H. THOMAS.

TAPE APPLYING DEVICE.

APPLICATION FILED JULY 26, 1915.

1,178,358.

Patented Apr. 4, 1916.

2 SHEETS—SHEET 1.

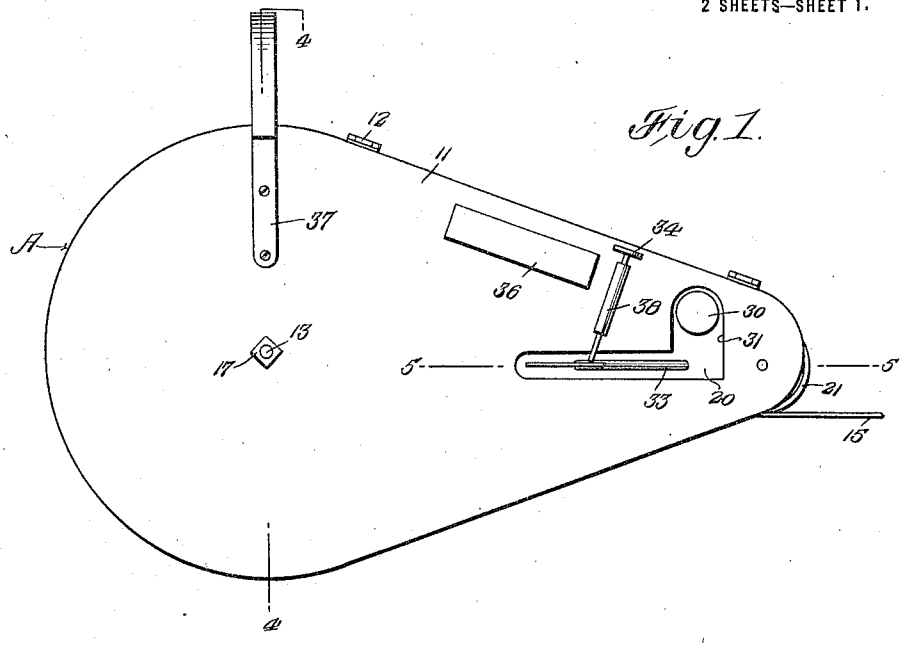


Fig. 1.

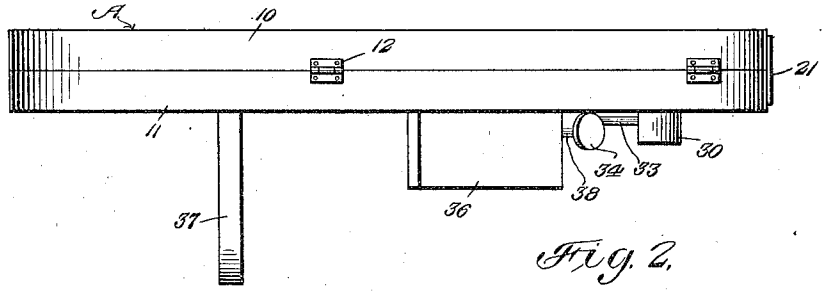


Fig. 2.

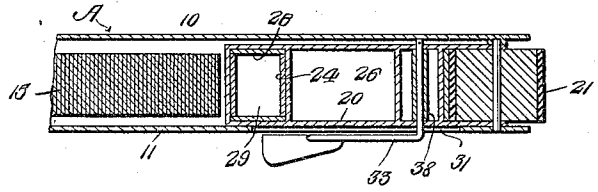


Fig. 5.

