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(54) **STORAGE CONTAINER AND DISPENSER FOR ROLLED WEB PRODUCTS**

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(58) **Field of Classification Search** 221/1-312 C
See application file for complete search history.

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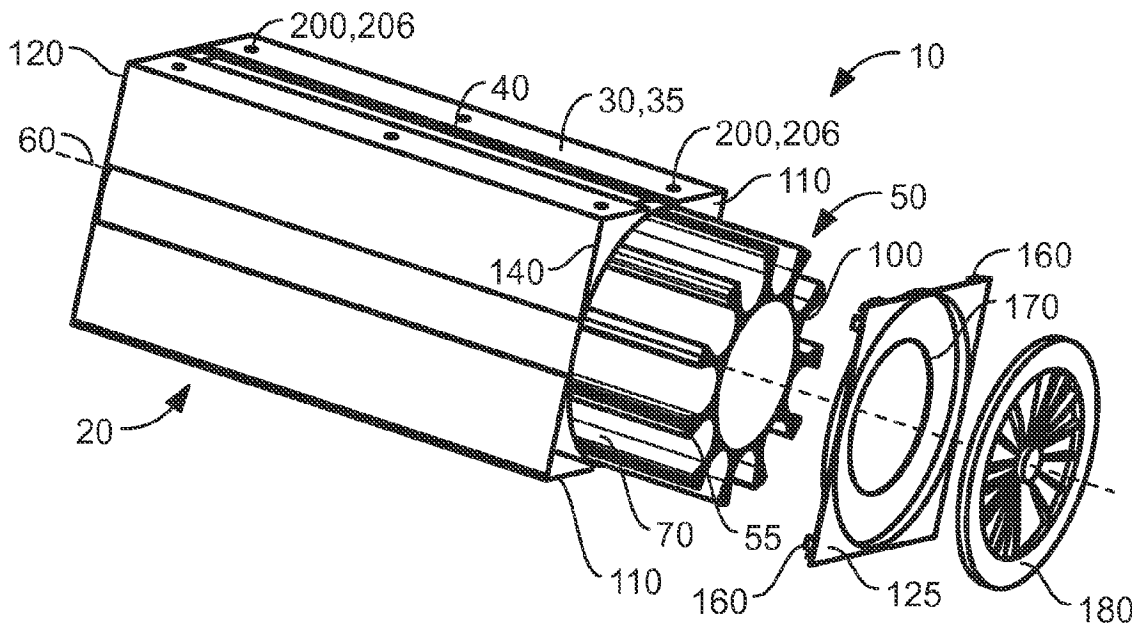
Assistant Examiner—Michael K Collins

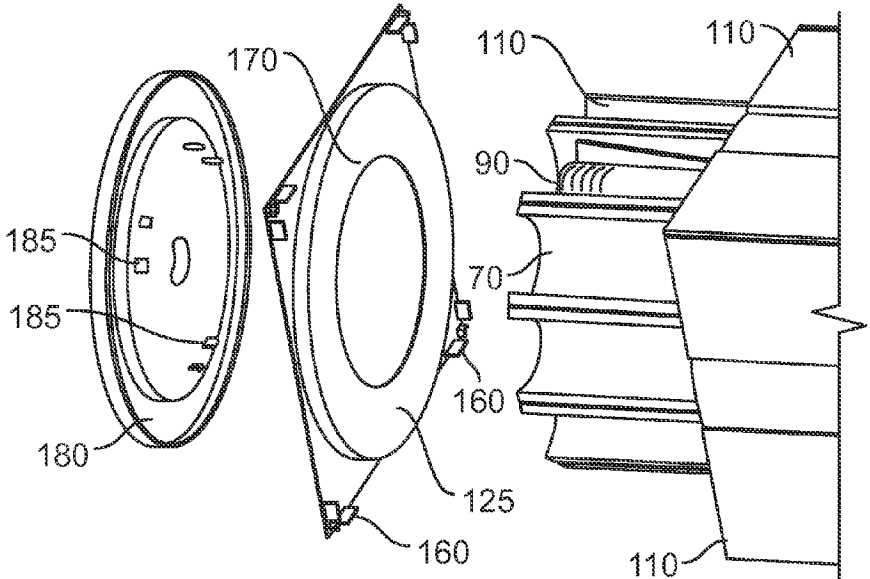
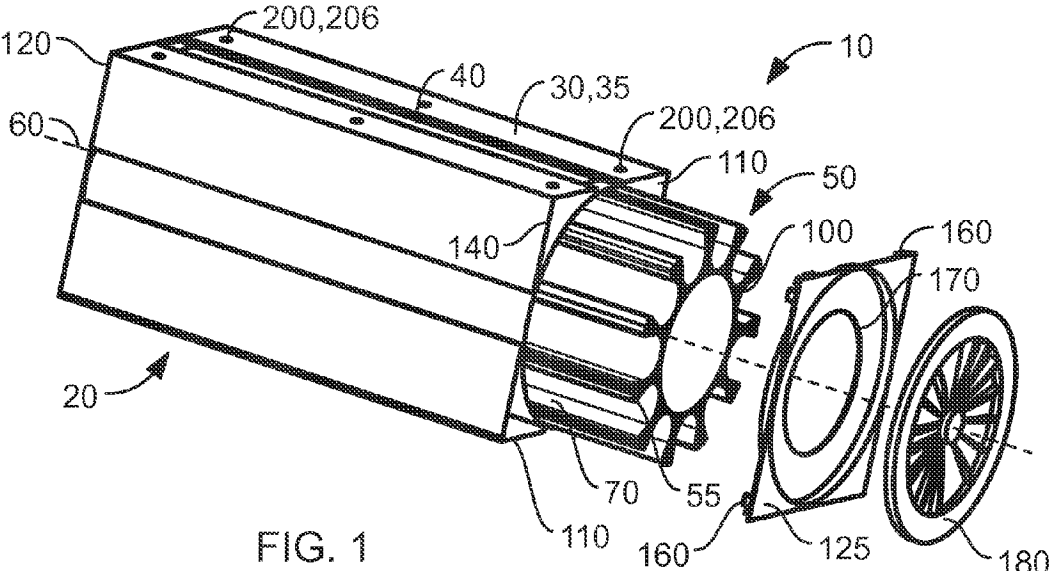
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(57) **ABSTRACT**

