WALL DISPENSER FOR ROLLED TOILET PAPER AND MOISTENED WIpes

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ABSTRACT

A wall mounted apparatus for dispensing wet wipes and toilet tissue, wherein a mounting plate has an outwardly open compartment for positioning a roll of conventional dry paper for dispensing paper outwardly from the mounting plate and at a location below the supply of wet wipes. A wet wipes dispenser has a chamber for storing a stack of wet wipes and an upper wall with an opening for dispensing a wet wipe, the stack supported atop a support tray that is biased upwardly towards the opening with removal of the topmost sheet of the stack simultaneously pulling the next sheet of the stack into position for subsequent withdrawal from the opening. The upper wall is removable to stock and restock the chamber and the opening is covered with a slitted moisture protective sheet. A closure lid is normally biased by a torsion spring into closed sealing relation with the protective sheet.
Snap Lock lid to keep wipes from drying out

Will accept any size roll of paper

Spring Loaded Tray to accept different amounts of wipes

Top of wipe holder under lid

FIG. 1

FIG. 2

FIG. 3

FIG. 4

FIG. 5
WALL DISPENSER FOR ROLLED TOILET PAPER AND MOISTENED WIPES

CROSS-REFERENCE TO RELATED APPLICATION

This Application claims the benefit of U.S. Provisional Patent Application Ser. No. 60/739,560, filed on Nov. 23, 2005, the contents of which are incorporated herein by reference in its entirety for all that is taught and disclosed therein.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a wall mounted system for dispensing wet or premoistened products, tissue and other like hand held sanitary wipe products as well as dry paper from a conventional roll of toilet paper from the same wall mounted dispenser system.

2. Description of Prior Art Inventions

Wet products such as wet wipes have many applications. They may be used with small children and infants when changing diapers, they may be used for household cleaning tasks, they may be used for cleaning hands, they may be used as a bath tissue, they may be used by a caregiver to clean a disabled or incontinent adult, or they may be used in and for a whole host of other applications, where it is advantageous to have a wipe or towel that has some moisture in it.

Wet wipes have been traditionally dispensed in sheet form from a tub like container with a hinged lid on the top. The lid is opened and individual or singularized sheets of the wipes are removed.

Another type of container that has been used for wet wipes provides a roll of wipes in which the wipes are pulled from the top of the container in a direction that is parallel to the axis of the roll. These wipes are pulled from the center of a hollow core roll that has perforated sheets. These containers generally have a snap top lid that is opened to expose a piece of the wipes that can then be pulled to remove the desired amount of wipes. Once pulled out the wipes can then be torn off, usually at a perforation, and the lid closed.

Wet wipes can be any wipe, towel tissue or sheet like product including natural fibers, synthetic fibers, synthetic material and combinations thereof, that is wet or moist or becomes wet during use or prior to use.

Wall mounted dispensers for mounting rolls of paper for use in the bathroom during an elimination activity are known and take many forms. Typically, the roll is mounted in the dispenser and the user removes one or more sheets, as needed.

During an elimination activity, the hand is used to perform a cleaning function and needs cleansing, prior to a more thorough cleaning by soap and water. A dispenser that only dispenses paper from a roll of paper is oftentimes inadequate.

Dispenser systems that position and make disposable sheets of wet wipes, tissues and like products and/or sheets of toilet paper from a roll available to a user are illustrated in U.S. Pat. No. 3,409,340 (Clark), U.S. Pat. Nos. 3,837,595, 4,004,687, and 4,106,616 (Boone), U.S. Pat. No. 5,311,986 (Putz), U.S. Pat. No. 5,618,008 (Dearwester et al.), and U.S. Pat. No. 6,929,148 (Haddad et al.).

Haddad et al. and Boone (U.S. Pat. Nos. 4,004,687 and 4,106,616) show arrangements wherein the spindle of a wall mounted toilet paper holder receives a roll of toilet paper and a dual arm caddy for carrying wet wipes is hung from the spindle. In Haddad et al. the caddy includes a pair of arms that hang a box-like container for carrying and making available a supply of wet wipes and the user opens a lid of the container to gain access to the wet wipes. However, the lid opens upwardly and towards the dispensing end of the roll. As such, the arms of the caddy must not only be sufficiently long to ensure that the lid does not interfere with toilet paper use but the length of the spindle must be sufficiently long to accommodate not only the roll of toilet paper but provide additional space for the caddy arms. In use, when a new roll of toilet paper is needed, the caddy is removed first. The wet wipes are merely stored and available upon opening of the lid.

Boone U.S. Pat. No. 4,106,616 discloses a cylindrical box-like container, each with a removable cover, that releasably carry a supply of prewetted sheets that are individually withdrawable through a slitted aperture. In Boone U.S. Pat. No. 4,004,687, a cylindrical container includes a slitted aperture for withdrawing prewetted sheets but the slitted aperture is not covered by a lid.

