diagrammatically on Figs. 3 and 4 by the light broken lines numbered **1**, **2** and **3**.

Any predetermined maximum, medium and minimum levels may be provided for, spaced from each other proportionately to the degree of moisture variation desired. As previously stated, appropriate water levels for the tank of a brush moistener such as the present, satisfactorily covering a wide range of variation in moisture-determining factors, are about 1.3 in., 1.7 in. and 2.00 in. below the glue-engaging portion of the brush, for the high, the medium and the low levels respectively. The numbered stops of the level-control chamber and the correspondingly numbered levels indicated herein by said broken lines on Figs. 3 and 4 accordingly may be regarded as representing those particular levels, or any other predetermined levels preferred. For most average conditions the medium or No. 2 level will be found appropriate. But whenever more moisture is desirable at the gummed face of the tape, due to one or another of the variant factors mentioned, such result is readily had by utilizing the higher or No. 1 level. This is effected merely by shifting the flask from the full line No. 2 position of Fig. 1 to the dotted No. 1 level position there shown, the flask and if necessary also the reservoir of course being first replenished if needed to bring the level initially to the No. 1 or high stage and to provide a reserve supply in the flask. Similarly, where less moisture is required, the lower or No. 3 maintenance level is appropriate and is immediately available

by adjusting the flask down onto the No. 3 indicator-stop.

This provision for readily obtaining with certainty any one of a plurality of predetermined liquid levels, as by the means herein shown and described by way of example, contributes materially to the all-round work capacity of the tape dispensing machines so equipped, and simplifies the servicing of such machines in the hands of customer users. Given the characteristics of any particular tape that a customer wishes to use and the surface which is to receive it, the machine manufacturer having determined whether an average moisture quantity or a greater or a less quantity is appropriate, need merely instruct the customer to set the level-control device at stop No. 2, No. 1 or No. 3 as the case may be. This simple, positive and unmistakable adjustment, as afforded by the described means, then insures correct moistening results. Thus the servicing of machines in the field is simplified and the expense thereof reduced.

In addition to the main moistening elements 39, 40 already described the moistening assembly of my present invention comprises also a secondary or auxiliary moistener element 70, available at all times for moistening separate or precut strips such as labels and the like, and for supplementally moistening the tape or some portion of it manually should that be desired. The term "label" as herein used is intended to include any pre-cut or separate strip, sheet or other article to be moistened.

As herein illustrated, referring particularly to Figs. 2, 4, 5 and 6, the supplementary moistening brush 70, having a butt 70*a*, is located at the extended front portion of the reservoir 30, where it is operatively positioned as in notched seats in upstanding ribs 71, 71 extending lengthwise the reservoir between its front wall 32 and the forward transverse fin 42 of the series previously mentioned. The hairs or bristles of the brush 70 are of a length to project above the reservoir walls and through a loosely confining aperture 72 in a cover plate or reservoir top element 73. This element may be variously constructed but conveniently and as shown it is integrally molded from a plastic material. It here comprises a generally rectangular body or frame 74 proportioned to fit and seat on the reservoir walls. Lateral arms 75 extend rearwardly from said plate body, also seating on the reservoir side walls and being formed with internal flanges 76 serving as lateral supporting guides at the sides of the brush elements 39, 40 of the main moistener unit.

Said frame or body 74 also includes a rear cross bar 77 which herein serves in part to support and position the upper end of the front brush section 39 of the main moistener element, being located at or just below the point of delivery of the tape from between the latter and the floating guide rolls 45, 46. The outer or top face of this cross piece 77 follows an upward and forward curve, adapting it to guide the free end of the advancing length of moistened tape T toward a position at the front of the machine where it may readily be engaged by the operator.

Since in the ordinary operation of delivering moistened lengths of tape from the roll supply the supplemental moistener 70 does not come into play, means are provided whereby the moistened tape length is automatically conducted forwardly past and out of moistening contact with the front moistener 70 and along an unobstructed path of delivery. For this purpose I may employ means such as disclosed and claimed in my prior Patent No. 2,085,714, dated June 29, 1927. I have herein however illustrated improved means for the purpose, in novel combination with the moistening assembly as a whole and with the dispensing machine in which the latter is embodied. As best seen in Figs. 5 and 6 the body of the cover element 73 is recessed immediately behind the brush positioning aperture 72, to receive a masking or shielding and guiding element 80 disposed below the tape path and extending entirely across the latter.

