

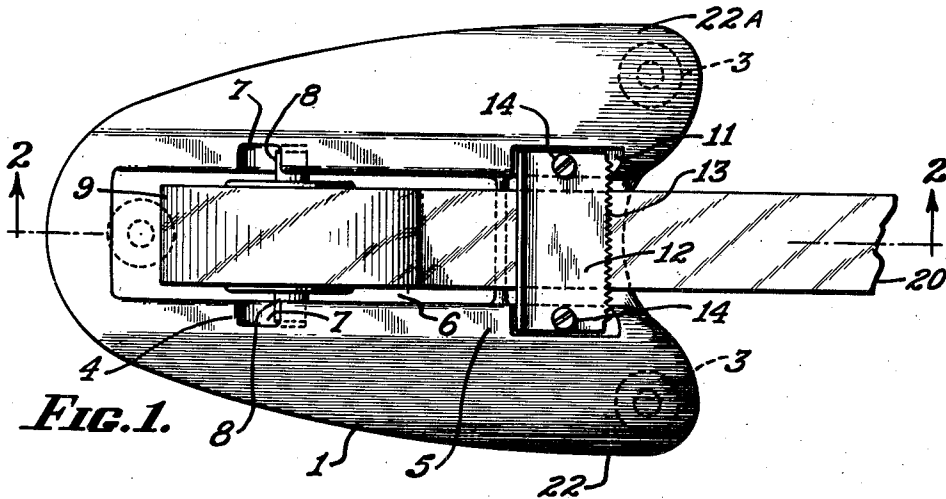
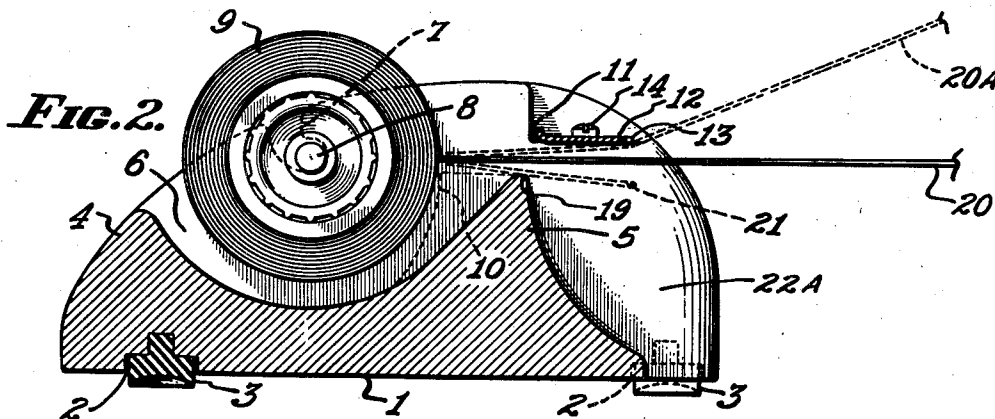
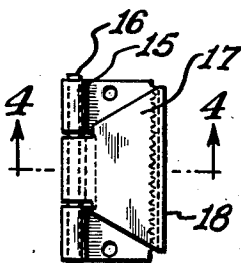
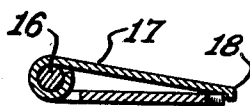
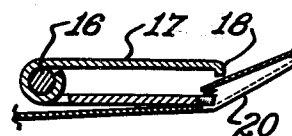
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W. W. ATKINS

2,324,349

TAPE DISPENSER

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UNITED STATES PATENT OFFICE

2,324,349

TAPE DISPENSER

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1 Claim. (Cl. 164—84.5)

This invention relates to dispensers for holding and dispensing pressure-sensitive adhesive tape, such, for example, as the ordinary surgeon's tape, and more particularly tape formed from thin ribbons of transparent cellulose products known broadly as "Scotch cellulose tapes."

Dispensers for such adhesive tapes previously known to me have been objectionable from the standpoint of practical use, in that they have not supplied a means for retaining a free end of the tape in such a manner that it may be grasped with the fingers and accordingly dispensed to a desired extent, prior to cutting off by movement of the web against a cut-off knife.

It is my object to provide a dispenser which, following use and the tearing off of the strip to be used, leaves a free end in position to be readily grasped by the fingers for a successive withdrawal of tape.

In the Borden Patent No. 2,221,213 to which reference is hereby made, mechanism is provided which permits the insertion of a finger between what is referred to as a hard surfaced member and the web; but for many purposes it is advantageous to have the end of the tape grasped between the thumb and finger for accurate positioning on an article to which the tape is to be applied, and this is not possible with the dispenser as set forth in the patent noted.

Further in the operation of a dispenser such as is shown in the patent mentioned, the withdrawal of pieces of tape for use requires the movement of the thumb and finger to a position in which the intermediate strip of tape between the hardened surface and the dispensing roll may be grasped in such a way that an upward movement is required which tends to dislodge the support of the web in the dispenser casing.

It is my object to provide a dispenser, in which withdrawal of the tape only requires the grasping of a free end of the tape and the pulling of the tape in one direction or plane until the desired quantity is withdrawn, at which time the web may be readily moved into contact with a cut-off knife, which severs the portion of the tape desired for use.