A container is disclosed for storage and dispensing of web roll products such as gift wrap. The container includes an elongated housing. A cylindrical barrel assembly is rotatably supported within the housing, and includes a plurality of roll storage cavities each having an open end and an open slot along a length thereof. A second end panel of the housing includes a rotatable cap frictionally attached to one end of the barrel assembly to rotate the barrel assembly within the housing. Removable storage boxes for storing gift-wrap related accessories are attachable to the housing. Wheels may be included on the housing to facilitate rolling the container.

5 Claims, 3 Drawing Sheets





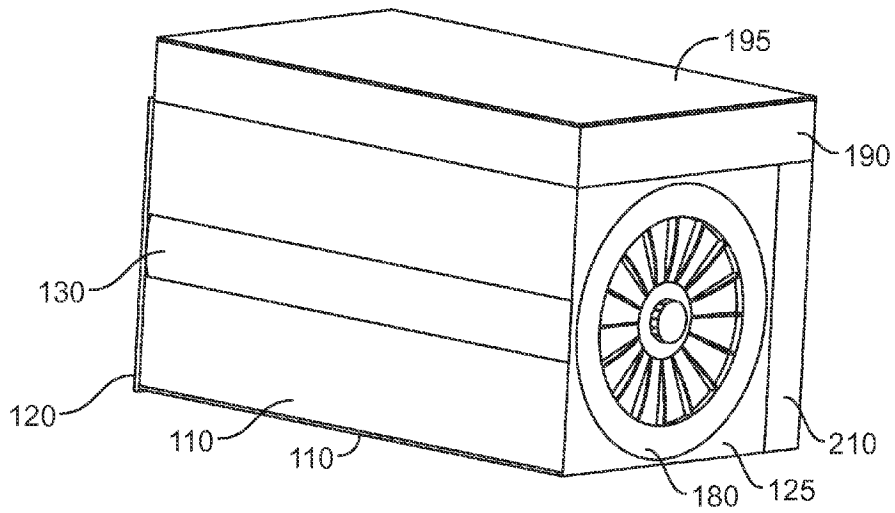


FIG. 3

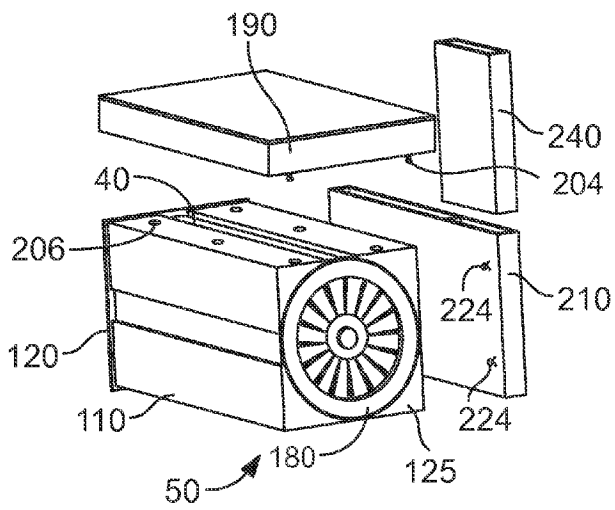


FIG. 4

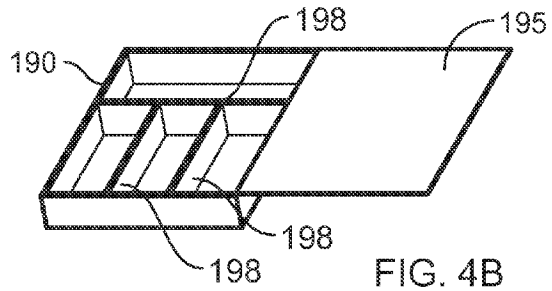


FIG. 4B

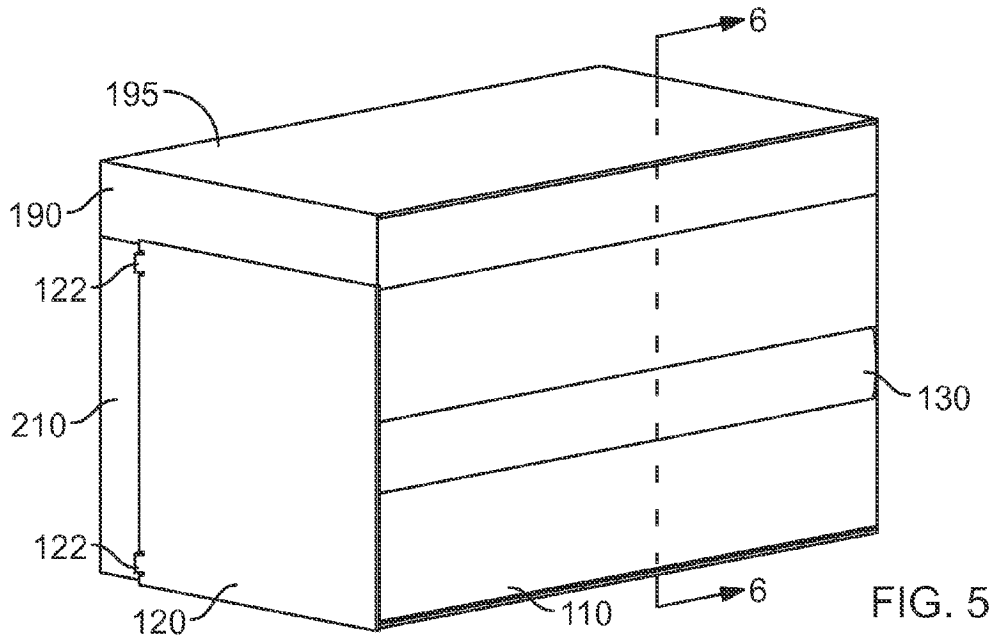


FIG. 5

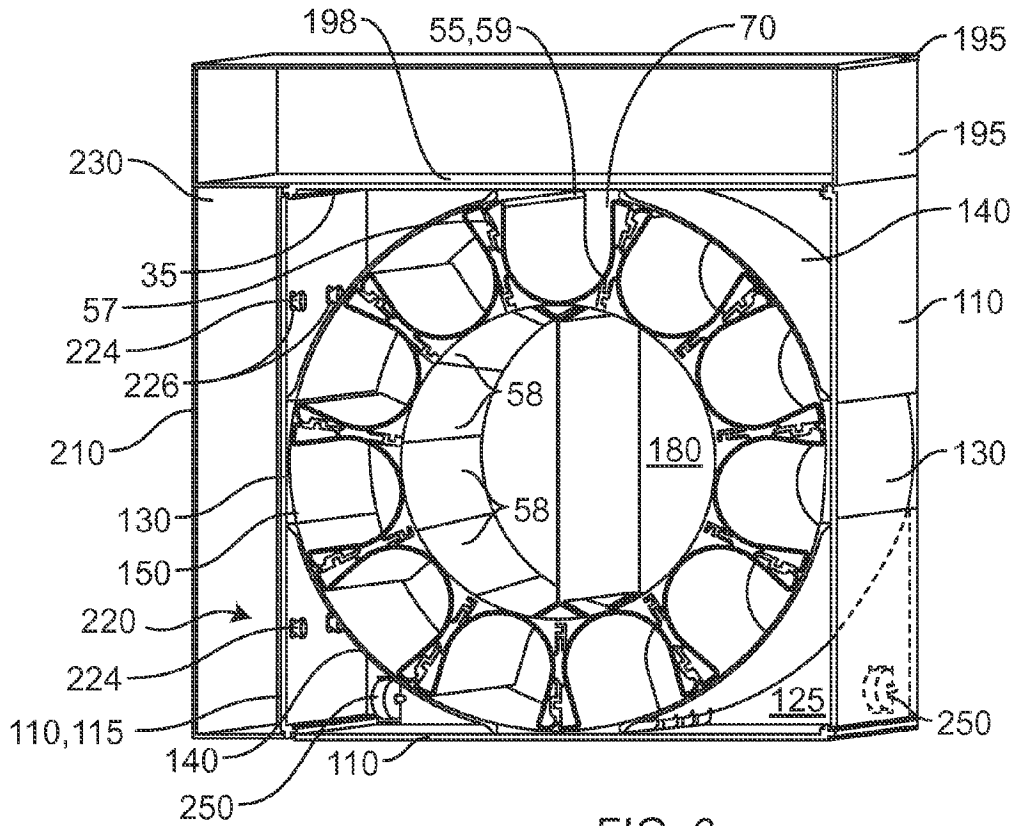


FIG. 6

STORAGE CONTAINER AND DISPENSER FOR ROLLED WEB PRODUCTS

FIELD OF THE INVENTION

This invention relates to storage containers, and more particularly to a storage container for rolled products such as wrapping paper.

DISCUSSION OF RELATED ART

Gift wrap is typically supplied to consumers on elongated rolls of about 30 inches in length. Consumers often store multiple such rolls in closets, under beds, in drawers, and the like, but the drawbacks associated with such disorganized storage areas are many. For example, having multiple rolls of gift wrap stored in a drawer makes it difficult to find any particular roll, since the other rolls may be stacked above the desired roll and many of these rolls may be in various stages of unrolling. When paper unrolls in such a drawer or other storage areas, it often becomes creased or torn, and thereafter must be discarded as waste.

