

Jan. 29, 1952

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2,584,065

GUMMED TAPE DISPENSER

Filed Nov. 20, 1950

2 SHEETS—SHEET 1

Fig. 1.

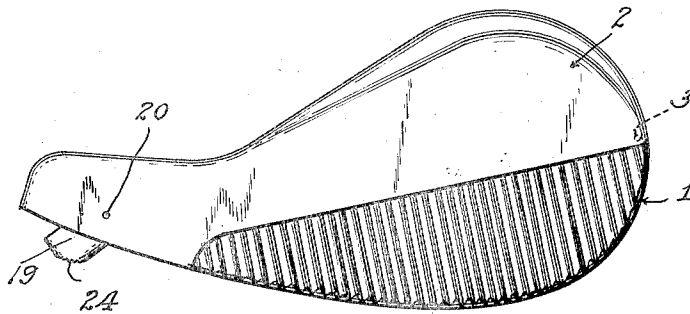


Fig. 2.

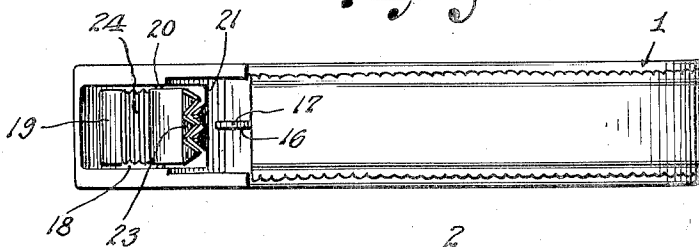


Fig. 3.

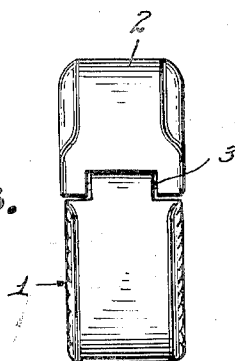


Fig. 10.

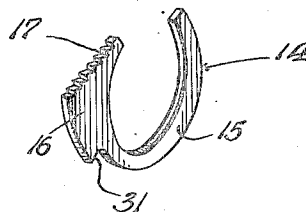
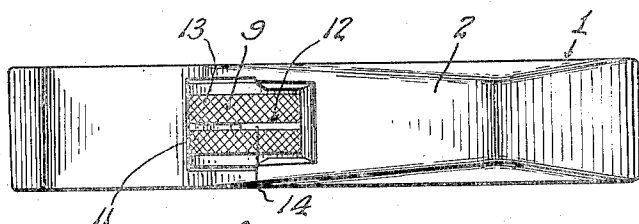


Fig. 4.

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2 SHEETS—SHEET 2

Fig. 5.

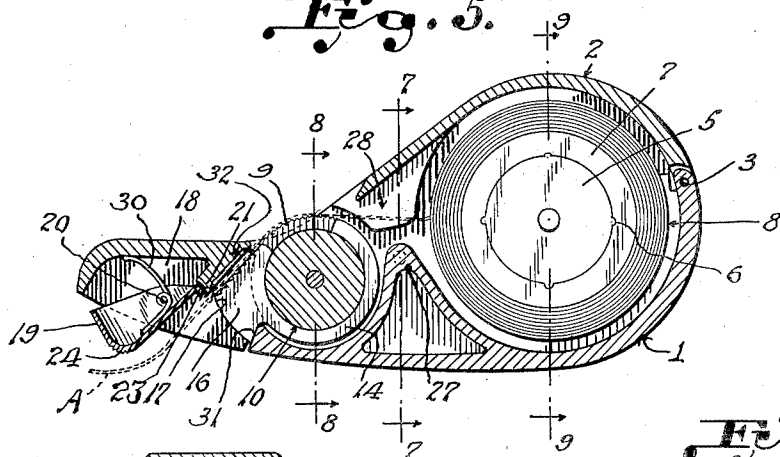


Fig. 2.

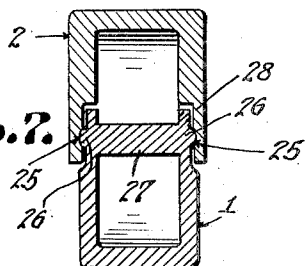


Fig. 8.

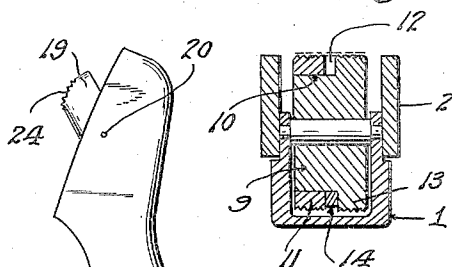


Fig. 9.

