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COMBINATION DISPENSING AND DISPOSAL DEVICE

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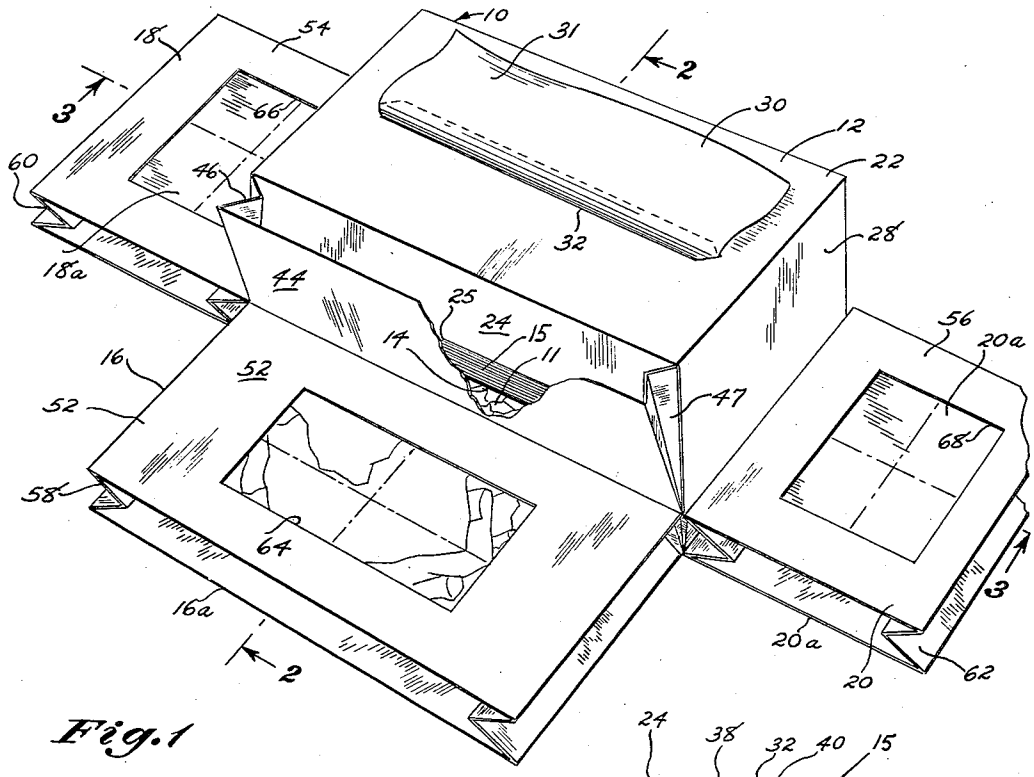


Fig. 1

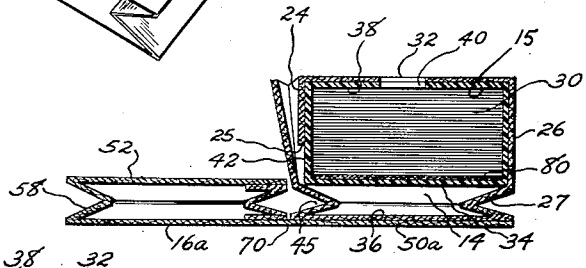


Fig. 2

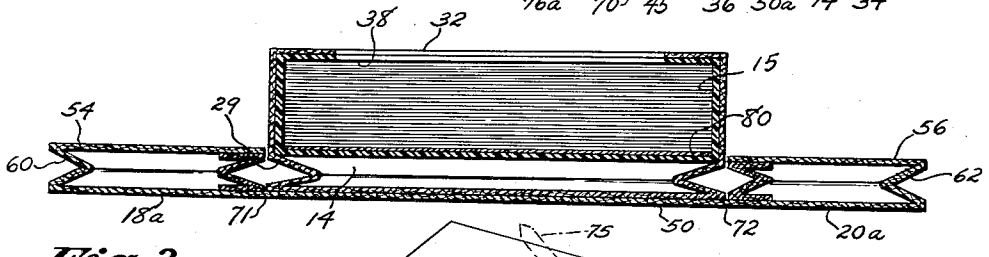


Fig. 3

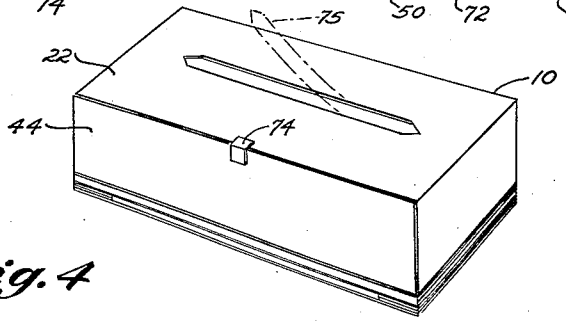


Fig. 4

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COMBINATION DISPENSING AND DISPOSAL DEVICE

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3 Claims. (Cl. 206—57)

