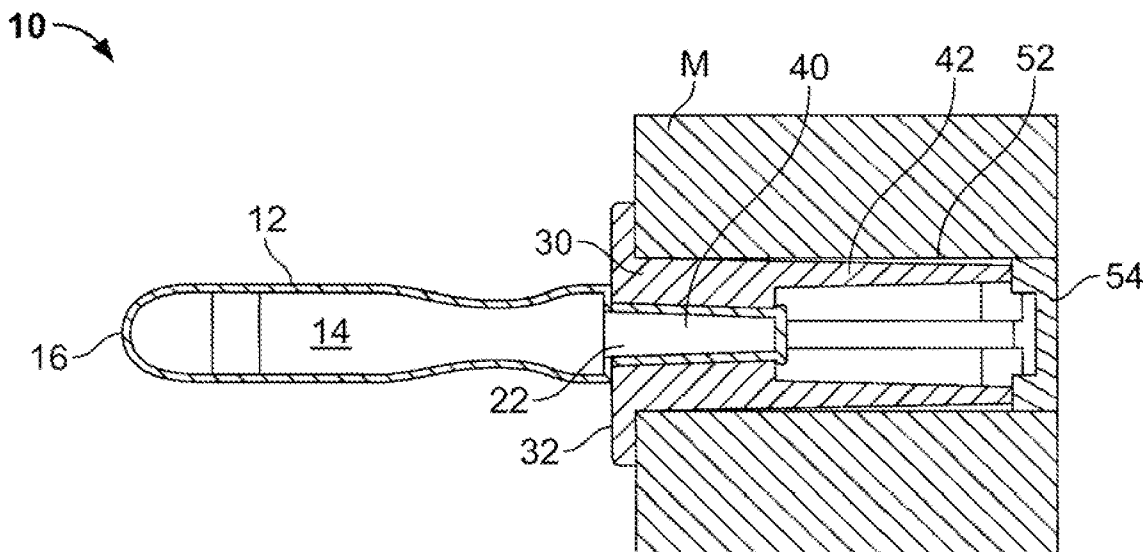


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(2006.01)