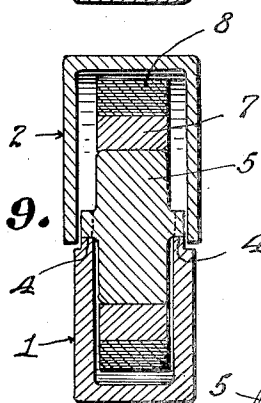
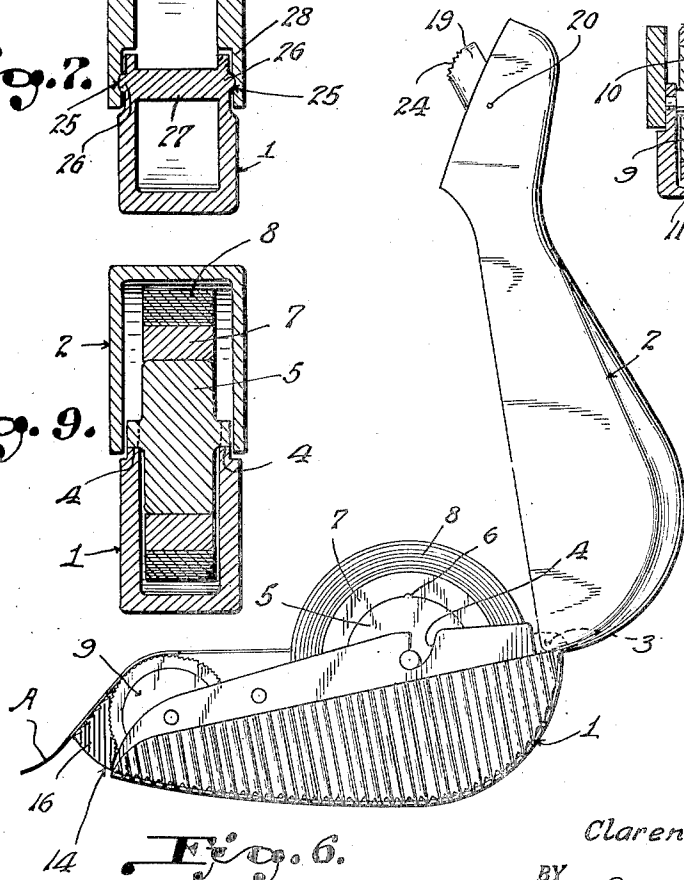


Fig. 6.

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GUMMED TAPE DISPENSER

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5 Claims. (Cl. 216—29)

1

This invention relates to a gummed tape dispenser.

An object of the invention is the provision of a device for conveniently holding, feeding out, applying and cutting off the gummed tape.

Another object of the invention is to provide a device which is designed specifically to fit conveniently into the hand, for a one-handed operation of feeding out, applying and cutting off of gummed tape.

Still another object of the invention is to provide a device for one-handed dispensing of gummed tape, such that any length of gummed tape desired can be fed out before being applied and cut off.

A further object of the invention is to provide a device for one-handed dispensing of gummed tape from which the tape can be fed out before applying and cutting off to be successfully applied to fragile objects, soft papers or loosely wrapped parcels.

A still further object of the invention is to provide a device for one-handed dispensing of gummed tape which is of such simplified design as to be relatively inexpensive to manufacture and easy to reload and operate. At the same time it is of a rugged construction with a minimum of moving parts to provide and insure long and satisfactory usage.

Still another object of the invention is to provide a device for dispensing gummed tape designed with the safety feature that the cutting blade is normally pivoted into a protective pocket, except during the cutting operation.

With the foregoing and other objects in view, this invention comprises certain novel constructions, combinations, and arrangements of parts as will be hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

In the drawings:

Figure 1 is a view in side elevation of a device constructed in accordance with this invention.

Figure 2 is a bottom plan view.

Figure 3 is a view in rear elevation.

Figure 4 is a top plan view.

Figure 5 is a vertical, longitudinal, sectional view.

Figure 6 is a view in side elevation, showing the cover in a raised position.

Figure 7 is a transverse, sectional view, taken on line 7—7, Fig. 5, and looking in the direction of the arrows.

Figure 8 is a transverse, sectional view, taken on line 8—8, Fig. 5, and looking in the direction of the arrows.

