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S. ELLIOTT.

STRIP SERVING DEVICE.

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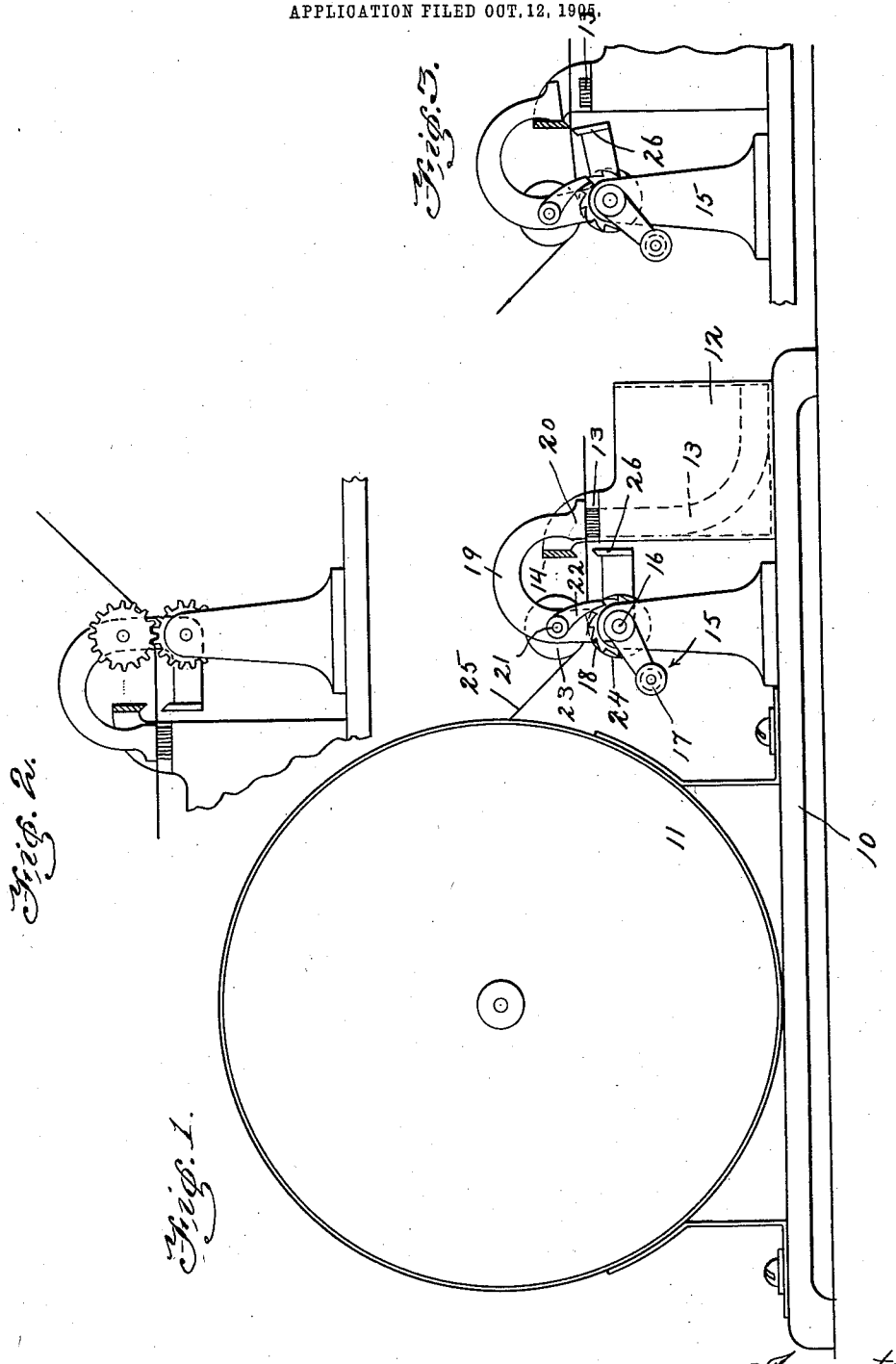

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UNITED STATES PATENT OFFICE.

