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Inventor(s)	Issa; Abdullah

ROTARY SHEET ROLL DISPENSER

Abstract

A rotary dispenser for dispensing a plurality of sheet rolls has a housing that is longitudinally elongated along a center axis, a plurality of receiving cavities disposed around the center axis, each of the receiving cavities being sized and shaped to receive and dispense one of the sheet rolls, and at least one support member connected to the elongate housing at a point on the center axis to allow rotation of the elongate housing relative to the support member. A lid closure covers each of the receiving cavities, wherein the lid closure can be opened and closed to access the receiving cavity. The dispenser further has a dispensing slot through each of the lid closures, the dispensing slot having a safety cutter for cutting the sheet material once a desired length from the sheet roll has been dispensed through the dispensing slot.

Inventors:	Issa; Abdullah (Melbourne, AU)
Applicant:	Issa; Abdullah (Melbourne, AU)
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Background/Summary

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] This invention relates generally to sheet roll dispensers, and more particularly to a rotatable sheet roll dispenser for dispensing a plurality of sheet rolls.

Description of Related Art

[0002] Mustafa, U.S. Pat. No. 4,934,575 teaches a dispenser for multiple rolls of sheet material. The dispenser includes a housing with a pair of end body portions held in spaced relationship by longitudinal bracing members, and hubs on the end body portions for retaining the rolls. The hubs are aligned in pairs about the axis and each pair is adapted to receive and rotatably support a roll of sheet material. The dispenser has a semi-cylindrical cover for each pair of hubs with each cover having a cutting edge and bearings adapted for engaging with the pair of hubs to support the cover so that the cover is rotatable from an open position in which the pair of hubs are exposed to a closed position covering the pair of hubs. The dispenser has brackets which rotatably support the housing. One of the brackets and the housing are connected by spring loaded manually operable locking means so that the housing can be rotated to and then locked in a position allowing removal of sheet material.

[0003] Yeakel, U.S. Pat. No. 585,070, teaches a spool stand adapted to permit the ready application and removal of the spools of material, and prevent improper displacement of the same.

[0004] McManis, U.S. Pat. No. 505,532, teaches a show stand for holding and exhibiting rolls of wire cloth and also enabling the cloth to be conveniently measured and cut from the rolls.

[0005] The prior art also includes a variety of rotary dispensers, such as Moore, U.S. Pat. No. 7,044,419, which includes a rotary device that mounts four rods for each dispensing transfer tape. Similarly, Szymonski, U.S. Pat. No. 10,124,978, teaches a dispenser for dispensing wrapping paper, and Bjelland, U.S. Pat. No. 3,373,644, teaches a dispenser for dispensing photographic film.

[0006] The prior art teaches various forms of dispensers. However, the prior art does not teach a dispenser that includes multiple receiving chambers, each having a cover having a slot and slidable cutter for dispensing and cutting the sheet material. The present invention fulfills these needs and provides further advantages as described in the following summary.

SUMMARY OF THE INVENTION

[0007] The present invention teaches certain benefits in construction and use which give rise to the objectives described below.

[0008] The present invention provides a rotary dispenser for dispensing a plurality of sheet rolls. The rotary dispenser comprises a dispenser housing that is longitudinally elongated along a center axis, a plurality of receiving cavities disposed around the center axis, each of the receiving cavities being sized and shaped to receive and dispense one of the sheet rolls, and at least one support member connected to the elongate housing at a point on the center axis to allow rotation of the elongate housing relative to the support member. A hingeable lid closure covers each of the receiving cavities, wherein the hingeable lid closure can be opened and closed to access the receiving cavity. The dispenser further has a dispensing slot through each of the lid closures, the dispensing slot having a safety cutter for cutting the sheet material once a desired length from the sheet roll has been dispensed through the dispensing slot.

[0009] A primary objective of the present invention is to provide a rotary having advantages not taught by the prior art.

[0010] Another objective is to provide a rotary dispenser having a plurality of receiving cavities each with a hingeable lid closure for removably covering the receiving cavities.

[0011] A further objective is to provide a rotary dispenser that includes dispensing slots having slide cutters for cutting from sheet rolls.

[0012] 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

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The accompanying drawings illustrate the present invention.

[0014] FIG. 1 is a perspective view of a rotary dispenser according to one embodiment of the present invention, and showing a sheet roll exploded therefrom;

[0015] FIG. 2 is a perspective view thereof, wherein the sheet roll is inside of a receiving cavity of the rotary dispenser and is being dispensed out a dispensing slot; and

[0016] FIG. 3 is a perspective view of a second embodiment of the rotary dispenser, illustrating an alternative support member of the dispenser.