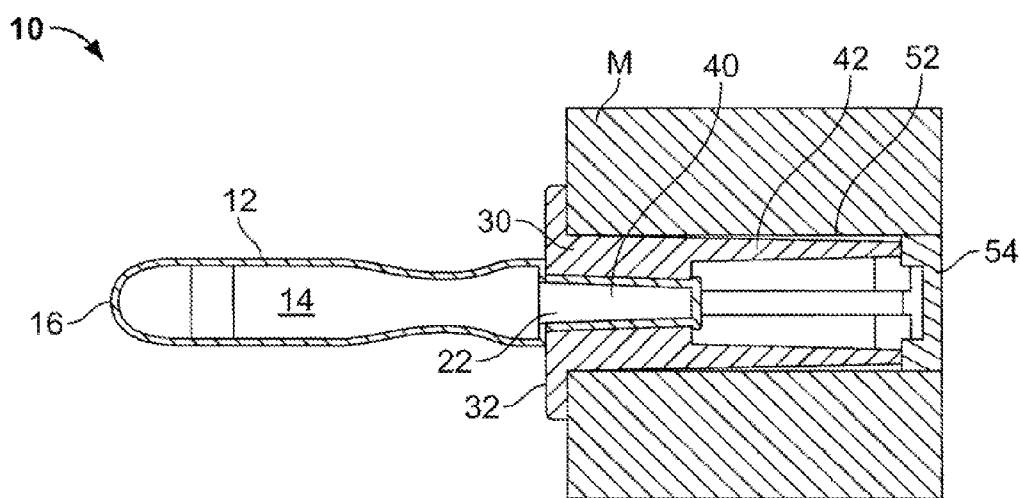


FIG. 1

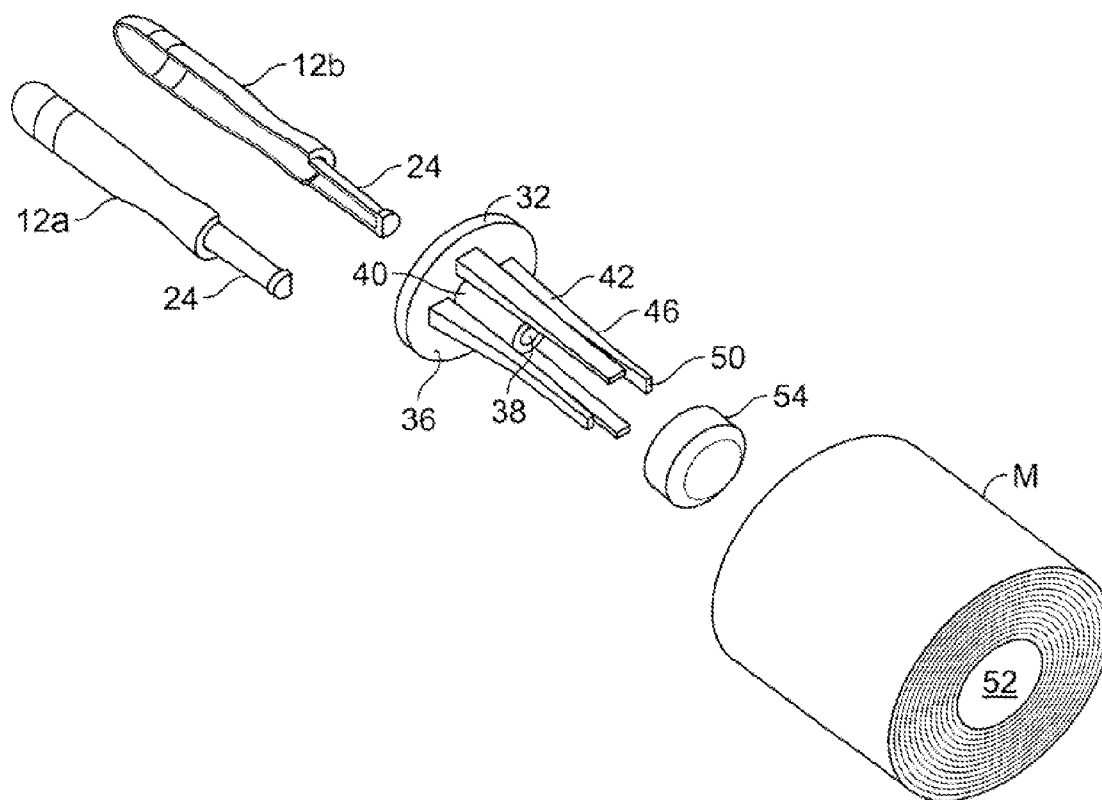


FIG. 2A

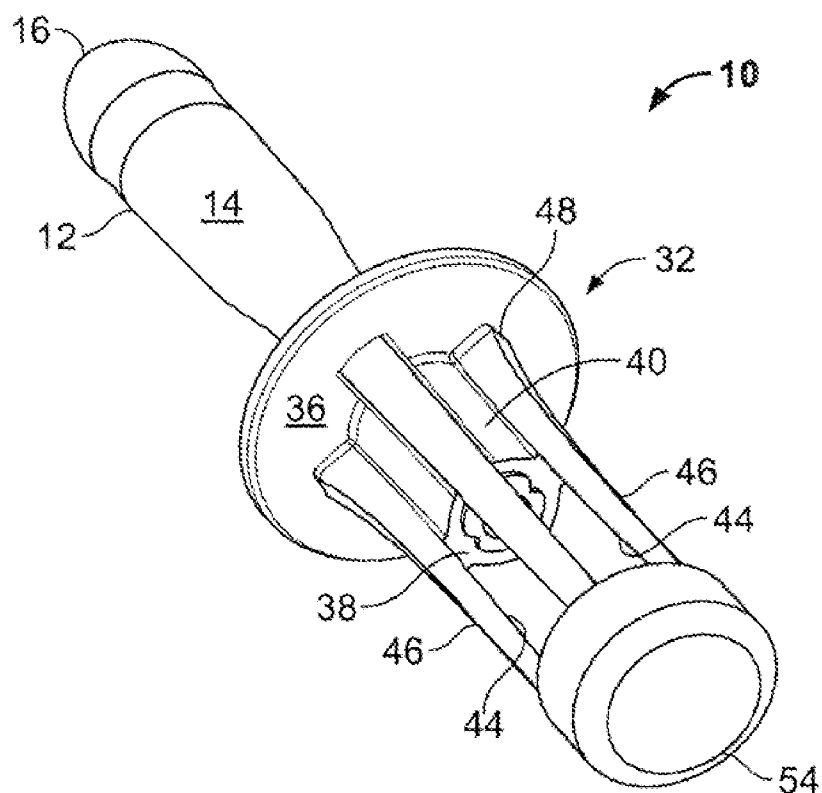


FIG. 2B

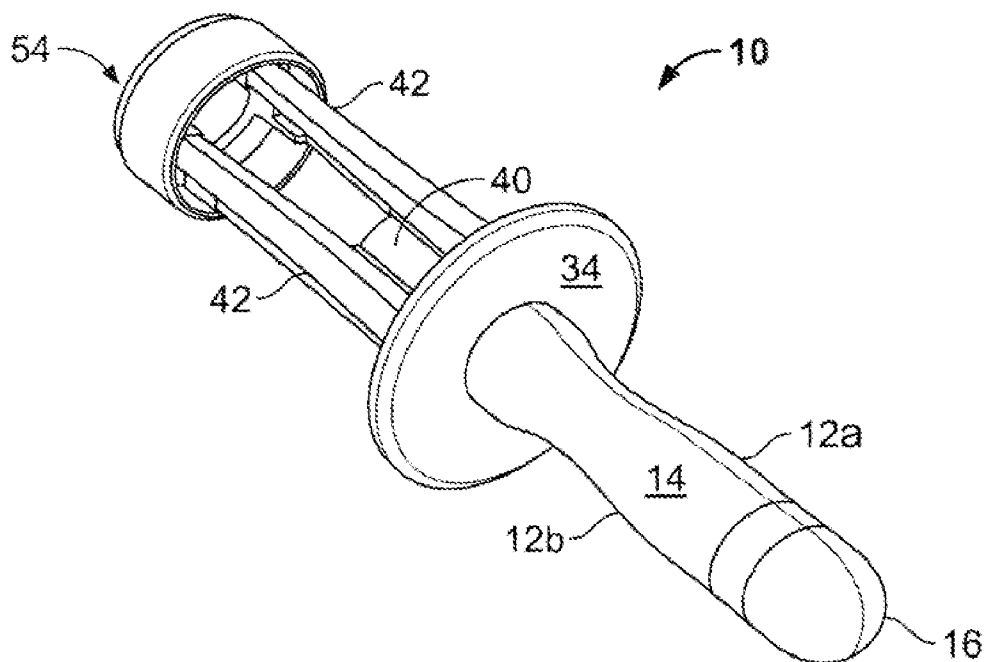


FIG. 2C

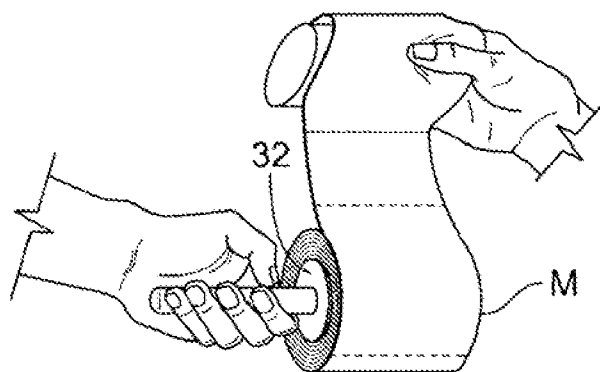


FIG. 3

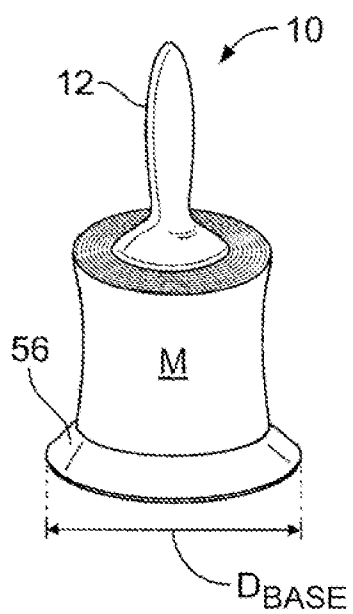


FIG. 4A

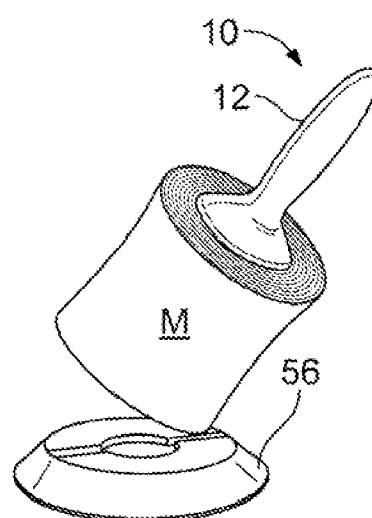


FIG. 4B

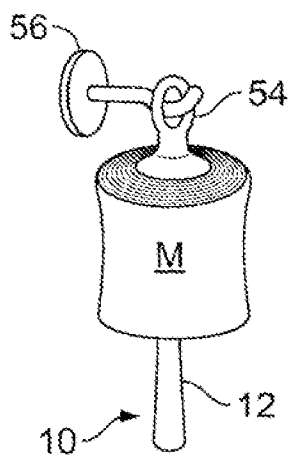


FIG. 5

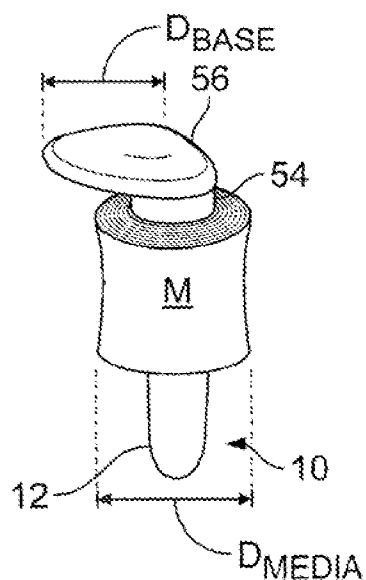


FIG. 6

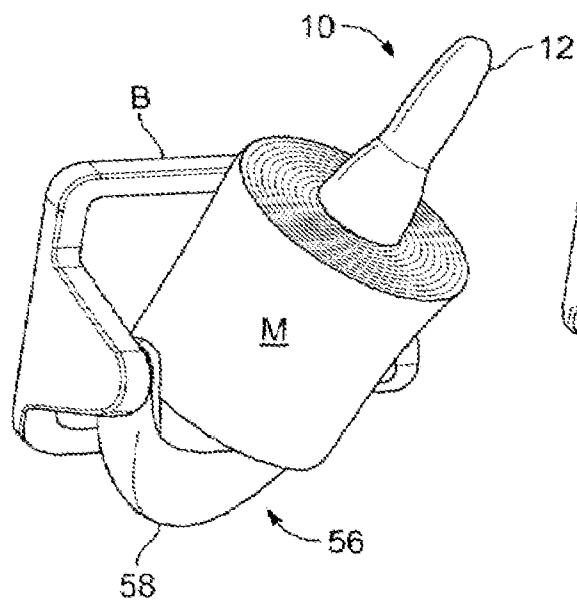


FIG. 7A

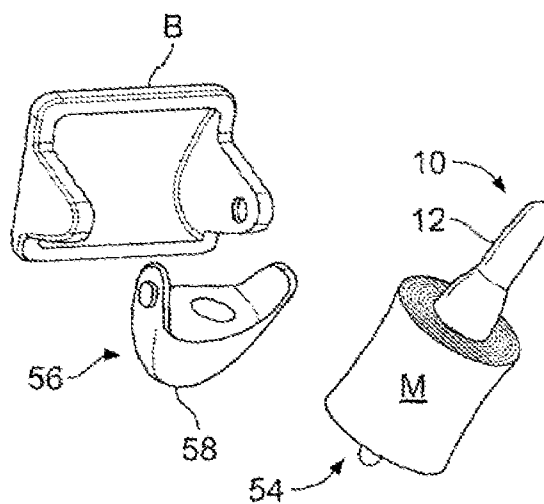


FIG. 7B

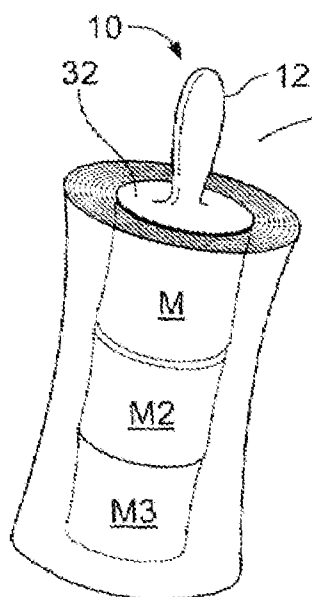


FIG. 8A

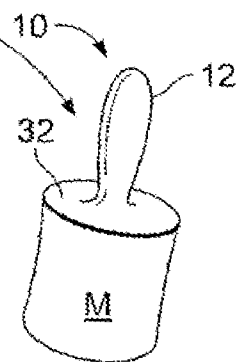


FIG. 8B

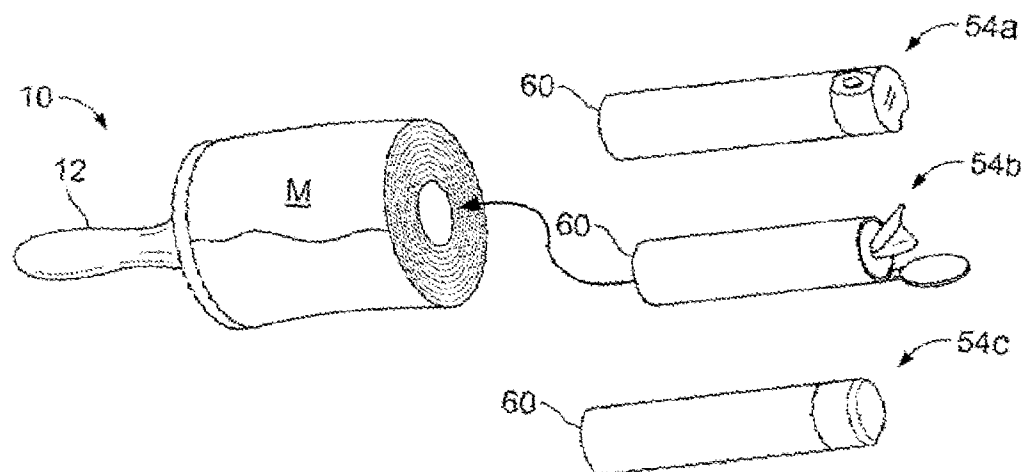


FIG. 9

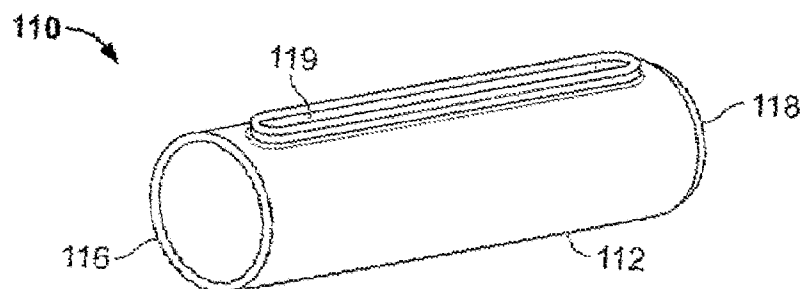


FIG. 10A

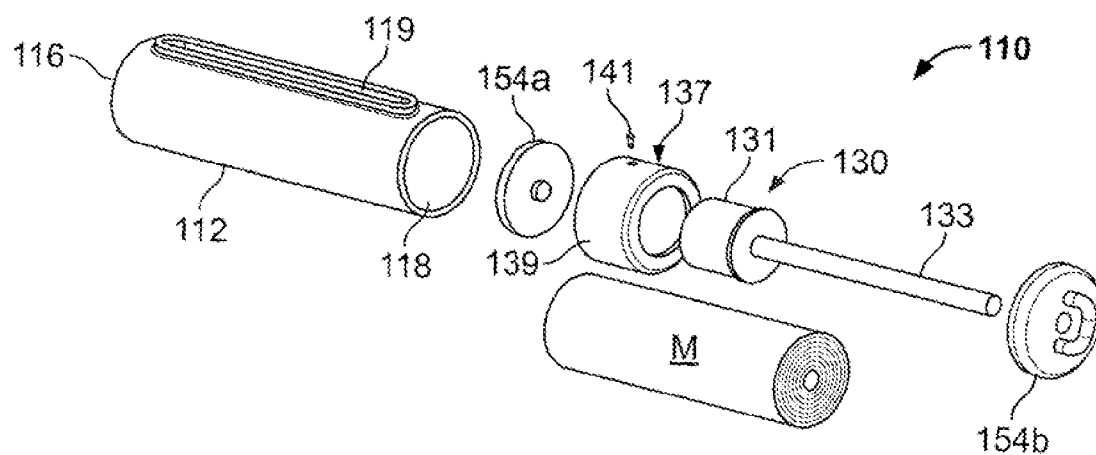


FIG. 10B

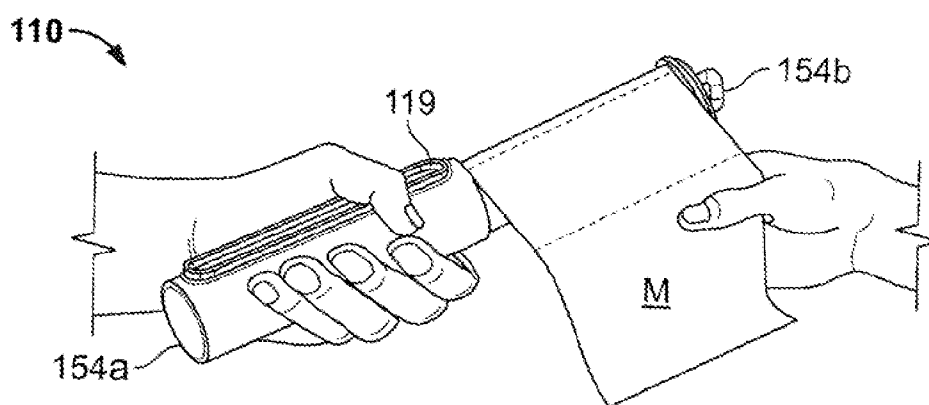


FIG. 10C

HAND HELD TOILET TISSUE DISPENSER

CROSS REFERENCE TO RELATED APPLICATION(S)

