June 16, 1964 C. E. ROSS 3,137,010

RECEPTACLE

Filed March 11, 1963 2 Sheets-Sheet 1

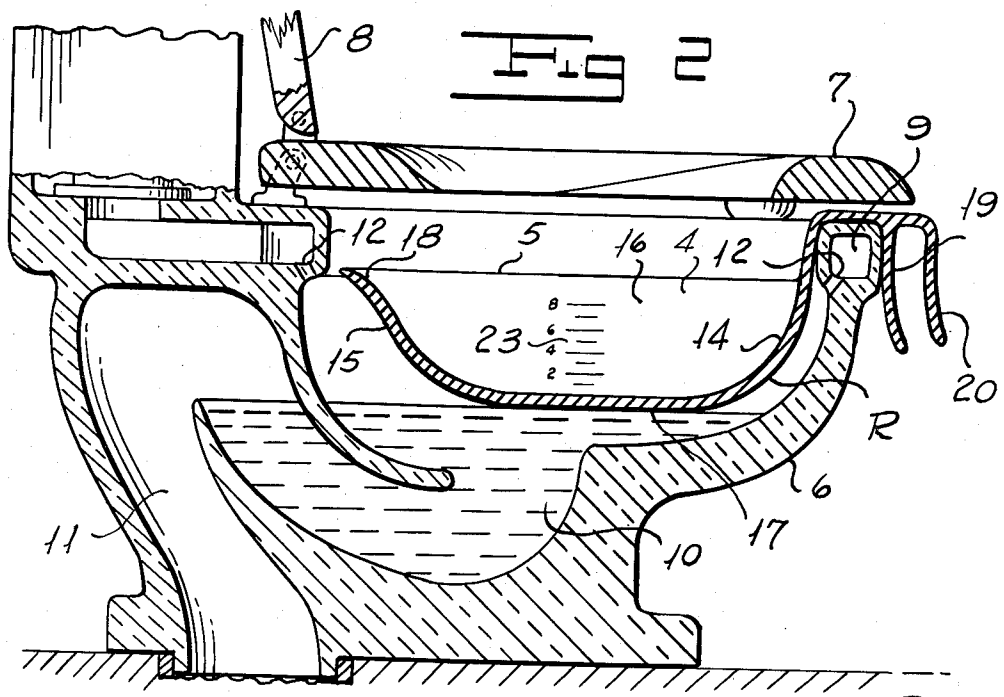


Fig 2

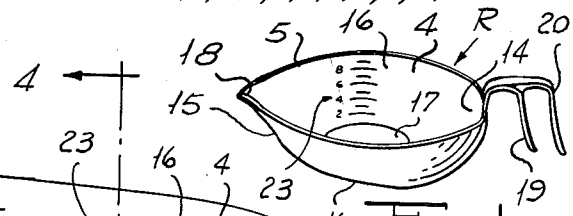


Fig 1

Fig 3

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June 16, 1964 C. E. ROSS 3,137,010