Further, due to the disparity between the dimensions of a typical roll of gift wrap and related accessories, such as rolls of tape, ribbon, paper clips, tags, labels, scissors, pens, and the like, it is often disadvantageous to store such items together. Locating a pair of scissors under a stack of multiple rolls of gift wrap and ribbon typically results in the further disorganization of the storage area, as disturbing rolls of gift wrap that are not secured in some fashion, such as by rubber band or the like, usually results in the roll of gift wrap unrolling.

Various products have been devised to keep rolled web-type material such as gift wrap stored in an organized fashion. For example, U.S. Patent application 2003/0230665 to Small on Dec. 18, 2003 discloses a gift wrap cutting and holding system with a rotating holder. Such a device, while maintaining a plurality of rolls of gift wrap organized, is itself difficult to store and does not prevent dust or dirt from settling on the rolls of gift wrap. Further, no provision is made in such a device for storing scissors, ribbons, tape, and related gift wrapping accessories.

U.S. Pat. No. 6,003,668 to Joyce on Dec. 21, 1999, and U.S. Pat. No. 5,941,476 to Copas on Aug. 24, 1999, each disclose a covered gift wrap holder for rolls. Such devices have similar drawbacks to the Small device in that provision is not included for storing gift wrap accessories. Further, such devices provide little protection against the gift wrap from unrolling while being stored, as the free end of the gift wrap on each roll is open to the container and as such is free to unroll. U.S. Pat. No. 5,819,935 to Lawson on Oct. 13, 1998 discloses a similar device with similar drawbacks.

