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(54) **TEXTURED TAPE DISPENSER**

TEXTURIERTER BANDSPENDER

DÉVIDOIR DE RUBAN ADHÉSIF TEXTURÉ

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Description

Background

[0001] Conventional tape dispensers often have a tape roll support for holding the core of the tape roll and a side wall extending from the tape roll support to the cutting blade. These types of dispenser leave one side of the roll of tape uncovered. Two sided tape dispensers can be used to further contain the roll of tape. These types of conventional two sided tape dispensers include a second side wall to cover the roll of tape, such as shown in US design patent D510951. To open and gain access to the tape roll support, the side walls are moved, twisted or pulled, relative to one another.

[0002] WO 2012061591 A2 relates to a tape dispenser with a housing comprising a face portion and a sidewall proximate the face portion. An outer surface of the sidewall is curved in the x-y plane, contains no undercuts and comprises a plurality of ribs extending across it. The ribs are convexly curved in the z-axis. An inner surface of the sidewall is linear in the z-axis. An inner surface of the face portion comprises a tape holding portion adapted to hold a roll of tape therein. The housing is integrally molded from a polymeric material.

Summary

[0003] With known dispensers, the user may need to pinch portions of the dispenser to balance the force of unwinding the tape roll and friction forces of the dispenser. Known dispenser may also include surfaces that are not optimized for a secure grasp. The present inventors have created hand held tape dispensers that are comfortable to hold and reduce the force necessary to dispense and cut tape.

[0004] The present disclosure provides a dispenser comprising a tape roll housing including a sidewall and a surrounding wall, wherein at least a portion of the surface of the surrounding wall comprises a first texture and a second texture; a cutting edge support spaced from the roll housing; a tape core support extending in a direction generally orthogonal to the sidewall; and a base comprising a portion of the surrounding wall and the cutting edge support.

[0005] The present disclosure also provides a tape dispensing assembly comprising: a tape roll housing including a sidewall and a protective, surrounding wall, wherein at least a portion of the surface of the surrounding wall comprises a first texture and a second texture; a cutting edge support spaced from the roll housing; a tape core support extending in a direction generally orthogonal to the first major surface; and a base comprising a portion of the surrounding wall; and a roll of tape coupled to the tape core support, wherein the surrounding wall at least partially shrouds the tape roll.

[0006] As used herein, the terms "height", "base" and "top" are for illustrative purposes only, and do not nec-

essarily define the orientation or the relationship between the surface and the structure defining a texture. For example, the "height" of a structure projected into a surface of the tape dispenser can be considered the same as the depth of recess created, and the "top" the bottom of said recess. Accordingly, the terms "height" and "depth", and "top" and "bottom" should be considered interchangeable.

[0007] The terms "comprises" and variations thereof do not have a limiting meaning where these terms appear in the description and claims.

[0008] The words "preferred" and "preferably" refer to embodiments of the disclosure that may afford certain benefits, under certain circumstances. However, other embodiments may also be preferred, under the same or other circumstances. Furthermore, the recitation of one or more preferred embodiments does not imply that other embodiments are not useful, and is not intended to exclude other embodiments from the scope of the invention.

[0009] As recited herein, all numbers should be considered modified by the term "about".

[0010] As used herein, "a", "an," "the," "at least one," and "one or more" are used interchangeably. Thus, for example, a dispenser surface comprising "a" texture can be interpreted as a system comprising "one or more" textures.

[0011] Also herein, the recitations of numerical ranges by endpoints include all numbers subsumed within that range (e.g., 1 to 5 includes 1, 1.5, 2, 2.75, 3, 3.80, 4, 5, etc.).

[0012] The above summary of the present invention is not intended to describe each disclosed embodiment or every implementation of the present invention. The description that follows more particularly exemplifies illustrative embodiments. In several places throughout the application, guidance is provided through lists of examples, which examples can be used in various combinations. In each instance, the recited list serves only as a representative group and should not be interpreted as an exhaustive list.

Brief Description of the Drawings

[0013] The invention will be further described with reference to the drawings, wherein corresponding reference characters indicate corresponding parts throughout the several views, and wherein:

Figure 1 is an exploded view of a tape dispenser assembly according to an implementation of the present disclosure.

Figure 2 is side view of the dispenser of Figure 1.

Figure 3 is a perspective view of a tape dispenser according to another implementation of the present disclosure

Figure 4 is a side view of the dispenser of Figure 3.

[0014] While the above-identified figures set forth sev-

eral embodiments of the invention, other embodiments are also contemplated, as noted in the discussion. In all cases, this disclosure presents the invention by way of representation and not limitation. It should be understood that numerous other modifications and embodiments can be devised by those skilled in the art, which fall within the scope of the principles of the invention.