RECEPTACLE

Filed March 11, 1963 2 Sheets-Sheet 2

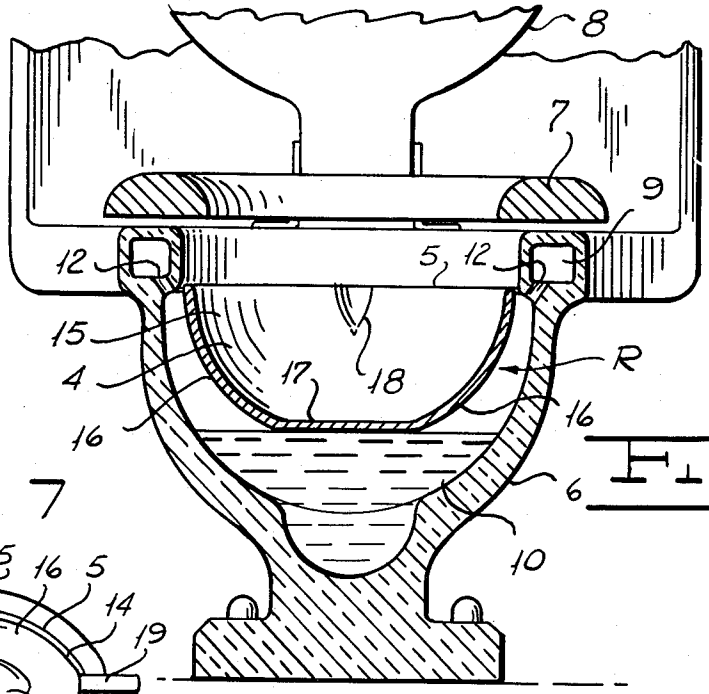


Fig 4

Fig 7

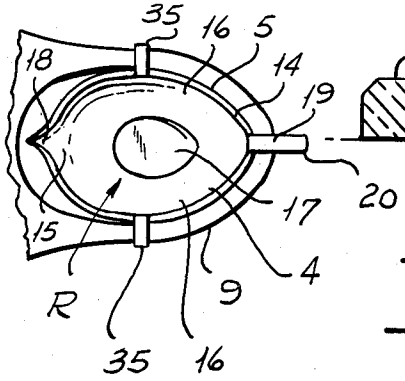


Fig 5

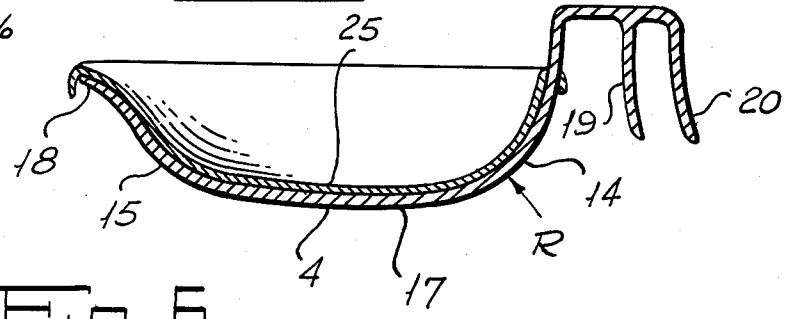
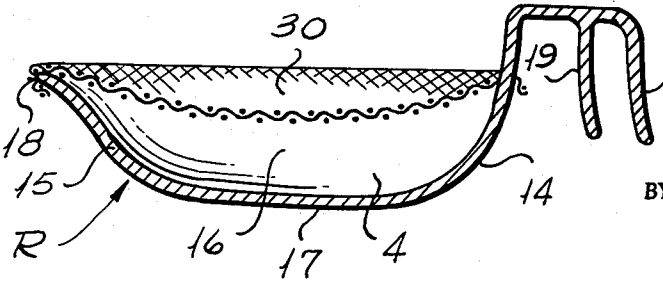


Fig 6



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3,137,010

RECEPTACLE

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1 Claim. (Cl. 4—141)

My invention relates to receptacles and more particularly to specimen-collecting receptacles, examples of the prior art being disclosed in United States Patents Nos. 1,949,246; 2,446,160; 2,560,199; 2,603,795; 2,801,424 and 2,840,826.

One of the objects of my invention is to provide a receptacle capable of being readily and detachably inserted into a toilet bowl or the like for receiving and collecting, from the human body, specimens or excrements such as urine, fecal matter, vaginal drainage, and the like.

Another object of my invention is to provide a receptacle of the foregoing described character which is so constructed and arranged that, when it is positioned within the confines of the toilet bowl, the brim of the receptacle is disposed in contiguous relation with the inner portion of the flushing-rim of the bowl and in immediate proximity subjacent to the top of the bowl to prevent contact of the specimens with any portion of the bowl and the introduction of water or other matter into the receptacle in the event of normal flushing of the bowl, thus precluding mixing or adulterating of the specimens with other media.

A further object of my invention is to provide a receptacle of the foregoing described character equipped with means for maintaining the receptacle in specimen-receiving position within the bowl and which means also functions to facilitate insertion and removal of the receptacle into and out of the bowl.

A still further object of my invention is to provide a receptacle of the foregoing described character capable of being provided with a liner in the form of a container for receiving the specimens and which container may be readily removed from the receptacle and closed for temporary preservation and/or transporting.

An important object of my invention is to provide a receptacle of the foregoing described character which may be constructed of economical material enabling it to be disposed of after a single use.

Another important object of my invention is to provide a receptacle of the foregoing described character capable of being easily sterilized for use in a sanitary manner.

A further important object of my invention is to provide a container of the foregoing described character which may be equipped with a filtering medium for separating various specimens one from the other.

A still further important object of my invention is to provide a receptacle of the foregoing described character having indicating means for measuring contents thereof and which is simple in construction, durable and efficient in use, economical in manufacture and lends itself to utilization by other than trained personnel.