[0001] This application claims priority from U.S. Pat. App. No. 60/913,242 entitled Hand Held Toilet Tissue Dispenser filed on 20 Apr. 2007, and U.S. Pat. App. No. 60/992,033 entitled Hand Held Toilet Tissue Dispenser filed on 3 Dec. 2007, wherein the current application expressly incorporates by reference the full spirit and scope of the prior applications.

BACKGROUND

[0002] This invention relates to an apparatus, which simplifies the design of a media dispenser, while concurrently broadening the scope of usage, particularly, a media dispenser that provides increased, inter alia, portability, amenities, and hence convenience.

[0003] Historically, media dispensers have been applied to the deployment of flexible film roll (e.g., plastic wrap, or plastic film) about packing boxes/products onto a skid for shipping in order to secure the boxes as well as to lengthen the material via stretching, see U.S. Pat. No. 4,722,493 issued to Parry et al., FIG. 2; U.S. Pat. No. 4,817,762 to Powell; and U.S. Pat. No. 5,759,342 issued to Luhman et al. in addition to various other items on cylindrical rolls made of paper, cord, cloth, paper towels, and toilet tissue as set forth in U.S. Pat. No. 2,529,420 issued to Ramquist.

SUMMARY

[0004] The present invention is directed to a media dispensing device having the objective of portability.

[0005] A second objective is directed to a dispensing device handling various media, inter alia, toilet tissue, adhesive tape, paper towel, wipes.

[0006] A third objective is directed to a media dispensing device further including amenities, inter alia, cream, deodorizer, spray, and/or wet naps to supplement the experience.

[0007] A fourth objective is directed to retro fit standard media holders.

[0008] A fifth objective is directed to provide enclosed storage for the media.

[0009] A sixth objective is directed to provide a multipurpose travel aid.

[0010] A seventh objective is directed to providing audio commentary, particularly, promoting positive reinforcement regarding sanitary habits amongst children and/or the elderly.

[0011] An eighth objective is directed to providing a media dispensing device comprising a handle assembly having a longitudinal body with an axis extending therethrough, said body having a circumference ergonomically defined with a proximal and distal end, a spindle assembly having a height comprising a pressure disc having a radius ergonomically defined, a thickness, and a first and second side with a central axis extending therethrough, and being substantially circular in shape with a center portion having an orifice therein, said center portion being further defined by a substantially frustoconical portion extending radially outward from said second side substantially along said central axis, said center portion being configured and dimensioned to receive said distal end of said handle assembly having a common axis, said spindle assembly further having a plurality of longitudinal ribs having an inner and outer surface, and a proximal and distal end, said ribs radiating outwardly from said second side

along said common axis while being integrally formed with said disc and frustoconical portion, said ribs being configured and dimensioned radially about said frustoconical portion, with said outer surface to maintain substantial contact and sufficient pressure with the inner tubular surface of a desired media to hold it in a loaded position, and, optionally, an end cap operatively connected to said distal ends of said ribs.