DETAILED DESCRIPTION OF THE INVENTION

[0017] The above-described drawing figures illustrate the invention, a rotary dispenser for receiving a plurality of sheet rolls (e.g., rolls of aluminum foil, plastic wrap, wax paper, fabric, wrapping paper, etc.), and for dispensing from said sheet rolls.

[0018] FIG. 1 is a perspective view of a rotary dispenser 10 according to one embodiment of the present invention, and showing a sheet roll 12 exploded therefrom. FIG. 2 is a perspective view thereof, wherein the sheet roll 12 is inside of a receiving cavity 24 of the rotary dispenser 10 and is being dispensed out a dispensing slot 36. As shown in FIGS. 1-2, the rotary dispenser 10 comprises a dispenser housing 20 that is longitudinally elongated along a center axis 22, and a plurality of receiving cavities 24 disposed around the center axis 22, each of the receiving cavities 24 being sized and shaped to receive and dispense one of a plurality of sheet rolls 12. The rotary dispenser 10 may be constructed of a variety of materials, e.g., plastic, bamboo, wood, aluminum, steel, metal, etc.

[0019] In this embodiment, there are three receiving cavities 24 disposed around the center axis 22, but in other embodiments, a greater or fewer number of cavities 24 may be included. Each cavity 24 may further have a mounting rod 28 mounted within each of the receiving cavities 24 for mounting one of the sheet rolls 12. Each mounting rod 28 may be fixedly attached at one end to the interior of the given receiving cavity 24, so that the other end may pass through the sheet roll 12. Furthermore, in some embodiments, the mounting rod 28 may be hingeably attached to the interior of the receiving cavity 24, so that it may be hinged upwardly to more easily receive the sheet roll 12, or it may be fully removable. In some embodiments, the mounting rod 28 may extend the length of the sheet roll 12, but alternatively, the mounting rod 28 may extend only a partial length, or it may be in the form of a pair of rods on either end of the receiving cavity 24 for receiving the ends of the sheet roll 12. However, in other embodiments, the mounting rod 28 may be excluded entirely. Additionally, in some embodiments, each receiving cavity 24 may be adapted for receiving multiple sheet rolls at once (i.e., side-by-side).

[0020] As illustrated, the rotary dispenser 10 may further include a locking mechanism 30 that stops rotation of the elongate housing relative to the at least one support member 26. In this manner, the locking mechanism 30 may be unlocked for rotating the housing around the center axis 22 to access one of the receiving cavities 24 containing a desired sheet roll 12, and then locked in place for dispensing. In this embodiment, the locking mechanism 30 is in the form of a press-release button mounted on the center axis 22. FIG. 1 shows the button 30 in a released, "popped out" position, and FIG. 2 shows the button 30 in a locked, depressed position for dispensing. Obviously, the button 30 could be depressed to release, and popped out to lock, according to the expertise of the manufacturer. Furthermore, in other embodiments, the locking mechanism 30 may be in the form of any suitable mechanism, in any suitable location (i.e., the support member 26).

For example, a switch, latch, key-lock, release-pin, hook, etc. may be used, or any other mechanism compatible with the invention as-claimed.

[0021] Importantly, each of the receiving cavities **24** further includes a lid closure **32** that covers said receiving cavity **24**, wherein the lid closure **32** can be opened and closed to access the receiving cavity **24** and remove/replace the sheet roll **12**. In the current embodiment, each lid closure **32** may be attached to the dispenser housing **20** via a hinge, but alternatively may be mounted in other ways known in the art (e.g., slidably engaged, mechanically fastened, or fastened in other ways known in the art (e.g., non-mechanical, such as magnetic, adhesive, etc.). As illustrated, in some embodiments, each lid closure **32** may include a closure mechanism **34** for locking the lid closure **32** in the closed position of FIG. **2**. The closure mechanism **34** may be any form of mechanical fastener (e.g., latch, switch, knob, buckle, strap, etc.), or non-mechanical (e.g., magnet) fastener or closure known to those skilled in the art.

[0022] As shown in FIGS. **1-2**, each of the lid closures **32** includes the dispensing slot **36** through each of the lid closures **32**, the dispensing slot **36** having a safety cutter **38** mounted on or adjacent the dispensing slot **36** for cutting the sheet material once a desired length from the sheet roll **12** has been dispensed through the dispensing slot **36**. In the present embodiment, the safety cutter **38** is in the form of a slide cutter. However, in alternative embodiments, the safety cutter **38** may be in the form of a press cutter (not shown) having a top blade and bottom blade disposed around the dispensing slot **36**. The blades may be embedded within the lid closure **32**, and further may be adapted to spring back to a retracted position so there is no risk of grazing the fingers. For the purposes of this application, the term “safety cutter” is defined to include any form of cutting mechanism that either does not include blades/sharp edges, or that includes a safety mechanism so the user's skin is not exposed to open blades/sharp edges. In this embodiment, each lid closure **32** includes a single dispensing slot **36** that extends the length of the lid closure **32**. However, in other embodiments, the dispensing slot **36** may extend only partway across the lid closure **32**, or multiple dispensing slots may be formed (i.e., in the case of multiple rolls in the same receiving cavity **24**).