However, in some applications, mounting a separate caddy structure to the spindle of a toilet paper roll holder is unattractive and inconvenient to use. By hanging a supply of wet wipes from the wall structure configured to hold a conventional roll of toilet paper requires that the spindle and associated wall structure has to be made wider to accommodate two hanging arms. The “wet wipe appendage” is somewhat unattractive because the arms must be long enough to position the container and lid thereof sufficiently below the roll of toilet paper to enable the container lid to open. The wet wipe container is inconvenient in use because to replace a paper roll from the spindle, the wet wipe container must be removed first. The rectangular and cylindrical shaped wet wipe containers have no provision for constantly urging the depleting supply of wet wipes upwardly and a new wipe towards a discharge opening of the caddy or wipe holding containers.

Boone U.S. Pat. No. 3,837,595 discloses an arrangement wherein sheets are withdrawn through the top slit of any of three cylindrical lid-coverable containers mounted to a second spindle of the wall mount.

Putz and Dearwester et al. disclose apparatus, including a wall mounted holder for holding and dispensing tissue from a single roll, and a cigar-box shaped container mounted atop of the holder. Putz teaches that the container is for holding and dispensing pre-moistened tissue. Dearwester teaches that the container is for dispensing multiple products but does not disclose the use of wet wipes.

Clark discloses a closure lid with openings for dispensing napkins and roll paper and mounting a box of napkins in juxtaposition with the napkin opening, the lid being rotatable towards a roll of toilet paper mounted on the spindle of a wall mounted bracket.
There is a need for a dispenser that is simple in construction, and operation, and conveniently supplies both wet wipes and conventional toilet paper from a common dispenser.

**SUMMARY OF THE INVENTION**

In a preferred embodiment of the present invention, there is provided a dispensing system for dispensing sanitary paper products, including wet wipes and dry paper from a roll, the dispensing system comprising:

- a generally planar mounting plate for attachment to a support structure disposed vertically, said mounting plate including upper and lower end portions,
- first means for mounting a roll of toilet paper to the lower end portion of said mounting plate,
- a wet wipes dispenser, and
- second means for mounting said wet wipes dispenser in operable relation to the upper end portion of said mounting plate and above said roll of toilet paper,
- said wet wipes dispenser including a chamber for storing a stack of separately, generally flat separably removable wet wipes, a removable upper end wall having an opening for dispensing wet wipes from the chamber, removal of the upper end wall permitting the chamber to be accessed and refilled with wet wipes, means for urging the stack of wet wipes towards the upper end wall of said wet wipes dispenser and the next wipe of the stack of wet wipes into registry with the opening thereof and for withdrawal from the chamber, and a closure member movable between first and second positions, respectively, for covering and exposing said dispenser opening.

According to this embodiment, the closure member forms a disengageable connection with said upper end wall, and a torsion spring operates to bias the closure member into the closed position.

Further, said wet wipes dispenser is formed by a lower end wall spaced from said upper end wall, and sidewall structure extending between said upper and lower end walls, said end walls and said sidewall structure forming said chamber, and said means for urging the stack of wet wipes comprises

- a support tray having upper and lower faces, said tray disposed in said chamber for movement between said upper and lower end walls, and said upper face being dimensioned to support the stack of wet wipes, and
- a spring structure operating between the support tray and said lower end wall to urge the support tray upwardly and towards said opening.

Preferably and according to this embodiment,

- said first means for mounting includes a pair of laterally spaced sidewalls, said sidewalls projecting upwardly from opposite sides of the mounting plate, and a spindle, the spindle having opposite ends, respectively, removably connected to one and the other sidewall,
- said second means for mounting comprises the wet wipes dispenser being integrally formed with the mounting plate, and
- said closure member is hingedly connected along one edge to the mounting plate.

In a further embodiment of the present invention, there is provided a wet tissue and dry towel dispenser, comprising: a mounting plate having an open front compartment for receiving a dry towel roll and adapted to be affixed to a support surface, said mounting plate having upper and lower portions and opposed sidewalls projecting upwardly and away from the plate, and a tissue dispenser having a chamber for receiving a stack of wet tissues to be dispensed, the dispenser being disposed above said compartment and formed by wall structure, at least in part, by said mounting plate, said sidewalls, and a dispenser plate extending between said sidewalls and formed with an opening for dispensing wipes from the chamber, and further wherein said dispenser includes a tray and a spring member in said chamber and a lid for covering and exposing the opening, said tray for supporting a stack of wet wipes and said spring for biasing the tray and stack of wipes towards the opening.

In an aspect of these preferred embodiments, a slitted moisture protective barrier extends across the opening of the wet wipes dispenser. The slit provides a gap for passing a wet wipe and the protective barrier ensuring that air does not enter the chamber and cause the wet wipes to dry out. While many materials are suitable, preferably the barrier is of a polymeric material and transparent.

