Tissue Supply and Waste Disposal System

A tissue supply and waste disposal system for use in connection with facial tissue boxes is disclosed. The inventive system involves an extendable rail that either telescopingly extends from a side wall or swings from a top surface of the tissue box for supporting a disposable used-tissue receiving bag. In the fully or partially extended position, the rail supports three sides of the opening of the tissue receiving bag, a predetermined supply of which may be provided internally or externally to the tissue box for the convenience of the user, and sized and dimensioned to receive a selected number of used tissues commensurate with known human usage patterns. The receiving bag may be closed by collapsing the extendable rail against its opposing tissue box wall or top surface of the tissue box, for subsequent use, or alternatively, may be disposed of in its entirety as desired either when the bag is substantially filled up or when an external trash receptacle becomes available, all the while retaining the used waste tissues and preventing undesirable trash, while protecting all surrounding persons from a potentially unhygienic exposure to the used tissues.
TISSUE SUPPLY AND WASTE DISPOSAL SYSTEM

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] not applicable.

STATEMENT RE: FEDERALLY SPONSORED RESEARCH/DEVELOPMENT

[0002] not applicable.

BACKGROUND OF THE INVENTION

[0003] 1. Field of the Invention

[0004] The present invention relates generally to boxed facial tissues and, more particularly, to a tissue supply and waste disposal system for use in connection with facial tissue boxes.

[0005] 2. Description of the Related Art

[0006] Facial tissues are conventionally packaged in box-like containers configured to dispense the tissues contained therein. Whether independently stacked or loaded within the containers in an interleaved manner, generally a single tissue at a time is dispensed through a slot or other shaped opening formed in a side wall or top wall of the container, which itself may be a hard-sided structure generally formed of fiberboard, cardboard or the like, in a regular square or rectangular shape as is well known in the related art, or in a soft-sided rectilinear package generally formed of a plastic envelope. As a matter of personal sanitation, it is common practice to seek a convenient and speedy means for disposing a used tissue, while being compliant with conventional rules regarding disposal of debris, especially any debris that may include potentially infectious or noxious agents deposited therein.

[0007] It is generally observed that wastebaskets or other waste receiving containers are often inconveniently unavailable at the time the need arises to dispose of used tissue, therefore requiring the user to search for a suitable disposal site, or even temporarily store the used tissue in a pocket, waist-band or purse, until proper disposal can be achieved. Offentimes, either through inadvertence or frustration due to the absence of a suitable waste receiving container, the used tissue is inappropriately discarded as trash in a public or private area, sullying the area and causing a potential public health issue. Alternatively, the used tissue may be simply placed loosely next to the box of new tissue for someone else to dispose of. Since used tissue is normally offensive and unsanitary, the most suitable location for the immediate disposal of such tissue is in an easily emptied container proximate to the source of tissue. What is needed is a tissue box to which an integrated or retroactively affixable means is provided, which has, in addition to a compartment for dispensing new tissue, for the convenient disposal of used tissue in a sanitary manner. The new tissue compartment and the used tissue compartment should be hygienically separated from each other. To gain acceptance from manufacturers, the novel compartmentalized structure should be as compact as possible for shipping, stocking, and marketing, and be simple and economical to manufacture.

[0008] Therefore, it is desirable to provide an improved tissue supply and waste disposal system for use in connection with facial tissue boxes that overcomes these prior art shortcomings, in a novel arrangement that incorporates the above-indicated desires.

OBJECTS AND SUMMARY OF THE INVENTION

[0009] It is therefore an object of the present invention to provide an improved tissue supply and waste disposal system for use in connection with facial tissue containers, whether hard-sided boxes of various dimensions, or soft-sided dispensing containers.

[0010] It is another object of the present invention to provide an improved tissue supply and waste disposal system for use in connection with facial tissue boxes that is either incorporated into the tissue box as a single manufactured unit, or as a retroactively applied structure.

[0011] It is a further object of the present invention to provide an improved tissue supply and waste disposal system as a structural feature of a decorative tissue box cover/holder, for use in connection with facial tissue boxes.

[0012] The present invention is directed to a novel tissue supply and waste disposal system that provides a tissue box with a primary unused tissue storage area for sanitary storage of tissues to be deployed generally on an individual basis through a dispensing opening, and a disposal compartment which is designed to satisfy the aforementioned needs. The invention involves an extendable rail that telescopingly extends from a side wall of the tissue box for supporting a disposable used-tissue receiving bag. In the fully or even partially extended position, the rail supports three sides of the opening of the receiving bag, a predetermined supply of which is provided internally or externally to the tissue box, and sized and dimensioned to receive a selected number of used tissues commensurate with known human usage patterns. The receiving bag may be closed by collapsing the extendable rail against its opposing tissue box wall, for subsequent use, or alternatively, may be disposed of in its entirety as desired either when the bag is substantially filled up or when an external trash receptacle becomes available, all the while retaining the used waste tissues and preventing undesirable trash, while protecting all surrounding persons from a potentially unhygienic exposure to the used tissues.