U.S. Pat. No. 3,546,850 to Hatanaka et al on Dec. 15, 1970 discloses a complicated coin-operated wrapping paper storage and dispensing machine. A rotary disk with a plurality of holders provides a multiple gift wrap roll storage and dispensing device that does not have many of the drawbacks mentioned heretofore, but is quite complex in its design. Each roll of gift wrap has electronic dispensing means between frictional rollers that keep the rolls from unrolling while stored. Such a device is too costly for the average consumer to purchase, and would additionally require ample space to store.

U.S. Pat. No. 2,336,496 to Miller on Dec. 14, 1943, illustrates a map or chart holder that includes a rotating cylinder with a plurality of maps or charts wound on spring-loaded shafts. Such a device, while useful for maps or charts that are

to be retained, is not suitable for gift wrap or other web product that is meant to be dispensed.

U.S. Pat. No. 1,462,333 to Girard on Jul. 17, 1923, illustrates a fabric dispenser that includes a plurality of holding cylinders with longitudinal slots, all of the cylinders being retained at one end thereof around a common circumference of a rotating disk. Such a device does not make provision for the storage of accessory items and is itself difficult to stow away. Further, the longitudinal slots formed in the cylinders of such a device, designed for the egress of the fabric or web product to be dispensed thereby, are too small for a user's fingers to be able to reach into the cylinder to grasp the free end of the rolled product. As a result, such a device is difficult and frustrating to use.

