G. R. WYMAN.

STRIP SERVING DEVICE.

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992,097. **Patented May 9, 1911.**

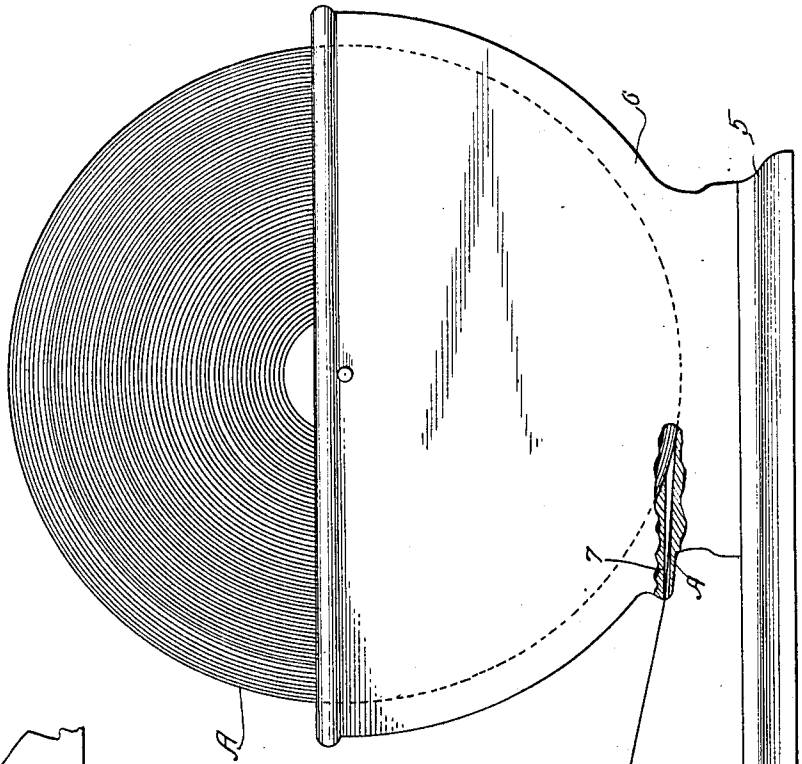


Fig. 2.

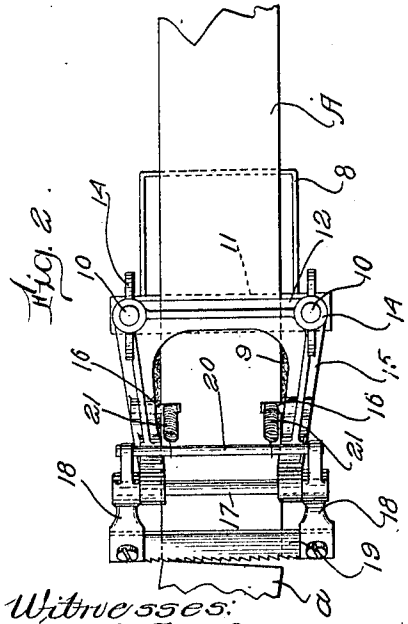
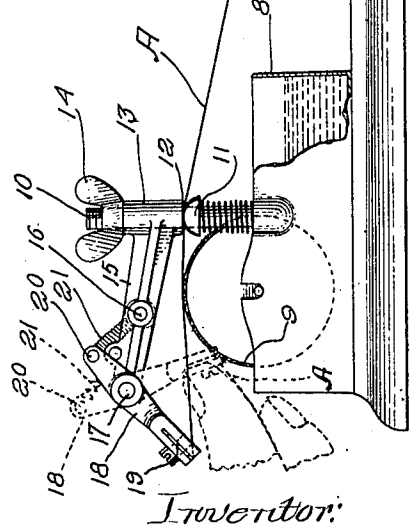


Fig. 1.



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UNITED STATES PATENT OFFICE.

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STRIP-SERVING DEVICE.

992,097. Specification of Letters Patent. **Patented May 9, 1911.**

Application filed November 16, 1910. Serial No. 592,696.

To all whom it may concern:

Be it known that I, GEORGE R. WYMAN, of East Walpole, in the county of Norfolk and State of Massachusetts, have invented a new and useful Strip-Serving Device, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

This invention has reference to improvements in devices whereby the supplying of material in strip form is facilitated and particularly to that class of such devices by means of which material in strip form and having a gummed surface may be supplied with its gummed side moistened whereby said adhesive strip is adapted to be used for binding the wrappers of packages or for any other purpose.

One object of this invention is to construct a machine or device of this nature having a support for a roll or coil of material, usually paper, which has a gummed side, previously dried, and having means for moistening said gum, to render the same adhesive, as said material is drawn from the machine, and having means to so displace the end of the material at or prior to the commencement of the operation that said end may be readily grasped by the operator.

Another object of this invention is to so construct a device or apparatus of this character and having severing means, located at a distance from the moistening device, against which the gummed material, after receiving moisture, may be drawn to sever said material, that said severing means may be moved toward the moistening device to displace or deflect the end portion of said material toward or in contact with said moistening means, and to move the severing device out of obstructive relation with the end of said material.

Other objects of the invention will appear from the following description.

The invention consists in the novel combination of the strip tension, the moistener and the swinging frame.

The invention also consists in such other novel features of construction and combination of parts as shall hereinafter be more fully described and pointed out in the claims.

Figure 1, represents a side elevation of the improved strip serving device, parts of the same being broken away. Fig. 2, represents a plan view of the moistening device and the strip severing means with their related parts.

Similar numbers of reference designate corresponding parts throughout.