Detailed Description of Illustrative Embodiments

[0015] Turning to Figures 1 and 2, a first embodiment of a single sided tape dispenser 100 includes a tape roll housing 110 having a sidewall 111 and a protective wall 120 defining the perimeter 116 of the housing 110. The tape roll housing 110 is coupled to a cutting support 140 including a cutting blade 144. A tape roll 300 may be secured to the core support 114, which extends along an axis generally perpendicular to sidewall 111. Suitable materials for the dispenser body include, but are not limited to, plastics, metals, and ceramics. Suitable plastic include, without limitation, polystyrene and polycarbonate.

[0016] The protective wall 120, like core support 114, extends in a direction generally perpendicular to the sidewall 111. In certain implementations, the protective, surrounding wall 120 can extend at a slightly obtuse angle (e.g., about 90 to about 95 degrees) from the plane defined by sidewall 111. As depicted, the protective wall 120 is generally circular to follow the contour of the circular tape roll 300. However, the shape of the protective wall 120 can be other shapes, sizes or configurations. The protective wall 120 forms the tape roll housing perimeter 116, which is the outermost extension from a central axis of the supported tape roll 300. In this embodiment, the tape roll housing perimeter 116 is circular. However, because the protective wall 120 can comprise a variety of shapes and sizes, the tape roll housing perimeter 116 can comprise a variety of shapes and sizes. As depicted in Figures 1 and 2, the protective wall 120 does not completely encircle the core support 114, leaving a dispenser opening 119 for the recovery of a length of tape for dispensing.

[0017] The exterior surface of the protective wall 120 includes at least one texture 121 that is distinguishable from a flat surface by normal human visual acuity and tactile feedback. In the depicted implementation, the protective wall includes a first texture 121 and a second texture 122. In certain embodiments, each texture may be defined by a series of repeating features or structures molded into or integral with the exterior surface of the protective wall 120. In certain aspects, one or more of the textures may be created by surface roughening techniques (e.g., acid etch, sandblasting, etc.). Particular feature patterns or grouping may be created using masks or other known processes for controlled surface finishing. In Figure 1, the first texture 122 includes rail-like features protruding from the exterior surface of the protective wall 120, while the second texture 121 includes hemispherical

features. In other embodiments, it may be preferred that the features defining the first or second texture are projected into the exterior surface, creating a series of disconnected or discrete recesses.

[0018] The textures 121, 122 may be arranged on the protective wall 120 according to any number of patterns. In certain implementations, a single feature may be repeated over the entire surface. In some embodiments, the pattern may include a repeating unit cell comprising a particular arrangement of one or more textures. The unit cell may include a plurality of tiles, each tile featuring a single texture. The tiles may be tessellated, as depicted in Figure 1. The unit cell 123 includes a first texture tile directly adjacent a second texture tile. Other unit cells may include a portion of the protective wall that does not include protruding texture (e.g., a flat or polished surface of protective wall 120).

[0019] Further examples of suitable feature shapes can include, but are not limited to, a variety of polyhedral shapes, parallelepipeds, prisms, prismoids, etc., and combinations thereof. For example, the features can be polyhedral, conical, frusto-conical, pyramidal, frusto-pyramidal, spherical, partially spherical, hemispherical, ellipsoidal, dome-shaped, cylindrical, and combinations thereof.

[0020] Generally, each feature of the plurality of features has a height/depth that is at least 0.00127 cm (0.0005 inches). In some embodiments, each feature has a height of at least 0.00254 cm (0.001 inches), and in other embodiments at least 0.003175 cm (0.00125 inches). In certain embodiments, the feature height is no greater than 0.01016 cm (0.004 inches), in some embodiments no greater than 0.00762 cm (0.003 inches), and in certain preferred embodiments no greater than 0.00381 cm (0.0015 inches). A particularly suitable range includes a feature height between 0.00254 cm (0.001 inches) and 0.00762 cm (0.003 inches). Features less than 0.00254 cm (0.001 inches) in height may not have an appreciable effect on the grasp of a user, whereas features having a height greater than 0.01016 cm (0.004 inches) may detract from the dispensing and/or manufacturing experience.

[0021] The inclusion of patterned and other textures can, in certain implementations, reduce or prevent the movement of the tape dispenser 100 in a user's grasp either prior to or during the dispensing of tape. An improve in grip security may further reduce the force necessary to fix the dispenser during cutting, allowing a user's energy to be focused on engaging the tape with the cutting edge.