[0023] As shown in FIGS. **1-2**, the rotary dispenser **10** further includes at least one support member **26** connected to the elongate housing at a point on the center axis **22** to allow rotation of the elongate housing relative to the support member **26**. In this embodiment, the support member **26** is in the form of a pair of stands, with one attached to the center axis **22** on either end of the dispenser housing **20**. In this embodiment, each of the stands is triangular, however, other shapes and equivalent support structures may be used. Furthermore, while one example of the support member **26** is illustrated in FIGS. **1-2**, a wide range of possible structures may be used, one alternative being shown and described in FIG. **3**.

[0024] FIG. **3** is a perspective view of a second embodiment of the rotary dispenser **10**, illustrating an alternative support member **40** of the dispenser. As discussed, the at least one support member is connected to the elongate housing at a point on the center axis **22** to allow rotation of the elongate housing relative to the support member. In the embodiment of FIG. **3**, the at least one support member **40** is in the form of a single support member attached to the center axis **22** of the dispenser housing **20** at one end. In this embodiment, the support member **40** is constructed in an “L” shape, comprising a first portion **42** that extends downwardly from the center axis **22**, and a second portion **44** that extends horizontally the longitudinal length of the housing. The first and second portions **42** and **44** may be reinforced with additional structures (e.g., rods, bolts, etc.), or may include feet or flared portions to enhance stability. The at least one support member **26/40** could be any feasible shape/structure that supports the rotary dispenser **10** for dispensing (e.g., generally rectangular, or any stable polygonal shape). Other, further embodiments of the at least one support member may also be included. For example, the support members may comprise bolts/screws, clips/clamps, adhesives, rods, etc., that mount the dispenser housing **20** to a wall, countertop, bottom of cabinet, etc.

[0025] The title of the present application, and the claims presented, do not limit what may be

claimed in the future, based upon and supported by the present application. Furthermore, any features shown in any of the drawings may be combined with any features from any other drawings to form an invention which may be claimed.

[0026] As used in this application, the words “a,” “an,” and “one” are defined to include one or more of the referenced item unless specifically stated otherwise. The terms “approximately” and “about” are defined to mean $\pm 10\%$, unless otherwise stated. Also, the terms “have,” “include,” “contain,” and similar terms are defined to mean “comprising” unless specifically stated otherwise. Furthermore, the terminology used in the specification provided above is hereby defined to include similar and/or equivalent terms, and/or alternative embodiments that would be considered obvious to one skilled in the art given the teachings of the present patent application. While the invention has been described with reference to at least one particular embodiment, it is to be clearly understood that the invention is not limited to these embodiments, but rather the scope of the invention is defined by claims made to the invention.

Claims

1. A rotary dispenser for dispensing a plurality of sheet rolls, the rotary dispenser comprising: a dispenser housing that is longitudinally elongated along a center axis; a plurality of receiving cavities disposed around the center axis, each of the receiving cavities being sized and shaped to receive and dispense one of the sheet rolls; at least one support member connected to the elongate housing at a point on the center axis to allow rotation of the elongate housing relative to the support member; a lid closure that covers each of the receiving cavities, wherein the lid closure can be opened and closed to access the receiving cavity; and a dispensing slot through each of the lid closures, the dispensing slot having a safety cutter for cutting the sheet material once a desired length from the sheet roll has been dispensed through the dispensing slot.
 2. The rotary dispenser of claim 1, further comprising a locking mechanism that stops rotation of the elongate housing relative to the at least one support member.
 3. The rotary dispenser of claim 2, wherein the locking mechanism is in the form of a press-release button mounted on the center axis.
 4. The rotary dispenser of claim 1, further comprising a closure mechanism on each of the lid closures for locking the lid closure in the closed position.
 5. The rotary dispenser of claim 1, further comprising a mounting rod mounted within each of the receiving cavities for mounting one of the sheet rolls.
 6. The rotary dispenser of claim 1, wherein the dispensing slot extends the entire longitudinal length of the lid closure.
 7. The rotary dispenser of claim 1, wherein the lid closure is hingeable.
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