

Aug. 12, 1941.

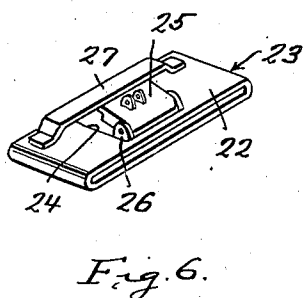
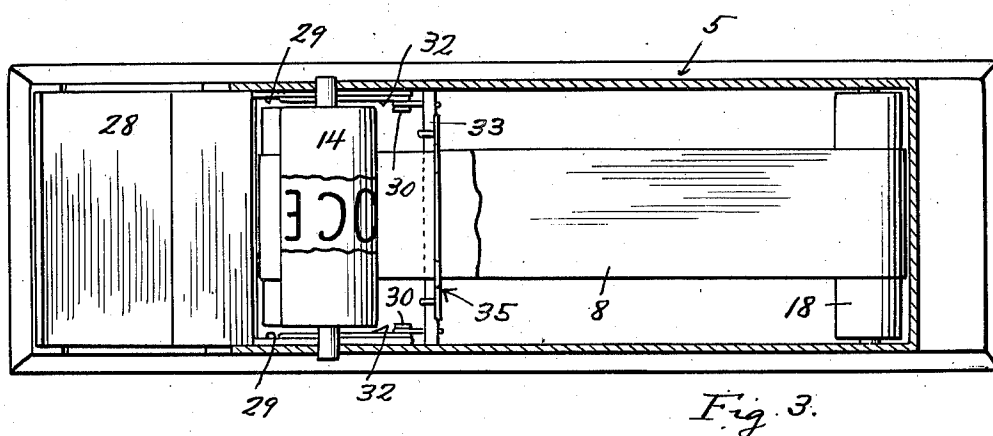
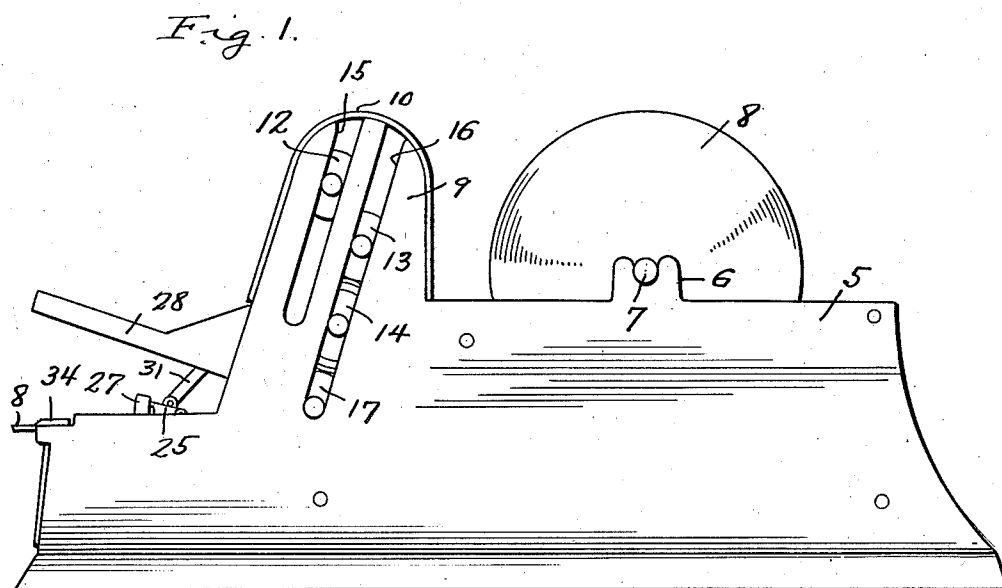
C. D. COATS

2,251,985

TAPE PRINTING AND DISPENSING MACHINE

Filed May-23, 1940

2 Sheets-Sheet 1



Inventor

Clara Dennen Coats

By

Clarence A. O'Brien

Attorney

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TAPE PRINTING AND DISPENSING MACHINE

