

May 5, 1964

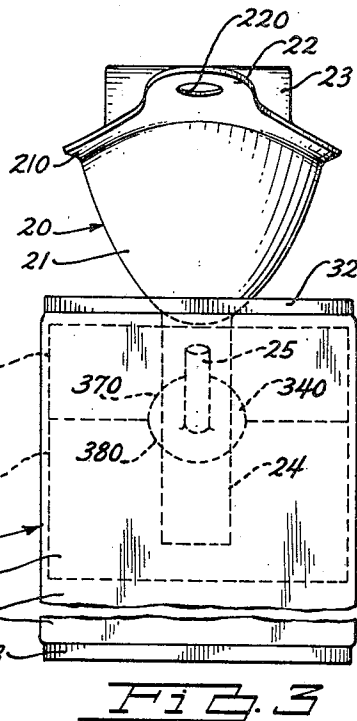
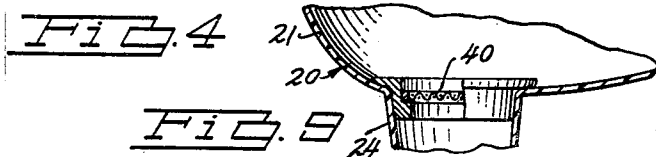
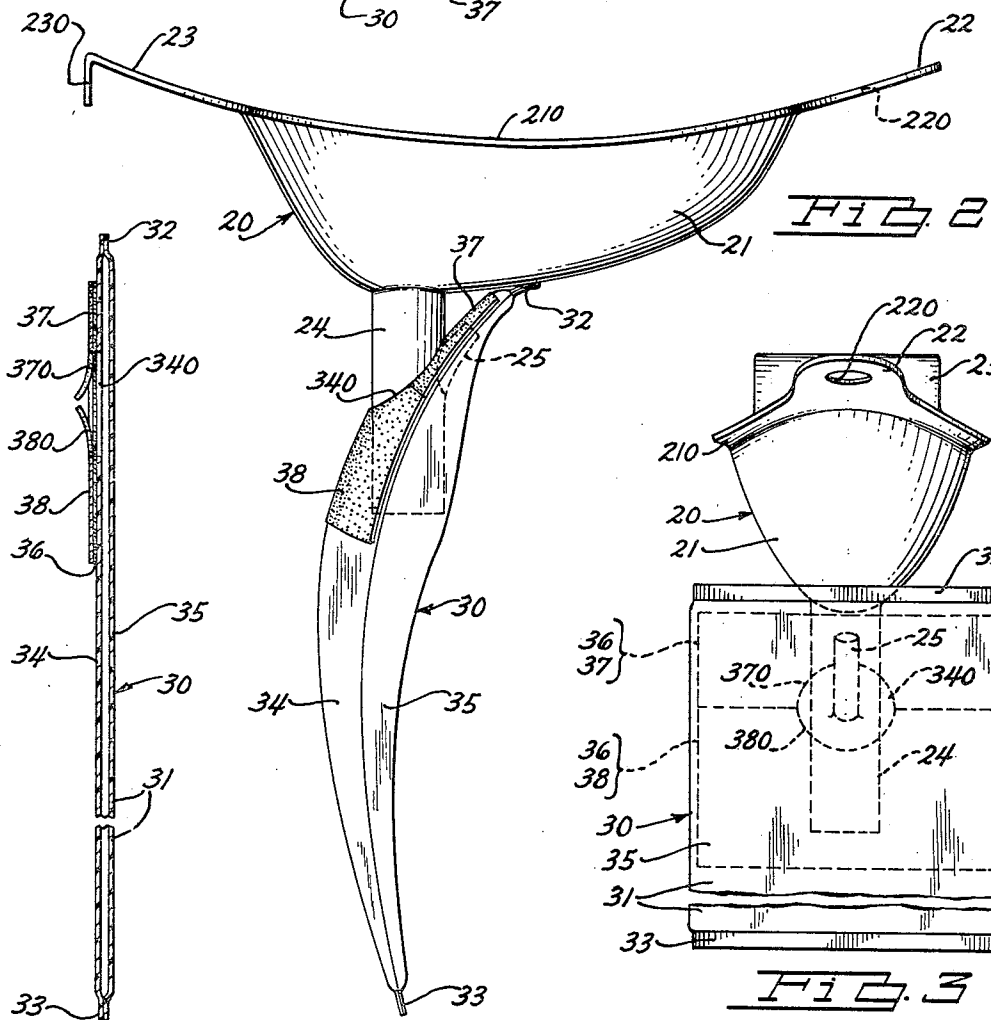
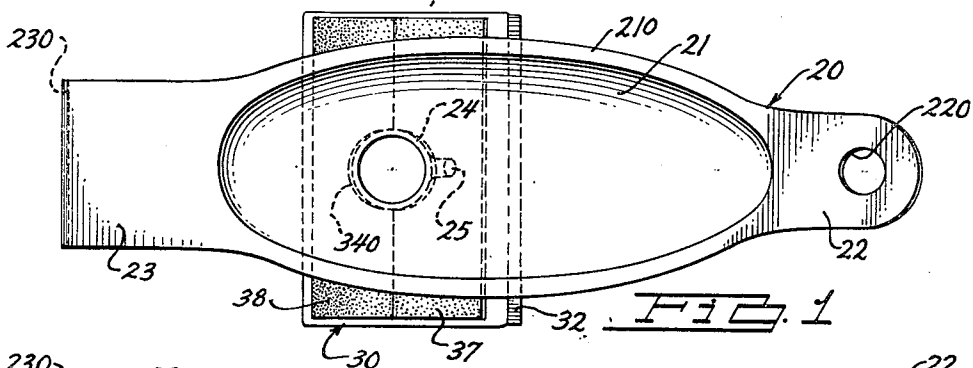
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3,131,403