[0012] A ninth objective is directed to providing a media dispensing device comprising: a handle assembly having a hollow longitudinal body having a length and an axis extending therethrough, said body having a circumference ergonomically defined with a proximal and distal end, and a continuous track between the proximal and distal ends; a spindle assembly having cylindrical longitudinal body with a length, wherein said cylindrical longitudinal body has a proximal and distal portion, said distal portion having a diameter less than the proximal portion, and a length greater than the width of the media to be used; the outer surface of said proximal portion being cooperatively connected within a sleeve bearing having an orifice to receive a pin to govern the travel of the spindle assembly within said track; and a proximal and distal end cap, wherein said proximal end cap is cooperatively connected to the proximal end of the sleeve bearing and is configured and dimensioned to travel within said hollow body, whereas the distal end cap is cooperatively connected to the distal portion and is configured and dimensioned to mate with the distal end of said hollow body.

[0013] Other objectives, advantages, and novel features of the present invention will become more apparent from the following detailed description when viewed in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The following drawings, in which like reference characters indicate like parts, are provided for illustration of the invention, and are not intended to limit the invention in any manner whatsoever.

[0015] FIG. 1 illustrates a cross-sectional view of a preferred embodiment of the present invention, having a roll of media engaged therewith;

[0016] FIG. 2a illustrates an exploded view of FIG. 1, having a first optional cap;

[0017] FIG. 2b illustrates an elevational view of FIG. 2a, but assembled without the media;

[0018] FIG. 2c illustrates an elevational view of FIG. 2a, assembled without the media, but with a different orientation;

[0019] FIG. 3 illustrates an elevational view of FIG. 1, during deployment of media;

[0020] FIG. 4a illustrates an elevational view of the present invention, with a second optional (magnetic) cap and a base supporting the device;

[0021] FIG. 4b illustrates an elevational view of FIG. 4a, wherein the device is detached from the optional base;

[0022] FIG. 5 illustrates an elevational view of the present invention, with a third optional cap with a first optional wall mount, namely, an eyelet and hook;

[0023] FIG. 6 illustrates an elevational view of the present invention, with a fourth optional cap with a second optional wall mount, namely, a magnetic interface;

[0024] FIG. 7a illustrates an elevational view of the present invention, with a fifth optional cap having a third optional wall mount deployed, namely, a male cap interfacing with a new style cross beam which retrofits an existing wall bracket;

[0025] FIG. 7*b* illustrates a quasi-exploded view of FIG. 7*a*;

[0026] FIG. 8*a* illustrates an elevational view of the present invention, further including an optional floor stand providing additional storage;

[0027] FIG. 8*b* illustrates the present invention of FIG. 8*a* removed from the optional floor stand;

[0028] FIG. 9 illustrates an elevational view of the present invention, with a sixth, seventh, and eighth optional caps, namely, a spray, wet naps, and/or cream;

[0029] FIG. 10*a* illustrates an elevational view of a second embodiment of the present invention in the closed or travel position;

[0030] FIG. 10*b* illustrates an exploded view of FIG. 10*a*, with a ninth optional cap, namely, a closed double based rail for optional use with a carabiner and/or key chain; and

[0031] FIG. 10*c* illustrates an elevational view of FIG. 10*a*, assembled, and extended during deployment of media.

DETAILED DESCRIPTION OF THE INVENTION

[0032] The following descriptions of the preferred embodiments are presented to illustrate the present invention and are not to be construed to limit the claims in any manner whatsoever. FIGS. 1 to 10C illustrate the present invention, which is directed to a media dispensing device.

[0033] FIGS. 1 to 3 illustrate a first embodiment of the present invention, namely, a media dispensing device 10 which comprises a handle assembly 12 having a longitudinal body 14 with an axis extending therethrough, said body 14 having a circumference ergonomically defined with a proximal and distal end 16, 18. Even though the handle assembly 12 is shown as a plurality of pieces, it is envisioned that the handle assembly 12 may be fabricated as one piece. Nonetheless, the distal end 18 of said handle assembly 12 is frustoconical having a large and small end 20, 22, wherein a protruding lip 24 extends radially outward from the axis about the small end 20 for engaging the distal end of the frustoconical portion 40 of the spindle assembly 30.

[0034] More specifically, the spindle assembly 30 having a height $H_{Spindle}$, which is less than the height of media used H_{Media} (e.g., $H_{Spindle} < H_{Media}$), wherein it is envisioned that the type of media to be deployed are paper towel, plastic wrap, tape, a textile, tin foil, toilet tissue, or wax paper, although the Figures illustrate a standard roll of toilet tissue; the assembly 30 comprising a pressure disc 32 having a radius ergonomically defined, a thickness, and a first and second side 34, 36 with a central axis extending therethrough, and being substantially circular in shape with a center portion 38 having an orifice therein, said center portion 38 being further defined by a substantially frustoconical portion 40 extending radially outward from said second side 36 substantially along said central axis, said center portion 38 being configured and dimensioned to receive said distal end 18 of said handle assembly 12 having a common axis, said spindle assembly 30 further having a plurality of longitudinal ribs 42 having an inner and outer surface 44, 46 and a proximal and distal end 48, 50, said ribs 42 radiating outwardly from said second side 36 along said common axis while being integrally formed with said disc 32 and frustoconical portion 40, said ribs 42 being configured and dimensioned radially about said frustoconical portion 40, with said outer surface 46 to maintain substantial contact and sufficient pressure with the inner tubular surface 52 of a desired media M to hold it (the media) in a

loaded position, and, optionally, an end cap 54 operatively connected to said distal ends 50 of said ribs 42.