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2 Sheets-Sheet 2

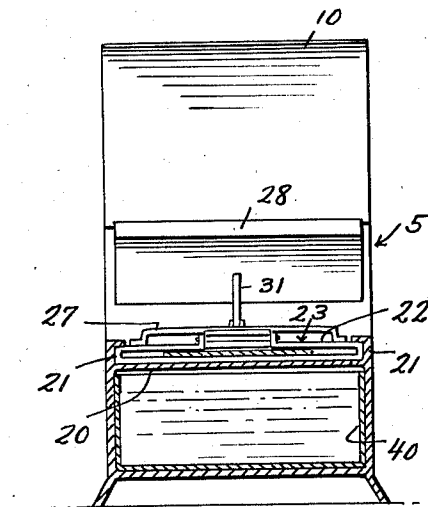
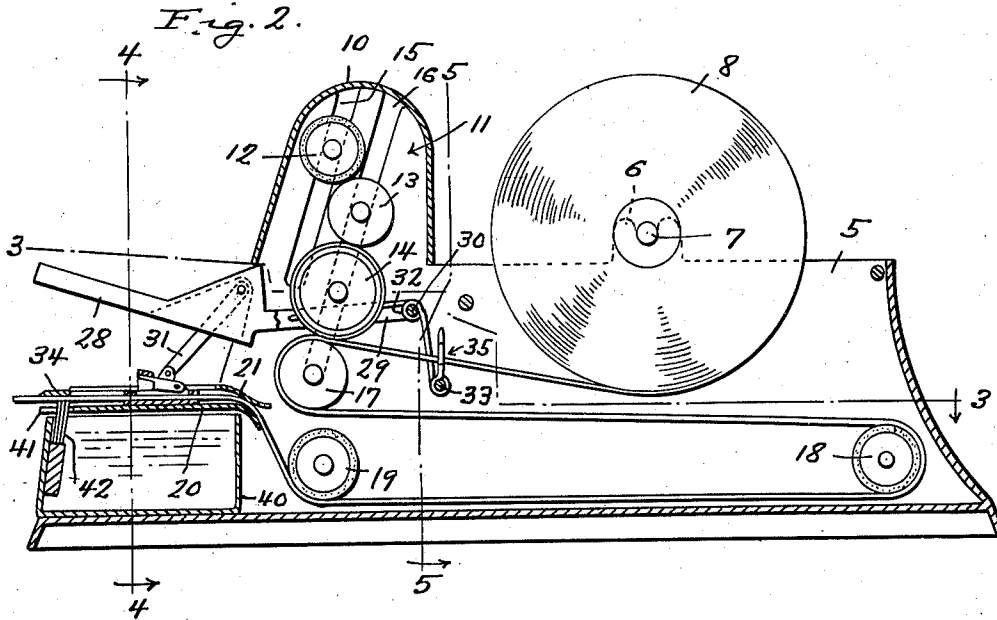
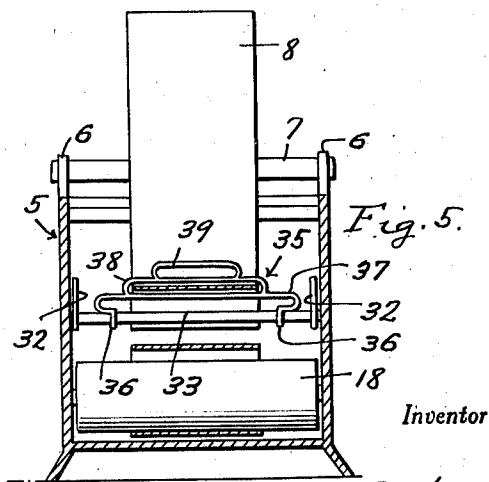


Fig. 4.



