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3,579,653

DISPOSABLE URINAL

Filed Sept. 5, 1969

2 Sheets-Sheet 1

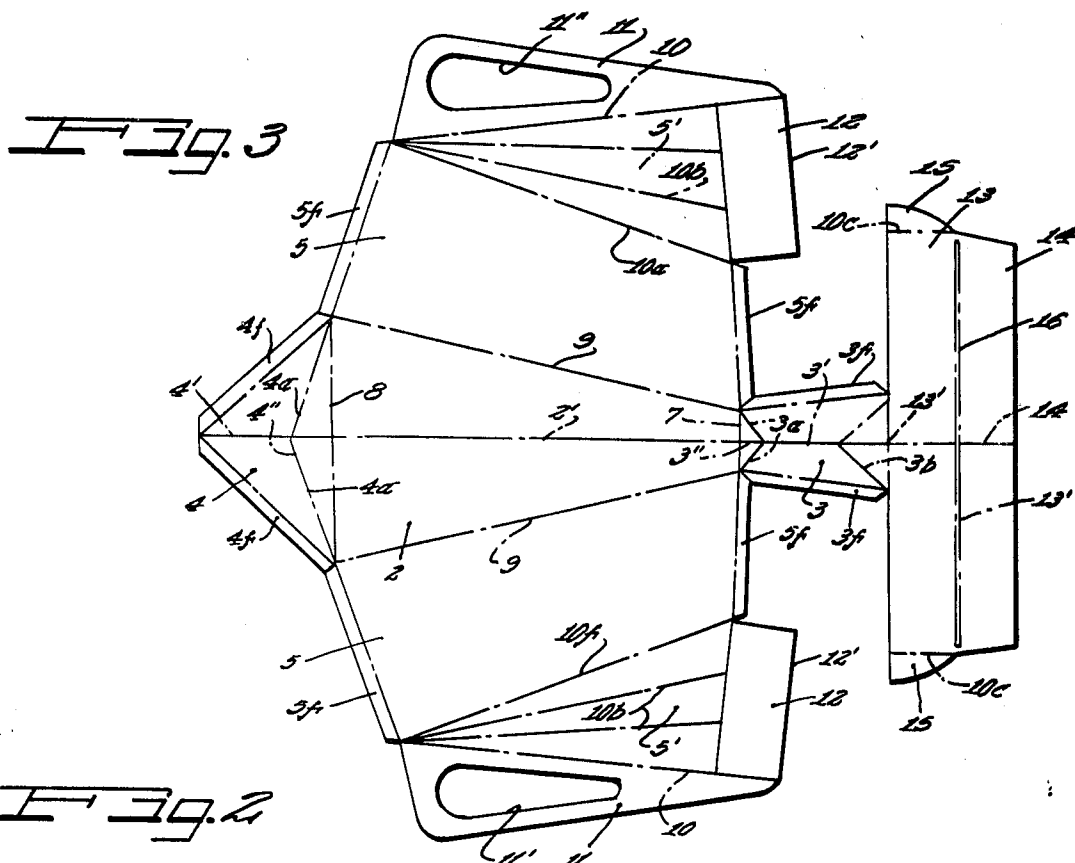


Fig. 2

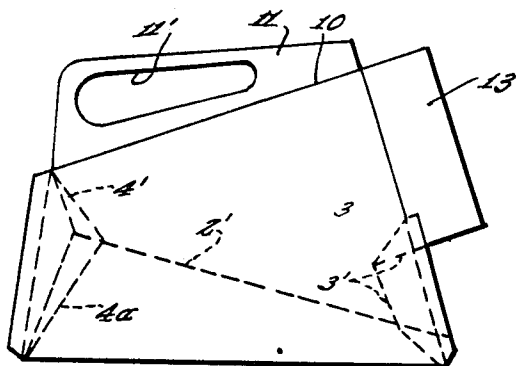


Fig. 1

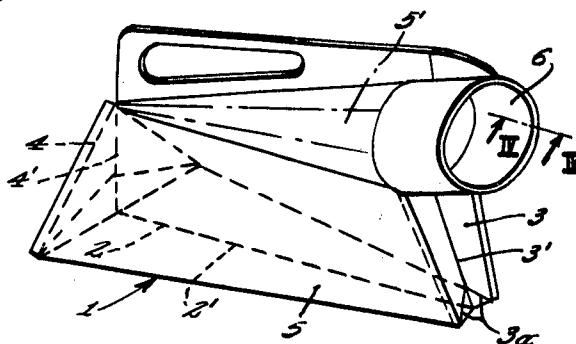
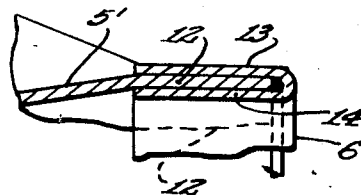


