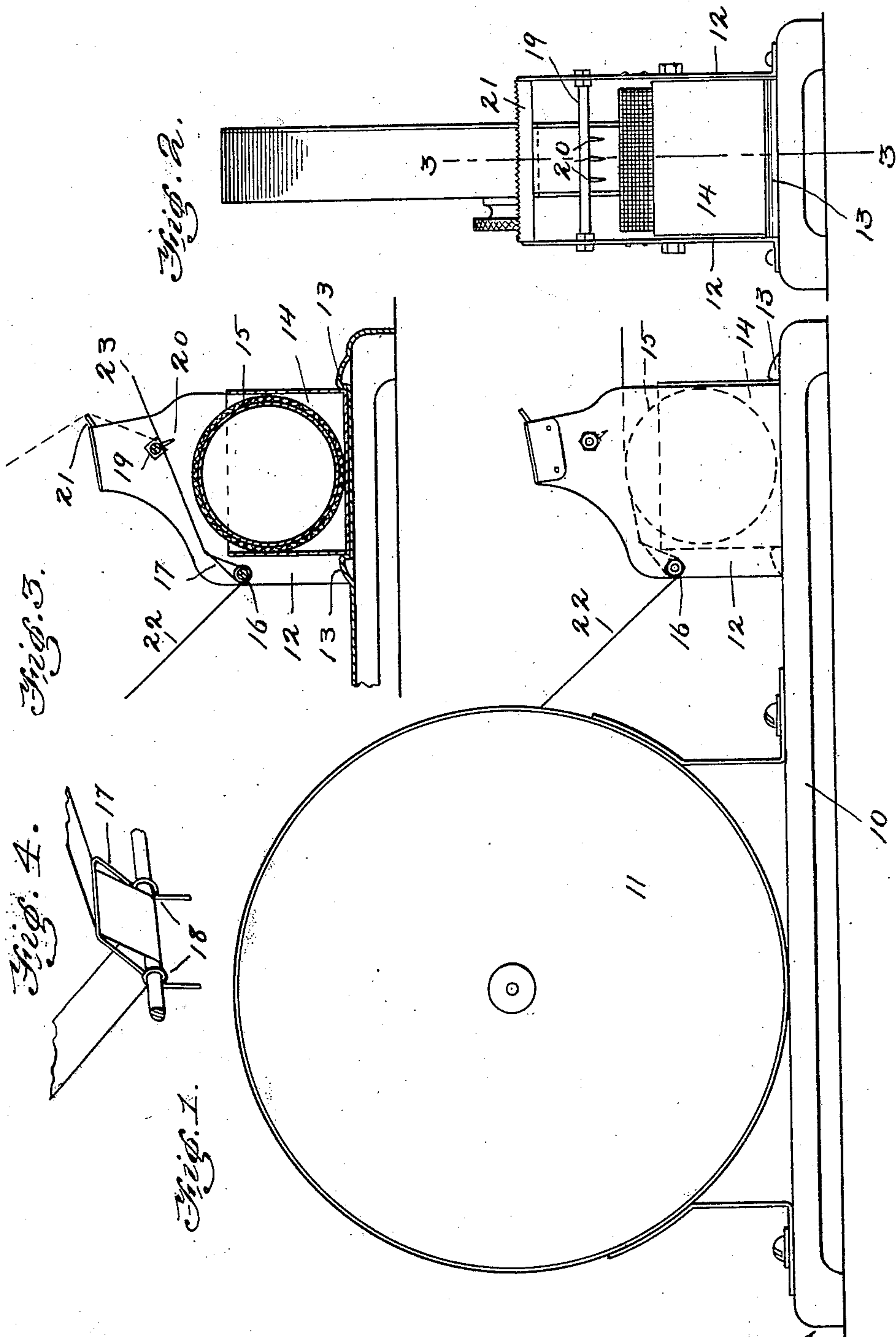


No. 864,094.

PATENTED AUG. 20, 1907.

W. B. HATCH.
STRIP SERVING DEVICE.
APPLICATION FILED OCT. 12, 1905.



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UNITED STATES PATENT OFFICE.

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STRIP-SERVING DEVICE.

No. 864,094.

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed October 12, 1905. Serial No. 282,382.

To all whom it may concern:

Be it known that I, WILLIAM B. HATCH, of St. Albans, in the county of Franklin and State of Vermont, have invented certain new and useful Improvements in Strip-Serving Devices, of which the following is a specification.