ADULT URINE SPECIMEN COLLECTOR

Filed Feb. 6, 1962

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

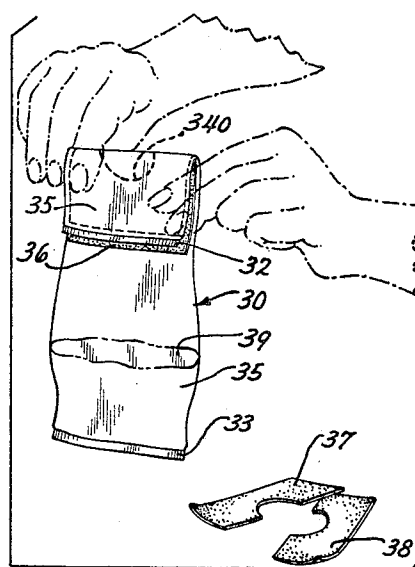
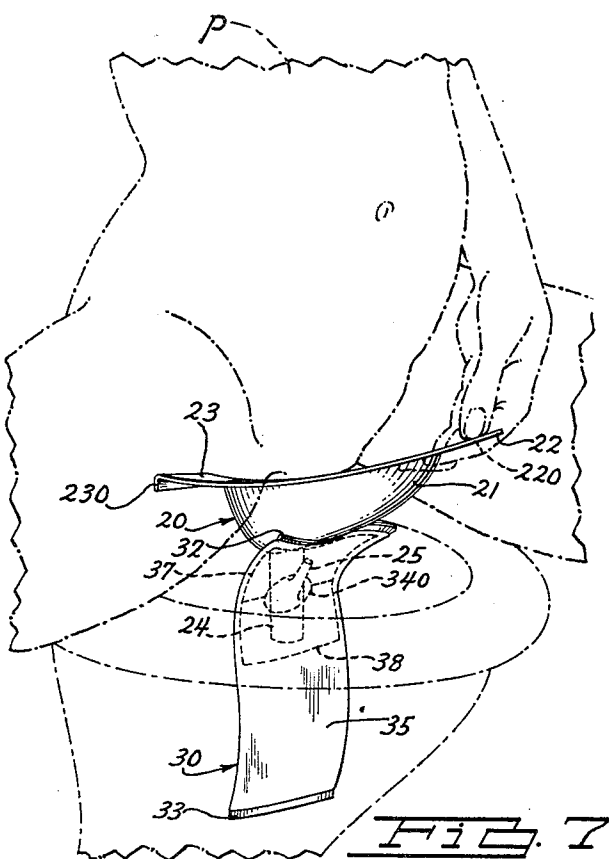
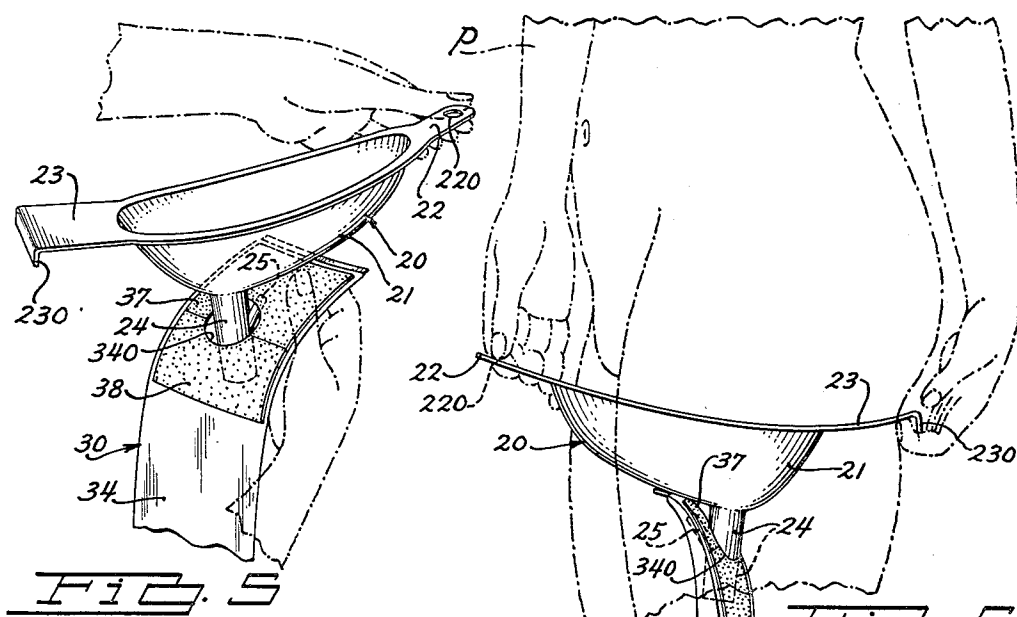