Inventor

Clarence Dennen Coats

By

Clarence A. O'Brien

Attorney

UNITED STATES PATENT OFFICE

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TAPE PRINTING AND DISPENSING MACHINE

Clenn Dennen Coats, Miami, Okla., assignor of
one-half to Sam Fields, Miami, Okla.

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1 Claim. (Cl. 271—2.5)

This invention relates to machines of the type employed for dispensing and printing tape, such as are now employed in the wrapping of articles for securing the wrapper, and the principal object of the present invention is to provide a machine of this character whereby there will be no undesired "blank spaces" on the tape by reason of improper contact with the printing means therewith, and whereby further the tape when dispensed will, as far as the printed matter thereon is concerned, be perfectly dry and therefore there will be no smudging of the printed work or the smearing of the hands of the operator with ink as now occurs quite frequently with machines of this general character.

Further it may be stated that in general it is intended to improve upon such tape printing and dispensing machines as now known and commonly used.

The invention together with its objects and advantages will be best understood from a study of the following description taken in connection with the accompanying drawings wherein:

Figure 1 is a side elevational view of the machine.

Figure 2 is a longitudinal sectional view through the machine.

Figure 3 is a horizontal sectional view taken substantially on the line 3—3 of Figure 2.

Figures 4 and 5 are detail transverse sectional views taken substantially on the lines 4—4 and 5—5, respectively, of Figure 2.

Figure 6 is a perspective view of an ejector member forming part of the invention.

In accordance with the present invention the machine, in the preferred embodiment thereof, comprises a frame 5 of suitable construction, dimensions, shape and design that adjacent one end thereof has projecting from the upper edges of the longitudinal walls bearings 6 to accommodate the ends of a spindle 7 on which is supported a roll 8 of gummed paper tape of the type generally used for securing wrappers and analogous containers for wrapped articles securely about such articles.

Adjacent the forward end of the machine the side members thereof are provided with upwardly disposed extensions 9 that serve with a removable cover 10 to provide a roller-accommodating chamber 11.

Arranged in the chamber 11 is a roller 12 which serves as an ink supply roller and from which ink is transferred through the medium of a transfer or distributor roller 13 to a printing roller 14.

In connection with the above it is intended in

actual practice that an ink having a slow-drying paraffin base, and commonly known in the art as stamp pad ink, be employed so that the ink will not too rapidly dry off the rollers, otherwise the printed matter would become less distinct and pronounced on the tape after the machine has been used for a short time or to a relatively small extent.

The rollers are freely shiftable, the axles thereof of having their extremities accommodated in slots provided therefor in the wall extensions 9 as shown. In this connection it will be noted that the slots are inclined at an angle to the perpendicular and that the rollers are in constant peripheral contact one with the other; the slot for the axle of the roller 12 being indicated by the reference numeral 15, and the slots for the axles of the rollers 13 and 14 being indicated by the reference numeral 16.

The tape as it leaves the roll is guided into contact with the periphery of the printing roller 14 through the medium of a roller 17, the axle for which has its ends journaled in the extreme lower ends of the slots 16.

From the roller 17 the printed tape is trained over blotting rollers 18 and 19 suitably mounted in the bottom of the frame 5 as shown in Figure 2, both of these rollers having suitable blotting paper on the peripheries thereof.

From the blotting roller 19 the tape passes over a table structure 20 provided at the forward end of the machine as shown, and at the inner end of the top of the table there is provided a spring lip 21 that has sufficient frictional contact with the tape as to hold the tape against dropping back into the machine.

The table 20 is also provided on the top thereof with opposed guide channels 21 in which are accommodated the opposite ends of the body 22 of a tape ejector indicated generally by the reference numeral 23.

As shown in Figure 6 the ejector 23 has the body 22 thereof in the form of a relatively flat elongated loop through which the tape 8 is trained.

On the top side thereof the body 22 is provided with a slot 24 through which works a clamping jaw 25 that is pivoted to the top of the ejector body 22 as at 25. Preferably the jaw 25 is hinged to the body 22 through the medium of a spring hinge that serves to normally and yieldably urge the jaw 25 to the released position shown in Figure 6, a suitable stop bar 27 being provided on the body 22 to limit the movement of the jaw 25 to this released position.