[0035] The optional cap 54 may be selected from a plethora of choices and depends on the application desired and are illustrated in FIGS. 4 to 7B, & FIG. 9, wherein the cap 54 extends above the height H_{Media} of any media M used. FIG. 4 to 7B illustrate the cap 54 interfacing with a base 56 which provides a means to hold the device 10 in a storage position when not in use, whereas FIG. 4, 6, & 7 illustrate the base 56 having a height H_{Base} , a diameter D_{Base} , and a center C_{Base} , wherein said diameter D_{Base} is greater than the diameter D_{Media} of the media used (e.g., $D_{Base} > D_{Media}$), and optionally, the cap 54 and base 56 interface is magnetic.

[0036] FIG. 5 and 6 illustrate how the base 56 can be wall mounted, whereas in FIG. 4 and 6 the cap 54 and base 56 interface is magnetic. In FIG. 5, the cap 54 and base 56 interface is selected from the group consisting of: an eyelet, a hook.

[0037] FIG. 7 illustrates the base 56 as being configured and dimensioned to retrofit a standard toilet paper wall bracket B, and is u-shaped wherein the bottommost portion 58 is weighted greater than the weight of the handle assembly 12, the spindle assembly 30 and any loaded media M combined (e.g., $58_w > 12_w + 30_w + M_w$), such that said common axis is positioned substantially vertical when not in use.

[0038] FIGS. 8A & 8B illustrate the scenario wherein the base height H_{Base} is greater than the height of the media to be used H_{Media} (e.g., $H_{Base} > H_{Media}$), wherein the base 56 provides storage and protection thereof, and optionally, storage and protection of additional media M2, M3, wherein said pressure disc 32 has a diameter D_{Disc} that is greater than the diameter of the media to be used D_{Media} (e.g., $D_{Disc} > D_{Media}$), wherein a portion of said pressure disc 32 is supported by the top of the base 56 with the handle assembly 12 remaining external to the base 56.

[0039] FIGS. 9 illustrates the cap 54 which is a container having a body B having a bottom B_{Body} , a top T_{Body} , a height H_{Body} , a diameter D_{Body} , a length L_{Body} , and a thickness T_{Body} with an outer surface 72 that is configured and dimensioned to receive said ribs 42 such that a bottom 60 of said container cooperatively accepts the frustoconical portion 40 of said spindle assembly 30, wherein said container 54 when installed, is substantially within the spindle assembly 30. In this combination, the container 54 contains amenities selected from the group consisting of a cream 54*c*, a deodorizer, a lotion, a powder, a spray 54*a*, and wet naps 54*b*, and may further include a motion sensor (not shown) cooperatively connected to an audio means for providing commentary, for example, playing messages to positively reinforce good hygiene in children and/or the elderly.

[0040] In this first embodiment, a braking or tension control feature is incorporated via the pressure disc 32, wherein as the operator handles the device 10, a finger is pressed against the disc 32 to the desired tension while deployment of the media is undertaken, whether it is the surface 32, or the perimeter of the disc 32, or a combination thereof. Moreover, it is envisioned that a braking mechanism maybe incorporated with the device wherein activation thereof may be either via a button, or gripping trigger, and may be either positively or negatively set as the default, that is, the default may be that the media will not turn absent activation (i.e., release) by the operator (negative bias) or conversely, the media will not stop absent activation by the operator (positive bias).

[0041] FIGS. 10A to 10C illustrate a second embodiment of the present invention, namely, the travel version, which can easily be carried by e.g. commuters, by individuals that spend most of the time out of the office on the road, and/or outdoorsman. In this embodiment, the media dispensing device 110 comprises: a handle assembly 112 having a hollow longitudinal body 114 having a length and an axis extending therethrough, said body 114 having a circumference ergonomically defined with a proximal and distal end 116, 118, and a continuous track 119 between the proximal and distal ends 116, 118.

[0042] The device 110 further includes a spindle assembly 130 having cylindrical longitudinal body with a length, wherein said cylindrical longitudinal body has a proximal 131 and distal portion 133, said distal portion 133 having a diameter less than the proximal portion 131, and a length greater than the width of the media to be used; the outer surface 135 of said proximal portion 131 being cooperatively connected within a sleeve bearing 137 having an orifice 139 to receive a pin 141 to govern the travel of the spindle assembly 130 within said track 119.

[0043] Device 110 further includes a proximal and distal end cap 154a, 154b, wherein said proximal end cap 154a is cooperatively connected to the proximal end of the sleeve bearing 137 and is configured and dimensioned to travel within said hollow body 114, whereas the distal end cap 154b is cooperatively connected to the distal portion 133 and is configured and dimensioned to mate with the distal end 118 of said hollow body 114.