[0022] The tape roll housing 110 further includes the tape core support 114. The tape core support 114 is configured to engage and support the core of the tape roll 300. The tape core support 114 can include a circular projection 115 extending from the second major surface of the tape roll housing 110. The circular projection 115 may further include first and second interlocking fingers, 117, 118 that terminate in flanges 117a, 118a. The flang-

es 117a, 118a are typically configured to engage a portion of the tape roll 300. The first and second interlocking fingers 117, 118 can, in some embodiments, slightly flex to allow the tape roll 300 to be inserted into tape roll housing 110, and thereafter prevent the tape rolls released by engagement of the flanges. In other embodiments, the tape core support 114 may include only a circular projection or only a plurality of interlocking fingers. Other configurations are also possible depending on the shape and size of the tape roll core intended to be supported. Regardless, the tape core support 114 aids in restraining a tape roll within in the tape roll housing 110.

[0023] The tape dispenser 100 can rest on a base 130 that is defined by portions of the protective wall 120 and the cutting support 140. The base includes a concave portion 132 disposed between the core support 114 and the landing surface 142 of cutting support 140. In certain implementations, the concave portion includes a radius of curvature of at least 0.635 cm (0.25 inches); in some embodiments, at least 1.27 cm (0.5 inches); and in yet other embodiments at least 2.54 cm (1.0 inches). In certain implementations, the concave portion 132 includes a radius of curvature of no greater 5.08 cm (2.0 inches), and in other embodiments, no greater than 3.81 cm (1.5 inches). The concave portion 132 can allow a user to more comfortably grasp the exterior of the tape dispenser 110 to apply stabilizing pressure during use. Such stabilizing pressure may ease both the tearing and dispensing of tape from the tape roll 300.

[0024] The distance 150 from the termination of the protective wall 120 proximate dispenser opening 119 to the apex of the concave portion 132 can be selected to enhance the grasp of the user. In certain implementations, the ratio of the maximum dispenser height 105 to distance 150 may be no greater than 1:0.9, in some embodiments no greater than 1:0.85, in some embodiments no greater than 1:0.75, and in yet other embodiments no greater than 1:0.70. In the depicted embodiments, the height 105 of the dispenser is essentially the diameter of a circle that mathematically best fits the curve created by the configuration of tape roll housing 110.

[0025] The sidewall 111 extends from the tape roll housing to the cutting support 140, and is generally perpendicular to protective wall 120. Though not shown, the sidewall 111 may also include one or more textures as described above with respect to the protective wall 120. The sidewall 111 includes an aperture 112 proximate the tape core support 114. As depicted, the aperture 112 generally mirrors the shape of core support 114 and perimeter 116, though other shapes and configurations are possible. The portion of the sidewall 111 surrounding the aperture may be planar or may be chamfered as shown in Fig. 1. The aperture 112 may allow for the tape dispenser 100 to be grasped by a user by insertion of a finger therethrough. This can provide additional stabilizing pressure for ease of dispensing and cutting a length of tape.

[0026] A neck 133 of the sidewall 111 may be created

proximate the concave portion 132 of the base 130 and serves to transition the tape roll housing 110 to the cutting support 140. The neck 133 includes a convex portion, such that the base 136 of the neck is disposed below the uppermost cutting support 140 and the opening 119.

[0027] The cutting support 140 is spaced from dispenser opening 119 and includes an exterior wall 141, a landing surface 142, and a blade 144. The landing surface 142 serves as a surface to attach a dispensed end of tape so that it is accessible and ready for further use. The landing surface 142 further provides a support surface to ease the tearing of tape across blade 144. The blade 144 can be serrated, as depicted, or include any other known blade configuration. As depicted, the exterior wall 141 includes textures comprising repeating features arranged in a unit cell 123. In other implementations, the exterior wall 140 does not include discernable, non-flat textures.

[0028] For reference purposes, a second Cartesian coordinate system is presented in Figure 1 where intersecting axes x and z define a plane and axis y is orthogonal to the x and z axes. An origin, O, defines the intersection of the three axes. When the origin coincides with trailing edge of the cutting support 140, with the x-z plane lying substantially coplanar with landing surface 142, the base 145 of the cutting blade 144 lies in the negative y (-y) direction, which is illustrated to be below the x-z plane. The cutting edge 146 of the blade 144 typically, and as depicted in Figures 1-2, also lies below the x-z plane in a slight negative y direction. In other embodiments, the landing surface and cutting edge but may be at an angle from 0 (such that the cutting edge 146 is coplanar with the landing surface 142 in the x-z plane) to 60 degrees relative to one another. Though less preferred in certain circumstances, the cutting edge 146 can also be located in a positive y-direction from the landing surface. A cutting edge 146 located below (i.e., a negative y direction relative to) the landing surface 142 can improve the user's ability to cut/tear a length of tape by facilitating and supporting the use of a downward or slightly downward force relative to the blade 144.