This invention relates to devices or apparatus for supplying strips of paper employed for wrapping or binding packages, and has particular reference to that type of apparatus of this character employing a support for a coil of the paper strip which has been previously gummed on one side and then dried, and having means for moistening the gummed side of the strip as the latter is drawn from its coil, and having also means for raising or lifting the free end of the strip after the portion to be used has been severed therefrom. So far as the apparatus shown is concerned however, an ungummed strip of paper might be employed, in which case the reservoir or tank for containing the liquid to be transferred to the underside of the strip would contain an adhesive instead of water.

The object of my present invention is to provide means which will hold a short length of the strip that is adjacent to the moistening device under tension as well as raised from said moistening device when the apparatus is not in use.

Another object of this invention is to provide a simple and economical apparatus of the character specified, which is easy to operate and to keep clean, and which cannot get out of order.

To this end the invention consists in the construction and combination of parts substantially as hereinafter described and claimed.

Of the accompanying drawings:—Figure 1 is a side elevation of the complete device embodying the invention. Fig. 2 represents an end elevation from the right of Fig. 1. Fig. 3 represents a section on line 3—3 of Fig. 2. Fig. 4 is a perspective view of the strip lifter detached from its supporting rod.

Similar reference characters indicate the same or similar parts in all the devices.

Upon a base 10 which is formed preferably of sheet metal is suitably supported a casing 11 for the roll or coil of the paper strip, or it may be supposed to be a reel for such a strip. Suitably secured to said base are two side plates or uprights 12 and rising from or struck up from the base are two ribs 13 extending across the space formed between the uprights 12. A substantially rectangular tank or reservoir 14 is loosely supported upon the base between the side plates 12 and secured against movement backward or forward by means of the ribs 13. This construction provides for properly positioning the tank or reservoir and yet enables the latter to be readily lifted out for cleaning or other purposes.

Mounted within the tank or reservoir 14 is the cylinder or roll 15 which may be composed of any suitable material adapted to raise a liquid from the tank either by capillary attraction or by rotation of the moistener.

Extending between the side plates 12 behind the tank or reservoir is a rod 16 which acts as a guide for the paper strip and may also form a support for the strip lifter 17. Said strip lifter, as represented in Fig. 4 may comprise a U-shaped piece of wire having its ends coiled as at 18, said coils surrounding the rod 16 and having their ends suitably secured so that the cross-bar of the lifter will have a tendency to move away from the moistener. While any suitable means may be provided to support the free end of the strip after the severing operation, I have herein provided the following construction.

Mounted in the side plates 12 is a rod 19 extending over the moistener and having impaling points or prongs 20 projecting downward as indicated in Figs. 2 and 3. Secured to the tops of the side pieces and extending across the space between them is a cutter 21.

In operation, the strip 22 is led from the coil mounted in the casing 11 under the rod 16 and over the cross-bar of the lifter 15 and then under the bar 19 having the impaling points 20. When the free end 23 is drawn downward in a plane about that represented in Fig. 1, the strip will be drawn over the moistening device, the lifter 17 yielding under the tension produced in the act of drawing the strip. When sufficient length of strip has been withdrawn, the operator simply lifts the strip towards the cutter and in doing so impales it upon the points 20. A further movement in the same direction carries the free end up to the position indicated by dotted lines in Fig. 3 and the strip is severed by drawing it over the edge of the cutter 21. The short length which reached from the points 20 to the cutter simply drops down to about the position shown by full lines in Fig. 3 and the spring tension of the lifter 17 throws or lifts the strip away from the moistener and at the same time produces sufficient pull or tension upon the paper between the cross-bar of the lifter and the said impaling points to cause the latter to act as a holder to maintain this portion of the strip under tension. Therefore there is no possibility of the strip returning to contact with the moistener, and at the same time the end 23 of the strip is held projected where it will be convenient of access for further use in the manner described. It is apparent that the exposed end of the strip may be manually applied to the moistener.

It is to be understood of course that the construction of the casing or reel 11 is such that there will be sufficient friction on the roll or coil of the paper strip that there will be some resistance to a pull on the outer end

of the strip so that the cross-bar of the lifter will keep the strip elevated above the moistener as described. Obviously without some such friction, the lifter would draw from the source of supply and therefore allow the end of the strip to sag against the moistener.