Clearly, then, there is a need for a storage and dispensing container for gift wrap and other rolled products that overcomes the aforementioned drawbacks. Such a needed device would provide storage and quick dispensing for a plurality of such rolls, yet keep dust and debris away from the rolls when stored. Such a needed device would provide for auxiliary storage of related accessories, such as tape, scissors, gift bags, or the like, and would be easy to stack one on another. Moreover, such a needed device would facilitate the quick location of a desired gift wrap roll, such roll being easy to remove from the device if desired. The present invention accomplishes these objectives.

SUMMARY OF THE INVENTION

The present device is a storage and dispensing container for convenient storage and dispensing of web roll products such as gift wrap. The container of the present invention includes an elongated housing having a top panel with an elongated slot therein, and three side panels. The side panels and the top panel essentially form a hollow tube with a square cross-section. Further, the housing includes a first end panel and a second end panel. The first end panel is hingably attached to one side panel.

A cylindrical barrel assembly is rotatably supported within the housing, and includes a plurality of roll storage cavities each having an open end and an open slot along a length thereof and open to the outside surface of the barrel assembly. As such, the barrel assembly may be rotated within the housing to align the open slot of a desired cavity with the elongated slot of the top panel of the housing. As such, one of the gift wrap rolls stored in the desired cavity of the barrel assembly may be dispensed therethrough, either by manually removing the roll or by grasping the gift wrap sheet itself and pulling away from the container.

Arcuate corner panels are frictionally retained between elongated and concave center ridges of each adjacent top panel or side panel. Such arcuate corner panels cooperate in curvature with the concave center ridges to form a generally cylindrical void for rotatably retaining the barrel assembly therein. The arcuate corner panels each further form one side of a generally triangular open area within the housing where additional rolls of gift wrap or other items may be stored. Such open areas within the housing can be easily accessed by opening the first end panel.

Preferably the barrel assembly further includes a hollow portion formed from one end to the other thereof for storing additional gift wrap rolls or other items. While gift wrap stored therein is not dispensable through the open slot, such rolls are conveniently accessed by opening the first end panel.

The second end panel preferably includes a circular cut-out centered within the generally square end panel. A rotatable cap is frictionally attached to one end of the barrel assembly

with locking tabs, the cap at least partially protruding from the circular cut-out, such that rotating the cap causes the barrel assembly to rotate within the housing.

A first storage box is preferably included for covering the elongated slot of the top side. The first storage box and the top side further include frictional engagement means for temporarily securing the first storage box to the top side of the housing. A second storage box is preferably included for removable attachment to one of the side panels, and a frictional engagement means is included for securing the second storage box to the one side panel of the housing. The second storage box is preferably open on a side adjacent to the top side of the housing when the second storage box is fixed to the one side panel. As such, with both the first storage box and the second storage box retained on the housing, the first storage box covers the open side of the second storage box, thereby keeping any items stored in the second storage box retained therein. One such item is preferably a third storage box, sized accordingly to fit securely within a portion of the second storage box.

Wheels may be included in the first end panel, or on opposing side panels, such that when the container is rested on the wheels the container may be easily rolled along a surface. A handle may be included on or formed in a part of the housing opposite the wheels to facilitate the rolling the housing along the surface.

The present invention achieves the objectives of providing convenient storage and dispensing of rolled web products, as well as the objective of keeping such products dust-free while stored. The present device may be disassembled and packaged in a compact fashion to facilitate transportation and retail display thereof, and then easily assembled for use. Multiple such containers may be stacked easily due to the regular parallelepiped shape of the container. Moreover, such a container of the present invention provides for convenient auxiliary storage of related accessories, such as tape, scissors, gift bags, or the like. Other features and advantages of the present invention will become apparent from the following more detailed description, taken in conjunction with the accompanying drawings, which illustrate, by way of example, the principles of the invention.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a partial exploded view of the invention, illustrating a rotating cap fixed to a barrel assembly through an end panel, the barrel assembly being supported within a housing;

FIG. 2 is a partial exploded view of the invention, illustrating a rolled product contained in a storage cavity of the barrel assembly;

FIG. 3 is a perspective view of the invention as assembled, illustrating the housing with a first and second storage box fixed thereto, and further illustrating the rotating cap;

FIG. 4 is an exploded view of the invention, illustrating how the first storage box covers an elongated slot in the housing through which the rolled product may be dispensed, and further illustrating a third storage box contained in the second storage box;

FIG. 4B is a perspective view of the first storage box in an open position;

FIG. 5 is a perspective view of the invention, illustrating an end panel through which rolled products may be inserted into the cavities of the barrel assembly; and

FIG. 6 is a cross-sectional view of the invention, taken generally along lines 6-6 of FIG. 5.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The present invention is a web roll storage and dispensing container **10** for convenient storage and dispensing of web roll products **90** such as gift wrap, screen material, fabric and like products. The preferred embodiment herein described is for use principally with gift wrap **90** (FIG. 2), but could clearly be used to store and dispense other products.