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STRIP-SERVING DEVICE.

No. 868,977. Specification of Letters Patent. Patented Oct. 22, 1907.

Application filed October 12, 1905. Serial No. 282,387.

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 underside of the strip would contain an adhesive instead of water.

The object of the present invention is to provide an apparatus of this type having means for feeding the strip to a position where its free end may be readily grasped after it has been cut.

Another object of the invention is to provide a simple structure in which the strip is positively held in contact with the moistener while said strip is being drawn off.

Another object is to provide means whereby, when the presser-foot which bears the strip upon the moistener is raised, a cutter will automatically sever the strip.

To these ends the invention consists in the construction and combination of parts substantially as hereinafter described.

Of the accompanying drawings:—Figure 1 is a side elevation of a complete apparatus embodying my invention. Fig. 2 is a detail side elevation of parts of the apparatus, from the opposite side from the view shown in Fig. 1. Fig. 3 represents parts of the apparatus shown in Fig. 1 but in a different position.

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

Upon a suitable base 10 is mounted a casing 11 for the roll or coil of paper that is employed. Or the supply for the paper strip may be a reel. Mounted upon the other end of the base is a tank 12 containing a moistener 13 the upper end of which is held by any suitable means projected slightly above the top of the tank. Suitably supported, as by ears or side-plates of the tank 12 is a cutter 14 the cutting edge of which is slightly above the plane of the top of the moistener.

Mounted upon the base between the casing 11 and the tank 12 is a support or standard 15 in which is mounted a shaft 16 having a crank-handle 17. A ratchet 18 is mounted upon the shaft 16 so that it may be rotated therewith.

Pivotally supported upon the upper end of the standard 15 is an inverted U shaped arm having its free end projecting over behind the cutter 14 and adapted to bear upon the moistener 13 or upon a strip of paper led between the moistener 13 and the presser 20 at the end of arm 19. Preferably the connection of the arm 19 with the standard 15 is such that its rearward oscillation will be limited although this is not necessary for a reason that will be presently explained.

A stud-shaft or spindle 21 is supported by the arm 19 and upon one end is a pawl 22 that is adapted to engage the ratchet 18 as shown in Figs. 1 and 3. Upon the other end of the stud-shaft or spindle 21 s freely mounted a roller 23 adapted to bear upon the paper strip and hold it in contact with a roll 24 mounted upon the shaft 16 so as to be rotated by the handle 17. Mounted upon the shaft 16, and frictionally connected therewith so as to be operated by the shaft but yet so as to permit the shaft to be moved independently of it is a bar 26 having its edge at such a distance from the shaft 16 that it is adapted to carry the paper strip 25 up against the edge of the cutter 14. Or the bar 26 may be adapted to coöperate with the cutter 14 in a manner somewhat similar to that of shears. In any event however the bar 26 is adapted to raise the free end of the strip away from the moistener as will be presently described.

In operation, the paper strip 25 is led from the supply coil or roll between the rollers 23 and 24 and between the moistener 13 and presser 20. By operating the handle 17 in the direction of the arrow in Fig. 1, the strip will be advanced between the moistener 13 and the presser, the latter being held up at this time. The free end of the strip may be drawn outward and dampened by the moistener in a manner that will be readily understood, the presser having been in the meantime returned to the position shown in Fig. 1. When a sufficient length of strip has been obtained, the operator will actuate the handle 17 in the reverse direction and this will carry the bar 26 upward so as to lift the strip against the cutter 14 as shown in Fig. 3. At the same time, one of the ratchets 18, acting upon the end of the pawl 22, swings the arm 19 slightly so as to raise the presser away from the strip, as clearly indicated in Fig. 3. After the strip has been severed, it will be left with its end at the point of meeting of the bar 26 with the cutter 14. When it is desired to advance the strip again, the rotation of the shaft 16 in the direction first described will again feed the strip forward where it can be grasped.

