E. L. BROWNSON.

STRIP SERVING APPARATUS.

APPLICATION FILED APR. 4, 1908.

1,250,791.

Patented Dec. 18, 1917.

2 SHEETS—SHEET 1.

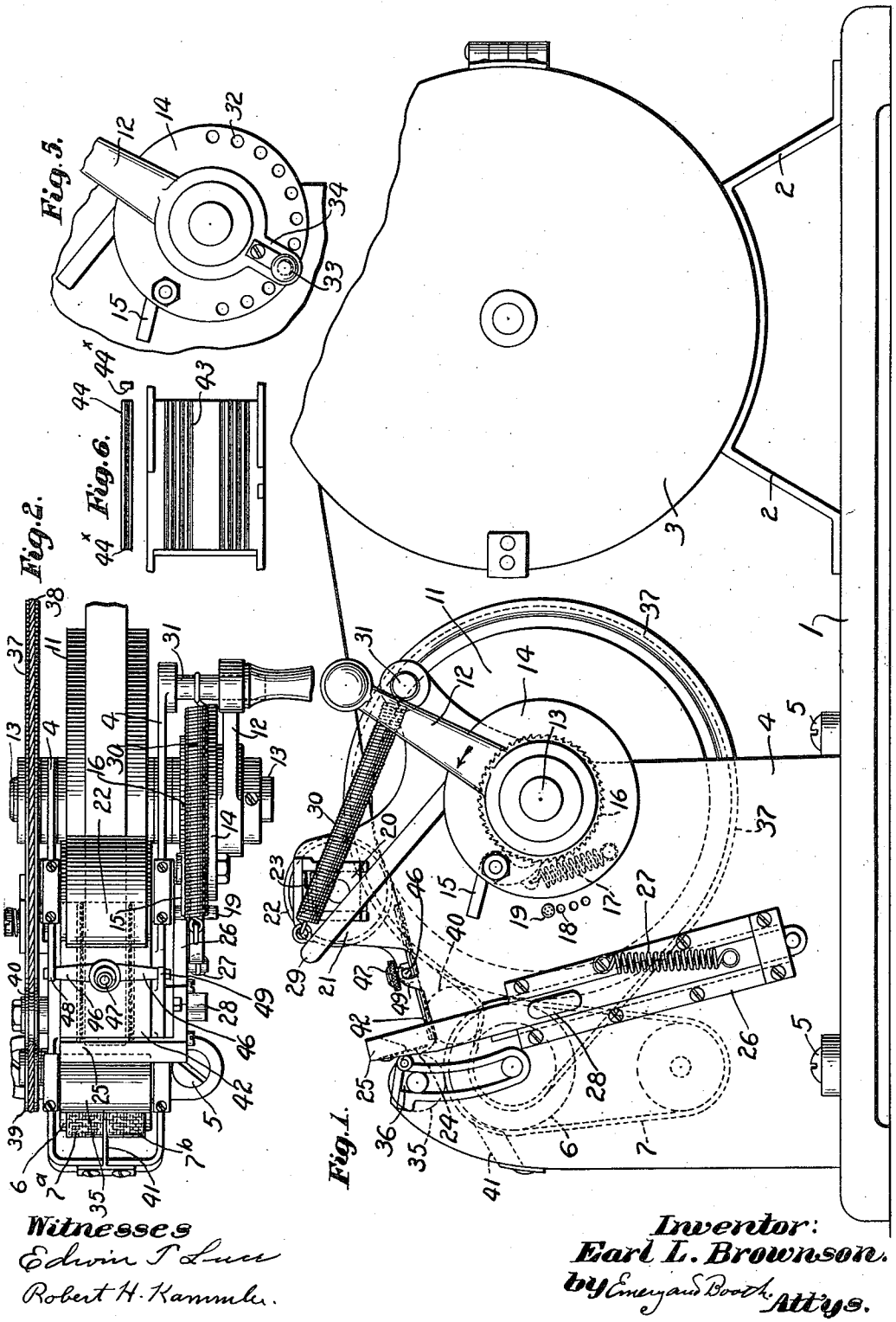


Fig. 1.

Fig. 3.

Fig. 6.

Fig. 2.

Witnesses

Edwin T. Luce

Robert H. Kammler.

Inventor:

Earl L. Brownson.

by Emery and Booth Attys.

E. L. BROWNSON.

STRIP SERVING APPARATUS.

APPLICATION FILED APR. 4, 1908.

1,250,791. Patented Dec. 18, 1917.

2 SHEETS—SHEET 2.

Fig. 3.