FIG. 8

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1

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ADULT URINE SPECIMEN COLLECTOR

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This invention relates to improvements in adult urine specimen collectors particularly desirable for use by adults to collect specimens of urine for medical test purposes.

The primary object of the invention is to provide an improved convenient to use, sanitary adult urine collector for collecting urine specimens from adults that may be used in hospitals, in doctor's offices or in the home without necessity of the patient disrobing, but which is equally desirable for use by partially or fully disrobed patients, and which is also useable by both male and female patients for straining urine to check for the passing of kidney stones and the like.

A further object of the invention is to provide improved adult urine specimen collectors as aforesaid either in a reuseable or disposable construction, the reuseable form being washable for reuse by the same patient or can be sterilized for use by different patients.

Another object of the invention is to provide an adult urine specimen collector which deposits the urine specimen into a sealable specimen bag for dispatch to the laboratory for test, the said sealable specimen bag being removably hung or otherwise connected thereto.

Another object of the invention is to provide an adult urine specimen collector which may be used readily and conveniently by the patient to strain urine to check for the passing of kidney stones and the like.

A still further object of the invention is to provide an improved adult urine specimen collector which is scientifically contoured and anatomically shaped to cover the entire genitalia so as to be conveniently held in the proper location between the thighs of the patient's legs at the pubic region and be maintained manually in such location by the patient conveniently when either in a standing or sitting position.

Other objects of the invention will become apparent by reference to the following detailed description taken in connection with the accompanying drawings, in which:

FIG. 1 is a top plan of a reuseable adult urine specimen collector embodying the invention with a sealable urine specimen bag connected thereto.

FIG. 2 is a side elevational view of the embodiment of the invention shown in FIG. 1.

FIG. 3 is a front elevational view.

FIG. 4 is a detailed sectional view through a urine specimen bag particularly adapted for use with adult urine specimen collectors of the instant invention.