[0029] The cutting support has a height 147, as measured from base 130, which is less than the height 118 of the tape roll housing 110. The height is typically selected such that the tape dispensed from the tape roll 300 engages the landing surface above the x-z plane or in a slightly positive-y direction. Accordingly, the cutting support height 147 may be selected to that the landing surface 142 is generally coplanar with the center of tape roll 300 and aperture 112. In certain implementations, the ratio of the dispenser height 105 to the cutting support height may be at least 1.1:1, in some embodiments at least 1.25:1, in some embodiments at least 1.4:1, in some embodiments at least 1.5:1, in yet other embodiments at least 1.7:1, in yet other embodiments at least 1.85:1, and in yet other embodiments at least 2:1. In certain implementations, the ratio of the dispenser height 105 to the cutting support height 147 can be no greater than 3:1, in

some embodiments no greater than 2.5:1, in some embodiments no greater than 2:1, in some embodiments no greater than 1.9:1, and in yet other embodiments no greater than 1.7:1.

[0030] Turning now to Figures 3 and 4, a two piece dispenser 200 is depicted that features many of the same components as tape dispenser 100. The tape dispenser 200 includes a tape roll housing 210 connected cutting support 240 via a base 230. The tape roll housing 210 includes a tape core support 214 and an aperture 212. The base 230 further includes a concave portion 232 between the core support 214 and the landing surface 242. The protective wall 220 includes a repeating pattern 223 of tiled textures 221, 222. The components of tape dispenser 200 can have the same dimensions and dimensional relationship as the related components in tape dispenser 100.

[0031] Unlike tape dispenser 100, tape dispenser 200 includes a first sidewall 211a and a second sidewall 211b. Tape dispenser 200 may be provided as two adjoining, separate sections. For example, the section defining the first sidewall can include connecting pegs that engage with the connection openings on of the section defining the second sidewall. This friction fit can secure the first and second section together during tape dispensing and allows a user to open the dispenser 200 retrieve a tape roll. As another example, the tape core support 214 may extend from the section defining the first side wall and may engage with a mating aperture. It is understood that other connection mechanisms may be used to connect the dispenser 200 sections.

[0032] Further shown in this embodiment, are holding feet 235. The holding feet 235 shown are outward extending projections along the base 230. The holding feet 235 provide a stabilizing surface that allows the tape dispenser 200 to be positioned upright (like shown in FIG. 3) without rolling over a surface. It is understood a various sizes and numbers of these positioning feet may be included and that the positioning feet may be projections from the tape roll housing 200. It is understood that this feature could be provided in the previously described embodiment.

[0033] Various modifications and alterations to this invention will become apparent to those skilled in the art without departing from the scope of this invention. It should be understood that this invention is not intended to be unduly limited by the illustrative embodiments and examples set forth herein and that such examples and embodiments are presented by way of example only with the scope of the invention intended to be limited only by the claims set forth herein as follows.

Claims

1. A dispenser (100; 200) comprising:

a tape roll housing (110; 210) including a side

wall (111; 211a) and a surrounding wall (120; 220);

a cutting edge support (140; 240) spaced from the roll housing (110; 210);

a tape core support (114; 214) extending in a direction generally orthogonal to the side wall (111; 211a); and

a base (130; 230) comprising a portion of the surrounding wall (120; 220) and a portion of the cutting edge support (140; 240),

characterized in that

at least a portion of the surface of the surrounding wall (120; 220) comprises a first texture (122; 221) and a second texture (121; 222).

2. The dispenser (100; 200) of claim 1 wherein the first (122; 221) and second textures (121; 222) are arranged in a unit cell (123) and the unit cell (123) repeats over at least a portion the surrounding wall surface.

3. The tape dispenser (100; 200) of any of the previous claims further comprising a third texture.

4. The tape dispenser (100; 200) of any of the previous claims wherein the base (130; 230) includes a concave portion (132; 232) proximate the cutting edge support (140; 240).

5. The tape dispenser (100; 200) of any of the previous claims, wherein the side wall (111; 211a) includes an aperture (112; 212) proximate the tape core support (114; 214).

6. The tape dispenser (100; 200) of any of the preceding claims, wherein the cutting edge support (140; 240) comprises a landing surface (142; 242) and a blade (144; 244).

7. The tape dispenser (100) of claim 6 wherein the blade (144) comprises a cutting edge (146) and a base (145), and wherein the base (145) of the blade (144) is located below the landing surface (142).

8. The tape dispenser (200) of claim 1 further comprising a second side wall (211b) coupled to the first side wall (211a) via the tape core support (214).

9. The tape dispenser (100; 200) of any of the preceding claims wherein the tape dispenser has a first height (105), the cutting support (140; 240) has a second height (147), and the first height is at least 25% greater than the second height.