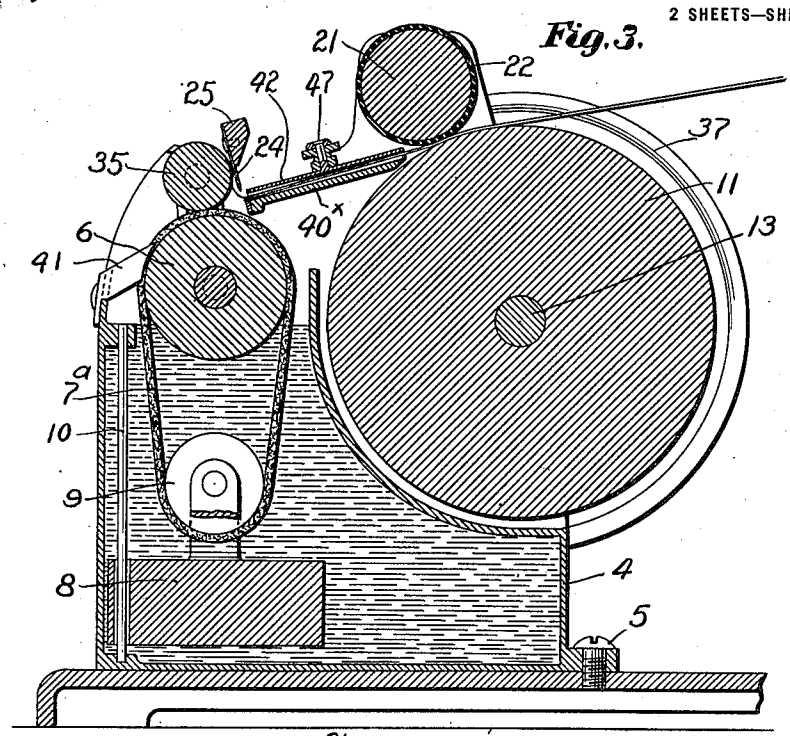
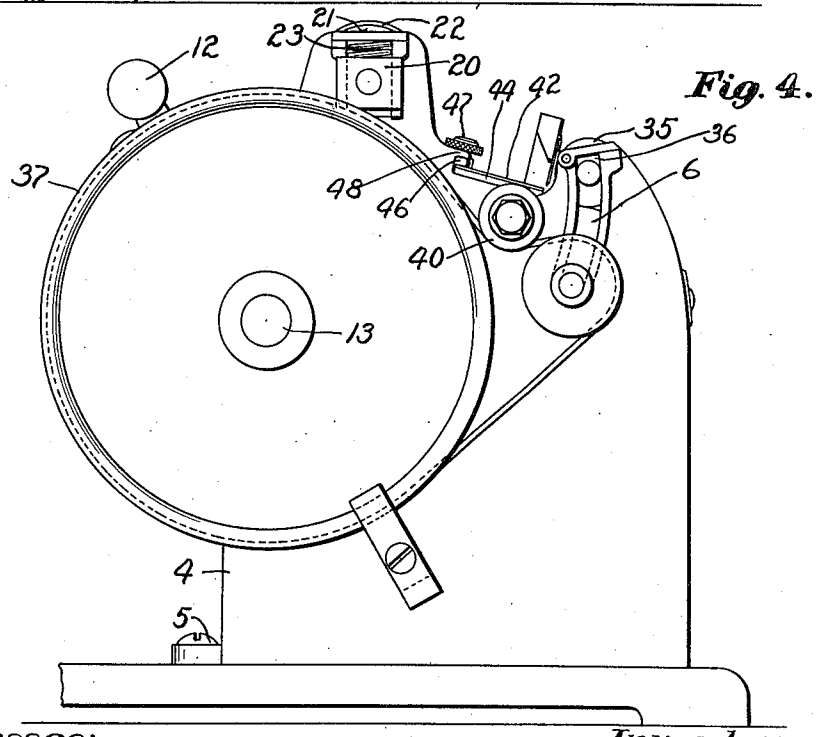


Fig. 4.



Witnesses:
Edwin T. Luce
Robert H. Kammler.

Inventor:
Earl L. Brownson,
by Emery and Booth, *Attys.*

UNITED STATES PATENT OFFICE.

EARL L. BROWNSON, OF ALLSTON, MASSACHUSETTS, ASSIGNOR TO THE NATIONAL BINDING MACHINE COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

STRIP-SERVING APPARATUS.

1,250,791. Specification of Letters Patent. Patented Dec. 18, 1917.

Application filed April 4, 1908. Serial No. 425,151.

To all whom it may concern:

Be it known that I, EARL L. BROWNSON, a citizen of the United States, and a resident of Allston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Strip-Serving Apparatus, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to devices or apparatus for supplying strips of paper or the like employed for wrapping or binding packages or for use as labels of any desired or predetermined length and for other purposes, and has particular reference to that type of apparatus employing a support for a coil of paper strip previously gummed on one side and having means for moistening the gummed side of the strip as the latter is drawn from its coil. It is apparent, however, that an ungummed strip of paper may be employed, in which case, the moistening device for the strip suitably positioned with respect thereto would contain an adhesive instead of water.