For the ejector member 23 there is provided a suitable operating lever 28 that is provided with a pair of coextensive arms 29 pivoted within the confines of the frame 5 through the medium of opposed pivots 30.

The lever 28 is pivotally connected to the clamping jaw 25 of the tape ejector 23 through the medium of a link 31, and normally the lever 28 is urged to the raised position shown in Figure 2 through the medium of springs 32 that, respectively, intermediate their ends are convoluted about the pivots 30, and respectively, at one end are suitably anchored to a cross rod 33 and at an opposite end suitably anchored to or otherwise connected with the lever arms 29 as will be clear from a study of Figures 2 and 3.

It will thus be seen that by pressing down on the lever 28 jaw 25 will be caused to move downwardly into clamping engagement with the tape 8 and at the same time the ejector body 22 will be caused to move forwardly over the top of the table 20 thus projecting the end of the tape a suitable distance beyond a cutting blade 34 suitably mounted in a raised position on the table 20 at the front edge of the table as shown.

When the end of the tape has been projected in this manner, lever 28 may be released and thus one by pulling on the end of the tape may dispense the tape from the machine for the desired length of the tape; the ejector 23 moving to retracted position upon the upward movement of the lever 28 when the hand pressure has been released from the lever. Thus the parts are in position for causing an ejection of the tape when next the machine is used.

Also to insure proper feeding of the tape between the printing roll 14 and the supporting roll 17 for the tape there is provided a suitable guide 35 preferably formed of wire rod bent, shaped and dimensioned to a suitable frame structure and secured as at 36 to the aforementioned crossbar 33. As best shown in Figure 5 the guide 35 is formed to present substantially three guide loops; loop 37, to accommodate tape of material width, loop 38 to accommodate tape of an intermediate width, and guide loop 39 to accommodate relatively narrow tape, as the case may be.

Also in accordance with the present invention there is provided beneath the table 20 a well 40 for water, and extending upwardly from the well and through a slot 41 in the top of the table 20 is a brush or other suitable applicator 42 that will serve to moisten the gummed surface of the tape as it is being drawn from the machine.

From the above it will be apparent that after the tape end has been projected in the manner hereinbefore described in detail and the operator, by pulling on the tape causes the latter to discharge from the machine, the tape in passing from the roll 8 thereof will pass through the guide 35 and between the peripheries of the rollers 14 and 17. As the tape passes between these rollers there will be printed on the tape suitable advertising matter or other indicia, the printed tape passing from the roller 17 first over the roller 18 and then over the roller 19, the surface of the tape upon which such printing has been made contacting the peripheries of these rollers 18 and 19 so that the desired blotting action will take place.

From the roller 19 the tape passes, as previously stated, over the table top 20 being trained through the body 22 of the ejector 23. Thus the tape with the desired data printed thereon will be delivered in a clean dry manner to the user and suitably moistened for immediate application to the package.

It is believed that a complete understanding of the construction, manner of operation, utility and advantages of a sticker tape printing and dispensing machine embodying the features of the present invention will be had without further detailed description thereof.

Having thus described the invention what is claimed as new is:

In a sticker tape dispensing machine, an ejector device for the tape comprising a body having a flat elongated passage therethrough for the tape, means for slidably supporting the body, said body having an opening in its top, a jaw pivoted at its rear end to the top of the body in rear of the opening with the jaw extending over the opening, a bar connected with the top of the body and passing over the front end of the jaw for limiting upward movement of the same, a lever pivoted to a part of the machine, means for normally holding the lever in raised position and a link connecting an intermediate part of the lever with the top of the jaw, and said link extending downwardly and forwardly, whereby depression of the lever will cause the link to first close the jaw upon the tape passing through the body and then move the body forwardly, upward movement of the lever first causing the link to raise the jaw and then move the body rearwardly.

CLEN DENNEN COATS.