[0013] According to the various additional preferred embodiments of the invention, the extendable rail and disposable bag system may also be provided in a structure that is retroactively applied and retained about the top surface of a tissue box, to be reused with subsequent tissue boxes as tissue supplies are depleted, and with replenishment of disposal bags for use therewith. Yet another preferred embodiment includes incorporation of the above-described embodiment into a tissue box cover as may be available for decorative purposes. An additional preferred embodiment of the invention replaces the telescopingly slidable rail system with a swing rail that pivots from an extending position similar to the first embodiment, to a closed position atop the tissue container, thereby also securing the disposal bag in a closed, secured position such as may be desired during storage or transport.

[0014] It should be noted and understood that with respect to the embodiments of the present invention disclosed herein, the materials, methods, apparatus and processes...
disclosed and suggested may be modified or substituted to achieve the desired protected structures without departing from the scope and spirit of the disclosed and claimed invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] FIG. 1 is a perspective view of the novel tissue supply and waste disposal system according to a first embodiment of the invention, showing the telescoping rail of the system in an extended, open position for supporting a disposal bag, the telescoping rail supported by fixtures provided within the tissue box.

[0016] FIG. 2 is a sectional view taken along line 2-2 of FIG. 1, showing additional features of the first preferred embodiment, including a stacked array of unused disposal bags provided at an interior surface of the tissue box prior to removal and use.

[0017] FIG. 3 is a side elevational view taken along line 3-3 of FIG. 1.

[0018] FIG. 4 is a perspective view of the novel tissue supply and waste disposal system according to a second embodiment of the invention, showing the telescoping rail of the system in an extended, open position for supporting a disposal bag, the telescoping rail supported on a base structure for retroactive application to a tissue box.

[0019] FIG. 5 is an exploded perspective view of the novel tissue supply and waste disposal system according to a third embodiment of the invention, showing the telescoping rail of the system in an extended, open position for supporting a disposal bag, the telescoping rail supported on a base structure incorporated in a tissue box cover for retroactive application to a tissue box.

[0020] FIG. 6 is a collapsed, fully engaged view of the tissue box cover and novel tissue supply and waste disposal system shown in FIG. 5.

[0021] FIG. 7 is a perspective view of the novel tissue supply and waste disposal system according to a fourth embodiment of the invention, showing the swingable rail of the system in an extended, open position for supporting a disposal bag, the swingable rail supported by pivot points provided on the tissue box.

[0022] FIG. 8 is a collapsed, fully engaged view of the system shown in FIG. 5, wherein the swingable rail is shown in the closed position.

DETAILED DESCRIPTION OF THE INVENTION

[0023] The detailed description as set forth below in connection with the appended drawings is intended as a description of the presently preferred embodiments of the present invention, and is not intended to represent the only form(s) in which the present invention may be constructed or utilized. The description sets forth functions and sequence of steps for constructing and operating the invention in connection with the illustrated embodiments. It is understood, however, the same or equivalent functions and sequences may be accomplished by different embodiments and that they are also intended to be encompassed within the spirit and scope of this invention.

[0024] With reference now to the drawing figures, FIGS. 1-3 represent a first preferred embodiment of the present invention, directed to a tissue supply and waste disposal system 10 that provides a tissue box 12 with a primary unused tissue storage area for sanitary storage of tissues 14. The tissue box 12 includes, in a rectilinear configuration, four side walls 16 supported by a bottom wall 18 and a top wall 20. Tissues 14 are deployed generally on an individual basis through a dispensing opening 22 formed in top wall 20 as shown, or in other walls 16, 18 as may be required by a particular configuration. According to the invention, the waste disposal system 30 includes an extendable rail 32 provided in a generally U-shape, having dual parallel legs 34 supported by connector 35, the legs 34 configured to be slidingly received through receiving sleeves 36 supported at an interior surfaces of wall 16. Receiving sleeves 36 may be supported at openings 38, or alternatively or in addition, supported at opposing interior surfaces 40 of opposing walls 16. In that position, extendable rail 32 telescopingly extends a lateral distance necessary and desirous to support a disposal bag 50 having walls 51 and upper wall sections 52 extending therefrom defining a bag mouth opening into which a tissue 14 may be disposed, and contained at the bottom of the so-supported disposal bag 50.