In a further embodiment of the present invention, there is provided a wet tissue and towel dispenser for dispensing paper from a roll, such as a roll of conventional dry bath tissue, and wet wipes from a container, such as from a stack of separate pre-moistened sheets, comprising a mounting member for mounting the dispenser above the roll of paper, the mounting member including

- a bracket for mounting the dispensing system to a support wall, and a pair of sidewalls projecting upwardly, in use, from opposite vertical sides of the bracket, the sidewalls having like upper end lower end portions,
- a spindle for mounting the roll to the dispensing system, the spindle including opposite end portions, respectively, connected to the lower end portion of one and the other sidewall,
- a wet wipes dispenser, said dispenser being formed, at least in part, by said sidewalls, said backing plate, and wall structure in the form of upper and lower front walls extending between the sidewalls, the walls and backing plate cooperating to form a chamber for receiving a stack of wet wipes with one said upper end wall and front wall including an opening for dispensing wet wipes from the chamber,
- a tray and a spring element disposed in said chamber, said tray for supporting a stack of wipes thereon and said spring positioned to urge the tray towards the discharge opening,
- means for gaining access to the chamber for restocking the dispenser, and
a closure member hingedly connected along an edge thereof to the backing plate for movement between a first position, closing the opening, and a second position, allowing wipes to be dispensed from the chamber.

In an aspect of this latter embodiment, the means for gaining access comprises the upper wall being removably mounted to the wet wipes dispenser, and the closure member forming a releasable interconnection with the upper wall.

Further, in each of the above two preferred embodiments of the present invention, the opening of the dispenser is provided a slitted dispensing sheet to ensure that single wipes are dispensed through the gap formed by slit in the dispensing sheet. The dispensing sheet is preferably formed of a polymeric material, is transparent to enable the user the ability to see if the stack of wipes is near depletion, and functions as a moisture protection barrier for the chamber to protect the wet wipes from drying out.

In a further embodiment of the present invention, there is provided a method for dispensing wet wipes comprising: mounting a wet wipes dispenser in a toilet tissue dispenser by means of a mounting assembly, the wet wipes dispenser having a stack of wet wipes disposed on a support tray movably disposed in a chamber of the dispenser and urged by a spring towards a wet wipes opening in the dispenser, biasing the stack towards and positioning the topmost sheet of the stack of wet wipes in the wet wipes opening, and simultaneously withdrawing the topmost sheet and biasing the stack and the next succeeding topmost sheet into position with the opening for subsequent withdrawal until the stack is depleted.

In the method, the steps further include providing the wet wipes dispenser with a removable upper wall and the wall with said opening, removing the wall when necessary to stock and restock the chamber with wet wipes, and replacing the upper wall in sealed relation with the wet wipes dispenser.

In an important aspect of this method, the steps include covering the opening in the upper wall with a slitted moisture protective sheet, and providing the wet wipes dispenser with a closure lid and moving the lid into and from sealed connecting relation with the upper wall and covering relation with the slitted opening of the protective sheet.

The steps further include providing a mounting plate having an outwardly open compartment for positioning a roll of conventional dry paper for dispensing paper outward from the mounting plate and at a location below the dispensing opening for the wet wipes, and dispensing dry sheets or wet wipes from the mounting plate, as desired.

In a further embodiment of the present invention, there is provided a method for dispensing wet wipes from a stack and dry paper from a roll, each mounted to a common mounting member with the wet wipes above the dry paper roll, the steps of the method comprising providing a wet wipes dispenser to the mounting member such that the wipes dispenser is, in part, fixedly attached thereto and does not move during use, the dispenser including a chamber and a discharge opening for dispensing wet wipes from the chamber, positioning a stack of wet wipes in the chamber and a protective moisture barrier across the opening, the barrier having a gap for passing a wet wipe, urging the stack of wet wipes towards the discharge opening, pulling successive of the wet wipes through the gap in the moisture barrier, and removing the wet wipes from the dispenser.

These embodiments may further comprise providing and attaching a separate wet wipes dispenser to a mounting member having an outwardly open compartment for mounting a roll of dry paper on a removable spindle. The wet wipes dispenser may be rigidly, removably, and adjustably secured to the toilet tissue dispenser and positioned relative to at least one vertical surface thereof. The securement is preferably such the wet wipes will be dispensed vertically and in a direction away from the roll, or outwardly from the mounting member.

Further, for convenience, the dispenser may be tilted and at an angle to the mounting member, wherein the upward end of the dispenser angles outwardly from the support wall and provides ease of access to the wipes when being pulled through the dispenser opening and removed from the dispenser.

Further and according to the above detailed embodiments of the wet tissue and towel dispensers for dispensing paper from a roll, and the methods of dispensing and use thereof, a mounting arrangement for mounting the dispenser to the support structure is provided in some applications and comprises respective sets of complementary keys and keyways operating between the support structure and the dispenser. Illustrative is an arrangement wherein a set of keys project from the backing plate and the support structure includes a mounting plate provided with keyways which register with and interlock with a respective key.