Having now described my invention, I claim:—

1. An apparatus of the character specified, comprising a guide for the strip, a bar having impaling points to engage the strip near its free end, a moistener intersecting a straight line between said guide and bar, and a lifter to engage the strip between the guide and bar and raise said strip from the moistener. 80
2. An apparatus of the character specified, comprising a guide for the strip, a holder for the free end of the strip, said holder comprising a bar having impaling points, a moistener intersecting a straight line between said guide and holder, and a spring actuated lifter to engage the strip between the guide and holder and raise it from the moistener. 85
3. An apparatus of the character specified, comprising a guide for the strip, a holder for the free end of the strip, said holder comprising a bar having impaling points, a moistener intersecting a straight line between said guide and holder, and a spring actuated lifter to engage the strip between the guide and holder and raise it from the moistener. 90
4. In an apparatus of the class described, a support for the paper, a guide carrying a spring lifting member, a reservoir, a moistening device therein, and a holding member provided with means for securing the free end of the strip out of contact with said moistening device. 95
5. In an apparatus of the class described, a support for the paper, a delivery member for said paper provided with means for tensioning the delivery thereof, a guide carrying a spring lifting member, a reservoir, a moistening device, means for securing the free end of the strip out of contact with said moistening device, and means for severing said strip. 100
6. An apparatus of the character described comprising a support for the strip to be moistened, a moistener positioned in operative relation thereto, severing means and means to engage the strip near the free end thereof normally preventing the free end of the strip from contacting with the moistener. 105
7. An apparatus of the character specified comprising a support for the strip to be moistened, a moistener positioned in operative relation thereto, severing means, and means positively to engage the strip while being severed, and after severing of the strip normally preventing contact of the free end thereof with the moistener. 110
8. An apparatus of the character specified comprising a support for the strip to be moistened, a moistener positioned in operative relation thereto, means to engage the strip upon the non-moistened side to sever the same, and means to engage the strip from said non-moistened side while being severed, said means normally preventing contact of the free end of the strip with the moistener. 115
9. An apparatus of the character specified comprising a support for the strip to be moistened, a moistener positioned in operative relation thereto, a fixed severing means, and means to engage and hold the strip adjacent the severing means, said means normally preventing contact of the free end of the strip with the moistener. 120
10. An apparatus of the character specified comprising a support for the strip to be moistened, a moistener positioned in operative relation thereto, and severing means operatively related to the moistener and so positioned with respect thereto that when the strip is being severed thereby the body of the strip may be in contact with the moistener, and holding means for the strip said holding means normally preventing contact of the free end of the strip with the moistener after the severing action. 125
11. An apparatus of the character specified comprising a support for the strip to be moistened, a moistener positioned in operative relation thereto, severing means operatively related to the moistener and so positioned with respect thereto that when the strip is being severed thereby the body of the strip may be in contact with the moistener, strip holding means normally preventing contact of the free end of the strip with the moistener after the severing action, and strip lifting means to lift the strip from engagement with the moistener. 130
12. An apparatus of the character specified comprising a support for the strip to be moistened, a tank or reservoir, a moistener positioned in operative relation thereto, and means supported above the strip to engage the latter near the free end thereof to maintain such free end from contact with the moistener. 135
13. An apparatus of the character specified comprising a support for the strip to be moistened, a tank or reservoir, a moistener located in operative relation thereto, and means supported above the moistener to maintain the free end thereof from contact with the moistener. 140
14. An apparatus of the character specified comprising a support for the strip to be moistened, a guide for the strip, a reservoir, a moistening device therein, and a holding member provided with means for securing the free end of the strip out of contact with said moistening device after the severing action. 145
15. An apparatus of the character specified comprising a support for the strip to be moistened, a guide carrying a lifting member, a reservoir, a moistening device therein, and a holding member provided with means for securing the free end of the strip out of contact with said moistening device said means normally preventing contact of the free end of the strip with the moistener after the severing operation, and severing means. 150
16. An apparatus of the character described comprising a support for the strip to be moistened, a moistener positioned in operative relation to such support and strip, a guide for the strip between the support and the exposed surface of the moistener, a strip severing device located beyond the moistener, and means engaging the strip between the moistener and the severing device, and constructed to maintain the strip from contact with the exposed surface of the moistener when the hand of the operator is removed from the strip. 155
17. An apparatus of the character described comprising a support for the strip to be moistened, a moistener positioned in operative relation to such support and strip, a guide for the strip between the support and the exposed surface of the moistener, a strip severing device located beyond the moistener, and means engaging the strip between the moistener and the severing device, and having provisions whereby after the severing action and without further manipulation of the strip, the strip is maintained from contact with the exposed surface of the moistener. 160
18. An apparatus of the character described comprising a support for the strip to be moistened, a moistener positioned in operative relation to such support and strip, a guide for the strip between the support and the exposed surface of the moistener, a strip severing device located beyond the moistener and at a higher elevation than the exposed surface of the moistener, and means engaging the strip between the moistener and the severing device and constructed to maintain the strip from contact with the moistener when the hand of the operator is removed from the strip. 165
19. An apparatus of the character described comprising a support for the strip to be moistened, a moistener positioned in operative relation to such support and strip, a guide for the strip between the support and the exposed surface of the moistener, a strip severing device located beyond the moistener, and means engaging the strip between said guide and the severing device and having provisions whereby after the severing action and without further manipulation of the strip, the strip is maintained out of contact with the exposed surface of the moistener. 170
20. An apparatus of the character described comprising a support for the strip to be moistened, a moistener positioned in operative relation to such support and strip, a guide for the strip between the support and the exposed surface of the moistener, means located at the rear of the moistening surface to remove the strip from engagement with the moistening surface, a strip severing device located beyond the moistener, and means engaging the strip between the moistener and the severing device and having provisions whereby after the severing action and without