Referring to FIG. 1, the container **10** of the present invention includes an elongated housing **20** having at least one top side **30** that includes a top panel **35** with an elongated slot **40** therein. The elongated slot **40** is generally parallel to the length of the housing **20**, which is substantially a parallelepiped and further includes three side panels **110** in addition to the top panel **35** (FIG. 6). The side panels **110** and the top panel **35** essentially form a hollow tube with a preferably square cross-section. Further, the housing **20** includes a first end panel **120** and a second end panel **125** (FIGS. 1 and 5). The first end panel **120** is preferably hingably connected to one side panel **115** at hinges **122** such that, when in an open position, access is provided to the inside of the housing **20**. Alternately, the first end panel **120** may be slidably attached to the housing **20** without the need for using hinges **122**. The housing **20** is preferably formed of a rigid plastic or other suitable material that is light-weight yet relatively strong. The housing may also be formed of sheet metal for industrial applications requiring more durability.

A substantially cylindrical barrel assembly **50** is supported within the housing **20** and is rotatable about an axis **60** that is generally parallel to the length of the housing **20**. The barrel assembly **50** comprises a plurality of web roll storage cavities **70**, each proximate to an outer surface **55** of the barrel assembly, and each cavity **70** having an open end **80** for receiving one web roll **90** therein. The open end **80** of each cavity faces the first end panel **120**, such that access is provided to each cavity **70** when the first end panel **120** is in the open position. Further, each cavity **70** includes an open slot **100** along a length thereof and open to the outside surface **55** of the barrel assembly **50** (FIG. 6). The slot **100**, as well as the elongated slot **40** in the top side **30**, are each preferably wide enough to allow removal of the gift wrap roll **90** therethrough if desired.

With the barrel assembly **50** being supported within the housing **20**, the barrel assembly **50** may be rotated within the housing **20** to align the open slot **100** of a desired web roll cavity **70** with the elongated slot **40** of the top side **30** of the housing **20**. As such, one of the gift wrap rolls **90** stored in the desired cavity **70** of the barrel assembly **50** may be dispensed therethrough, either by manually removing the roll **90** or by grasping the gift wrap sheet itself and pulling. As the cavity **70** is generally cylindrical in shape, the gift wrap roll **90** will unwind within the cavity **70** when the gift wrap sheet is pulled, gravity holding the roll **90** within the cavity **70**. As such, the container **10** provides for flexibility in dispensing the gift wrap **90**.

Wedge-shaped detents (not shown) may be included in the corner panels **140** or the center ridges **130** to allow rotation of the barrel assembly **50** in only one direction, the paper rolls being inserted in such a way that they do not unroll when the barrel assembly **50** is rotated in the said one direction. Alternatively, horseshoe clips, stays, or hook-and-loop type straps, or the like, for keeping paper from unrolling may be wrapped around each roll **90**.

To facilitate the rotation of the barrel assembly **50** within the housing **20**, each side panel **110** and the top panel **35** includes an elongated concave center ridge **130** that is generally parallel to the length of the housing **20** and corresponds in

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curvature to the curvature of the outer surface **55** of the barrel assembly **50**. In this manner the barrel assembly **50** is at least partially supported by at least one of the center ridges **130** when the barrel assembly **50** is supported within the housing **20** and the housing **20** is supported on a flat surface (not shown) on one of the side panels **110**.

Further, arcuate corner panels **140** are frictionally retained between the center ridges **130** of each adjacent top panel **35** or side panel **110**. As best illustrated in FIG. **6**, such arcuate corner panels **140** cooperate in curvature with the concave center ridges **130** to form a generally cylindrical void **150** for rotatably retaining the barrel assembly **50** therein. The arcuate corner panels **140** each further form one side of a generally triangular open area within the housing **20** where additional rolls of gift wrap or other items (not shown) may be stored. Such open areas within the housing **20** can be easily accessed by opening the first end panel **120**.

In the preferred mode of the invention, the barrel assembly **50** comprises a plurality of identical elongated cavity arcs **58**, each of which are adapted for frictional engagement to one another, such that the plurality of assembled arcs **58** form the cylindrical barrel assembly **50**. Each cavity arc **58** includes one of the web roll storage cavities **70** on an outer surface **59** thereof, and each cavity arc **58** includes an elongated tongue-and-groove section **57** on each side thereof for frictional engagement with a corresponding tongue-and-groove section **57** on one side of one of the other cavity arcs **58**. As such the cavity arcs **58**, being of uniform cross-section, may be extruded and thereby made relatively inexpensively from an extrudable material that becomes rigid, such as plastic, or the like. Further, such cavity arcs **58**, when disassembled, may be stored together in a compact fashion with the other components of the container **10** for efficient shipping and retail display.