This invention relates generally to containers, and more particularly to a combination dispensing and disposal device especially adapted for dispensing single use items which require special disposal.

Absorbent tissues being available at low cost are in wide use for various blotting, absorbing and wiping uses. Frequently the material or substance which has been wiped may readily contaminate or soil still further articles so that immediately after the use of the absorbent tissue, it is desirable to place the same in a container which will serve to isolate the contaminated tissue, and to prevent the same from having any further soiling or contaminating action. Since such additional container to receive the soiled tissues is not normally conveniently available, it is among the objects of the present invention to provide a unitary structure which has both a storage capacity for unused tissues, or the like, as well as a chamber adapted to receive and isolate the soiled tissues.

Another object herein lies in the provision of structure of the class described, which may be compact and which may expand as needed to accommodate the soiled tissues.

Another object herein lies in the provision of a storing dispensing device, which although presenting a trim and compact appearance, is capable of alteration in use so that the same may be enlarged to accomplish its functions.

A still further object herein lies in structure of the class described wherein auxiliary disposal elements may be selectively used and selectively disconnected from the storage element.

Another object herein lies in the provision of a device of the present character which adequately isolates soiled tissues, so that even when they contain infectious matter, the clean or unused tissues may be maintained in a substantially sterile condition.

A feature of the invention lies in the fact that even though the present device affords the means for the different uses described above, yet the same may be packaged and handled to present a relatively normal appearance, and to occupy only a slightly increased cubic area on the dealer's shelf.

Another feature resides in the fact that by virtue of the simple structure hereof, the same may be manufactured in large quantity at low cost with consequent wide distribution and use.

A distinct advantage of the present invention resides in the fact that as the used tissues are placed at the bottom in the isolating element, this automatically raises the pile of unused tissues, so that a fresh tissue is always conveniently disposed at the top of the container ready for instant use.

These objects and features, as well as other incidental ends and advantages, will become more clearly apparent during the course of the following disclosure, and be pointed out in the appended claims.

In the drawings, to which reference will be made in this specification, similar reference characters have been employed to designate corresponding parts throughout the several views.

Figure 1 is a fragmentary view in perspective showing an embodiment of the invention in opened condition.

Figure 2 is a transverse vertical sectional view reduced slightly.

Figure 3 is a reduced vertical sectional view as seen from the plane 3—3 on Figure 1.

Figure 4 is a reduced view in perspective showing the completed device in compact condition.

In accordance with the invention, the device, generally indicated by reference character **10**, comprises broadly: a main storage element **12**, a disposal element **14**, a second disposal element **16**, and third and fourth disposal elements **18** and **20**.

The main storage element **12** comprises a top wall **22**, a front wall **24**, a rear wall **26** and end walls **28**.

The main storage element is preferably generally of box-like configuration, and has disposed therewithin an isolating element **15**. The element **15** is preferably of a size and shape to permit the same to be urged against the inner surfaces of the walls of the main storage element by the first contents which may comprise a stack of clean folded absorbent tissues. The isolating element is preferably composed of a thin flexible moisture-resistant material, such as, for example, sheet synthetic resin. while we prefer to make the isolating element of thin polyethylene, other thin flexible water-resistant materials such as, natural or artificial rubber, resin impregnated cloth, cellophane, cellulose acetate, and/or vinyl copolymer may be used.

The top wall **22** is provided with an elongated orifice **32** through which the contents **30** may be subsequently removed, and in Figure 1, there is seen the top most tissue **31** projecting therethrough. The bottom wall **34** of the isolating element **15** forms the bottom of the main storage element **12** serving to support the pile of contents **30**, and in the initial positioning of the parts, said bottom wall **34** is in turn supported by the base wall **36** of the first disposal element **14**. The upper wall **38** is provided with an opening **40** which coincides with the elongated orifice **32** and thus permits the contents **30** to be removed through the aligned orifice **32** and opening **40**. This is best seen on Figures 2 and 3. In order to assure this alignment, and for more sturdy construction, the borders of the opening **40** and the orifice **32** may be adhesively secured together, or otherwise connected.