10. A tape dispensing assembly comprising:

a tape roll housing (110; 210) including a first

major surface and a protective, surrounding wall (120; 220);
 a cutting edge support (140; 240) spaced from the roll housing (110; 210); a tape core support (114; 214) extending in a direction generally orthogonal to the first major surface; and
 a base (130; 230) comprising a portion of the surrounding wall (120; 220); and
 a roll of tape (300) coupled to the tape core support (114; 214), wherein the surrounding wall (120; 220) partially shrouds the tape roll (300),

characterized in that

at least a portion of the surface of the surrounding wall (120; 220) comprises a first texture (122; 221) and a second texture (121; 222).

11. The tape dispensing assembly of claim 10 wherein the base (130; 230) includes a concave portion (132; 232) proximate the cutting edge support (140; 240), and wherein the concave portion (132; 232) includes a radius of curvature of at least 1.27 cm (0.5 inches) and no greater than 3.81 cm (1.5 inches).
12. The tape dispensing assembly of any of claims 10 or 11 and further comprising a third texture on a surface of the surrounding wall (120; 220).
13. The tape dispensing assembly of any of claims 10 or 12 wherein the first (122; 221) and second texture (121; 222) are tessellated over at least a portion of the surrounding wall (120; 220).

Patentansprüche

1. Spender (100; 200), umfassend:

ein Bandrollengehäuse (110; 210), umfassend eine Seitenwand (111; 211a) und eine umgebende Wand (120; 220);
 eine Schneidkantenstütze (140; 240), die von dem Rollengehäuse (110; 210) beabstandet ist;
 eine Bandkernstütze (114; 214), die sich in einer Richtung erstreckt, die im Allgemeinen senkrecht zu der Seitenwand (111; 211a) ist; und
 eine Basis (130; 230), umfassend einen Abschnitt der umgebenden Wand (120; 220) und einen Abschnitt der Schneidkantenstütze (140; 240),

dadurch gekennzeichnet, dass

wenigstens ein Abschnitt der Oberfläche der umgebenden Wand (120; 220) eine erste Textur (122; 221) und eine zweite Textur (121; 222) umfasst.

2. Spender (100; 200) nach Anspruch 1, wobei die erste (122; 221) und die zweite Textur (121; 222) in

einer Einheitszelle (123) angeordnet sind und die Einheitszelle (123) sich über wenigstens einen Abschnitt der umgebenden Wandoberfläche wiederholt.

3. Bandspender (100; 200) nach einem der vorstehenden Ansprüche, ferner umfassend eine dritte Textur.
4. Bandspender (100; 200) nach einem der vorstehenden Ansprüche, wobei die Basis (130; 230) einen konkaven Abschnitt (132; 232) nahe der Schneidkantenstütze (140; 240) umfasst.
5. Bandspender (100; 200) nach einem der vorstehenden Ansprüche, wobei die Seitenwand (111; 211a) eine Öffnung (112; 212) nahe der Bandkernstütze (114; 214) umfasst.
6. Bandspender (100; 200) nach einem der vorstehenden Ansprüche, wobei die Schneidkantenstütze (140; 240) eine Auftreffoberfläche (142; 242) und eine Klinge (144; 244) umfasst.
7. Bandspender (100) nach Anspruch 6, wobei die Klinge (144) eine Schneidkante (146) und eine Basis (145) umfasst, und wobei die Basis (145) der Klinge (144) unterhalb der Auftreffoberfläche (142) angeordnet ist.
8. Bandspender (200) nach Anspruch 1, ferner umfassend eine zweite Seitenwand (211 b), die durch die Bandkernstütze (214) mit der ersten Seitenwand (211 a) gekoppelt ist.
9. Bandspender (100; 200) nach einem der vorstehenden Ansprüche, wobei der Bandspender eine erste Höhe (105) aufweist, die Schneidstütze (140; 240) eine zweite Höhe (147) aufweist und die erste Höhe mindestens 25 % größer ist als die zweite Höhe.

10. Bandabgabeanordnung, umfassend:

ein Bandrollengehäuse (110; 210) mit einer ersten Hauptoberfläche und einer schützenden, umgebenden Wand (120; 220);
 eine Schneidkantenstütze (140; 240), die von dem Rollengehäuse (110; 210) beabstandet ist;
 eine Bandkernstütze (114; 214), die sich in einer Richtung erstreckt, die im Allgemeinen senkrecht zu der ersten Hauptoberfläche ist; und
 eine Basis (130; 230), umfassend einen Abschnitt der umgebenden Wand (120; 220); und
 eine Rolle Band (300), die mit der Bandkernstütze (114; 214) gekoppelt ist, wobei die umgebende Wand (120; 220) die Bandrolle (300) teilweise ummantelt,

dadurch gekennzeichnet, dass

wenigstens ein Abschnitt der Oberfläche der umgebenden Wand (120; 220) eine erste Textur (122; 221) und eine zweite Textur (121; 222) umfasst.