FIG. **6** illustrates a barrel assembly **50** having **11** arcs **58**, each having opposite sides sloped approximately **32.7** degrees with respect to one another, so that **11** such arcs **58** assembled together form the **360** degree cylindrical barrel assembly **50**. Clearly, however, barrel assembly **50** may have any number of different arcs **58** provided that the size of the arc **58** allows room for one cavity **70** and provided that the total number of arcs **58** together form a generally **360** degree cylindrical barrel assembly **50**.

Preferably the barrel assembly **50** further includes a hollow portion from one end to the other thereof for storing additional gift wrap rolls **90** or other items. While gift wrap stored therein (not shown) is not dispensable through the open slot **40**, such rolls are conveniently accessed by opening the first end panel **120**. A support panel **53** may be further included (FIG. **6**) for strengthening the barrel assembly **50** and for dividing the hollow portion into a plurality of sub-portions for allowing further organizing of any gift wrap rolls **90** stored therein.

Referring now to FIGS. **1** and **2**, the second end panel **125** preferably includes a circular cut-out **170** centered within the generally square end panel **125**. A rotatable cap **180** is frictionally attached to one end of the barrel assembly **50** with locking tabs **185**, the cap **180** at least partially protruding from the circular cut-out **170**, such that rotating the cap **180** causes the barrel assembly **50** to rotate within the housing **20** when the second end panel **125** is fixed at one end of the housing **20**. The second end panel **125** preferably includes locking tabs **160** for securing the second end panel **125** to the side panels **110** and the top panel **35** (FIG. **3**), as is known in the art. Preferably a portion **126** of the second end panel **125** is offset towards the inside of the housing **20** from the rest of the second end panel **125** such that the cap **180** does not

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extend past the second end panel **125** when the container **10** is resting on the flat surface on its second end panel **125**. In such a manner the container **10** is prevented from wobbling on the second end panel **125** when supported on the flat surface thereby.

A first storage box **190** is preferably included for covering the elongated slot **40** of the top side **30**. The first storage box **190** and the top side **30** further include frictional engagement means **200** for temporarily securing the first storage box **190** to the top side **30** of the housing **20** (FIGS. **3** and **4**). Preferably the frictional engagement means **200** includes a plurality of locking tabs **204** protruding from a bottom surface of the first storage box **190**, and corresponding locking holes **206** formed in the top side **30** of the housing **20**. In use, the first storage box **190** may be manually, frictionally retained on the housing **20**, and then easily removed by pulling same manually away from the housing **20**. The first storage box **190** is preferably made from the same plastic material as the housing **20**, and further includes a top **195** that is hingably connected to the first storage box **190** on one side, and frictionally engages the first storage box **190** at the other side when closed. The top **195** is slightly deeper than the first storage box **190** so that a lip portion of the top **195** may be easily pressed upward away from the first storage box **190** to open the top **195**. Items related to gift wrapping may be stored in the first storage box **190**, and several compartments may be included to organize such items (FIG. **4**).

A second storage box **210** is included for removable attachment to one of the side panels **115**, the one side panel **115** being adjacent to the top side **30**. A frictional engagement means **220**, similar to that of the first storage box **190**, is included for securing the second storage box **210** to the one side panel **115** of the housing **20**. The second storage box **210** is preferably open on a side **230** adjacent to the top side **30** of the housing **20** when the second storage box **210** is fixed to the one side panel **115** (FIGS. **4** and **6**). The frictional engagement means **220** preferably includes a plurality of locking tabs **224** protruding from a bottom surface of the second storage box **210**, and corresponding locking holes **226** formed in the one side panel **115** of the housing **20**, whereby the second storage box **210** may be frictionally secured on the housing **20**. As such, with both the first storage box **190** and the second storage box **210** retained on the housing **20**, the first storage box **190** covers the open side **230** of the second storage box **210**, thereby keeping any items stored in the second storage box **210** retained therein. One such item is preferably a third storage box **240**, sized accordingly to fit securely within a portion of the second storage box **210**. The second and third storage boxes **210**, **240** are preferably each made from the same rigid plastic material as the first storage box **190**.

Wheels **250** may be included in the side panel **125**, or on opposing side panels **110**, such that when the container is rested on the wheels **250** the container may be easily rolled along a surface (not shown). A handle (not shown) may be included on or formed in a part of the housing **20** opposite the wheels **250** to facilitate the rolling the housing **20** along the surface.