In order that the principles of my invention may be readily understood, I have disclosed a single type or embodiment thereof in the accompanying drawings, wherein—

Figure 1 is a side elevation of a label serving or strip serving apparatus embodying one type of my invention;

Fig. 2 is a plan view of a portion of the apparatus shown in Fig. 1;

Fig. 3 is a vertical central longitudinal section taken through the left hand portion of the apparatus represented in Fig. 1;

Fig. 4 is a side elevation of the forward portion of the apparatus shown in Fig. 1 but viewed from the opposite side,

Fig. 5 is a modified form of mechanism for feeding a predetermined or variable length of strip or label; and

Fig. 6 is a plan view of one form of guide for the strip or label.

Referring more particularly to the drawings and to the single embodiment of my invention therein represented, the base whereon the apparatus is preferably mounted is indicated at 1, it being of any suitable form and material. Upon the base is mounted a supply of paper or the like, preferably gummed upon one side. Herein supported upon an upright 2 is represented a pair of disks 3 between which may be positioned a roll of paper or the like. Any suitable means may be employed to impart a proper amount of tension to the paper, as, for example, a thumb nut threaded upon the spindle supporting the roll of paper, so that the disks may be made to engage with the edges of the roll with the desired degree of tightness. Any suitable means may be employed for this purpose. Mounted upon the forward portion of the base 1 is a casing 4 wherein if desired may be mounted for removal, as by sliding the same forwardly through the front of the frame, a tank or reservoir adapted to contain water for moistening the gum upon the strip or label, or a suitable adhesive in case the strip or label has not been provided therewith. In the present type of my invention and for convenience of illustration, I have represented the strip or label moistening means as mounted directly in the casing 4, which for that purpose may be so constructed as to contain water, as represented in Fig. 3. In said figure, the casing 4 is represented as detachably secured to the base by screws 5. While various means may be employed within the scope of my invention for conveying the moistening or adhesive fluid to the strip or label, I have herein represented (see Figs. 1 and 3) a roll 6 mounted in the casing 4 and supporting an endless web or belt 7 or some suitable moisture conveying material. By the employment of an endless web or belt, I am enabled constantly to subject a very considerable portion thereof to the action of the water or adhesive, and thus to insure the thorough moistening of the strip. Any suitable means may be employed to keep the web or belt taut. Herein I have represented a weight 8 suspended from a roll 9 mounted in the bight of the web, the said weight being maintained in proper position by a vertical rod or rods 10 passing therethrough and suitably secured in the casing. By mounting the weight for vertical movement, it is apparent that the web or belt may be maintained taut under all conditions of use. Preferably, I feed and deliver a predetermined portion or length of the strip. A label of exact length is an article for which there is a constantly increasing demand. Such labels are needed for many

purposes, and the requirements of the trade are such that it is desirable to furnish them with a very considerable degree of rapidity; it is also desirable from time to time to change the length of label, though at all times it should be possible to deliver precisely the length that is desired. Therefore, I have provided means whereby with great accuracy a predetermined length of label may be delivered, it being possible to vary the length from time to time. While this result may be accomplished in various ways, I have herein represented a drum or roll 11 mounted in the casing 4, and to which a rotary motion of any desired extent is imparted in any suitable manner, as by a crank handle 12 loosely mounted upon the shaft 13 of the drum, but having formed therewith or secured thereto a disk 14 having pivoted upon the inner face thereof a pawl 15 adapted to engage the teeth 16 of the ratchet fast upon the shaft 13. A spring 17 connected to the pawl 15 and to the disk 14 is employed to maintain the pawl 15 in engagement with the teeth of the ratchet. By the described construction, it will be apparent that by imparting a movement to the crank 12 in the direction of the arrow thereon (see Fig. 1), a forward movement of rotation will be imparted to the drum. By throwing the pawl 15 out of engagement with the ratchet 14, the forward or feeding movement of the drum 11 will be at once terminated. While this may be accomplished in any suitable way, herein I have represented the outer wall of the casing 4 as provided with a series of holes 18, in any one of which may be positioned a pin 19 adapted to be engaged by the pawl 15 upon the forward movement of the drum and by swinging the same upon its pivot to remove it from engagement with the teeth of the ratchet 16. Any suitable means may be employed to terminate the forward feeding movement of the drum. It will be apparent that the duration of forward feed, and hence the length of strip or label fed from the roll, is dependent upon the hole 18 wherein the pin 19 is positioned. The crank 12 with its disk 14 and pawl 15 constitutes a manually operated vibratory member. This vibratory member has what I herein term a to and fro or reciprocating movement.

Mounted in suitable bearings 20 in the upper portion of the casing 4 is provided a roll 21 preferably coated with rubber 22 or some other material to insure sufficient friction between the roll and the strip or label to compel them to travel in unison. If desired and as represented at 23, I may employ springs to hold the roll to its seat. Although the roll 21 is preferably not positively driven, yet it is maintained in engagement with the strip or label with sufficient friction to insure the movement in unison of the drum 11, the strip or label and the roll 21. If desired, means may be provided to adjust the tension of the springs 23.