11. Bandabgabeanordnung nach Anspruch 10, wobei die Basis (130; 230) einen konkaven Abschnitt (132; 232) nahe der Schneidkantenstütze (140; 240) umfasst, und wobei der konkave Abschnitt (132; 232) einen Krümmungsradius von mindestens 1,27 cm (0,5 Zoll) und nicht mehr als 3,81 cm (1,5 Zoll) umfasst.
12. Bandabgabeanordnung nach einem der Ansprüche 10 oder 11 und ferner umfassend eine dritte Textur auf einer Oberfläche der umgebenden Wand (120; 220).
13. Bandabgabeanordnung nach einem der Ansprüche 10 oder 12, wobei die erste (122; 221) und die zweite Textur (121; 222) schachbrettartig über wenigstens einen Abschnitt der umgebenden Wand (120; 220) angeordnet sind.

Revendications

1. Distributeur (100 ; 200) comprenant :

un logement de rouleau de ruban (110 ; 210) incluant une paroi latérale (111 ; 211a) et une paroi périphérique (120 ; 220) ;
 un support de bord de coupe (140 ; 240) espacé du logement de rouleau (110 ; 210) ;
 un support de mandrin de ruban (114 ; 214) s'étendant dans une direction généralement orthogonale à la paroi latérale (111 ; 211a) ; et
 une base (130 ; 230) comprenant une partie de la paroi périphérique (120 ; 220) et une partie du support de bord de coupe (140 ; 240),

caractérisé en ce que

au moins une partie de la surface de la paroi périphérique (120 ; 220) comprend une première texture (122 ; 221) et une deuxième texture (121 ; 222).

2. Distributeur (100 ; 200) selon la revendication 1, dans lequel les première (122 ; 221) et deuxième textures (121 ; 222) sont disposées en une cellule unitaire (123) et la cellule unitaire (123) se répète sur au moins une partie de la surface de paroi périphérique.
3. Distributeur de ruban (100 ; 200) selon l'une quelconque des revendications précédentes, comprenant en outre une troisième texture.
4. Distributeur de ruban (100 ; 200) selon l'une quelconque des revendications précédentes, dans le-

quel la base (130 ; 230) inclut une partie concave (132 ; 232) à proximité du support de bord de coupe (140 ; 240).

5. Distributeur de ruban (100 ; 200) selon l'une quelconque des revendications précédentes, dans lequel la paroi latérale (111 ; 211a) inclut une ouverture (112 ; 212) à proximité du support de mandrin de ruban (114 ; 214).
6. Distributeur de ruban (100 ; 200) selon l'une quelconque des revendications précédentes, dans lequel le support de bord de coupe (140 ; 240) comprend une surface de réception (142 ; 242) et une lame (144 ; 244).
7. Distributeur de ruban (100) selon la revendication 6, dans lequel la lame (144) comprend un bord de coupe (146) et une base (145), et dans lequel la base (145) de la lame (144) est située en dessous de la surface de réception (142).
8. Distributeur de ruban (200) selon la revendication 1, comprenant en outre une deuxième paroi latérale (211b) couplée à la première paroi latérale (211a) par l'intermédiaire du support de mandrin de ruban (214).
9. Distributeur de ruban (100 ; 200) selon l'une quelconque des revendications précédentes, où le distributeur de ruban a une première hauteur (105), le support de coupe (140 ; 240) a une deuxième hauteur (147), et la première hauteur est au moins 25 % supérieure à la deuxième hauteur.
10. Ensemble de distribution de ruban comprenant :
 un logement de rouleau de ruban (110 ; 210) incluant une première surface principale et une paroi périphérique protectrice (120 ; 220) ;
 un support de bord de coupe (140 ; 240) espacé du logement de rouleau (110 ; 210) ; un support de mandrin de ruban (114 ; 214) s'étendant dans une direction généralement orthogonale à la première surface principale ; et
 une base (130 ; 230) comprenant une partie de la paroi périphérique (120 ; 220) ; et
 un rouleau de ruban (300) couplé au support de mandrin de ruban (114 ; 214), dans lequel la paroi périphérique (120 ; 220) enveloppe partiellement le rouleau de ruban (300),
caractérisé en ce que
 au moins une partie de la surface de la paroi périphérique (120 ; 220) comprend une première texture (122 ; 221) et une deuxième texture (121 ; 222).
11. Ensemble de distribution de ruban selon la revendication

cation 10, dans lequel la base (130 ; 230) inclut une partie concave (132 ; 232) à proximité du support de bord de coupe (140 ; 240), et dans lequel la partie concave (132 ; 232) inclut un rayon de courbure d'au moins 1,27 cm (0,5 pouce) et n'excédant pas 3,81 cm (1,5 pouce). 5