The present invention will be more clearly understood with reference to the accompanying drawings and to the following Detailed Description, in which like reference numerals refer to like parts and where:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top plan view of a dispenser system for dispensing dry paper from a roll and wet wipes from a dispenser, according to the present invention.

FIG. 2 is a side elevation view of the dispenser system of FIG. 1 with portions of a wet wipes dispenser removed to show detail of the inner chamber thereof.

FIG. 3 is a front elevation view of the dispenser system of FIG. 1, with portions of the wet wipes dispenser removed to show detail of an inner chamber thereof.

FIG. 4 is a rear elevation view of the dispenser system of FIG. 1.

FIG. 5 is a plan view of the upper wall of the wet wipes dispenser covered by a lid of the dispenser, the wall including a shaped opening for dispensing wet wipes and the opening covered by a slitted transparent moisture barrier for passing the wet wipe and keeping the dispenser chamber from drying out.

FIG. 6 is a perspective view looking down at another wall system for dispensing dry paper from a roll and wet wipes from a dispenser, according to the present invention.
FIG. 7 is a front elevation view of the dispenser system illustrated in FIG. 5, with a portion of an upper cover thereof partially removed to show detail of a chamber for storing wet wipes and the lower portion and spindle thereon removed.

FIG. 8 is a section view taken along line 8-8 of FIG. 7 to show detail of the chamber, the upper cover, and a lid for covering a box of wet wipes.

DETAILED DESCRIPTION OF THE INVENTION AND PREFERRED EMBODIMENTS

Turning now to the drawings, FIG. 1 shows a dispensing system, generally indicated at 10, for dispensing sanitary paper products, including sheets of convetional dry paper 14 from a roll 16 and pre-moistened sheets or wet wipes 18 from a wet wipes dispenser 20. The dispensing system 10 is adapted to be mounted to a support structure, such as a vertical wall (not shown), and as a single combined unit wherein to position the toilet paper roll 16 and the wet wipes 18 in convenient proximity to one another for substantially simultaneous use.

The dispensing system 10 comprises a mounting member or assembly 22, which includes a generally rectangular shaped mounting plate 19 for attachment to the support structure, a pair of laterally spaced sidewalls 24 and 26, and forms an outwardly open compartment 28 for positioning the roll of toilet paper 16 and, at least in part, the dispenser 20 for storing and dispensing the wet wipes. So configured, the wet wipes dispenser 20 is disposed above the roll 16. The sidewalls 24 and 26 are generally perpendicular to and project outwardly from opposite vertical sides (in use) of the mounting plate 19. The upper and lower end portions of the sidewalls 24 and 26, in part, form the compartment 28 and, in a preferred embodiment, cooperate to form the opposite lateral sidewalls of the wet wipes dispenser 20.

A conventional spindle 32 is provided for mounting and positioning the roll 16 to the mounting member 22. In this regard, the spindle 32 has opposite ends removably connected to the lower end portions of one and the other sidewall 24 and 26, wherein removal of the spindle enables removal and/or replacement of a roll 16 from the outwardly open compartment 28.

The wet wipes dispenser 20, in the embodiment shown, comprises a generally oblong or rectangular shaped box, or container or housing, and the walls thereof form a central chamber 34 for storing a stack of separable, generally flat, separably removable, wet wipes 18. The dispenser 20 is formed, in part, by the respective upper end portions of the sidewalls 24 and 26 and the mounting plate 19, and also by additional wall structure, including a lower wall 36, an upper wall 38, and a front wall 40.

The upper wall 38 is provided with centrally disposed elliptical shaped opening 42 for dispensing wet wipes 18 from the chamber 34. In order to refill the chamber 34, the upper wall forms a removable upper closure for the wet wipes dispenser 20. In this respect, the upper wall 38 forms a snap-fit engagement with the lower wall structure of the dispenser 20.

As shown, the wet wipes dispenser 20 is disposed at an acute angle “A” relative to the mounting plate 20, wherein to be tilted downwardly relative to the vertical support to which attached, and the elliptical opening 42 opens upwardly and away from the roll 16. Successive wet wipes 18 are pulled vertically upwardly from the chamber 34, through the opening 42, and removed from the dispenser 20. In some uses, the dispenser 20 may be less angled relative to the mounting plate 19 and the opening 42 may be provided in a similar fashion in the front wall 40.

A closure member or lid 44 is provided for covering the dispenser opening 42. As shown, the lid 44 is generally rectangular in shape with the outer periphery thereof being complementary to and adapted to fit in close sealing relation about the outer periphery of the upper wall 38. The seal or closure between the lid 44 and wall 38 may provide a snap fit interengagement.