Strip serving machines having means for supporting a roll or coil of material, usually paper, gummed on one side and dried, and provided with means for moistening the gum as the strip is drawn out, are well known and various means have been employed to sever the moistened strip after a sufficient length has been drawn out for use, most of these machines have been particularly adapted for use with strips of thin paper having comparatively little stability so that, after moistening, the paper became limp and where the paper passed beneath the severing device, the end of the strip would sometimes drop to a position where it could be taken hold of by the fingers and drawn outward. When however paper of any considerable thickness, is used in such machine it is found that the cut end of the paper remains so close to the severing device that it is difficult to grasp the same without danger of cutting the fingers by bringing them against the severing device and, while this invention is not restricted in its use to paper or material of any particular thickness, one of the objects of my invention is to provide a machine of this character which is adapted to operate successfully with paper or material of considerable thickness so that the end of the strip may be readily grasped and that, in or during such act of grasping, a part of the strip is mechanically moved into contact with the moistener. It is also desirable that the strip, when released should not be retracted by the reaction of its roll or coil and the machine herein described accomplishes this object by the use of a tension device.

As shown in the drawings, in its preferred form, 5 indicates a base having the container or case 6, in which the roll or coil A of paper or other material is rotatable, and having the mouth 7 through which the strip of such material A may be drawn. This strip A has been gummed on one side, the under side

as shown in Fig. 1, and then dried and it is therefore necessary to supply moisture to such gum to render the same adhesive.

On the base 5, at a distance from the roll container 6 is located the water reservoir 8 having rotatably mounted therein the moistening roll 9 the periphery of which is formed of absorbent material adapted to absorb moisture from the contents of said reservoir 8. On the sides of the reservoir are mounted the screw threaded posts 10, 10 furnished with the spring supported tension bar 11, having a curved upper surface which coöperates with the under surface of the cross bar 12, having sleeves 13, 13 which fit loosely on said posts 10, 10 and are forced downward thereon by the thumb nuts 14, 14 screwed on to said posts. From the sleeves 13, 13 extend the arms 15, 15 having the studs 16, 16 and, at the ends, bearings in which is journaled the shaft 17 carrying the arms 18, 18 connected at their forward ends by the severing blade 19, having a serrated edge, and at their rear ends by the rod 20 which is connected with the studs 16, 16 of the arms 15, 15 by the retraction springs 21, 21 which tend constantly to hold the arms 18, 18 and blade 19, in the position shown in full lines in Fig. 1. The arms 18, 18 are longer than the distance between the shaft 17 and the periphery of the moistening roll 9 so that when the free ends of said arms 18, 18 are swung toward the parts 10, 10 the blade 19 will swing below the top of said roll 9.

A roll or coil of material in strip form and of any suitable thickness is rotatably mounted in container 6 and the end of such strip is led through the mouth 7 and then between the tension bar 11 and the cross bar 12, over the moistening device 9 and beneath the edge of the severing device or cutter 19. When, as is usually the case, the under surface of the strip A, that surface which contacts with the moistening device 9, is supplied with gum previously dried, water is supplied to the reservoir 8. When an ungummed strip is to be employed the reservoir 8 is supplied with any suitable fluid adhesive.

In the use of this machine, the operative places his thumb or finger against the blade 19 or against one of the arms 18 and presses inward, toward the moistening device, whereupon the edge of said blade 19 moves against the upper surface of strip A and deflects this end portion of said strip downward, as shown in dotted lines in Fig. 1 and brings an additional portion of such strip in contact with the surface of the moistening device. That end portion of the strip A which now extends beyond the edge of the blade 19 may now be readily grasped and drawn outward to draw a length of the said strip A from its coil and bring the under surface of said strip in contact with the surface of the moistening device 9 whereby the gum on said surface is moistened to render the same adhesive. As the strip A is drawn outward the blade 19 and its arms 18, 18 follow the movement of the operative's fingers outward under the action of springs 21, 21. After a sufficient length of the strip has been drawn out the operative draws the strip upward, against the edge of blade 19, and then sharply to one side to sever the strip by drawing the same sidewise against the serrated edge of said blade.

It is to be noticed that the tension device or bar 11 prevents the retractive movement of the strip A under any drawing action of the roll or coil and said tension device also prevents the backward movement of the strip A under the possible slight engagement of the edge of blade 19 with said strip when said blade is moved toward said tension device.

Having thus described my invention, I claim as new and desire to secure by Letters Patent.

1. A strip serving device, comprising a moistener, a tension device, and means for mechanically deflecting a strip extending through the tension device and past the moistener to bring a portion of said strip in contact with said moistener.

2. A strip serving device, comprising organized means for moistening the strip, for moving the strip toward said moistening means, and for resisting the retractive movement of said strip, substantially as described.

3. A strip serving device comprising a strip tension device, a swinging strip severing device movable toward said tension device and below the same, and a moistening roll located at a point intermediate the tension device and the strip severing device and extending above the tension device.

4. A strip serving device, comprising a moistener, and a strip severing device mounted for movement from the severing point along the unsevered end of the strip and toward and below the top of the moistener whereby said unsevered end of the strip is cleared by the severing device and is mechanically deflected toward the moistener.

5. A strip serving device comprising a moistener, a support, and a strip severing device pivotally mounted on said support to swing below the top of said moistener and having a clearing swinging movement toward said moistener, whereby said severing device may clear the end of the unsevered strip and move said strip toward said moistener.

6. A strip serving device comprising a moistener, a tension device at one side of said moistener, and a strip severing device movably mounted at the other side of said moistener, said severing device having arms

longer than the distance between its pivot and said moistening device.

7. A strip serving device comprising a reservoir having a moistening roll, posts on said reservoir, a spring supported tension bar slidable on said posts, a frame slidable on said posts and having a member coöperating with said tension bar, and side arms, and a spring retracted frame pivotally mounted with relation to said arms and having a severing device, substantially as described.

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