12. Ensemble de distribution de ruban selon l'une quelconque des revendications 10 ou 11, et comprenant en outre une troisième texture sur une surface de la paroi périphérique (120 ; 220). 10

13. Ensemble de distribution de ruban selon l'une quelconque des revendications 10 ou 12, dans lequel les première (122 ; 221) et deuxième textures (121 ; 222) sont en mosaïque sur au moins une partie de la paroi périphérique (120 ; 220). 15

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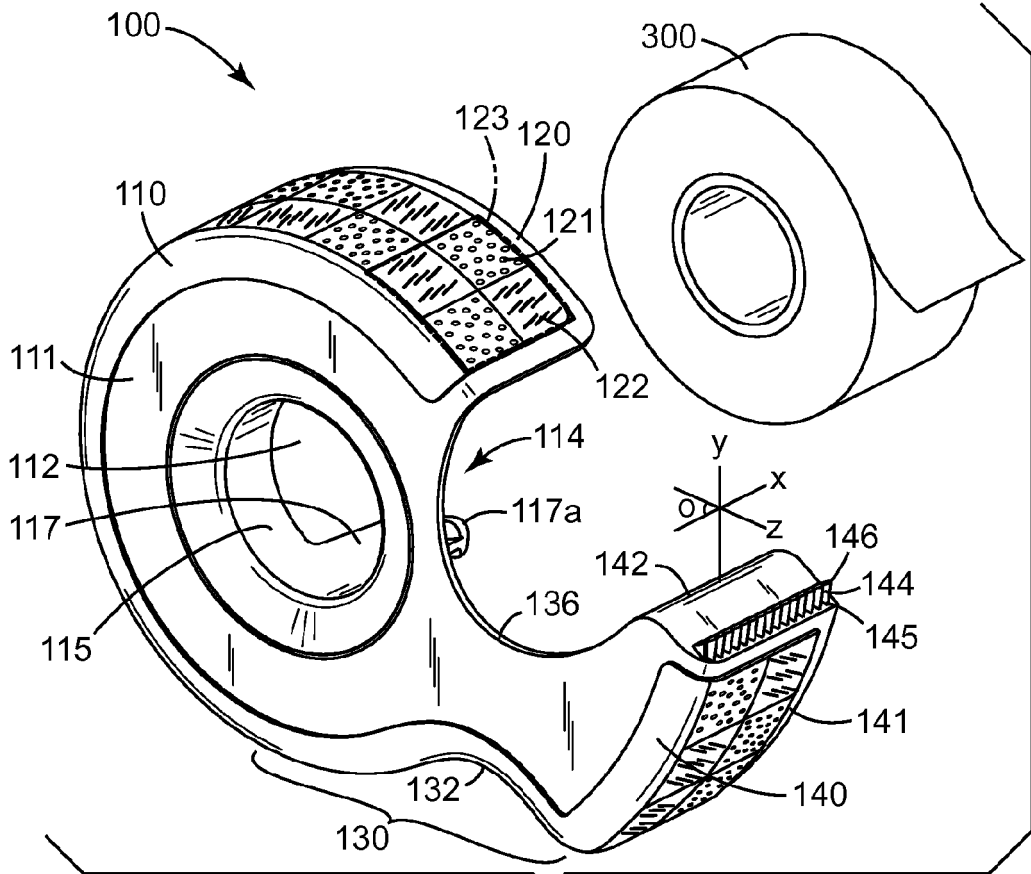