FIG. 5 is a view in perspective showing the hanging of the urine specimen bag in urine receiving relationship on the embodiment of the adult urine specimen collector disclosed in FIGS. 1-3 inclusive.

FIG. 6 is a view in perspective showing the use of an adult urine specimen collector embodying the invention by a female patient in a standing position.

FIG. 7 is a view in perspective showing the use of an adult urine specimen collector embodying the invention by a female patient in a seated position on a toilet seat.

FIG. 8 is a view in perspective indicating the manner in which a urine specimen bag is sealed after the urine specimen has been collected.

FIG. 9 is an enlarged sectional view of the upper portion of the drainage spout of an adult urine specimen collector, either reuseable or disposable, with a strainer therein for collecting kidney stones or the like.

Referring now to the drawings wherein like reference

2

numerals refer to like and corresponding parts throughout the several views, the particular embodiment of the invention disclosed in FIGS. 1-8 inclusive and FIG. 9 consists of a reuseable form of adult urine specimen collector generally indicated by the numeral 20 comprising an elongated generally elliptical bowl 21 deeper at the rear end than at the forward end thereof, and including an outwardly extending lip 210 around the top thereof terminating in front and rear end extensions 22 and 23 respectively. The said generally elliptical bowl 21, its lip 210, and the front and rear extensions 22 and 23 are preferably formed longitudinally convex, and the said bowl 21 has at the deep end thereof a generally vertical depending spout 24 which has preferably on its forward side a diagonally upwardly disposed horn 25 which serves as a hanger for a urine specimen collector bag 30 herein-after described in detail.

The forwardly extending front end extension 22 of the elliptical bowl 21 is preferably provided with a sufficiently large aperture 220 therethrough to permit the thumb and a finger of one hand of a user of the adult urine specimen collector 20 to grip the front end extension 22 in a non-slip relationship. This aperture 220 also permits the adult urine specimen collector to be hung on a suitable hook or peg for drying or storage after use and washing or sterilization.

The rearwardly extending rear end extension 23 of the elliptical bowl 21 is preferably provided with a downwardly extending tab or finger grip 230 to permit the fingers of the other hand of a user of the adult urine specimen collector 20 to grip the said rear end extension 22 and simultaneously apply sufficient upward pressure thereon to hold the said adult urine collector conveniently in its in-use position as later described.

The particular specimen collector bag 30 shown in its collapsed unused condition in FIG. 4 is preferably used in combination with the adult urine specimen collector 20, and preferably consists of a relatively flexible plastic sleeve 31 heat sealed at its top 32 and bottom 33. The said adult specimen collector bag 30 is provided with a filler aperture 340 in the rear side 34 thereof of such a size as to receive in telescopic relationship therethrough the downwardly depending spout 24 of the adult urine specimen collector 20 and horn 25 projecting diagonally upwardly therefrom. The front side 35 of the said adult specimen collector bag 30 is imperforate. By reference to FIG. 5, it will be observed just how a specimen collector bag 30 is hung in suspended relationship on the horn 25 of its spout 24. The upper portion of the rear side 34 of the adult specimen collector bag 30 both above and below the filler aperture 340 therein is coated with an adhesive 36 over which are upper and lower removable protective cover sheets 37 and 38, each arcuately notched at 370 and 380 respectively. These protective cover sheets 37 and 38 are such that they may be readily peeled or stripped from the rear side of the urine collector bag 30 as indicated in FIG. 8 after a urine specimen 39 has been collected therein and the urine collector bag 30 has been removed from the adult urine specimen collector 20. The upper portion of the said adult urine specimen collector bag 30 is then folded over upon itself at the filler aperture 340, and the adhesive portion 36 of the rear side 34 of the adult specimen collector bag 30 above and around the upper portion of the filler aperture 340 is firmly pressed in sealed relationship to the adhesive portion of the said rear side 34 of the specimen collector bag 30 below and around the lower portion of the said filler aperture 340. The specimen collector bag 30 is now in a sealed condition as shown in FIG. 8 with a urine specimen 39 therein, and is ready for sending to the laboratory for testing. In the event the urine is to be tested at home or elsewhere without

3

storage or transfer to a laboratory, the specimen collector bag 30 need not be sealed, and, if desired, it may be rinsed out and reused if circumstances permit. In the latter instance, non-sealing type specimen collector bags may be employed which are like and similar to the specimen collector bag 30 hereinabove described, in such event, the adhesive 36 and protective cover sheets 37 and 38 reinforce the rear side 34 of the collector bag 30 around its filler aperture 34.