Another object of my invention is to provide a cut-off knife and guard, which will obviate the likelihood of a person's fingers being brought into contact with the sharpened serrated edge of the cut-off knife.

The foregoing objects and other objects to which reference will be made in the ensuing description, I accomplish by that combination and arrangement of parts of which I have illustrated

a preferred embodiment. Referring now to the drawing—

Figure 1 is a plan view of a dispenser showing a strip of Scotch tape in position to be severed from the main supply.

Figure 2 is a sectional view taken along the lines 2—2 of Figure 1.

Figure 3 is a plan view of a preferred type (being a modification of the cut-off knife shown in Figures 1 and 2) of cut-off knife, having a guard mounted thereon to prevent contact of the fingers with the sharpened, serrated edge of the cut-off knife.

Figure 4 is a sectional view of the cut-off knife and guard shown in Figure 3, taken along the lines 4—4 of Figure 3.

Figure 5 is a sectional view of the part shown in Figure 4, showing the operation of the cut-off knife at the time of a severing operation.

Referring to the drawing the casing 1 may be formed of any desirable type of material, such as metal, ceramic material, or plastic.

The lower surface of the casing is preferably flat and may have openings of desired configuration 2, within which legs 3 of rubber or other composition may be inserted so that with the device in use on a polished desk, there will be no likelihood of sharp edges of the casing scratching the surface of the desk.

The weight in the casing may be evenly distributed by means of upstanding portions 4 and 5.

The casing is a bifurcated structure having an opening 6 with annular guide slots 7, which seat the hubs or trunnions 8 of the roll supply of tape 9.

The hub assembly for the dispensing tape is a conventional type of mounting for tape dispensing apparatus and forms no part of my invention. Ordinarily rolls of tape and other types of paper material are provided with annular cores within the roll, into which hubs provided with ribs for frictionally engaging the inner surfaces of the annular core are provided. The hub has spindles and it is this type of dispensing web which is illustrated in the drawing. However, as I have stated above, this forms no part of my invention and the dispensing web may be retained in the casing in any desired way, whether or not it is mounted on a hub within slots in the casing.

It is possible with my construction of dispenser to merely seat the roll of dispensing material within a pocket in the opening in the casing, where a rib such as is shown in dotted lines at 10, may be provided to hold the roll of tape in

position. Since the withdrawal of the tape in my dispenser is in a single direction or plane, many mountings for the rolls may be used other than the specific mounting shown. All of this is well within the knowledge of the art. The specific mounting shown in my drawing is substantially similar to the mounting shown in the Saunders Design Patent No. 121,400.

On a shelf-like support 11, there is shown a knife 12 having a serrated edge 13. The mounting for the knife may be as shown, by means of screws 14, which are mounted in threaded apertures in the shelf member 11.

In Figures 3-5, I have shown a modified type of knife having a guard member. The knife has an annular boss 15 with a spindle 16, which pivotally mounts a guard 17, having a downturned edge 18, which extends over the knife edge, as illustrated in Figure 4, but which, during a tearing off operation, swings in a counter-clockwise direction upwardly so as to not interfere with the severing operation. This latter operation is shown in Figure 5. This modified construction with the guard prevents likelihood of injury to the fingers during a dispensing operation.

In the ordinary operation of the dispenser, the web is mounted in the casing, as illustrated in Figures 1 and 2 and the tape is threaded through the opening provided between the supporting surface 19 of the elevated portion of the casing 5. The surface 19 may be rounded as illustrated and its function is to provide a support for the web, which may or may not adhere to the portion 19, the pressure-sensitive or coated surface of the web being on the underside so as to face the surface 19.

The web being dispensed is withdrawn in the direction of the solid line 20, shown in Figure 2, and when it is desired to sever a desired quantity,

the web is moved up to the position shown at 20A, where a slight jerky pull will accomplish the severing of the web. After being severed, the portion between the peak and the knife drops down to the position shown at 21 in Figure 2, where for a succeeding withdrawal it may be merely grasped between the thumb and finger and the dispensing operation which has been described, repeated.

Modifications in the construction shown within the scope of the principle involved will readily occur to those skilled in the art. The particular design of the casing illustrated is attractive in that it assumes the shape of an elongated heart. There is no particular necessity for weighting any particular part of the casing, but it may be desirable in some instances to supply additional bulk of material to increase the weight in the lower lobes of the heart-shaped casing in the area indicated by the numbers 22, 22a. This supplies weight where it is most desirable to offset the elevation of the web at the time of the severing of a dispensed section of tape.

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

A pressure-sensitive tape dispenser comprising means for supporting a roll of tape to be dispensed, constructed and arranged so that tape from a roll may be withdrawn in a substantially horizontal plane, a cut-off knife mounted above the plane of withdrawal of tape, and a support extending below the plane of withdrawal of the tape, the support being positioned intermediate the cut-off knife and the roll of tape, said cut-off knife provided with guarding means to prevent contact of the fingers with the sharpened edge of the knife.

WALTER W. ATKINS.