While any suitable means may be employed to sever the strip, I have herein provided for the purpose a blade 24 (see Figs. 1 and 3) mounted in a vertically sliding frame 25 supported in guides 26 upon one or both sides of the casing 4, the said guides being herein represented as slightly inclined, in order that the blade may be presented normal to the path of travel of the strip, which in the present type of the invention is represented as downwardly inclined from the roll. A coiled or other spring 27 connected at one end with a member of the frame 25 and at its other end with one of the guides 26 or with the casing 4 is employed normally to maintain the blade elevated. Any suitable means may be employed to reciprocate the knife to sever the desired length of strip or label. Herein I have represented for the purpose the frame 25 as provided with a lateral lug 28 adapted to be engaged by an arm 29, represented as projecting from the periphery of the disk 14, the construction of the parts being such that in the movement of the crank handle 12 in the direction of the arrow thereon in Fig. 1, the arm 29 impinges upon the lug 28 and moves the frame 25 and blade 24 downwardly to sever the strip or label.

The construction of parts herein represented is such that the pawl 15 is disengaged from the ratchet 16 before or substantially simultaneously with the actuation of the blade 24 to sever the strip or label. It is apparent that the arc through which the arm 29 moves after the disengagement of the pawl from the ratchet 16 and before said arm engages the lug 28 depends upon the construction and positioning of the parts and may be of any desired extent or may be entirely done away with. Any suitable means may be employed to return the handle 12 to non-operating position. Herein for the purpose I have represented a coiled spring 30, one end whereof is connected to the arm 29, and the other end to the casing 4, the tension of the spring acting to return the arm 29, and hence the crank handle 12 to the position indicated in Fig. 1, a stop 31 being provided upon the casing 4, to limit the return movement of the crank handle 12.

In Fig. 5 I have represented a slightly modified construction of parts for feeding a variable length of label or strip. Therein the disk 14 is represented as provided with a series of holes 32 in any one of which a pin 33 provided in an extension 34 of the crank handle 12 may be positioned, it being apparent that the length of arc through which the crank handle 12 is moved before

the pawl 15 engages the pin 19, which in this event may be fixedly positioned, is determined by the hole 32 in which the pin 33 is positioned. A suitable stop may be provided to limit the return movement of the crank handle 12.

In the present embodiment of my invention, I positively rotate the moistening roll 6 and preferably at a speed differentiated from and herein in excess of that at which the strip is fed from the roll by the drum 11 and the roll 21. By positively driving the moistening roll, it is apparent that there is provided means operatively in advance of the blade 24 for feeding or delivering the label or severed portion of the strip. While any suitable means may be employed to insure the delivering of the label or severed portion of the strip, I have herein provided a roll 35 mounted in suitable bearings or guide ways 36 extending from the casing 4. If desired, springs, preferably adjustable, may be employed to hold the roll 36 with the desired degree of frictional engagement in contact with the severed label or strip. It is apparent that if desired a rubber or other suitable coating may be provided for the roll 35. Any suitable means may be employed positively to drive the roll 6. Herein for the purpose I have represented a belt 37 mounted in a pulley 38 fast upon the shaft 13 and of larger diameter than the drum 11, the roll 6 being provided with a pulley 39 fast therewith and receiving the belt 37, an idler pulley 40 being provided, if desired, to maintain the belt 37 taut.

It will be apparent that when movement is imparted to the crank handle 12 and prior to the actuation of the blade 24, the strip will be positively fed forward by the drum 11 and roll 21, and that the leading end of the strip, as it is received between the roll 6 and the roll 35, is subjected to a wiping action by the roll 6, because of the differential speed of the said roll and the strip, so as more thoroughly and evenly to moisten the strip or label, the action being similar to the manual act of moistening a stamp by drawing the same across a moistened sponge. The means for imparting a differential or wiping movement to the moistener may, of course, be largely varied and any desired degree of differential action may be employed, it being apparent that any desired type of driven moistener may be employed for this purpose.