Preferably, the lid 44 includes a rearward edge 46 that functions as a hinge and enables the lid to swing between a first position, in closed sealing relation about the opening, and a second position, spaced from and exposing the opening and permitting wet wipes to be removed from the dispenser.

Preferably, the lid 44 is integrally formed with the mounting member 22. In some applications, the connection may be via a separably provided conventional hinge and hinge pin. In other applications, the upper wall 38 and lid 44 may be hingedly connected to one another and the upper wall mounted atop the wet wipes dispenser as a single unit.

In some applications, central portions of the lid 44 may include closure structure that is adapted to interengage with complementary closure structure (not shown) provided atop the upper wall 38.

Important to this invention is the provision, in the dispensing chamber 34, of a tray 48 and a spring system 50, which element and system cooperate to support, urge, and move the stack of wet wipes 18 upwardly and towards the opening 42 in the upper wall 38, and ensure that the next wipe in the stack of depleting wet wipes is registered with the opening 42 and for withdrawal from the chamber 34. The tray 48 has an outer periphery that is complementary to the inner cross-section of the chamber 34 and moves vertically between the lower and upper walls 36 and 38. The tray 48 includes a lower or bottom face 52 that faces towards the lower wall 36, and an upper or top face 54 that faces towards the upper wall 38. The top face 54 supports the stack of wet wipes 18.

The spring system 50 includes one or more spring elements, illustrated as coil springs, which act between the bottom face 52 of the tray 48 and the lower wall 36 of the dispenser 30, wherein to urge the tray 48 towards the upper wall 38.

In an important aspect according to this invention, a protective moisture barrier or dispensing sheet 56 extends across the elliptical opening 42. The moisture barrier 56 is centrally slitted at 58 and forms a gap to enable single wipes to be dispensed from the chamber and form a moisture protection seal to keep the wet wipes from drying out. Preferably, the barrier is flexible and of a clear transparent polymeric material.

In a further embodiment of the present invention, there is provided a method for dispensing wet wipes from a
stack 18 and dry paper from a roll 16, each mounted to a common mounting member 22, with the wet wipes being in a dispenser 20 and the roll mounted on a spindle disposed below the dispenser 20.

[0075] A stack of wet wipes 18 is assembled atop a support tray 48 and the assembly movably disposed in a chamber 34 of the wet wipes dispenser 20. The tray assembly is movably urged upwardly by a spring 50 towards the upper wall 38, and the topmost sheet of the stack 18 is positioned in the opening 42, whereupon the topmost sheet of the stack 18 is withdrawn and the next succeeding sheet pulled into position with the opening 42 for subsequent withdrawal. This withdrawal is continued until the stack is depleted, whereupon a new stack is assembled to the tray.

[0076] In the method, the mounting plate 19 has an outwardly open compartment 28 for positioning the roll 16 of conventional dry paper for dispensing paper. The spindle 32 is in the compartment and the ends of the spindle 32 are removed from their connection with the sidewalls 24 and 26 to enable a roll 16 of conventional dry paper to be nested within the compartment and replaced when needed. The paper from the roll 16 is pulled downwardly and away from the mounting plate.

[0077] Preferably, in the method, a protective moisture barrier 56 is placed over the opening 42 for protecting the wipes from drying out, the barrier having a gap or slit 58 for passing a wet wipe. Successive of the wet wipes are pulled through the gap 58 in the moisture barrier 56 and removed from the dispenser.

[0078] These embodiments may further comprise providing and attaching a separate wet wipes dispenser to a mounting member having an outwardly open compartment for mounting a roll of dry paper on a removable spindle. The wet wipes dispenser may be rigidly, removably, and adjustably secured to the toilet tissue dispenser and positioned relative to at least one vertical surface thereof. The securement is preferably such the wet wipes will be dispensed vertically and in a direction upwardly and away from the roll, or outwardly and away from the mounting member.

[0079] Further, for convenience, the dispenser may be tilted and at an angle to the mounting member, wherein the upward end of the dispenser angles outwardly from the support wall and provides ease of access to the wipes when being pulled through the dispenser opening and removed from the dispenser.

[0080] Further and according to the above detailed embodiments of the wet tissue and towel dispensers for dispensing paper from a roll, and the methods of dispensing and use thereof, a mounting arrangement for mounting the dispenser to the support structure is provided. A preferred mounting arrangement may comprise the mounting plate being provided with a bolt hole pattern (FIG. 4) that enables the use of bolts to secure the dispenser 20 to the support wall.

[0081] In another preferred mounting arrangement (not shown), respective sets of complementary keys and keyways operate between the support structure and the dispenser 20. That is, a set of keys project upwardly (and away) from the back surface 19a of the mounting plate 19 for interlocking receipt within a corresponding set of keyways provided in the support structure. The arrangement may be reversed. In either, the keys are registered with the keyways, inserted, and the dispenser lowered relative to the keyways and into supported relation on and against the support structure.

