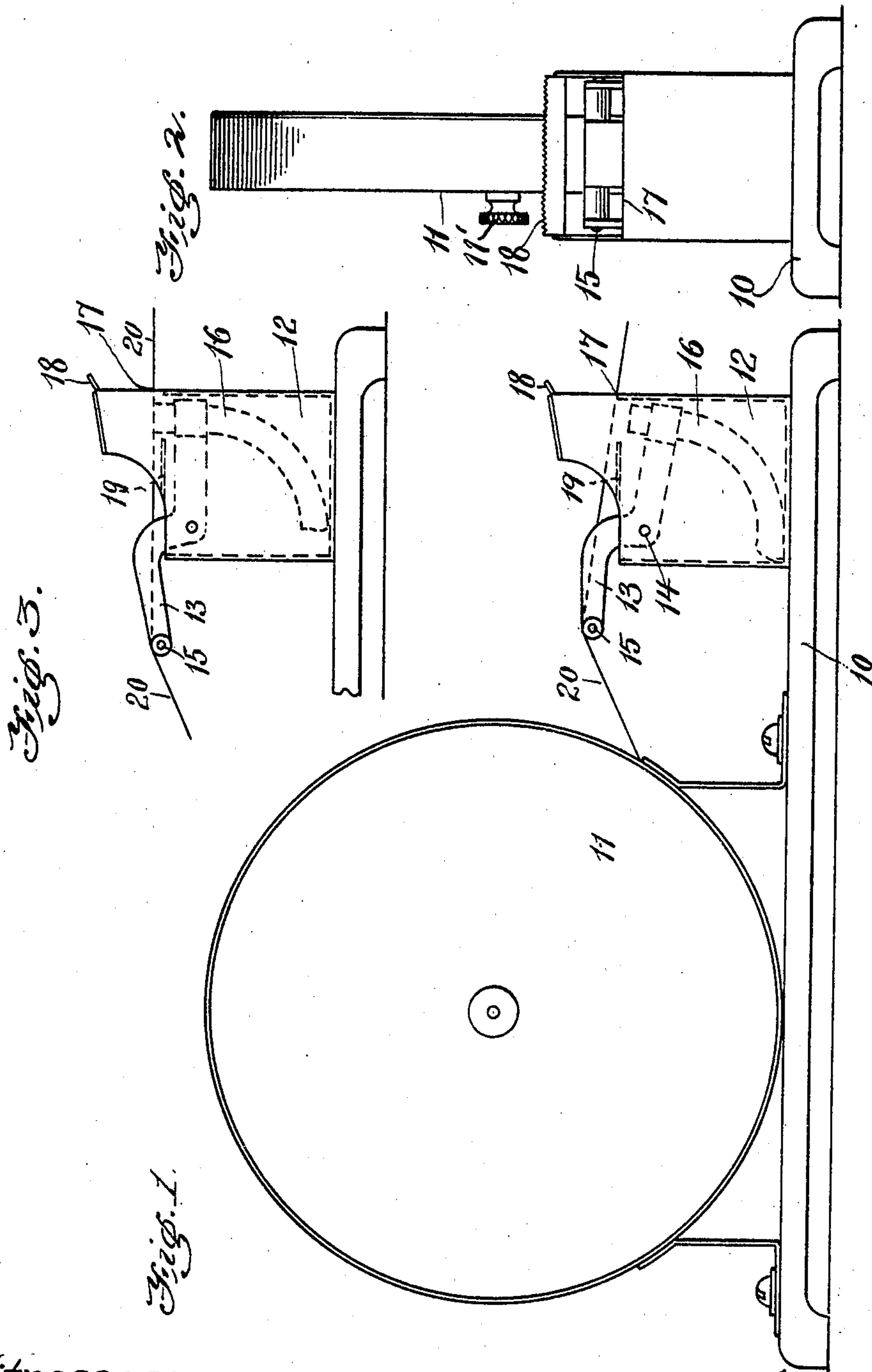


No. 842,948.

PATENTED FEB. 5, 1907.

S. ELLIOTT.
STRIP SERVING DEVICE.
APPLICATION FILED OCT. 12, 1905.



Witnesses:
Rollin Abell
C. C. Stecher.

Inventor:
Sterling Elliott
by
Wright Brown & Co.
Attorneys

UNITED STATES PATENT OFFICE.

STERLING ELLIOTT, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO NATIONAL BINDING MACHINE COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

STRIP-SERVING DEVICE.

No. 842,948.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed October 12, 1905. Serial No. 282,388.

To all whom it may concern:

Be it known that I, STERLING ELLIOTT, of Newton, in the county of Middlesex and State of Massachusetts, 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 under side of the strip would contain an adhesive instead of water.

The object of my present invention is to provide an apparatus of this character having means whereby the moistener will be automatically lifted into a proper place for contact with the strip and so as to automatically drop from that plane when the strip is released, the strip being at the same time preferably raised somewhat from its former position to prevent any possibility of any part of the strip resting for any period of time in contact with the moistener.

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 representing the invention. Fig. 2 represents an end view of the same from the right of Fig. 1. Fig. 3 is a view similar to a portion of Fig. 1, but showing the parts in a different position.

Similar reference characters indicate the same or similar parts throughout the several views.