further manipulation of the strip the free end of the strip is maintained from contact with the exposed surface of the moistener.

21. An apparatus of the character described comprising a support for the strip to be moistened, a moistener positioned in operative relation to such support and strip, a guide for the strip between the support and the exposed surface of the moistener, means located at the rear of the moistening surface to remove the strip from contact with the moistening surface after the moistening action, a strip severing device located beyond the moistener and at a higher elevation than the exposed surface of the moistener, and strip supporting means between the moistener and the severing device and below the plane of the severing device and constructed to support the free end of the strip from contact with the moistener when the hand of the operator is removed from the strip after the severing action and such free end of the strip falls from engagement with the severing device.

22. An apparatus of the character described comprising a support for the strip to be moistened, a moistener positioned in operative relation to such support, and strip guiding means for the strip engaging the latter between its support and the exposed surface of the moistener and tending normally to remove the strip from contact with the moistener, a strip severing device adapted to engage a portion of the strip that has been drawn past the moistener, and means to support the free end of the strip.

23. An apparatus of the character described comprising a support for the strip to be moistened, a moistener positioned in operative relation to such support, and strip guiding means for the strip engaging the latter between its support and the exposed surface of the moistener and tending normally to remove the strip from contact with the moistener, a strip severing device adapted to engage a portion of the strip that has been drawn past the moistener and means to support the free end of the strip, said last mentioned means permitting manual application of a portion of said free end of the strip to the moistener.

24. An apparatus of the character described comprising a support for the strip to be moistened, a moistener positioned in operative relation to such support, and strip guiding means for the strip engaging the latter between its support and the exposed surface of the moistener and tending normally to remove the strip from contact with the moistener, a strip severing device adapted to engage

a portion of the strip that has been drawn past the moistener, and means in proximity to the non-adhesive surface of the strip to support the free end of the strip.

25. An apparatus of the character specified comprising a support for the strip to be moistened, a moistener positioned in operative relation thereto, and severing means operatively related to the moistener and so positioned with respect thereto that when the strip is being severed thereby the body of the strip may be in contact with the moistener, and holding means for the strip, said holding means normally preventing contact of the free end of the strip with the moistener after the severing action, means being provided to maintain the portion of the strip preceding the free end thereof out of contact with the moistener after the severing action.

26. An apparatus of the character specified comprising a support for the strip to be moistened, a tank or reservoir, a moistener positioned in operative relation thereto, and means located above the strip and having provisions depending therefrom to engage the strip near the free end thereof to maintain such free end from contact with the moistener.

27. An apparatus of the character described comprising a strip support and a strip moistener combined with a strip severer and a strip holder for the leading end of the strip, the latter being constructed and arranged to engage the leading end of the strip when the same is deflected to be severed.

28. An apparatus of the character described comprising a strip support and a strip moistener combined with a strip severer and a strip holder for the leading end of the strip, the latter being constructed and arranged to give up its hold upon the strip when the latter is drawn upon for use.

29. An apparatus of the character described comprising a strip support and a strip moistener combined with a strip severer and a strip holder, the latter being constructed and arranged to engage the strip when the same is deflected to be severed and to give up its hold upon the strip when the latter is drawn upon for use.

In testimony whereof I have affixed my signature, in presence of two witnesses.

WILLIAM B. HATCH.

Witnesses:

DAPHNA LEACH,
HELEN F. HATCH.