Fig. 4



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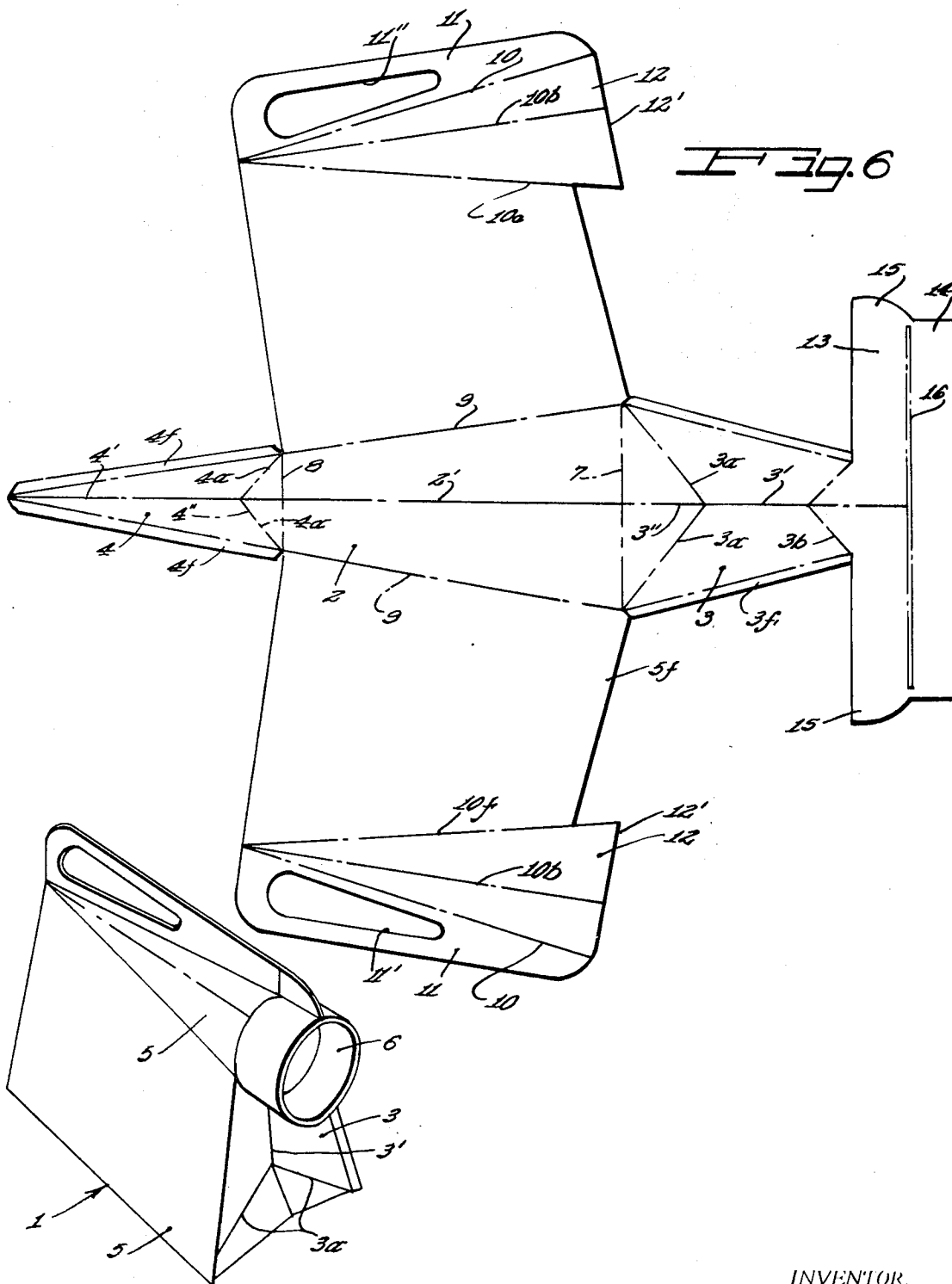
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2 Sheets-Sheet 2