2

Figure 9 is a transverse, sectional view, taken on line 9—9, Fig. 5, and looking in the direction of the arrows.

Figure 10 is a perspective view of the stripper.

The application of adhesive tapes in a manually operated device has heretofore been proposed. However, in certain heretofore known and used devices, there are certain disadvantages, some of which are the inability of the user to fully manipulate the device with the hand that holds it, the difficulty in arriving at a design which is tailored to fit the hand and which is small and compact, the complication of mechanism with resulting difficulty in loading, and a tendency to pull and tear on delicate surfaces with attending inconvenience.

The present invention overcomes these difficulties and provides a device for dispensing gummed tape, which is not only small, compact and hand-fitting, but which also permits applying tape to delicate surfaces without difficulty. Further, it provides means under control of user to feed out definite lengths of tape before application and cut off.

As will be hereinafter fully explained, the device, embodying the mechanism of the invention, may be used for applying adhesive and gummed tape and for dispensing certain cord or strip materials from a roll or spool. Furthermore, any single unit embodying the invention can be used for dispensing several widths or roll sizes of tape.

Referring to the drawings, in which the preferred embodiment of this invention is illustrated, 1 designates a housing upon which is positioned a cover 2. A hinge pin 3 pivotally mounts said cover 2 on the housing 1. In the sides of the housing 1 are journal sockets 4. An arbor 5 is journaled in said journal sockets 4. This arbor 5 is provided with transverse ribs 6 to better secure the paper core 7 on said arbor 5. On the paper core 7 is a roll or spool of tape material 8.

A feed roller 9 is mounted upon the housing 1 in alignment with said arbor 5. This feed roller 9 is provided with a reduced portion 10, Fig. 8, upon which is mounted a pressed on ring 11. There is an annular groove 12 provided between a portion 13 of the feed roller 9 and the ring 11. In this annular groove 12 is rotatably mounted the stripper 14, Fig. 10. This stripper 14 comprises a semicircular body 15 integral with a jaw 16. On the outer edge 17 of jaw 16 there are serrations for the purpose of stripping the tape from the feed roll 9 as it is being fed out and also for guiding the tape downward and outward towards the cut-off blade. The portion 13 of the roller 9, as well as the ring 11 is also provided

with serrations which prevent the tape from sticking on the feed roll during the feeding operation.

On the forward end of the cover 2 is a pocket 18, Fig. 5, in which pocket 18 is suitably designed cut-off blade 19. This blade is pivotally mounted on pin 20. A spring 30 is also pivotally mounted on pin 20. The central portion of spring 30 is coiled around said pin 20, and one end of spring 30 bears against the roof of the pocket 18 and the other end bears against the inside of hollow blade 19, as shown. The cover 2 is provided with a depending lip 21 which forms a protective pocket for the cutting edges 23 of cut-off blade 19 and also serves to strip the cut-off edge of the tape from these cutting edges after the cut-off operation. The cutting edges 23 serve to cut off the tape during the cut-off operation at which time they are caused to pivot out on pin 20 and bear against the tape to cut it as hereinafter described. On the lower portion of the blade 19 are serrations 24 which facilitate the applying of the tape to a surface; the serrations hold the tape securely from slipping during the cut-off operation and thus hold the tape taut while the cut-off point or edges 23 are pivoted out against it to successfully pierce and cut off the tape.

The cover 2 is provided with sockets 25, Fig. 7, which are adapted to receive detents 26 when the cover is to be locked upon the housing.

In Fig. 7, at 27, is an upstanding portion of the bottom of the housing; this upstanding portion is also clearly shown in Fig. 5.

The stripper 14 extends in the path of the tape, as shown by dotted line A, Fig. 5. It is prevented from rotating with the feed roll during the feed out operation by means of the shoulder 31 bearing against housing 1 as shown in Fig. 5. However, if for some reason, it is attempted to cause the tape A to be pulled rearwardly, then the stripper will grip the tape between the serrated surface of its jaw 16 and the groove 32 in the outer end of cover 2 as shown in Fig. 5.

On the cover 2 are surfaces 28, Fig. 5, which act as guides for the tape A that passes between said surfaces 28 and onto the feed roller 9. The cover 2 is also provided with an opening 32 through which the peripheral portions of the feed roller 9 and ring 11 project for engagements by the operator's thumb.