It is to be understood of course that, in practice, one or both of the rolls 23 or 24 may be made of rubber or equivalent elastic material, or have a coating of such

material, or a spring may be employed to press the rolls together. It will also be understood that instead of depending upon frictional contact to insure rotation of the rolls in peripheral unison, they may be geared to move positively in unison. Furthermore the presser may have a spring or weight applied thereto so as to increase the force with which it will bear upon the strip.

Having now described my invention I claim:—

1. An apparatus of the character specified, comprising a moistener, a presser movable toward and from the moistener, and adapted to engage the strip, means to withdraw the presser from engagement with the strip, rolls adapted to feed the strip between the moistener and presser and means for actuating said rolls.

2. An apparatus of the character specified, comprising a moistener, a presser relatively movable with respect to said moistener, said presser being adapted to engage the strip to be moistened, means relatively to move the strip to be moistened and the presser to separate them, rolls to feed the strip between the moistener and presser and actuating means for said rolls.

3. An apparatus of the character specified comprising a moistener, a presser relatively movable with respect to the moistener and adapted to engage with the strip to be moistened, rolls adapted to feed the strip between the moistener and presser, actuating means for said rolls and means to separate the presser and the strip.

4. An apparatus of the character specified, comprising a moistener, a pivoted presser movable toward and from the moistener, a pawl connected with said presser, feed rolls for the strip, a ratchet on the shaft of one of said rolls and adapted to engage said pawl, and means for actuating the ratchet and rolls.

5. An apparatus of the character specified, comprising a moistener, a pivoted presser movable toward and from the moistener, a pawl connected with said presser, feed rolls for the strip, a ratchet on the shaft of one of said rolls and adapted to engage said pawl, and means for actuating the ratchet and rolls, a cutter being mounted above the path of movement of the strip on its way from the rolls to the moistener, and a bar connected with the shaft which carries the ratchet and adapted to be raised to carry the strip against the cutter.

6. An apparatus of the character specified comprising moistening mechanism, severing mechanism, a presser, feeding mechanism to feed the strip between the moistener and the presser and means to separate the presser and the strip during the severing operation.

7. An apparatus of the character specified comprising a moistener, severing means, and means operative in one direction to feed a strip to the moistener and in the reverse direction to bring the strip severing means into operative relation with the strip.

8. An apparatus of the character specified comprising a moistener, severing means, feed rolls, manual means for rotating said rolls in opposite directions and connections whereby upon movement of the feed rolls in one direction the strip is fed and upon movement of the rolls in the reverse direction the strip is severed.

9. An apparatus of the character specified comprising a moistener, feeding mechanism to feed a strip thereto, operating means for said feeding mechanism, severing mechanism, and connections whereby upon a reverse movement of the operating means the strip and the severing means are operatively engaged.

10. An apparatus of the character specified comprising a strip support, a moistener, severing means and means operative in one direction to feed a strip to the moistener and in the reverse direction relatively to move the strip severing means and the strip thereby to bring them into operative relation for the severing action.

11. An apparatus of the character specified comprising a strip support, a moistener, severing means, and means operative in one direction to feed a strip to the moistener and operative upon further movement thereof relatively to move said strip and said severing means to bring them into operative relation for the severing action.

12. A strip serving apparatus adapted to serve strips of paper or the like for wrapping or binding packages, comprising a strip support, a strip moistener operatively related to said support and adapted to moisten the leading end of the strip as it passes the moistener from the support in the operation of the apparatus, and strip severing means located to sever the strip in the rear of the moistener.

13. A strip serving apparatus adapted to serve strips of paper or the like for wrapping or binding packages, comprising a strip support, a strip moistener operatively related to said support and adapted to moisten the leading end of the strip as it passes the moistener from the support in the operation of the apparatus, and strip severing means positioned with relation to the moistener and adapted to sever the strip in the rear of the moistened portion thereof, without necessitating further serving of the strip from the support after the moistening to effect the presentation of an unmoistened portion to such strip severing means.

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

STERLING ELLIOTT.

Witnesses:
M. B. MAY,
C. C. STECHER.