[0025] With particular attention to FIG. 2, it will be appreciated that rail 32 is extendable along a lateral width of top wall 20 to provide a sufficient bag mouth opening, such that leg ends 37 of legs 34 extend to a distance “A”, within a depth indicated by “A’” of receiving sleeves 36. When it is desired to compress the system as either for transport or store the system while simultaneously locking the bag mouth opening in a closed position, rail 32 is substantially fully telescoped into along receiving sleeves such that leg ends 37 are projected to a distance “A’”, and it will be apparent to the skilled artisan that overall dimensions of the rail 32, legs 34, and width of the tissue box 12 may be coordinated to maximize or otherwise optimize the spacing for the desired bag mouth opening, while providing a compact overall size of the assembled structure 10.

[0026] Again referring to FIG. 2, a supply of disposal bags 60 are provided in a preformed, interleaved stacked arrangement for use with the present inventive system 10, shown in FIG. 2 as being supported at an inside surface of any side wall 16, and dispensed either through dispensing opening 22 (thereby serving as a common dispensing opening for tissues 14 and disposal bags 60 as the need arises), or through dedicated disposal bag access opening 62 provided in any side wall 16 (FIG. 1). Preferably, disposal bag access opening 62 is provided in the side wall 16 that rail 32 overhangs, thereby providing direct access for replenishment of disposal bags 60. For exemplary purposes, it is contemplated that anywhere from 10 to 15 disposal bags may be provided, such selection based on calculations including the variables such as the quantity of tissues 14 provided in the tissue box 12, size of the tissues (square, rectangular, pocket size, oversize, etc.), capacity of each disposal bag, and other variables that the skilled artisan would consider relevant. Thus, and again for exemplary purposes, it might be calculated that on average, a consumer utilizes three tissues per hygiene episode, and accordingly, for a standard tissue box 12 provided with 45 tissues, a supply of 15 disposal bags would be provided or made available for use in connection therewith. The disposal bags 60 may be provided either individually or in the aforesaid-
tioned stack, and optionally in a pre-filled dispensing sleeve or container (not shown), sold either independently of or in connection with the tissue box 12 filled with a quantity of tissues 14. Alternatively, the disposal bags 60 may be positioned or optionally adhered to an underside of tissue box 12. According to any embodiment of the present invention, the disposal bags may be provided together or apart from tissue box 12, and may be configured either with a custom shape or in known shapes and configurations such as available in what is known as “sandwich sized” disposable plastic bags. Optional ties for closing the disposal bag opening may also be provided either by affixed to each disposal bag 60 or separately. Additionally, rail 32 may be fabricated of a metallic, plastic, or cardboard material, offering sufficient rigidity and strength to support a disposal bag 60 in the filled condition.

[0027] With reference now to FIG. 4, a second preferred embodiment of the present invention is shown. Retrofit system 100 includes a base unit 102 having a top wall 104 supported by side walls 106, sized and shaped to overlap and embrace corresponding walls 16 of conventionally sized and shaped tissue boxes 12 (including square, rectangular, or other shapes known in the art). In the fully installed position, tissues 14 are deployed generally on an individual basis through a dispensing opening 22 formed in top wall 20 of tissue box 12, and then through dispensing opening 108 formed in top wall 104. Retrofit system 100 supports the aforementioned extendable rail and disposable bag system 30, such to enable practice of the invention in the manner previously described.

[0028] With reference now to FIGS. 5 and 6, a third preferred embodiment of the present invention is shown. According to this embodiment, a telescoping rail system 30 as described in connection with the first and second embodiments is supported on a base structure 200 such as may be incorporated in a tissue box cover 202 for retroactive application to a tissue box. Tissue box cover system 100 includes base structure 204 having a top wall 206 supported by side walls 208, sized and shaped to substantially fully overlap, embrace and enclose corresponding walls 16 of conventionally sized and shaped tissue boxes 12 (including square, rectangular, or other shapes known in the art). In the fully installed position, tissues 14 are deployed generally on an individual basis through a dispensing opening 210 formed in top wall 206, and system 200 supports the aforementioned extendable rail and disposable bag system 30, such to enable practice of the invention in the manner previously described.