It is to be understood that the means employed to cut off the tape causes the tape to more or less be locked between the serrated edge 24 of the cut-off blade 19 and the feed roll 9 to be pulled taut as the blade 19 pivots out so that when the cutting edges pivot out against the tape they have a firm surface into which they enter and cut. This action can easily be seen by reference to Fig. 5. As blade 19 is biased the distance between the serrations 24 on it and the surface of the feed roll 9 increases. As a result, since the tape is restrained at both points, it has a tendency to stretch the tape and hold it firm for cutting. Under no other conditions would it be possible to so cut the tape.

In operation, the roll of tape material is placed on the arbor 5 and then the arbor 5 is placed in the journal sockets 4. The tape is then passed over the feed roll 9 and stripper 14 as shown in Fig. 6, after which the cover 2 is closed and fastened to housing 1. This automatically brings the tape under cut-off blade 19. To apply the tape the device is pushed down onto a surface so that the serrated edge 24 of blade 19 presses the tape against aforesaid surface and firmly

fastens it, then by further downward pressure, the knife 19 is biased causing the cutting points 23 to sever the tape. The tape is then held between lip 21 and stripper 14 until the operator pushes forwardly on the feed roller 9, causing a new supply of tape to be threaded under the cutter blade 19 and upon the object to be sealed.

While I have described the preferred embodiment of the invention and illustrated the same in the accompanying drawings, certain minor changes or alterations may appear to one skilled in the art to which this invention relates during the extensive manufacture of the same, and I, therefore, reserve the right to make such changes or alterations as shall fairly fall within the scope of the appended claims.

What I claim is:

1. In a gummed tape dispenser, the combination of a housing having spaced sides, an arbor extending between said sides for carrying a tape roll, a feed roll supported between said sides in forwardly spaced axial relation to said arbor, said feed roll having a reduced end providing a flange at the opposite end, a ring fitted on said reduced end in spaced relation to the flange, said feed roll and ring being provided with serrations, a stripper mounted on said feed roll between said ring and flange, said stripper and housing being provided with coacting portions preventing rotation of the stripper during rotation of the feed roll, a cover on said housing, and cutting means carried by said cover forwardly of said feed roll.

2. In a gummed tape dispenser, the combination of a housing having spaced sides, an arbor extending between said sides for carrying a tape roll, a feed roll supported between said sides in forwardly spaced axial relation to said arbor, said feed roll having a reduced end providing a flange at the opposite end, a ring fitted on said reduced end in spaced relation to the flange, said feed roll and ring being provided with serrations, a stripper mounted on said feed roll between said ring and flange, said stripper and housing being provided with coacting portions preventing rotation of the stripper during rotation of the feed roll, a cover on said housing, and a serrated jaw integral with said stripper.

3. In a gummed tape dispenser, the combination of a housing having spaced sides, an arbor extending between said sides for carrying a tape roll, a feed roll supported between said sides in forwardly spaced axial relation to said arbor, said feed roll having a reduced end providing a flange at the opposite end, a ring fitted on said reduced end in spaced relation to the flange, said feed roll and ring being provided with serrations, a stripper mounted on said feed roll between said ring and flange, said stripper and housing being provided with coacting portions preventing rotation of the stripper during rotation of the feed roll, a cover on said housing, and pivotal connection between the rear end of said cover and said housing.

4. In a gummed tape dispenser, the combination of a housing having spaced sides, an arbor extending between said sides for carrying a tape roll, a feed roll supported between said sides in forwardly spaced axial relation to said arbor, said feed roll having a reduced end providing a flange at the opposite end, a ring fitted on said reduced end in spaced relation to the flange, said feed roll and ring being provided with serrations, a stripper mounted on said feed roll between said ring and flange, said stripper and housing being provided with coacting portions preventing ro-

5

tation of the stripper during rotation of the feed roll, a cover on said housing, said cutting means including a blade pivotally mounted within the forward end of said cover, said blade and cover being provided with coacting tear points, and spring means in said cover and normally holding said blade in partial forwardly projecting position, the forwardly projecting portion of the blade being provided on its outer face with serrations.

5. In a gummed tape dispenser, the combination with a housing provided with a tape roll supporting arbor and a feed roll spaced forwardly from said arbor, a cover pivotally mounted on said housing and provided with an opening 15 wherethrough a portion of the periphery of the said roll will project, said cover having a de-

6

pending lift, a stripper surrounding said feed roll, said lift being positioned close to said stripper and forming guide means for a gummed tape, and a cutting means on said cover in front of said lift.

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