[0082] Alternatively, a second plate with a set of keyways may be secured to back surface of the mounting plate 19, and the support structure provided with a set of outwardly projecting keys. As before, the keys and keyways are registered, the keys inserted into the keyways, and the dispenser lowered into secured supported relation on and against the support structure.

[0083] Further, for convenience and simplicity, in some applications, a layer of adhesive is provided on the back surface 19a of the mounting plate 19, the adhesive being covered by a protective cover or release sheet. In use, the release sheet is pulled off, the adhesive exposed, and the dispenser pressed, wherever desired, against a support wall.

[0084] Additionally, in some applications, the wet wipes dispenser 20 may include a static tray for supporting a stack of interleaved premoistened wet wipes. That is, the array of coil springs 50 is not used to force the stack upwardly towards the opening in the dispenser. In this arrangement, the wet wipe dispenser is atop the dry paper roll and opens upwardly from the dry roll dispenser.

[0085] The support tray may be formed by the bottom or lower wall 36 of the dispenser. The stack is preferably positioned in the chamber 34, supported on the lower wall 36, with the topmost wet wipe of the stack of interleaved wet wipes being positioned to project through the slit 58 in the protective sheet 56 for withdrawal by the user, one at a time. Withdrawal of a presented wet wipes in the slit 58 pulls the next wet wipe outwardly from the dispenser for use.

[0086] The dual lid system, comprising the upper wall 38 fit about the top opening of the wet wipe dispenser and the closure lid 44 fit in moisture sealed closure with the upper wall 38, is applicable in this embodiment. The closure lids 38 and 44 may be hingedly joined to one another and form a one piece unit, for removal and replacement on the dispenser 20, or hingedly or joined otherwise to the dispenser, or disconnected from one another and free to be removed from the dispenser. The lids may form snap fit closures with one another and the top opening of the dispenser.

[0087] Additionally, in an important aspect of a preferred embodiment according to this invention, structure is provided to encourage the uppermost lid 44 into closing relation against the elliptical opening 42 and moisture barrier 56 thereof and into mating engagement with the upper wall or lid 38. Automatic closing capability is an important adjunct to situations wherein the dispenser is mounted in a public area and the user does not apply adequate force to form a closed sealing relation between the lid 44 and upper wall 38, resulting in the wet wipes drying out.

[0088] An automatic lid closing arrangement includes a hinge assembly formed by a hinge rod operating between the lids 44 and 38, whereby the upper lid 44 may rotate towards and away from the upper wall 38, and a torsion spring(s) mounted to the rod and operating to bias the lids 38 and 44 towards one another. The torsion spring(s) are designed and wound to be actuated rotationally, and to provide an angular return force. They are used in the hinge assembly to provide a self-closing lid structure.
Important performance consideration includes spring rate (i.e., angular return torque provided), maximum deflection, maximum load, and wind specifications (i.e., right hand, left hand, or double torsion). Double torsion wind springs have one right-hand and one left-hand wind on the same spring, usually with an unwound section between the winds. The two legs emerge from the spring on the same side. Depending on the application and lid geometry, leg considerations for the torsion spring(s) include leg angle, equal leg length, and leg end style. Leg end style choices include straight torsion, straight offset, hinged, short hook ends, and hook ends.

Choices for materials and finish for the dispenser housing and the torsion springs are important, depending on the application. The dispenser may be integrally molded, separately constructed, and of a metal or polymeric material. Inasmuch as the dispenser is used in conditions wherein the exterior surfaces become unsanitary, an important consideration is the ability of the material to withstand cleaning solutions, and still have a pleasant appearance.

The torsion spring(s) may be comprised hard drawn steel, music wire, spring steel, stainless steel, other metals, and non-metallic. Music wire is a common and relatively inexpensive high-carbon steel alloy used for spring manufacture, in part because the material is cold drawn and offers uniform tensile strength. Spring steel is a standard industrial grade of steel specifically used for spring making, primarily because the material exhibits good elastic and return properties. Stainless steel exhibits good corrosion resistance for specialty applications. In some applications, plastic springs may be used in light-to-medium duty applications for quiet and corrosion-resistant qualities.

Mention should be made that the wet wipe dispenser may be provided as a stand-alone option for some users, such as for use in places for providing public users with such service. In such application, a dispenser housing would be mounted to a support surface, with the two part lid structure providing sealing of the inside chamber of the dispenser to resist the wipes from drying out. The coil spring arrangement and support tray arrangement could be employed to bias and maintain successive of the wipes in position and available for use at the elliptical opening.

Another embodiment of a wall dispenser for dispensing rolled toilet paper and moistened wipes is shown in FIGS. 6-8, and generally indicated by the reference numeral 60. The wall dispenser 60 includes a mounting plate 62 provided with an array of apertures 63 adapted to receive a suitable fastener whereby to mount the plate to a vertically disposed wall (not shown). Further, the mounting plate 62 has an upper portion configured as a dispenser 64 for dispensing wet wipes and a lower portion configured as a compartment 66 for receiving a spindle 68 and mounting a roll of paper.