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Fig. 5

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3,579,653

DISPOSABLE URINAL

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11 Claims

ABSTRACT OF THE DISCLOSURE

A disposable urinal comprising a container constructed of thin sheet stock such as relatively stiff paper or light board, having a bottom wall, side walls and end walls, and constructed adjacent the top thereof with a fluid inlet opening capable of assuming and retaining a generally circular configuration, the bottom and end walls being arranged for folding upon themselves to permit said side walls to be disposed in substantially parallel plane and the portions defining said inlet opening disposed substantially in such plane to provide a relatively flat compact package.

BACKGROUND OF THE INVENTION

The use of reusable bed pans and urinals, constructed of metal or rigid plastic, in hospitals and other institutions presents a number of disadvantages. First, following use, they must be emptied, cleaned and sterilized, following which they must be stored until the next use. This oftentimes is accomplished by storage in suitable plastic or other containers and obviously considerable storage space is required as such devices are relatively bulky. While urinals do not present as severe a problem, as they are smaller, are utilized merely for liquid, and thus more readily cleaned, etc., as in the case of bed pans, personnel must be employed to clean, sterilize and possibly package the same for storage. Obviously in addition to requiring special labor and possibly special equipment, the initial cost likewise is relatively high and it is oftentimes difficult to get personnel for this work.

The present invention is thus directed to a urinal which may be disposed of following use and thus does not require cleaning, sterilizing, packaging, etc.

BRIEF SUMMARY OF THE INVENTION

The invention is directed to a urinal adapted to be disposed after use, which is constructed from a suitable inexpensive paper or plastic stock either inherently waterproof or water-proofed upon completion of the urinal, with the latter thus being sufficiently inexpensive that it may be utilized only once and then thrown away. The urinal according to the invention also has the further feature that it is so designed that it may be initially folded into a very compact flat package for handling, shipping and storage, and subsequently opened up at time of use to form a fluid container.

The urinal as herein illustrated is intended for use as a male urinal and is provided with a fluid inlet opening of a size to receive the male organ, the construction being such that upon opening of the container to its usable configuration the fluid inlet opening may be provided with a generally circular configuration which it will retain during its use to facilitate the same.

In accordance with the present invention the device is so proportioned and constructed that it will readily be self-supporting following opening and usage and which may also be provided with a suitable handle by means of which it may be carried.

In accordance with another feature of the invention, the inlet opening is so constructed that a smooth substantially uniform structure is presented.

In the preferred form, the fluid inlet opening is dis-

posed at an end of the container which is relatively narrow compared with the opposite end thereof to facilitate disposition of the container between a patient's legs.

Other objects and advantages of the present invention will be obvious to those skilled in the art from the disclosure herein given.

BRIEF DESCRIPTION OF DRAWINGS

In the drawings, wherein like reference characters indicate like or corresponding parts, and wherein a preferred form of the invention is illustrated, which, as will be apparent therefrom and from the following description may be capable of various immaterial variations and modifications without departing from the spirit and scope of the novel concepts of the disclosure:

FIG. 1 is a perspective view of a urinal constructed in accordance with the present invention;

FIG. 2 is a plan view of the urinal of FIG. 1 when in folded, substantially flat condition;

FIG. 3 is a plan development of the blank from which the urinal of FIGS. 1 and 2 may be fabricated from sheet stock;

FIG. 4 is a sectional view taken approximately on the line IV-IV of FIG. 1;

FIG. 5 is a perspective view similar to FIG. 1 illustrating a modified form of the invention; and

FIG. 6 is a plan development similar to FIG. 3 of the blank utilized in the formation of the urinal of FIG. 5.

DETAILED DESCRIPTION OF THE INVENTION

Referring to the drawings, and more particularly to FIGS. 1-3, the urinal therein illustrated comprises a container indicated generally by the numeral 1 comprising, in the embodiment illustrated, a bottom wall 2, respective end walls 3 and 4 and side walls 5, the front wall 3 being more or less trapezoidal in shape and the rear wall 4 being illustrated as of triangular shape. The container is provided at the upper portion thereof with a fluid inlet opening 6, which in the opened device as illustrated in FIG. 1, is of generally cylindrical tubular configuration and slopes rearwardly as will be apparent from a reference to FIG. 2. As will be apparent from FIGS. 1 and 3, the bottom 2 is of generally trapezoidal shape with the front edge 7 being relatively narrow and the rear edge 8 being relatively wide whereby the side walls 5 have their rear edges converging and their front edges diverging from the bottom wall 2. At the same time the upper portions 5' of the side walls 5 generally converge from adjacent the fluid inlet 6 to adjacent the apex of the rear wall 4.