The wiping action of the roll 6 upon the leading end of the strip is continued until the strip is severed by the blade 24. The construction of parts is such that the continued forward movement of the crank handle 12 in the direction of the arrow thereon in Fig. 1 imparts a delivery movement to the rolls 6 and 35, the label or strip being thus delivered to the operative. If desired and as represented in Figs. 1 and 2, a guide 41 may be employed in advance of the belt or web 7 to direct the strip as it is delivered. If desired, I may construct the web or belt 7 in two parts, 7^a and 7^b, as represented in Fig. 2, between which the guide 41 is positioned, the said guide thus passing between the members of the belt or web and into the desired relation to the roll 6. It is apparent that the guide 41 may be made narrow in cross section, so that the members 7^a and 7^b are separated but slightly, and to such a slight extent as not to interfere with the thorough moistening of the strip or label. Any suitable means may be provided to guide the strip from the drum 11 to the roll 6. In Figs. 1 and 2, I have represented the upper surface of the casing 2 properly formed to receive the strip as it is fed forward by the drum 11. Mounted, upon the strip guiding face of the casing 4 or upon a plate 40^x mounted transversely thereon, as represented in Fig. 3, and suitably spaced therefrom, as indicated in Figs. 1, 2 and 3, is provided an upper strip guiding member 42 secured thereto in any suitable manner and preferably removably, so that it may be readily detached therefrom as desired. As indicated in Fig. 3, the leading edges of the plates 40^x and 41 may be formed to coöperate with the blade 24 to sever the strip. If desired, suitable means may be employed in conjunction with the upper strip guiding member 41 or the upper strip guiding surface of the casing 4 to guide the edges of the strip, and if desired such means may be rendered laterally adjustable to suit various widths of strip or label that it may be desired to use. It will be apparent that any suitable means may be employed laterally to adjust said edge guiding member or members. In Fig. 6, I have represented the upper strip guiding face of the casing 4 or of the plate 40^x as provided with a series of shallow grooves or channels 43 disposed in the direction of the feed of the strip. Lateral or edge guiding bars 44 may be provided, each of them being shaped to be received in any desired channel or groove 43. Herein I have represented for this purpose each of the bars 44 as provided on its under surface with a tongue 44^x preferably tapered in cross section to an edge and adapted to be received in any one of the said channels or grooves. By positioning the two bars in the desired grooves, any width of strip or label may be accommodated and properly guided. The said bars may be held in adjusted position in any suitable manner, as by providing means upon the guiding member 42 permitting the ready removal of said member for adjustment of the bars. Herein, for the purpose, I have represented said member as provided with a latch 46 pivoted thereon, as represented at 47, the ends of the

latch being adapted to engage notched members 48 and 49 arising from the casing 4.

Having thus described one type or embodiment of my invention, I desire it to be understood that although specific terms are employed, they are used in a generic and descriptive sense and not for purposes of limitation, the scope of the invention being set forth in the following claims.

Claims:

1. A strip serving apparatus comprising a support for a paper or like strip of flexible material of indeterminate length from which the said flexible strip may be served for use, means to feed the strip, a moistener, means to impart movement to the moistener along the service path of the strip and at a speed differentiated from that of the feeding speed of the strip, thereby to moisten the strip with a wiping action, and means for severing the moistened strip.

2. A strip serving apparatus comprising a support for a paper or like strip of flexible material of indeterminate length and from which the said flexible strip may be served for use, a moistener for the said flexible strip, strip feeding means and means actuated therefrom to impart movement to the moistener in the direction of feed of the strip, but at a speed other than that of the feed of the strip, thereby to moisten the strip with a wiping action, and means for severing the moistened strip.

3. A strip serving apparatus comprising a support for a paper or like strip of flexible material of indeterminate length from which the said flexible strip may be served for use, means to feed the strip, a rotary moistener having a soft surface, and means to rotate said moistener at a speed differentiated from that of the feeding speed of the strip, thereby to moisten the strip with a wiping action, and means for severing the moistened strip.

4. A strip serving apparatus comprising a strip support, means to sever the strip transversely, a moistener in advance of the severing means, means to move the moistener relatively to the strip thereby to moisten the strip with a wiping action and means for varying the length of strip to be fed and severed.

5. A strip serving apparatus comprising a strip support, strip severing means, strip feeding means in the rear of the severing means, strip moistening and strip feeding means in advance of the severing means, and provisions for operating said two strip feeding means at different speeds with respect to each other.

6. A strip serving apparatus comprising a strip support, strip severing means, means to feed the strip to the severing means, moistening means in advance of the severing means, means to impart movement to said moistening means in the path of travel of said strip but at a higher rate of speed than that of the said strip feeding means and means for varying the length of the strip to be fed and severed.

7. A strip serving apparatus comprising a support for a paper or like strip of flexible material of indeterminate length and from which the said flexible strip may be served for use, a rotary moistener for said flexible strip having a soft surface, strip feeding means and means actuated therefrom to rotate said moistener at a speed other than that of the feed of the strip, thereby to moisten the strip with a wiping action, and means for severing the moistened strip.

8. A strip serving apparatus comprising a strip support, means to sever the strip transversely, feeding rolls to present the strip to the severing means, a rotatable moistener in advance of the severing means, means coöperating with the moistener to maintain the strip in moistening relation therewith during the moistening action, and means to rotate the moistener to impart a wiping action to the strip.