The lower portion of the rear wall **26** has an accordion member **27**, while the lower portions of the end walls **28** have accordion members **29**. The front wall **24** has a lower edge **25** which is disposed preferably above the level of the bottom wall **34**. This permits the front wall portion **42** to be distorted inwardly for the passage thereby of used tissues **11**. Disposed forwardly of the front wall **24** is a chute wall **44** which at its lower portion is provided with an accordion member **45**, and at the ends thereof with gussets **46** and **47**. The lower edges of the accordion members **27**, **29** and **45** are joined to the base wall **36**.

Secured to the undersurface of the base wall **36** is a platform member **50** which preferably extends not only under the base wall **36**, but into the second, third and fourth disposal elements. Thus the extension into the disposal element **16** is indicated at **16***a* and into the third and fourth disposal elements at **18***a* and **20***a*.

Since the second, third and fourth disposal elements are substantially identical, it will be noted that they each have top walls **52**, **54** and **56**, and accordion members **58**, **60** and **62**. The said walls **52**, **54** and **56** are provided with entrances **64**, **66** and **68**, through which used or soiled tissues or the like may be inserted into the respective disposal elements. While these are shown as relatively large openings, they may be smaller and may be

provided with closure flaps indicated by the dot dash lines in Figure 1.

In use, the device **10** may first appear as shown in Figure 4, where the second disposal element **16** has been folded through substantially 180 degrees to the right about the fold line **70**, as viewed in Figure 2, then the wall **16***a* would lie in contact with and below the portion **50***a*. With the top wall **52** pressed against the wall **16***a*, and the accordion member **58** collapsed, the third and fourth disposal elements have their walls **18***a* and **20***a* folded about the fold lines **71** and **72** (Figure 2) so that their top walls **54** and **56** are next to the portions **18***a* and **20***a* with the accordion members **60** and **62** collapsed. The parts may be maintained originally in this position by having been subjected to heat and pressure, or an auxiliary wrapping (not shown) may be used. Another method of maintaining the parts in as compact a fashion as is desired is by the use of frangible adhesive connections which can be separated by the user as required.

The upper edge of the chute wall **44** may be maintained close to the wall **24** by an adhesive tab **74** which can be parted by the user's thumbnail as required. Thus, the package in Figure 4 appears to be substantially identical with the normal package for absorbent tissues, which are to be discarded after use in some other container. Should it be desired to use the disposal elements which are part of the device **10**, the user may break the tab **74** and pull the chute wall **44** forward so that it will appear as shown in Figure 1. Now the user may place soiled tissues down between the chute wall **44** and the front wall **24** into the first disposal element **14**. Since the chute wall **44** is substantially as long as the first disposal element, the soiled tissues may be properly distributed so as not to increase undue bulk at any one point. Upon the filling of the first disposal element, the user may selectively use the third, fourth or second disposal elements. When filled, these may be independently severed along the fold lines **70**, **71** or **72**, and disposed of in some separate container when the user is near the same. The cubic capacity of the disposal elements is adjusted and arranged to accommodate the reasonably expected bulk of the soiled or used tissues such as might be contained in the cubic capacity of the main storage element and the isolating element **15**. It will be seen that the isolating element, being open to the atmosphere only at its opening **40**, protects the clean unused tissues from contamination of the used tissues disposed in the first disposal element, and being flexible, is able to shift or collapse upwardly as required to accommodate the increased bulk of the used tissues which are inserted into the first disposal element **14**. The opening **40**, as well as the opening **32**, may be closed in a well known manner by the provision of a strip **75** which is frangibly joined to the top wall **22**.