Inventor

Henry Thomas,

Witnesses

J. H. Crawford

L. L. Anderson

By Victor J. Evans

Attorney

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

H. THOMAS.

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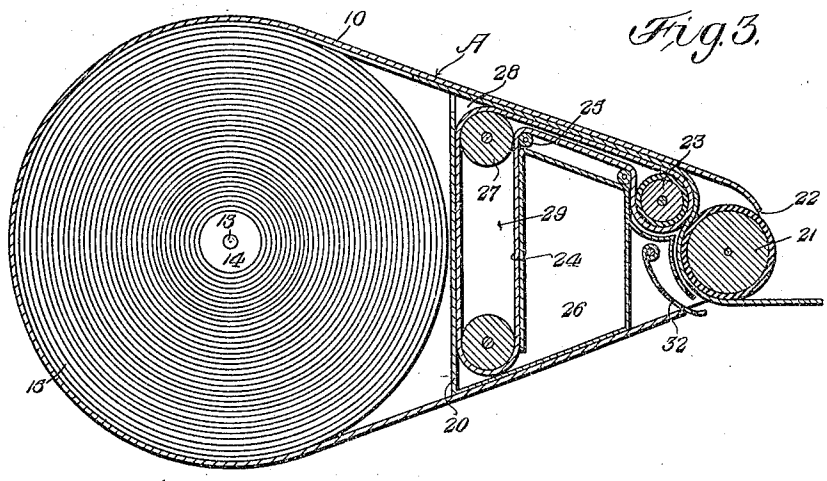
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2 SHEETS—SHEET 2.

Fig. 3.



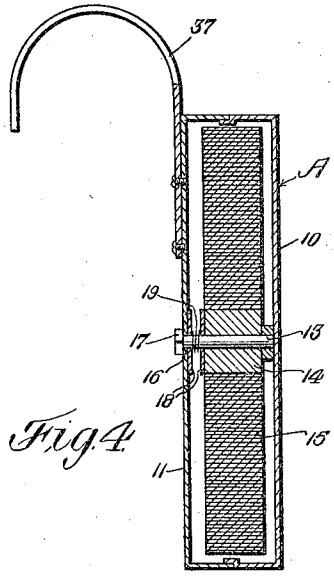
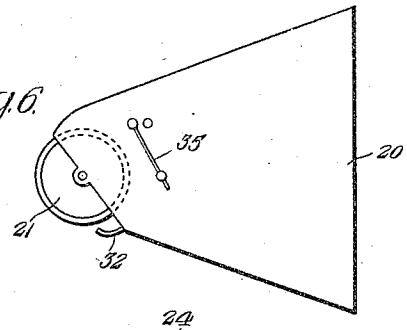


Fig. 4.

Fig. 6.



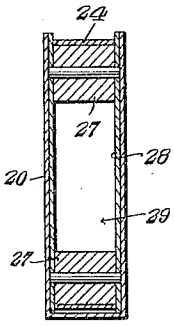


Fig. 7.

Inventor

Henry Thomas,

Witnesses

J. H. Crawford.

W. H. Taylor.

By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

HENRY THOMAS, OF LOUISVILLE, KENTUCKY.

TAPE-APPLYING DEVICE.

1,178,358. Specification of Letters Patent. Patented Apr. 4, 1916.

Application filed July 26, 1915. Serial No. 42,016.

To all whom it may concern:

Be it known that I, HENRY THOMAS, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented new and useful Improvements in Tape-Applying Devices, of which the following is a specification.

The invention relates to a strip serving device, and more particularly to the class of gummed strip applying apparatuses.

The primary object of the invention is the provision of an apparatus of this character wherein the gummed strip is automatically wetted on the face containing the adhesive substance during the feeding of the same therefrom for the direct application of the said strip to a wrapper, bundle or place where its use is necessary.

Another object of the invention is the provision of an apparatus of this character wherein the gummed strip or tape can be applied to a bundle, package, or the like without coming into contact with the hands of the operator, thus eliminating the gumming of the hands and obviating the use of twine ordinarily used for the tying of bundles, packages or the like.

A further object of the invention is the provision of an apparatus of this character wherein the strip or tape is fed therefrom in a novel manner, and any length thereof can be severed, the moistener for the strip being also novel in form to assure the perfect wetting of the said tape during the feeding of the same for the sure sticking of the strip or tape when applied.