9. A strip serving apparatus comprising a support for a paper or like strip of flexible material of indeterminate length from which the said flexible strip may be served for use, means to feed the strip, a moistener, means to impart movement to the moistener along the service path of the strip and at a speed differentiated from that of the feeding speed of the strip, thereby to moisten the strip with a wiping action, means for severing the moistened strip and means for varying the length of the strip to be fed and severed.

10. A strip serving apparatus adapted to serve a strip for separate use comprising a strip support, a moistener in operative relation to said strip, a cutter for said strip in the rear of the moistener having a guided movement in a path at an angle to the strip to sever the latter, means to slide the cutter in said path, thereby to sever the strip, means to feed a predetermined length of strip to be severed and means for varying the length of the strip to be fed and severed.

11. A strip serving apparatus comprising a strip support, a moistener in operative relation thereto, a severing blade, and means in the rear of the moistener carrying severing blade operating means and operating upon movement in one direction to feed the strip and to sever the same.

12. A strip serving apparatus comprising a strip support, a moistener in operative relation thereto, a severing blade and means in the rear of the moistener carrying severing blade operating means and operating upon movement in one direction to feed the strip to be moistened, to sever the strip and to deliver the moistened, severed strip unapplied to the operator for manual application.

13. A strip serving apparatus comprising a support for a paper or like strip of flexible material of indeterminate length and from which the said flexible strip may be served for use, a moistener for the said flexible strip, strip feeding means and means actuated therefrom to impart movement to the moistener in the direction of feed of the strip, but at a speed other than that of the feed of the strip, thereby to moisten the strip with a wiping action, means for severing the moistened strip and means for varying the length of the strip to be fed and severed.

14. A strip serving apparatus comprising a strip support from which a strip may be served for separate use, a moistener and transverse severing means in operative relation to said support but in the rear of the moistener, and adjustable edge guiding means for the strip in advance of the strip support, whereby the apparatus may be adapted to strips of different width.

15. A strip serving apparatus comprising means to support a strip roll, a tank or reservoir in advance of said strip roll, a rotary moistener supported in said tank or reservoir, a strip severing blade supported above the service path of the strip, a stationary strip guide located between the moistener and the roll support, and a removable strip guide above said stationary guide, the strip passing between said guides in a direction toward the moistener.

16. A strip serving apparatus comprising means to support a strip roll, a tank or reservoir in advance of said roll support, a rotary moistener supported in said tank or reservoir, a strip severing blade supported above the service path of the strip, a stationary strip guide located between the moistener and the roll support and with the upper face of which the strip is adapted to contact, a removable strip guide above said stationary guide, and pivoted latching means for securing said upper guide in position but permitting the ready removal thereof.

17. A strip serving apparatus comprising a support for a paper or like strip of flexible material of indeterminate length from which the said flexible strip may be served for use, means to feed the strip, a rotary moistener having a soft surface, and means to rotate said moistener at a speed differentiated from that of the feeding speed of the strip, thereby to moisten the strip with a wiping action, means for severing the moistened strip, and means for varying the length of the strip to be fed and severed.

18. A strip serving apparatus comprising a support for a paper or like strip of flexible material of indeterminate length and from which the said flexible strip may be served for use, a rotary moistener for said flexible strip having a soft surface, strip feeding means and means actuated therefrom to rotate said moistener at a speed other than that of the feed of the strip, thereby to moisten the strip with a wiping action, means for severing the moistened strip, and means for varying the length of the strip to be fed and severed.

19. Apparatus comprising a strip support from which the strip may be served for use, primary strip feeding means, a pair of rolls rotating at a unison speed and engaging opposite faces of the strip in advance of said primary feeding means, one of said rolls being a moistener roll and said pair of rolls being rotated at a differential speed with respect to said primary feeding means, and strip severing means positioned between the primary strip feeding means and the said pair of rolls, whereby said rolls serve both to moisten and to feed the severed end of the strip.

20. Strips serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like having an exposed, wetted, adhesive face, comprising strip supporting means, a moistener in wetting relation to the strip issuing from said strip supporting means, means to move said moistener relatively to the strip in its service path, thereby to impart a wiping action thereto, means to feed a variable length of strip for presentation for such manual application, and means effective at will so to sever the strip at the determined point as to produce a wetted, adhesive, severed, unapplied strip of predetermined length for manual application.

21. Strip serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like having an exposed, wetted, adhesive face comprising strip supporting means, a strip feeding means, a moistener in wetting relation to the strip issuing from said strip supporting means, means differentially to move the moistener and the strip feeding means, whereby said moistener imparts a wiping action to the strip, and means effective so to sever the strip at the determined point as to produce a wetted, adhesive, severed, unapplied strip of predetermined length for manual application and means to vary the length of the strip to be fed and severed.