While the isolating element is adapted to provide support for the unused tissues which are stored therein, and to be locally distortable by the insertion of the used tissues thereby, certain advantages result from the use of a stiffening element **80** which is interposed between the upper surface of the bottom wall **34** and the lowermost surface of the bottom tissue **30**. When so placed, the same may rest there by being confined by the surrounding parts, and by gravity. This stiffening element **80** also assists in handling the stacked tissues during the loading of the device during its manufacture. It is also feasible to secure the stiffening element to the undersurface of the bottom wall **34** in any suitable manner, as for example, by the use of adhesives. When the bottom wall **34** is stiffened, pressure caused by clumping of the used tissues are distributed, tending to reduce the likelihood of rupture of the wall **34**. Similarly, the bottom wall **34** may be stiffened also by suitable means such as thickening the same or varying the contents of the material of which it is made. The area of the stiffening element is substantially coextensive with the area of the bottom wall **34** where

the same underlies the lowest tissue in the pile, and when of such size, is adapted to engage against the rear and end walls where they join the accordion members therebeneath. Such structure results in the weight of the tissues being carried by the lower portions of the rear and end walls and the stiffening element thereby acts to prevent premature expansion of the collapsed accordion members as they are in the device at the beginning of the use of the device.

The distribution of the pressure of the used tissues results also in less pressure on the pile of unused tissues, thereby reducing the friction occurring when single tissues are withdrawn and facilitating such withdrawal.

In connection with the disposal elements, the second, third and fourth disposal elements, where desired, may have the openings in their top walls omitted and may have slits or similar type openings in the accordion members thereof through which the soiled tissues may be inserted.

We wish it to be understood that we do not desire to be limited to the exact details of construction shown and described in this specification, for obvious modifications will occur to those skilled in the art to which the present invention relates.

We claim:

1. A combination dispensing and disposal device for use in conjunction with disposable tissues and the like, comprising: a top wall having an opening for the removal of tissues therethrough, first and second side walls and a pair of end walls all interconnected to said top wall at substantially right angles, a base wall interconnected by expansive accordion folds to said end walls and said first side wall; an isolating element formed of thin flexible moisture resistant material of shape generally conforming to the enclosure formed by said top, side and base wall, and having a bottom wall disposed above said base wall forming with said base wall and accordion folds an enclosed space for the storage of unused tissues within said enclosure; said isolating element having an upper wall having an opening aligned with the opening in said top wall, the edges of said openings being interconnected; said second side wall having a lower edge disposed substantially above the level of said bottom wall of said isolating element thereby forming an opening permitting the insertion of used tissues between said base wall and said bottom wall.

2. A combination dispensing and disposal device for use in conjunction with disposable tissues and the like, comprising: a top wall having an opening for the removal of tissues therethrough, first and second side walls and a pair of end walls all interconnected to said top wall at substantially right angles, a base wall interconnected by expansive accordion folds to said end walls and said first side wall; an isolating element formed of thin flexible moisture resistant material of shape generally conforming to the enclosure formed by said top, side and base wall, and having a bottom wall disposed above said base wall forming with said base wall and accordion folds an enclosed space for the storage of unused tissues within said enclosure; said isolating element having an upper wall having an opening aligned with the opening in said top wall, the edges of said openings being interconnected; said second side wall having a lower edge disposed substantially above the level of said bottom wall of said isolating element thereby forming an opening permitting the insertion of used tissues between said base wall and said bottom wall, and a chute wall interconnected through accordion folds to said base wall and said end walls, the lower portion of which overlies said last-mentioned opening.

3. A combination dispensing and disposal device for use in conjunction with disposable tissues and the like, comprising: a top wall having an opening for the removal of tissues therethrough, first and second side walls and a pair of end walls all interconnected to said top wall at substantially right angles, a base wall interconnected

by expansive accordion folds to said end walls and said first side wall; an isolating element formed of thin flexible moisture resistant material of shape generally conforming to the enclosure formed by said top, side and base wall, and having a bottom wall disposed above said base wall forming with said base wall and accordion folds an enclosed space for the storage of unused tissues within said enclosure; said isolating element having an upper wall having an opening aligned with the opening in said top wall, the edges of said openings being interconnected; said second side wall having a lower edge disposed substantially above the level of said bottom wall of said isolating element thereby forming an opening permitting the insertion of used tissues between said base wall and said bottom wall, a chute wall interconnected through accordion folds to said base wall and said end walls, the lower portion of which overlies said last-mentioned opening; and an auxiliary tissue disposal element having upper and lower walls interconnected by accordion folds; said upper wall thereof having an opening for the insertion of used tissues, said lower wall having means for foldably interconnecting said auxiliary tissue disposal element with said base wall.

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