The dispenser 64 is formed by the mounting plate 62, a pair of laterally spaced sidewalls 70 and 72, a base wall 74, a front wall 76 spaced forwardly from the plate 62, and a cover 78, and the aforesaid walls, plate and cover cooperating to form a closable chamber 80. In the embodiment shown, a generally rectangular shaped container or box 82 is positioned in the chamber, the box storing a supply of wet wipes or like moistened tissues to be dispensed. The box has an upper opening for dispensing individual wipes, which opening is covered with a slitted protective moisture barrier. The moisture barrier and slit operate in the manner described herein above wherein to protect the sheets from drying out when not used, and to allow individual moistened sheets to be pulled upwardly through the slit and from the box when needed.

The cover 78 has a pair of lateral sides 78a and 78b, a rear edge 78c, and a front edge 78d. The rear edge 78c of the cover 78 is hingely mounted to the upper end of the mounting plate 62 by hinge structure 79, whereby to enable the cover to pivot up and down relative to a pivot axis “X” and between closed and open positions. In the closed position (FIG. 7), the sides 78a and 78b are fitted against respective edges of the sidewalls 70 and 72, and the front edge 78d is fitted against an edge of the front wall 76. In the open position (FIGS. 6 and 8), the chamber 80 is accessible.

Each sidewall 70 and 72 includes a respective shelf 84 and 86, the shelves extending between the plate 62 and the front wall 76. The shelves position the container 82 in the chamber 80 and support a lid 88 atop the container.

The lid 90 is generally planar, rectangular in shape, and hingedly mounted along a rearward edge 90a thereof to the plate 62 by hinge structure 92, whereby to enable the lid 90 to pivot up and down relative to a pivot axis “Y”. In the down position, the lid 90 is supported atop the shelves 84 and 86, and in covering relation with the top of the container 82. Further, the lid 90 includes a shaped opening 94, which is adapted to register with the protective barrier in the top wall of the container, in a manner described herein above.

Upward rotation of the lid 90 provides access to the container 82, whereby the wet wipes can be replenished. A tab 96 is provided to assist in this upward rotation maneuvering of the lid.

To maintain the lid 90 downwardly, structure is provided to releasably retain the lid in connected relation with the shelves. While many approaches are known by those skilled in the art, a suitable approach includes providing interengageable tab and tab recesses 98a and 98b operating between the lid and the shelves. The tab and tab recesses are dimensioned to provide a frictional interlocking retention therebetween to hold the lid against the shelves.

The lower portion of the mounting plate 62 includes a pair of laterally spaced walls 100 and 102 that are configured to define the compartment 66 for receiving the spindle 68 and mounting a roll of paper 16, as shown and described herein above.

As noted herein above, the hinge structure 79 for the cover 78 may be in the form of a torsional spring to normally urge the cover downwardly and into the closed position.

The foregoing description of preferred embodiments of the invention has been presented for the purposes of illustration and description. It is not intended to be exhaustive or to limit the invention to the precise form disclosed. Many modifications and variations are possible in light of the above teaching. Such modifications and variations are deemed to be within the scope if this invention.
Having thus described the invention, what is claimed is:

1. A dispensing system for dispensing sanitary paper products, including wet wipes and dry paper from a roll, the dispensing system comprising:
   a generally planar mounting plate for attachment to a support structure, said mounting plate having upper and lower end portions,
   first means for mounting a roll of toilet paper to the lower end portion of said mounting plate,
   a wet wipes dispenser, and
   second means for mounting said wet wipes dispenser in operable relation to the upper end portion of said mounting plate and above said roll of toilet paper,
   said wet wipes dispenser including
   a chamber for storing a stack of separate, generally flat, planar, separably removable, wet wipes,
   a removable upper end wall having an opening for dispensing wet wipes from the chamber, removal of the upper end wall permitting the chamber to be accessed and refilled with wet wipes,
   means for urging the stack of wet wipes towards the upper end wall of said wet wipes dispenser and the next wipe of the stack of wet wipes into registry with the opening thereof and for withdrawal from the chamber, and
   a closure member, said closure member forming a disengagable connection with said upper end wall and movable between first and second positions, respectively, for covering and exposing said dispenser opening.

2. The dispensing system of claim 1, wherein said means for urging comprises
   a support tray dimensioned to support the stack of wet wipes, said support tray being disposed within said chamber and movable from a first position, spaced from said upper end wall, and a second position, proximate to said upper end wall and the opening thereof, and
   a spring structure for urging the support tray into said second position.