This tape guiding shield 80 normally occupies an elevated position substantially as shown in Fig. 5, in which its smooth upper face 81 presents a forward and upward extension of the tape-guiding top face of the cross bar 77. In this position the advancing tape is directed upwardly to a level above the tip of the front moistener 70, causing it to be delivered past and out of moistening contact with the latter. When the front moistener is to be used, generally for moistening some separate strip or sheet, such as an addressing label, the guiding shield 80 is readily depressed to expose the moistening end of the front brush 70, the top guide face 81 of the shield forced down to a level at or below the latter. This is readily accomplished by the operator in the natural action of wiping or drawing the web, strip or label to be moistened, across and in pressing contact with the brush 70.

In the illustrated example the variably positionable shield and guide 80 is represented as formed of similar molded plastic as for the top plate 73 as a whole. For lightness it is made hollow, being of a general triangular or wedge shape in cross-section, having a smooth arcuate forward and underface 82 adapting the shield to swing down along or behind the brush 70. This shield member 80 may be internally reinforced as by ribs 83 and vertical fins 84. It is closed laterally by side walls 85 formed with transversely aligned bearing apertures adapted to receive removable pintles 86 by means of which the shield is herein pivotally supported for its movement between its masking or elevated position and its depressed or moistener-exposing position. The supporting pintles 86 are slidably received in corresponding lateral apertures extending inwardly through the side walls of the cover frame 74. They are normally held in position with their inner ends 86*a* projecting through the apertured side walls 85 of the shield, as by means of screws 87 extending down, through appropriate holes in the cover plate body 74, into receiving apertures 88 tapped in the adjacent side walls 34, 35 of the reservoir or in vertical column-like reinforcing bosses 34*a*, 35*a* at the inner faces of said walls. The shield-supporting pintles 86 are drilled transversely as at 86*b* for passage of said retaining screws 87. On removal of the latter the two supporting pintles may be withdrawn laterally, freeing the shield 80 for cleaning or replacement.

The variable positionable shielding and guiding element is proportioned and arranged in association with the upper end of the auxiliary moistener 70 so that it normally stands in the elevated or masking position of Fig. 5. It is held in and returned to this normal elevated position by suitable spring means, herein carried by the guide-shield 80 by means of a rearward projection 89 from its under wall 82. Said projection has riveted or otherwise secured to it a bowed

leaf spring 90, seen in Fig. 5 and in detail in Fig. 7. The reversely turned end portions of this spring 90 have a transverse sliding bearing engagement upwardly against the stationary cross bar 77, herein against a transverse bearing rib formation 77a at the under face of the latter. Said cross bar also serves as a down-limiting stop for the guide-shield by engagement with its rear projection 89, through the central fixed part of the spring 90.

As previously noted, the moistener positioning fins 42, 43, 44 on the reservoir bottom wall are interrupted and so permit passage of the water or other liquid to all portions of the reservoir 30, including the forward portion at which the auxiliary tape and label moistener 70 is housed. Consequently the liquid stands at the same level throughout the whole tank assembly, at one and the same controlled predetermined level relative both to the main and to the supplemental moistening elements. Both the latter accordingly are subject to the level-controlling action of the regulating trough and flask mechanism already described. In other words, the selecting of the No. 1 level or the No. 3 level for example, by the appropriate positioning of the flask on the selected indicator stop 61 or 63, automatically adjusts and maintains the same desired level for and at the front moistener as in connection with the main moistening element 39, 40. It will also be observed that the guide-shield or masking element 80 serves by contact with the moistened face of the issuing tape to distribute the moistening liquid and to remove any abnormal excess, the latter draining back downwardly along the top face 81 of the guide-shield, between it and the cross bar 77 and thence back into the reservoir 30.

My invention is not limited to the particular embodiment thereof illustrated and described herein, and I set forth its scope in my following claims.

I claim:

1. In a machine for dispensing lengths of gummed tape moistened to be adhesive for application, a frame, a tape supply support, feeding means to move lengths of the tape to a delivery station, a tank for moistening liquid demountably positioned on the frame adjacent the delivery station, a moistener device vertically disposed in the tank to conduct and apply liquid therefrom to the tape moved by said feeding means, a trough-like control compartment for liquid offset from the tank, a conduit rigidly connecting the compartment and the tank and affording passage for liquid between them at levels between desired upper and lower limits, a flask-like liquid container adapted for inverted positioning with its mouth in the trough-like compartment, means on the machine frame for so holding said container, and container-positioning stop means defining a plurality of selectively available positive position adjustments for the container in the compartment in vertically spaced relation to one another each to dispose the container mouth therein so as to release liquid at a corresponding different but predetermined level to be maintained in the tank.