[0044] It is envisioned that the device 10, and particularly 110, is made from a material which incorporates an anti-bacterial suspension, in addition to further including a motion sensor (not shown) cooperatively connected to an audio means for providing commentary, for example, playing messages to positively reinforce good hygiene in children and/or the elderly, this is particularly evident in the travel version. Moreover, at least one end cap comprises a feature selected from the group consisting of a flashlight, a hook, and a carabiner (not shown).

[0045] All of the above referenced patents, patent applications, and publications are hereby incorporated by reference. Many variations of the present invention will suggest themselves to those of ordinary skill in the art in light of the above detailed description. All such obvious modifications are within the full-intended spirit and scope of the claims in present application.

What is claimed is:

1. A media dispensing device comprising:

a handle assembly having a longitudinal body with an axis extending therethrough, said body having a circumference ergonomically defined with a proximal and distal end,

a spindle assembly having a height comprising a pressure disc having a radius ergonomically defined, a thickness, and a first and second side with a central axis extending therethrough, and being substantially circular in shape with a center portion having an orifice therein, said center portion being further defined by a substantially frustoconical portion extending radially outward from said second side substantially along said central axis, said center portion being configured and dimensioned to receive said distal end of said handle assembly having a common axis, said spindle assembly further having a plurality of longitudinal ribs having an inner and outer

surface, and a proximal and distal end, said ribs radiating outwardly from said second side along said common axis while being integrally formed with said disc and frustoconical portion, said ribs being configured and dimensioned radially about said frustoconical portion, with said outer surface to maintain substantial contact and sufficient pressure with the inner tubular surface of a desired media to hold it in a loaded position, and, optionally, an end cap operatively connected to said distal ends of said ribs.

2. A media dispensing device as in claim 1, wherein said handle assembly comprises a plurality of interlocking pieces.

3. A media dispensing device as in claim 1, wherein said distal end of said handle assembly is frustoconical having a large and small end, wherein a protruding lip extends radially outward from the axis about the small end for engaging the distal end of the frustoconical portion of said spindle assembly.

4. A media dispensing device as in claim 1, wherein the height of the spindle assembly is less than the height of media used.

5. A media dispensing device as in claim 1, wherein the media comprises paper towel, plastic wrap, tape, a textile, tin foil, toilet tissue, or wax paper.

6. A media dispensing device as in claim 1, wherein the cap extends above the height of any media used.

7. A media dispensing device as in claim 6, wherein the cap interfaces with a base which provides a means to hold the device in a storage position when not in use.

8. A media dispensing device as in claim 7, wherein the base has a height, a diameter, and a center, wherein said diameter is greater than the diameter of the media used, and optionally, the cap and base interface is magnetic.

9. A media dispensing device as in claim 7, wherein said base is wall mounted.

10. A media dispensing device as in claim 9, wherein said cap and base interface is magnetic.

11. A media dispensing device as in claim 9, wherein the cap and base interface is selected from the group consisting of: an eyelet, a hook.

12. A media dispensing device as in claim 8, wherein said base is configured and dimensioned to retrofit a standard toilet paper wall bracket, and is u-shaped wherein the bottom-most portion is weighted greater than the handle assembly, the spindle assembly and any loaded media combined, such that said common axis is positioned substantially vertical when not in use.

13. A media dispensing device as in claim 8, wherein said base height is greater than the height of the media to be used, wherein the base provides storage and protection thereof, and optionally, storage and protection of additional media, wherein said pressure disc has a diameter that is greater than the diameter of the media to be used, wherein a portion of said pressure disc is supported by the top of the base with the handle assembly remaining external to the base.

14. A media dispensing device as in claim 6, wherein the cap is a container having a body having a bottom, a top, a height, a diameter, a length, and a thickness with an outer surface that is configured and dimensioned to receive said ribs such that a bottom of said container cooperatively accepts the frustoconical portion of said spindle assembly, wherein said container when installed, is substantially within the spindle assembly.

15. A media dispensing device as in claim **14**, wherein the container contains amenities selected from the group consisting of a cream, a deodorizer, a lotion, a powder, a spray, and wet naps.

16. A media dispensing device as in claim **1**, further including a motion sensor cooperatively connected to an audio means for providing commentary.

17. A media dispensing device comprising:

a handle assembly having a hollow longitudinal body having a length and an axis extending therethrough, said body having a circumference ergonomically defined with a proximal and distal end, and a continuous track between the proximal and distal ends;

a spindle assembly having cylindrical longitudinal body with a length, wherein said cylindrical longitudinal body has a proximal and distal portion, said distal portion having a diameter less than the proximal portion, and a length greater than the width of the media to be used; the outer surface of said proximal portion being cooperatively connected within a sleeve bearing having an ori-

fice to receive a pin to govern the travel of the spindle assembly within said track; and

a proximal and distal end cap, wherein said proximal end cap is cooperatively connected to the proximal end of the sleeve bearing and is configured and dimensioned to travel within said hollow body, whereas the distal end cap is cooperatively connected to the distal portion and is configured and dimensioned to mate with the distal end of said hollow body.

18. A media dispensing device as in claim **17**, wherein the device is made from a material which incorporates an antibacterial suspension.

19. A media dispensing device as in claim **17**, further including a motion sensor cooperatively connected to an audio means for providing commentary.

20. A media dispensing device as in claim **17**, wherein at least one end cap comprises a feature selected from the group consisting of a flashlight, a hook, and a carabiner.

* * * * *