A still further object of the invention is the provision of an apparatus of this character wherein the strip or tape roll can be conveniently placed within the same, and it may be cut in any desirable length.

A still further object of the invention is the provision of an apparatus of this character wherein the gummed strip or tape can be applied where desired with despatch, and the apparatus can be carried to any point desired, and it eliminates the necessity of taking hold of the tape or strip and pulling it over a wet sponge or roller, as the said tape or strip can be automatically fed from the apparatus and applied when required.

A still further object of the invention is the provision of an apparatus of this character which is simple in construction, thoroughly reliable and efficient in operation, strong, durable, and inexpensive in manufacture.

With these and other objects in view, the invention consists in the construction, combination and arrangement of parts as will be hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

In the drawings:—Figure 1 is a side elevation of an apparatus constructed in accordance with the invention. Fig. 2 is an edge elevation. Fig. 3 is a vertical longitudinal sectional view. Fig. 4 is a sectional view on the line 4—4 of Fig. 1. Fig. 5 is a sectional view on the line 5—5 of Fig. 1. Fig. 6 is a side elevation of the moistening reservoir removed from the apparatus. Fig. 7 is a sectional view thereof.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, the apparatus comprises a casing or housing A which is adapted to contain the gummed strip or tape roll moistener feeding mechanism and cutter hereinafter fully described.

The casing or housing A is formed in two companion marginally flanged sections 10 and 11, respectively, one being designed to telescope upon the other for the interfitting of the same, and are swingingly connected to each other through the medium of hinges 12 so that the casing or housing A can be readily opened or closed. On one of the sections is fixed a spindle 13 upon which is loosely mounted the spool 14 of a tape or strip roll 15, the tape or strip being gummed at one side thereof, and this spindle 13 is passed through a hole 16 in the other section and has threaded thereon a nut 17 so as to lock the sections closed. Working against the spool 14 and surrounding the spindle 13 is a braking device comprising spaced disks 18 and an intermediate coiled compression spring 19 which has its ends connected to the disk, and one of these disks works against the spool 14, while the other one works against the inner face of the sides of the sections adjacent thereto so as to prevent the free rotation of the roller 15 and thereby retarding the unwinding of the strip or tape when the apparatus is in use.

Removably fitted within the casing or housing A forwardly of the roll 15 is a water or paste reservoir 20, the same being of tapered formation and has journaled in

its forward smaller end a presser roller 21, the same being exposed through an opening 22 in the marginal edge of the casing or housing A at its smaller end when the reservoir 20 is within the same, so that the strip or tape from the roll 15 when trained thereover can be applied directly to the package, bundle, box, or the like, for the sealing of the same.

Journaled in the reservoir 20 contiguous to the presser roller 21 is a feed roller 23 over which is trained an endless moistening belt 24 which is also trained over guide rollers 25 journaled in the reservoir 20 above the water or paste chamber 26 formed therein, the belt 24 being further trained over rollers 27 journaled in a frame 28 which is insertible in a space 29 formed in the reservoir 20 and communicating with the water chamber 26 so that the water or paste will be taken up by the belt 24 for wetting the gummed surface of the strip or tape, or applying paste thereto when the same passes over the feed roller 23 and the presser roller 21, the tape or strip being trained between the said rollers, and on the shaft of the feed roller 23 is fixed a hand knob 30 which extends without the casing or housing A through a suitable slot 31 formed in one section thereof.

The hand knob 30 is adapted to operate the feed roller 23, and controls the forward or backward movement of the endless absorbent belt 24 over which the tape is trained, thus allowing the operator to turn the tape back onto the absorbent belt in event that the machine has stood idle for any length of time, resulting in the said tape becoming dry, and in this manner avoiding any waste of the tape.