2. In a tape dispensing machine according to claim 1, the construction and arrangement wherein level-identifying indicia are provided in association with the container-positioning stop means of the control compartment.

3. Delivering and moistening means for tape dispensing machines and the like, said means comprising, in combination, a liquid reservoir, an applicator for liquid therefrom, tape guiding means defining a path to the applicator, a tape-and-label moistener element vertically disposed for receiving moisture from the reservoir, a liquid-level control compartment on the reservoir, means affording communication for liquid between said compartment and the reservoir at all levels between the desired maximum and minimum, container means presenting a liquid supply for admission to said compartment and thence to the reservoir, and a plurality of positive and alternatively available location-defining elements respectively at different levels to present means for supporting container means selectively in one or another of a like number of positions thereby to release its liquid to the compartment at the selected one of a corresponding number of different but determined levels.

4. In a gummed tape serving machine, in combination, a support for tape supply, feeding means to advance the tape, a tape delivery guide, tape-moistening means for wetting the gummed face of the tape as it approaches said guide, and other moistening means adjacent said tape-moistening means, said guide comprising movable means for masking or exposing one of said moistening means, a tank for supplying liquid to both moistening means, an inverted container for reserve liquid movably associated with the tank and adapted to supply liquid to it, and a plurality of fixed locating formations individually disposed at different levels and selectively available to present means for positioning the container to release its liquid so as automatically to maintain the liquid in the tank at a corresponding plurality of different but calculated levels.

5. In combination with the liquid tank and tape moistening means of a tape-dispensing machine, a tape-and-label moistening brush disposed to receive liquid from the tank, guiding means associated with said brush and selectively operative to guide the tape coming from said moistening means to the delivery point and to shield said brush from engagement by the tape while so guiding it and alternatively to expose the brush for further tape moistening and for label-moistening purposes, an inverted container for reserve liquid movably associated with the tank and adapted to supply liquid to it, and a plurality of fixed locating formations individually disposed at different levels and selectively available to present means for positioning the container to release its liquid so as automatically to maintain the liquid in the tank at a corresponding plurality of different but calculated levels.

6. In a gummed tape serving machine, in combination, a frame, a support thereon for a tape supply, feeding means to advance the tape from the supply, a tank for liquid, a capillary tape-moistening element having a lower portion received in the liquid of the tank, and automatic level-maintaining means for the liquid including a positionally adjustable reserve-liquid container having a down outlet at its lower portion and positioning stop means for defining a plurality of predetermined alternative container positions disposed at different heights to afford selectively any one of a corresponding plurality of different positive predetermined liquid levels.

7. In a gummed tape serving machine, in combination, a frame, a support thereon for a tape supply, feeding means to advance the tape from the supply, a tank for liquid, a capillary tape-moistening element having a lower portion re-

ceived in the liquid of the tank, a trough-like auxiliary chamber, a conduit communicating between the chamber and tank, an inverted flask adapted to supply reserve liquid to the chamber and thence to the tank, and a plurality of correlated stops fixed on the chamber in vertically spaced relation to each other for respectively differently positioning the flask to release its liquid at a corresponding number of different but positively predetermined levels of the liquid in the chamber and tank.

8. In moistening mechanism for gummed tape dispensing apparatus having a tank for liquid and a tape-engaging capillary moistener vertically disposed to be supplied therefrom, in combination therewith, a liquid receiving chamber communicating with the tank, a liquid container having an outlet, and means to mount the container for gravity flow of liquid from its outlet to the chamber, said means including a plurality of selectively available fixed container-position controllers at different levels each to dispose the container outlet to afford a corresponding different but predetermined liquid level in the chamber and tank.

9. In a gummed tape dispensing machine having a frame, a tape roll support, means defining a path for the tape, a tank for moistening liquid adjacently below the tape path, and a capillary device vertically disposed to be supplied from the tank and adapted for moistening contact with a gummed face of the tape, in combination therewith, a liquid receiving chamber associated with the tank, a passage for liquid from the chamber to the tank, a liquid supply container having an outlet at its lower portion, and means including a plurality of differently vertically disposed positioning elements selectively available for presenting the container with its outlet at different levels in the chamber thereby to afford corresponding positive predetermined liquid levels in the chamber and tank.

TREVOR R. GAUTIER.