22. Strip serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like having an exposed, wetted, adhesive face comprising means to support a strip roll having one gummed face, a moistener in wetting relation to the gummed face of the strip issuing from said support, means positively to move said moistener relatively to the strip during the service of the latter, thereby to impart a wiping action to the

strip, means to feed a predetermined, variable length of strip from said support past said moistener, and means to sever said predetermined variable length of strip, whereby a wetted, adhesive, severed, unapplied strip of predetermined length is presented to the user for manual application.

23. A strip serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like having an exposed, wetted, adhesive face, comprising strip supporting means, two pairs of feed rolls between which the strip passes from the supporting means, one roll of the forward pair of said rolls having moistening means on its surface, means movable in substantially the direction of feed of the strip past said rolls to drive one roll of each pair of rolls, and a severing blade between said pairs of rolls, said blade being actuated by said roll driving means and the said roll having moistening means on its surface being at the forward end of the train of mechanism to act upon the strip, and by which last mentioned roll the strip is immediately presented to the user for manual application.

24. A strip serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like having an exposed, wetted, adhesive face comprising strip supporting means, two pairs of feed rolls between which the strip passes from the supporting means, one roll of the forward pair of said rolls having moistening means on its surface, a vibratory member movable in substantially the direction of feed of the strip past said rolls, whereof movement in one of said directions will impart feeding movement to the strip, said vibratory member having driving relation with one roll of each pair of rolls, and a severing blade between said pairs of rolls, said blade being actuated by said vibratory member, the said roll having moistening means on its surface being at the forward end of the train of mechanism to act upon the strip, and by which last mentioned roll the strip is immediately presented to the user for manual application.

25. A strip serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like having an exposed, wetted, adhesive face, comprising strip supporting means, two pairs of feed rolls between which the strip passes from the supporting means, one roll of the forward pair of said rolls having moistening means on its surface, a vibratory member movable in substantially the direction of feed of the strip past said rolls whereof movement in one of said directions will impart feeding movement to the strip, said vibratory member having driving relation with one roll of each pair of rolls, a severing blade between said pairs of rolls, said blade being actuated by said vibratory member subsequent to the termination of each forward feeding movement of said rolls, the roll having moistening means on its surface being at the forward end of the train of mechanism to act upon the strip, and by which last mentioned roll the strip is immediately presented to the user for manual application.

26. A strip serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like having an exposed, wetted, adhesive face, comprising strip supporting means, two pairs of feed rolls between which the strip passes from the supporting means, one roll of the forward pair of said rolls having moistening means on its surface, means to drive one roll of each pair of rolls, said driving means having movement in substantially the direction of feed of the strip past said rolls, a severing blade between said pairs of rolls, said blade being actuated by said roll driving means subsequent to the termination of each forward feeding movement of said rolls, the roll having moistening means on its surface being at the forward end of the train of mechanism to act upon the strip, and by which last mentioned roll the strip is immediately presented to the user for manual application.

27. A strip serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like having an exposed, wetted, adhesive face, comprising strip supporting means, two pairs of feed rolls between which the strip passes from the supporting means, one roll of the forward pair of said rolls having moistening means on its surface, strip guiding means between the two pairs of rolls, a vibratory member movable in substantially the direction of feed of the strip past said rolls whereof movement in one of said directions will impart feeding movement to the strip, said vibratory member having driving relation with one roll of each pair of rolls, and a severing blade between said pairs of rolls, said blade being actuated by said vibratory member, the roll having moistening means on its surface being at the forward end of the train of mechanism to act upon the strip, and by which last mentioned roll the strip is immediately presented to the user for manual application.

28. A strip serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like, having an exposed, wetted, adhesive face, comprising strip supporting means, two pairs of feed rolls between which the strip passes from the supporting means, one roll of the forward pair of said rolls having moistening means on its surface, means to

drive one roll of each pair of said rolls, the said two driven rolls being on the same side of the service path of the strip, a severing blade between said pairs of rolls, said blade being actuated by said roll driving means, the roll having moistening means on its surface being at the forward end of the train of mechanism to act upon the strip, and by which last mentioned roll the strip is immediately presented to the user for manual application.

29. In a strip serving apparatus, the combination of means for supporting a strip, feeding rolls between which the strip passes, operating means movable in substantially the direction of feed of the strip past said rolls and also in a direction opposite thereto, connecting means between said operating means and at least one of said feeding rolls said connecting means being so constructed that said feeding rolls will be positively operated to feed said strip when said operating means is moved in only one of said directions, a knife located and adapted to sever said strip after it has passed said feeding rolls, said operating means having a device constructed and arranged to be moved by said operating means thereby to move said knife to sever said strip after the termination of said strip feeding movement, and a moistening device adapted to moisten said strip after it has passed said knife.