Upon a base 10 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. If desired, the casing 11 may be pro-

vided with distinct strip-tensioning means of any suitable type, such as the clamping-screw 11', Fig. 2, although in practice the strip is sufficiently tensioned by the weight and disposition of the parts. Mounted upon the base 10 is a tank or reservoir 12 to contain water or an adhesive, according to whether the device is to be used for serving a gummed or an ungummed strip. A frame 13 is pivoted at 14 within said tank near the top thereof, and is provided at its rear end with a combined guide and lifting bar 15. To the end of the frame within the tank is secured a moistener 16 of suitable material adapted to raise the liquid in the tank by capillary attraction. The upper edge of the front wall of the tank is indicated at 17 and forms the guide or support for the free end of the strip when the device is not in use. A cutter of an ordinary form is shown at 18, said cutter being some little distance above the guide or support 17. A horizontal plate or bar 19 (represented by dotted lines in Figs. 1 and 3) extends across between the sides of the tank or reservoir in substantially the same plane as the edge 17.

In operation the strip 20 is drawn from the casing 11 over the combined guide and lifting bar 15 and over the plate 19 and between the edge 17 and cutter 18. When the free end of said strip is drawn directly outward in a substantially horizontal plane, as represented in Fig. 3, the resistance to the movement of the strip afforded by the coil of material within the casing 11 produces a tension which is the equivalent of a weight upon the bar 15, the resulting pressure being sufficient to oscillate the frame 13 and bring the moistener 16 above the plane of the plate 19 and edge 17. When a sufficient length has been drawn off, the operator raises the strip, so as to sever it against the cutter 18, and then the free end drops to the position shown in Fig. 1, or it may, being slack, rest directly upon the plate or bar 19, which thus serves as a support for the strip at a point intermediate the moistener and bar. The release of the tension upon the strip relieves the pressure upon the bar 15, so that the inner portion of the frame 13 and the moistener carried thereby will immediately drop, so that the upper end of the moistener will be below the plane of plate 19 and the edge of 17, on

which the free end of the strip rests. At the same time upward movement of the bar 15 causes it to act as a lifter to raise the strip, and aid in preventing any possibility of its remaining in contact with any portion of the apparatus, to which it might stick if allowed to rest.

The plate or bar 19 is not an absolute necessity; but I prefer to employ it to prevent any liability of the strip between the bar 15 and the edge 17 from bending down far enough to come in contact with the end of the moistener. Instead of employing the cutter 18 the upper edge 17 of the front wall of the tank might be utilized as the cutter or means for severing the strip.

Having now described my invention, I claim—

1. An apparatus of the character specified, comprising a tank or reservoir, a moistener pivoted therein and a strip-lifter connected with said moistener to oscillate therewith, said strip-lifter being adapted to raise the moistener when pressure is exerted thereupon by a pulling movement of the strip.

2. An apparatus of the character specified, comprising a tank or reservoir, a pivoted frame having a bar at one end outside the tank and having a moistener at the other end within the tank, and a support for a coil of paper, whereby a pull upon the strip leading over the said bar will depress that portion of the frame and elevate the moistener against the under side of the strip.

3. An apparatus of the character specified, comprising a tank or reservoir, a pivoted frame having a bar at one end outside the tank and having a moistener at the other end within the tank, and a support for a coil of paper, whereby a pull upon the strip leading over the said bar will depress that portion of the frame and elevate the moistener against the under side of the strip, a support being provided for the strip at a point intermediate the moistener and said bar.

4. An apparatus of the character specified, comprising a tank or reservoir having an opening in its upper surface across which the strip of gummed paper may rest; a moistening device within the tank, and means automatically to raise or lower said moistening device into or out of contact with the strip of paper when the latter is drawn for use or released.

5. A strip-serving device comprising means for delivering a strip, strip-moistening means normally in inactive relation thereto, and means automatically to move said moistening means from inactive to active relation to said strip for moistening the latter for use.

6. In an apparatus of the character specified a tank or reservoir, a moistening device

normally in moisture-receiving relation thereto, strip-guiding means and means controlled by draft of the strip for use, to move said moistening device from moisture-receiving relation to strip-moistening relation.

7. In an apparatus of the character specified a tank or reservoir, a moistening device normally in moisture-receiving relation thereto, strip-guiding means and means controlled by draft of the strip for use, to move said moistening device to strip-moistening relation.

8. A strip-serving device comprising means for delivering a suitably-tensioned strip, strip-moistening means normally in inactive relation thereto and means automatically to move said moistening means from inactive to active relation to said strip for moistening the latter for use.

9. A tape-moistener comprising means for restraining, directing and positioning a strip of gummed tape, movable moistening means, and mechanism actuated by said movable moistening means for separating the end of the tape and the surface of said moistening means after the tape has been fed and severed.

10. A tape-moistener comprising means to restrain, guide and position a strip of gummed tape, movable moistening means, and mechanism connecting the tape therewith, such that varying feeding stress in the tape will change the position of the moistening means with relation to the tape.

11. In an apparatus of the character described, a tank or reservoir, a pivoted moistening device normally in moisture-receiving relation, strip-guiding means, and means controlled by the draft of the strip for use, to move said moistening device to strip-moistening relation.

12. In an apparatus of the character specified, a tank or reservoir, a pivoted moistening device normally in moisture-receiving relation thereto, and means controlled by draft of the strip for use, to move said moistening device to strip-moistening relation.

13. A strip-serving device comprising means for suitably delivering a strip, strip-moistening means normally in inactive relation thereto, and means operatively connected to said strip-moistening means and adapted to be moved by draft of the strip for use, thereby to move the moistening means from inactive to active relation to said strip for moistening the latter in use.

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

STERLING ELLIOTT.

Witnesses:

M. B. MAY,

C. C. STECHER.