By reference to FIG. 9, it will be observed that a suitable strainer 40 may be employed in the bottom of the bowl 21 at the vertically depending spout 24 of an adult urine specimen collector embodying the invention. This strainer 40 may be of a removable plug type as shown in FIG. 9, or it may be permanently fixed in any suitable manner in the bottom of said bowl 21 across the open upper end of the said spout 24.

By reference to FIG. 6, the preferred use of an adult urine specimen collector 20 by a female patient P is indicated, the patient, with her legs spread apart, holding the forwardly extending front end extension 22 by one hand and placing the said specimen collector 20 between the thighs in the vicinity of the pubic region while the fingers of the other hand grip the rear end extension 23 and maintains the said adult urine specimen collector 20 at the proper elevation and substantially level while in use. The said adult urine specimen collector 20 is anatomically formed so that it can also be conveniently used either in a standing position shown in FIG. 6, or in an on-toilet sitting position as best shown in FIG. 7.

The reuseable adult urine specimen collector 20 is preferably formed of a relatively rigid plastic so as to withstand washing and sterilizing, while the collector bag thereof is preferably of a pliable sheet plastic.

Obviously, the horn 25 could be omitted from the reuseable adult urine specimen collector 20, and the urine specimen collector bag 30 could be hung therefrom by means of a removable surgical adhesive tape. However, this would not be too convenient for patients who are required to take frequent urine samples at home. Also, the reuseable adult urine collector 20 may be made readily disposable by molding the same of a somewhat less rigid plastic material that can be disposed of readily.

Although but a single embodiment of the invention and one modification thereof have been disclosed and described in detail, it is obvious that many changes may be made in the size, shape and arrangement of the several elements of the invention, all without departing from the spirit and scope thereof as defined by the appended claims.

I claim:

1. In an adult urine specimen collector, in combination, an elongated generally elliptical bowl deeper at one end than at the other including an outwardly extending lip around the top thereof terminating in end extensions to accommodate manual holding thereof at each end,
- a generally vertical spout extending downwardly from said bowl at the deep end thereof including a diagonally upwardly disposed horn thereon,

4

and a urine specimen bag closed except for an aperture through one side near the top thereof removably hung on said horn in suspended depending relationship over said spout with said spout and said horn disposed in said bag through said aperture therein.

2. In an adult urine specimen collector including a replaceable urine specimen bag having an aperture in one side thereof adjacent the top thereof,

an elongated generally elliptical bowl deeper at one end than at the other including an outwardly extending lip around the periphery thereof terminating in end extensions to accommodate manual holding thereof at each end,

- a generally vertical spout extending downwardly from said bowl at the deep end thereof including a diagonally upwardly disposed horn thereon,
- said urine specimen bag having an aperture in one side near the top thereof and being hung in suspended depending relationship from said horn said spout and said horn disposed through said aperture in said specimen bag.

3. In an adult urine specimen collector, the combination of an elongated generally elliptical bowl having a longitudinally convex upper contour and deeper at one end than at the other including an outwardly extending lip around the top thereof terminating in end extensions to accommodate manual holding thereof at each end,

the extension at the shallow end having an aperture therethrough of sufficient size to permit anti-slip manual gripping thereof and the extension at the deep end being formed downwardly to provide a finger grip,

- a generally vertical spout extending downwardly from said bowl at the deep end thereof,
- and a diagonally upwardly disposed horn on said spout,
- and a urine specimen bag completely closed except for an aperture in one side and near the top thereof for receiving the said spout and said horn removably suspended in depending relationship from said horn in communication with and over said spout,
- adhesive means on said one side of said bag above and below said spout aperture,
- removable protective means over said adhesive means, said bag being foldable in adhesive sealed relationship after removal from said horn and spout upon stripping of said adhesive protective means therefrom.

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