30. In a strip serving apparatus, the combination of means for supporting a strip, feeding rolls between which the strip passes, operating means movable in two directions, connecting means between said operating means and at least one of said feeding rolls, said connecting means being so constructed that said feeding rolls will be positively operated to feed said strip when said operating means is moved in one only of said directions, a knife located and adapted to sever said strip after it has passed said feeding rolls, said knife having a device constructed and arranged to be moved by said operating means, thereby to move said knife to sever said strip after the termination of said strip feeding movement, whereby said knife is operated to sever said strip when the latter is at rest, a strip moistening and feeding device adapted to moisten and feed said strip after it has passed said knife, and a connection from said operating means to said device to impart moistening and feeding movement thereto.

31. In a strip serving apparatus, the combination of means for supporting a strip, feeding rolls between which the strip passes, operating means movable in substantially the direction of feed of the strip past said rolls and also in a direction opposite thereto, connecting means between said operating means and at least one of said feeding rolls, said connecting means being so constructed that said feeding rolls will be positively operated to feed said strip when said operating means is moved in one only of said directions, a knife movable into and out of the service path of the strip and positioned and adapted to sever the strip when at rest and after it has passed said feeding rolls, said knife having a device constructed and arranged to be moved by said operating means thereby to move said knife to sever said strip, and a moistening device adapted to moisten the strip after it has passed said knife.

32. In a strip serving apparatus, the combination of means for supporting a strip, feeding rolls between which the strip passes, operating means movable in two directions, connecting means between said operating means and at least one of said feeding rolls, said connecting means being so constructed that said feeding rolls will be positively operated to feed said strip when said operating means is moved in one only of said directions, a knife located and adapted to sever said strip after it has passed said feeding rolls, said knife having a device constructed and arranged to be moved by said operating means, thereby to move said knife to sever said strip after the termination of said strip feeding movement, whereby said knife is operated to sever said strip when the latter is at rest, a strip moistening and feeding device movable about a pivot and adapted to moisten and feed said strip after it has passed said knife, and a connection from said operating means to said device to move the latter about said pivot.

33. A strip serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like having an exposed, wetted, adhesive face, comprising strip supporting means, two pairs of co-acting rolls between which the strip passes from the supporting means, one roll of the rear pair of rolls and one roll of the forward pair of rolls being positively driven feed rolls, and one roll of the forward pair of rolls being a moistener roll, a recprocating device for operating said positively driven feed rolls, a strip severing blade between the moistener roll and the rearmost positively driven feed roll, and means operatively related to and actuatingly moved by said reciprocating device to turn said positively driven feed rolls on the forward stroke only of said reciprocating device, thus imparting strip feeding movement to said feed rolls and also to operate the severing blade on further movement of said reciprocating device, so as to sever the strip at an unmoistened portion thereof.

34. A strip serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like having an exposed, wetted, adhesive

face, comprising strip supporting means, two pairs of coacting rolls between which the strip passes from the supporting means, one roll of the rear pair of rolls and one roll of the forward pair of rolls being positively driven feed rolls, and one roll of the forward pair of rolls being a moistener roll, a reciprocating device for operating said positively driven feed rolls, a strip severing blade between said moistener roll and the rearmost positively driven feed roll and devices including a toothed member and a blade operating projection operatively related and moved by said reciprocating device respectively to turn said positively driven feed rolls on the forward stroke only of said reciprocating device, thus imparting strip feeding movement to said feed rolls and to operate the severing blade on further movement of said reciprocating device so as to sever the strip at an unmoistened portion thereof.

35. A strip serving apparatus adapted to deliver or present to the user for manual application, unapplied strips of paper or the like having an exposed, wetted, adhesive face comprising strip supporting means, strip feed rolls including a rotatable moistener in wetting relation to the strip issuing from said strip supporting means and from which moistener the strip is immediately presented to the user for manual application, at least two of said strip feed rolls being positively driven, a shaft whereon one of said positively driven feed rolls is mounted, a movable feeding member for said positively driven feed rolls, a clutch device operatively arranged with respect to said shaft and said positively driven feed rolls for effecting, in coöperation with the movable feeding member, the feeding of the strip through the feed rolls to a predetermined extent during each feeding movement of said positively driven feed rolls and the shaft, strip severing means, and means for varying the length of the strip to be fed and severed.

36. A strip serving apparatus comprising a strip roll support from which a strip may be served for separate use, a moistener in the service path of the strip, a severing blade in the rear of the moistener, laterally adjustable edge-guiding members for the strip extending longitudinally of the strip in the rear of the severing blade, but adjacent thereto, and adapted to prevent the bowing of the strip after severance by the blade.

37. A strip serving apparatus, comprising a strip roll support from which a strip may be served for separate use, a moistener in the service path of the strip, edge-guiding members for the strip extending longitudinally thereof in the rear of and in proximity to the moistener and having portions adjustable laterally of the strip to accommodate different widths thereof, the leading portion of said members having a transverse edge against which the strip may be severed, the construction and relation of parts being such that bowing of the strip, after severance, is prevented.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

EARL L. BROWNSON.

Witnesses:
NORMAN S. WAITE,
ANNIE B. HEUSTIS.