[0029] With reference now to FIGS. 7 and 8, a fourth preferred embodiment of the present invention is shown. According to this embodiment, the telescoping rail system 30 as described in connection with the first, second and third embodiments is replaced with a swingable rail system. Specifically, system 300 includes swing rail 302 having a “U” shaped structure having two arms 304 supported by connector 306. The free ends 308 of arms 304 are mounted for pivoting to pivot points 310 provided atop the top wall 20 of tissue box 12, or on opposing side walls 16 as will be apparent to the skilled artisan. In this structure, swing rail 302 is articulated in the direction of arrow B that pivots from an extending position similar to the first, second and third embodiments, to a closed, overlapping position atop the tissue container, thereby also securing the disposal bag in a closed, secured position such as may be desired during storage or transport. As will also be apparent to the skilled artisan, the structure of this fourth preferred embodiment may replace the slidable aspects of the other preferred embodiments of the invention, as described and claimed.

[0030] It is to be understood that the present invention is not limited to the embodiments described above, but encompasses any and all embodiments within the spirit and scope of the following claims.

1. An improved tissue box for dispensing tissues contained therein, the improvement comprising:

   a rail supported by the tissue box for supporting a tissue disposal bag.

2. The improved tissue box recited in claim 1, wherein the rail includes at least one arm selectively movable between a first position in which the disposal bag is supported in an open tissue receiving position and a second position in which the disposal bag is supported in a closed securing position.

3. The improved tissue box recited in claim 2, wherein the rail includes a pair of arms each having a proximal end and a distal end, the proximal ends of the arms being selectively telescoped into and out of the tissue box.

4. The improved tissue box recited in claim 2, wherein the arm is supported by a pivot provided on a wall of the tissue box, the arm being selectively articulated about the tissue box between a first position in which the disposal bag is supported in an open tissue receiving position and a second position in which the disposal bag is supported in a closed securing position.

5. The improved tissue box recited in claim 2, further comprising a supply of tissue disposal bags supported by the tissue box.

6. The improved tissue box recited in claim 5, wherein the supply of disposal bags is supported in the interior of the tissue box, the disposal bags being dispensed through a dispensing opening provided in a wall of the tissue box.

7. The improved tissue box recited in claim 5, wherein the dispensing opening is provided in the side wall of the tissue box about which the disposal bag is supported in the open tissue receiving position.

8. The improved tissue box recited in claim 3, wherein the arms are supported by receiving sleeves supported by the tissue box.

9. A tissue storage and waste system for use with a tissue box supporting a supply of tissues, the system comprising:

   a rail supported by the tissue box, the rail including a pair of arms in spaced-apart relationship for supporting a tissue disposal bag, the rail being selectively movable between a first position in which the disposal bag is supported in an open tissue receiving position and a second position in which the disposal bag is supported in a closed securing position.

10. The tissue storage and waste system recited in claim 9, wherein the rail system is supported on a base immediately adjacent the tissue box.

11. The tissue storage and waste system recited in claim 9, wherein the base is supported on top of the tissue box.

12. The tissue storage and waste system recited in claim 9, wherein the base includes a tissue dispensing opening, said opening overlapping a new tissue dispensing opening...
provided in the tissue box, for enabling access to new tissues through said overlapping dispensing openings.

13. The tissue storage and waste system recited in claim 12, wherein the base is configured to be directly supported by the tissue box, the base further including depending walls configured to fully encompass the vertical extent of the tissue box in the fully installed position.

14. The tissue storage and waste system recited in claim 10, further comprising a supply of waste tissue disposal bags supported by the base.

15. The tissue storage and waste system recited in claim 13, further comprising a supply of waste tissue disposal bags supported by the base or a depending wall.

16. The tissue storage and waste system recited in claim 9, wherein the tissue box is sold together or apart from the system.

17. The tissue storage and waste system recited in claim 9, wherein the waste tissue disposal bags are sold together or apart from the system.

18. The tissue storage and waste system recited in claim 13, comprising a supply of disposal bags supported by a depending wall, and the disposal bags being dispensed through a dispensing opening provided in a depending wall.

19. The tissue storage and waste system recited in claim 9, wherein the arms are secured for selective adjustment by supports supported by the tissue box.

20. The tissue storage and waste system recited in claim 19, wherein the supports are receiving sleeves supported by the tissue box.

21. A tissue storage and waste system for use with a tissue box supporting a supply of tissues, the system comprising:

a rail supported by the tissue box, the rail including a pair of arms in spaced-apart relationship each of the arms having a proximal end and a distal end the distal ends joined by a connector for supporting a tissue disposal bag, the proximal ends of the arms being selectively adjusted by telescoping adjustment into and out of receiving slides secured to the tissue box between a first position in which the disposal bag is supported in an open tissue receiving position and a second position in which the disposal bag is supported in a closed securing position; and

a supply of tissue disposal bags supported immediately adjacent the tissue box, the disposal bags being dispensed through a dispensing opening provided in a wall of the tissue box.