3. The dispensing system of claim 2, wherein
   said first means for mounting includes
   a pair of laterally spaced first sidewalls, said first sidewalls projecting upwardly from the mounting plate, and
   a spindle, the spindle having opposite ends, respectively, removably connected to one and the other sidewall,
   said second means for mounting comprises the wet wipes dispenser being integrally formed with the mounting plate and including a pair of laterally spaced second sidewalls, a bottom wall, and a forward endwall, said sidewalls and bottom wall projecting outwardly the mounting plate and the forward endwall connected to the ends of the bottom wall and sidewalls, and
   said closure member is hingedly connected along one edge to the mounting plate.

4. A wet tissue and dry towel dispenser, comprising a mounting plate having upper and lower portions, opposite lateral sides and adapted to be affixed to a support surface, said mounting plate being formed with an open front compartment for receiving a dry towel roll and also with a box-like tissue dispenser above the front compartment for dispensing wet tissues, means for mounting a dry towel roll in said compartment, said box-like tissue dispenser defining an interior chamber for receiving a stack of wet tissues to be dispensed and including an upper dispenser plate extending between the opposite lateral sides of said mounting plate, the dispenser plate formed with an opening for dispensing wipes from the chamber, a tray and a spring member in the chamber, the tray for supporting a stack of wet tissues, and the spring for biasing the tray and stack of wet tissues towards the opening, and a closure lid, said lid being movable between a closed position for covering the opening and preventing the tissues from becoming dried out and an open position to expose the opening and allow removal of wet tissues from the chamber.

5. The dispenser of claim 4, wherein a slitted moisture protective barrier extends across the opening of the wet tissue dispenser, the protective barrier inhibiting the entry of surrounding air into the chamber and cause the moist wet tissues therein to dry out and the slit providing a gap for passing a wet tissue from the chamber.

6. The dispenser of claim 4, wherein the protective barrier is formed of a transparent polymeric material to enable a user to discern if the chamber is empty.

7. The dispenser of claim 4, wherein said means for mounting a roll of tissue comprises a pair of sidewalls disposed laterally, and an elongated spindle for supporting the roll, the spindle having opposite ends, respectively, removably connected to one and the other sidewall.

8. The dispenser of claim 7, further comprising means for gaining access to the chamber for restocking the dispenser with wet tissues when the chamber is empty or in need of service.

9. The dispenser of claim 8, wherein the means for gaining access comprises said upper dispenser plate being removably connected to the dispenser box.

10. The dispenser of claim 9, wherein said closure lid is hingedly connected along an edge thereof to the upper dispenser plate for swinging movement relative thereto and between said closed and open positions.

11. The dispenser of claim 9, wherein said closure lid is hingedly connected along an edge thereof to the mounting plate for swinging movement relative thereto and between said closed and open positions.

12. The dispenser of claim 4, wherein said box-like tissue dispenser is tilted and at an acute angle to the mounting plate to provide ease of access to the user when pulling tissues through the opening for removal from the tissue dispenser.

13. The dispenser of claim 10, further comprising a mounting arrangement for mounting the dispenser to a support wall, wherein the mounting arrangement comprises respective sets of complementary keys and keyways operating between the support wall and the back face of the mounting plate.
15. The dispenser of claim 4, wherein the wet tissue dispenser is integrally formed with the mounting plate.

16. The dispenser of claim 4, wherein the wet tissue dispenser is separately formed and attached to the mounting plate.

17. A dispensing system for dispensing sanitary paper products, including wet wipes and dry paper from a roll, the dispensing system comprising:

   a generally planar mounting plate for attachment to a support structure, said mounting plate having upper and lower end portions,

   means for mounting a roll of toilet paper to the lower end portion of said mounting plate, and

   a wet wipes dispenser in operable relation to the upper end portion of said mounting plate and above said roll of toilet paper, said wet wipes dispenser including

   an upwardly open chamber for storing a stack of separate, generally flat, planar, separably removable, wet wipes,

   a removable closure plate having an opening for dispensing wet wipes from the chamber, said closure plate mounted in covering relation with the wet wipes with removal of the closure plate permitting the chamber to be accessed and refilled with wet wipes, and

   a cover member, said cover member hingedly connected to said mounting plate and movable between a first position for closing the dispenser and preventing access to the chamber and a second position for providing access to the chamber and exposing the closure plate and dispenser opening thereof.

18. The dispensing system of claim 17, further comprising:

   a removable container for storing said supply of wet wipes, said container including a second dispenser opening, and a slitted moisture protection barrier in covering relation with the second dispenser opening, the moisture protection barrier permitting wet wipes to be pass through the slit and be removed from the container, and

   means for positioning the container in said chamber whereby the first and second dispenser openings are juxtaposed to enable wet wipes to be dispensed from the chamber.

19. The dispensing system of claim 18, further comprising means for removably connecting the closure plate to the dispenser and atop the container of wet wipes.

20. The dispensing system of claim 17, further comprising means for urging the stack of wet wipes towards the closure plate and the next wipe of the stack of wet wipes into registry with the opening thereof and for withdrawal from the chamber.