As will be apparent from a reference to FIGS. 1 and 2, the bottom wall 2 is adapted to be folded inwardly and upwardly along a median fold line 2' while the front and end walls 3 and 4 respectively are adapted to be folded inwardly along median fold lines 3' and 4' respectively. Additional fold lines 3a and 3b are provided in the front wall 3 and in like manner additional fold lines 4a are provided in the rear wall 4 to permit the respective end walls to be folded inwardly as described.

Extending upwardly from the top of the urinal is a handle member indicated generally by the numeral 9, which in the embodiment illustrated is formed from two plies of the stock utilized in forming the container 1, the member 9 having a hand receiving opening 11 therein.

The embodiment illustrated in FIGS. 1 and 2 may be fabricated from a single piece of sheet material which is suitably cut to define the respective wall elements as well as the handle 9.

The development of a blank of sheet material which may be suitably folded and formed to produce the urinal illustrated in FIG. 1, is illustrated in FIG. 3.

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hollow generally elongated fluid container, the upper portion of said container being provided at one end thereof with an annular portion forming the inlet opening of the container, said annular portion being constructed to provide a tubular member having a substantially continuous peripheral end edge at the exterior end of said tubular member, defining the mouth of such opening, the upstanding walls of the container merging into a top wall portion connected at one end with said tubular member, and means disposed at and carried by said tubular member imparting sufficient rigidity to said tubular member that the latter will retain a set operative configuration, but sufficiently pliable that said tubular member may be manually adjusted from a collapsed or folded position in which said inlet opening is closed to a generally annular open configuration, said bottom, top and upstanding walls being constructed to permit the container structure to be collapsed and folded into a compact substantially flat package.

2. A disposable urinal according to claim 1, wherein said rigidity-imparting means comprises an elongated element disposed adjacent the mouth of said fluid inlet opening, said element being bendable to permit the container structure at said opening to be folded flat, and bendable at time of use into a configuration to maintain the mouth of said opening in a desired annular shape.

3. A disposable urinal according to claim 1 wherein said container is formed from a single piece of sheet stock, the blank therefore prior to assembly having a bottom wall, end walls and side walls, each having an edge integrally connected with the edge of an adjacent wall, and provided with means for forming a sealed joint at each pair of meeting edges of intersecting walls, said side walls having adjacent their top edges, wall portions adapted to cooperate with a portion of the front wall to define said fluid inlet opening, said bottom, front and end walls being foldable approximately along median lines and said wall portions being foldable to position said side walls in substantially parallel relation.

4. A disposable urinal according to claim 3, wherein said wall portions terminate along their top free edges in handle portions disposed in parallel relation and connected to form a unitary handle structure.

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5. A disposable urinal according to claim 3, wherein said front wall terminates at its upper end in a transversely extending strip of a length at least equal to the circumference of said fluid inlet opening, said strip being secured to the adjacent end of said wall portion and co-operable therewith to form the container structure adjacent said opening.

6. A disposable urinal according to claim 5, wherein a second strip is integrally connected with said first strip, said second strip being folded along a longitudinal line into the opening to enclose the adjacent ends of said wall portions.

7. A disposable urinal according to claim 6, wherein said rigidity-imparting means comprises a wire element disposed adjacent the mouth of said fluid inlet opening, said wire element being bendable to permit the container structure at said opening to be folded flat, and bendable at time of use into a configuration to maintain the mouth of said opening in a desired annular shape.

8. A disposable urinal according to claim 7, wherein said bendable wire is disposed at the juncture of said strips and secured thereat.

9. A disposable urinal according to claim 3, wherein said bottom is generally trapezoidal in shape and said rear wall is substantially triangular in shape and secured to one of the trapezoidal base edges of said bottom.

10. A disposable urinal according to claim 9, wherein said rear wall is secured to the longer base edge of the bottom.

11. A disposable urinal according to claim 9, wherein said rear wall is secured to the shorter base of the bottom.

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