Pivotally mounted below the feed roller 23 in the reservoir 20 and next to the presser roller 21 is a strip or tape cutting blade 32, the pivot of which is formed with a crank arm 33 which extends through the slot 31 contiguous to the outer face of one of the sections 10 of the casing or housing A, and acting upon this arm 33 and carried by the casing or housing A is a hand operated plunger 34 which actuates the blade 32 to bring the same into position so that the tape or strip can be severed into any desirable length when fed from the apparatus. Acting upon the pivot for the blade 32 is a spring 35 which is carried by the reservoir 20 and is designed to normally hold the blade 32 out of contact with the strip or tape when passing over the presser roller 21 for the application of the strip or tape.

The feed roller 23 and presser roller 21 are covered at their outer peripheral surfaces with resilient material for assuring the perfect running of the absorbent belt 24 for the successful operation of the machine.

On one section of the casing or housing A without the same is a hand hold 36, while spaced therefrom and fixed to said section is an arm strap 37 so that the apparatus can be fastened to the arm or held thereby for the convenient manipulation of the same when applying the gummed tape or strip to a bundle, package, box, or the like for the sealing of the same without the use of twine, cord, or the like, it being apparent that the gummed surface of the tape or strip will be automatically wetted so that it can be applied directly to the article or wrapper without requiring the necessity of pulling the tape or strip from the casing or housing by the hand, and thereby eliminating the gumming of the hands when the apparatus is in use. The plunger 34 is mounted in a guide sleeve 38 exteriorly of the casing or housing A and can be readily actuated by the hand of the user of the apparatus to bring the blade 32 into position for the cutting of the strip or tape into any desirable length.

It is of course understood that the apparatus may be used without employing the gummed strip or tape, and in this instance non-adhesive tape is employed and the reservoir is adapted to contain paste so that it can be applied to the tape for the fastening together of matrices used in the casting of cuts in printing establishments, although the adhesive paste may be substituted for this purpose or for any other purpose desired, the tape being readily and easily applied with despatch and avoiding the necessity of the handling of the tape for the application thereof, and thereby eliminating the soiling or gumming of the hands resultant from the direct handling thereof.

From the foregoing description, taken in connection with the accompanying drawings, the construction and manner of operation of the device will be clearly understood, and therefore a more extended explanation has been omitted.

What is claimed is:—

1. An apparatus of the class described comprising a sectional casing adapted to contain a tape roll, a reservoir removably held within the casing and having a liquid chamber, a presser roll journaled in the reservoir and slightly projected without the casing, means for delivering liquid from the chamber to one face of the tape and supported by the reservoir, and means for simultaneously operating the last-named means and for feeding the tape under the presser roller.

2. An apparatus of the class described comprising a sectional casing adapted to contain a tape roll, a reservoir removably held within the casing and having a liquid chamber, a presser roll journaled in the reservoir and slightly projected without the casing, means for delivering liquid from the chamber to one face of the tape and support-

ed by the reservoir, means for simultaneously operating the last-named means and for feeding the tape under the presser roller, a hand grip on the casing, and an arm strap carried by the casing.

3. An apparatus of the class described comprising a sectional casing adapted to contain a tape roll, a reservoir removably held within the casing and having a liquid chamber, a presser roll journaled in the reservoir and slightly projected without the casing, means for delivering liquid from the chamber to one face of the tape and supported by the reservoir, means for simultaneously operating the last-named means and for feeding the tape under the presser roller, a hand grip on the casing, an arm strap carried by the casing, and a cutter carried by the reservoir for severing the tape and operated without the casing.

4. An apparatus of the class described comprising a sectional casing adapted to contain a tape roll, a reservoir removably held within the casing and having a liquid chamber, a presser roll journaled in the reservoir and slightly projected without the casing, means for delivering liquid from the chamber to one face of the tape and supported by the reservoir, means for simultaneously operating the last-named means and for feeding the tape under the presser roller, a hand grip on the casing, an arm strap carried by the casing, a cutter carried by the reservoir for severing the tape and operated without the casing, and means on the casing and manually operated for actuating the cutter.

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

HENRY THOMAS.

Witnesses:
IRVIN MARCUS,
Z. STARR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."