In use, the container **10** is assembled and the first end panel **120** is opened so that various gift wrap rolls may be inserted into the open ends of the web roll cavities **70**, the hollow sections of the barrel assembly **50**, and the triangular portions formed between the arcuate corner panels **140** and the side panels **110** and top panel **35**. With the first end panel **120** closed, the user removes the first storage box **190** and rotates the cap **180** such that a desired gift wrap roll **90** becomes aligned with the elongated slot in the top side **30**. The roll **90**

is either removed entirely from the cavity **70**, or the gift wrap paper sheet itself is grasped and pulled from the roll **90** until a desired length is unrolled. Optionally, an edge (not shown) of the elongated slot may be formed as a sharp acute angle such that pulling the gift wrap against such edge with one hand while holding the gift wrap roll **90** firmly inside the cavity **70** such that it cannot further unroll results in a clean tear of the gift wrap at the desired length. Such a sharp edge may be reinforced with a metallic or other suitable blade-like structure, if desired.

Accessories stored in any of the boxes **190**, **210**, **240** may be removed to facilitate the wrapping of, for example, a gift (not shown). Upon completion thereof, the user stows said accessories and re-assembles the container **10**. The container **10** may then be put into a closet or into another convenient storage area until needed again. Further, the regular shape of the housing **20** provides for stable storage of the container **10** either in a vertical or horizontal orientation. All gift wrap rolls and accessories therefore remain organized within the container **10**.

While a particular form of the invention has been illustrated and described, it will be apparent that various modifications can be made without departing from the spirit and scope of the invention. For example, the materials used to manufacture the housing **20**, barrel assembly **50**, and storage boxes **190**, **210** and **240** may vary based on the needs of the environment in which the container **10** will be used, provided same are made from a rigid material. Further, wheels **250** may or may not be included, and the exact number of arcs **58** may vary as to the needs of the environment and the size of the web rolls **90** with which the container **10** will be used. Accordingly, it is not intended that the invention be limited, except as by the appended claims.

What is claimed is:

1. A web roll storage and dispensing container comprising: an elongated housing having at least one top side, the top side including an elongated slot generally parallel to the length of the housing; and
 - a generally cylindrical barrel assembly supported within the housing and rotatable about an axis generally parallel to the length of the housing, the barrel assembly comprising a plurality of web roll storage cavities each proximate to an outer surface of the barrel assembly, each cavity having an open end for receiving one web roll therein, each cavity further including an open slot along a length thereof and open to the outside surface of the barrel assembly; and
 - a first storage box for covering the elongated slot of the top side, the first storage box and the top side further including frictional engagement means for securing the first storage box to the top side of the housing, the frictional engagement means including a plurality of locking tabs

- protruding from a bottom surface of the first storage box, and corresponding locking holes formed in the top side of the housing;
- whereby the first storage box may be frictionally retained on the housing, and the barrel assembly may be rotated to align the open slot of a desired web roll cavity with the elongated slot of the top side of the housing such that one of the web rolls stored in the desired cavity of the barrel assembly may be dispensed therethrough.
2. A web roll storage and dispensing container comprising: an elongated housing having at least one top side, the top side including an elongated slot generally parallel to the length of the housing; and
 - a generally cylindrical barrel assembly supported within the housing and rotatable about an axis generally parallel to the length of the housing, the barrel assembly comprising a plurality of web roll storage cavities each proximate to an outer surface of the barrel assembly, each cavity having an open end for receiving one web roll therein, each cavity further including an open slot along a length thereof and open to the outside surface of the barrel assembly;
 - a first storage box for covering the elongated slot of the top side, the first storage box and the top side further including frictional engagement means for securing the first storage box to the top side of the housing; and
 - a second storage box for removable attachment to one of the side panels, the second storage box and the one of the side panels further including frictional engagement means for securing the second storage box to the one of the side panels of the housing, the one of the side panels being adjacent to the top side of the housing, the second storage box being open on a side thereof adjacent to the top side of the housing;
 - whereby the barrel assembly may be rotated to align the open slot of a desired web roll cavity with the elongated slot of the top side of the housing such that one of the web rolls stored in the desired cavity of the barrel assembly may be dispensed therethrough.
 3. The container of claim **2** wherein the frictional engagement means includes a plurality of locking tabs protruding from a bottom surface of the second storage box, and corresponding locking holes formed in the one of the side panels of the housing, whereby the second storage box may be frictionally retained on the housing.
 4. The container of claim **3** wherein with the first storage box retained on the top side of the housing, and the second storage box retained on the one side panel of the housing, the first storage box covers the open side of the second storage box.
 5. The container of claim **4** further including a third storage box with dimensions adapted to fit securely within a portion of the second storage box.

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