FIG. 1

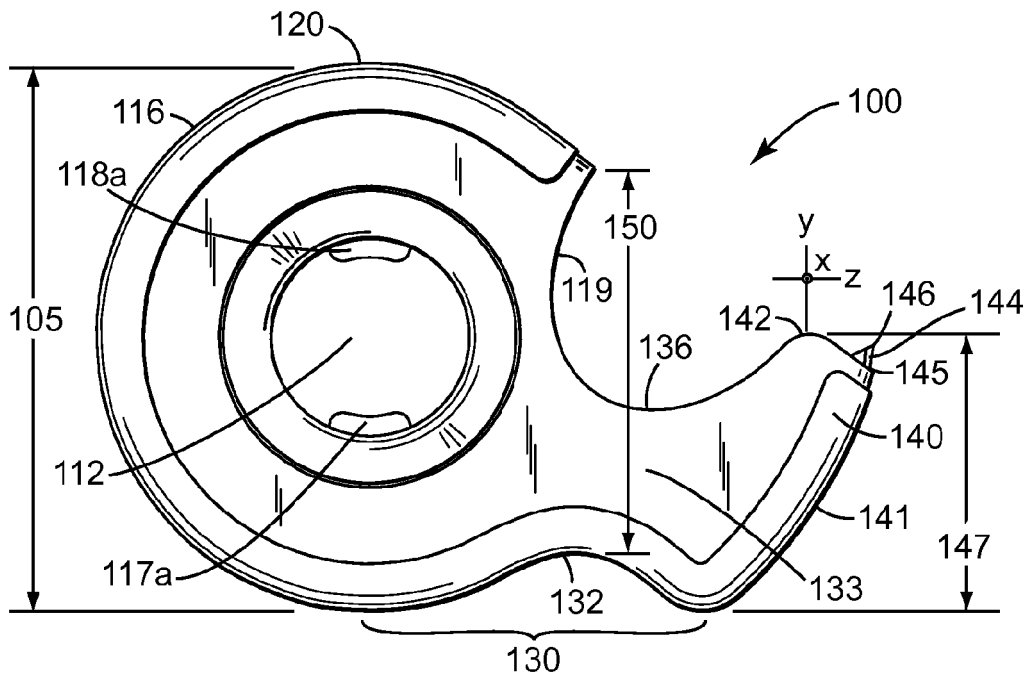
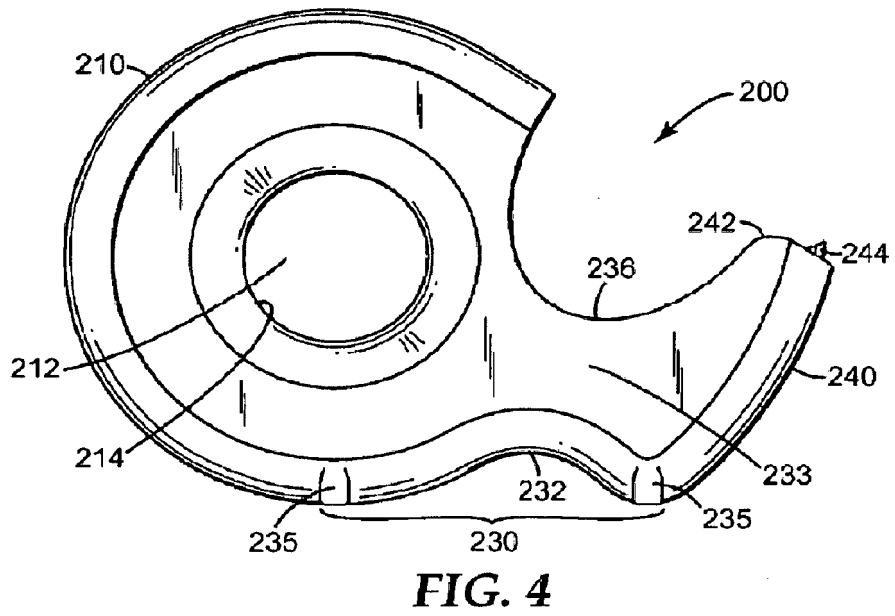
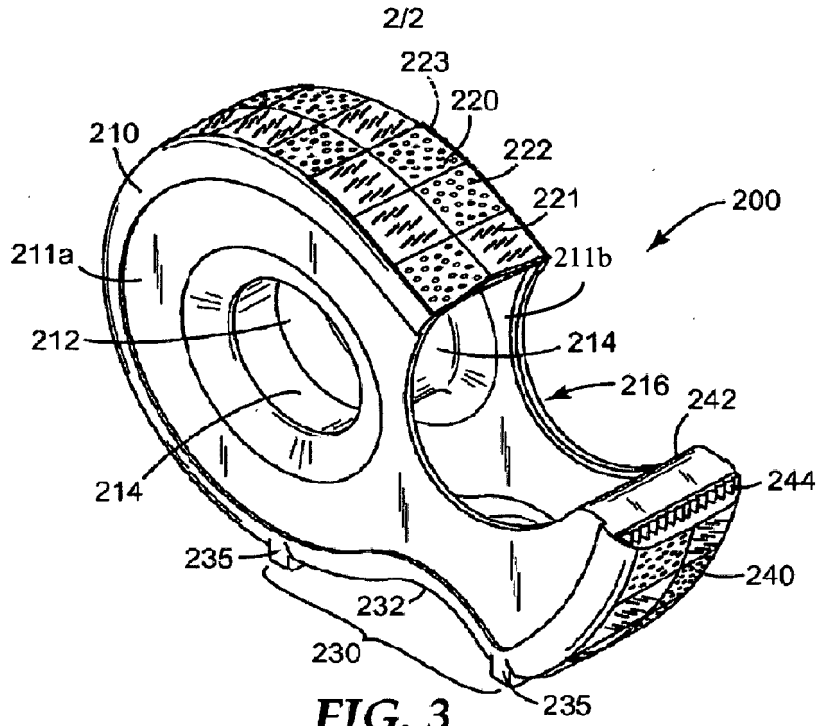


FIG. 2

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REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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