With the above and other objects in view, as will hereinafter appear, the invention consists in the combination and arrangement of parts hereinafter set forth and illustrated in the accompanying drawings from which the several features of the invention and the advantages attained thereby will be readily understood by those skilled in the art.

Referring to the drawings wherein like reference characters designate like parts throughout the several views:

FIGURE 1 is a perspective view of my invention.

FIGURE 2 is a longitudinal sectional view illustrating my invention positioned within a toilet bowl.

FIGURE 3 is a top plan view of FIGURE 2.

FIGURE 4 is a sectional view taken on the line 4—4 of FIGURE 3.

FIGURE 5 is a sectional view of my invention provided with a liner.

FIGURE 6 is a sectional view illustrating my invention equipped with a filter.

FIGURE 7 is a top plan view of a modification.

In practicing my invention, as illustrated in FIGURES 1 to 6 inclusive of the drawings, I provide a receptacle R comprising a dish-like body **4** having an ovate mouth or brim **5** and which is positioned within a toilet bowl **6**. In the present instance, the bowl **6** is of the siphon type and equipped with the usual seat **7** and lid **8**. The bowl is formed with an ovaliform flushing-rim **9** at its upper end and, below the rim **9**, with a basin **10** for containing water serving as a trap. The contents of the trap are removed by siphonage through a relatively long outlet **11** by reason of water being introduced into the bowl through perforations or openings **12** in the rim **9** upon flushing as is usual in bowls of this type.

The body is formed with front, rear, side, and bottom portions or walls **14**, **15**, **16**, and **17**, respectively, with the rear wall **15** being fashioned with a pouring lip **18** at the brim **5**. The front wall **14** is provided with an upwardly extending inverted U-shaped fastener or retainer **19** for disposal over the rim **9** to maintain and secure the receptacle R in fixed relation with the bowl and in specimen-receiving position as illustrated in FIGURES 2 and 3 of the drawings. The front, rear, and side walls are curved and merge with each other and the bottom wall **17** without seams, the bottom wall being relatively flat to permit seating of the receptacle on a support in a horizontal position when removed from the bowl.

The retainer **19** is fashioned with a handle **20** extending outwardly and downwardly relative thereto to facilitate positioning the receptacle within the bowl and removing it therefrom. The receptacle is of a one-piece construction fabricated from any one of various materials, for instance, steel, aluminum, or suitable plastic, with the brim **5** defining the upper ends of the front, rear, and side walls or portions. Inasmuch as the material may possess some inherent degree of resiliency the retainer **19** could, in the instance of a relatively wide rim, be pressed downwardly over the rim **9** and removed therefrom without appreciable difficulty. A scale **23** is suitably applied to one of the side walls **16** for indicating the amount of liquid specimen contained in the receptacle.

As illustrated in FIGURE 5, the body **4** may be interiorly provided with a removable impervious liner **25** whereby specimens collected thereon are readily removed and wrapped in the liner for temporary preservation and/or transportation. As depicted in FIGURE 6, the brim of the body **4** may have attached thereto a suitable concavo-convex filter **30** for retaining thereon certain specimens and permitting others to filter therethrough, depending upon the porosity or the mesh of the filter.

In the modification illustrated in FIGURE 7, the side walls **16** of the body **4** are provided with supporting fingers **35** which extend upwardly and over the rim **9**. These fingers **35** function to insure support of the receptacle in the specimen-receiving position in instances wherein the bowl is not of a shape or size permitting the retainer **19** to fully support the receptacle in the said position.

My invention is so constructed and arranged that the brim **5** is disposed a sufficient distance above the lowermost portion of the rim **9** to preclude water, occasioned by flushing, and foreign matter from entering the receptacle from the bowl. Furthermore, as shown in FIGURES 3 and 4, the shape and size of the body **4** is such that the brim **5** about the front and side walls **14** and **16** is disposed in contiguous relation with the inner side face of the rim **9**, and the bottom wall in spaced relation with the basin **10**. By this construction, a body having a

relatively large mouth 5 is provided thereby permitting liquid and/or relatively solid specimens to be easily collected within the receptacle from an occupant of the seat 7.

From the foregoing it will be apparent that my invention provides practical means for the collection of urine, stool and vaginal drainage as well as the simplification of measuring liquid specimens especially the more frequent need for accurate measurement of urine output in certain diseases such as heart failure, hypertension, eclampsia, kidney stones, etc. even while patients are ambulatory. My invention serves to overcome certain psychological factors which prevent patient cooperation in obtaining specimens over awkward and unsanitary prior devices. The invention also supplies the need for frequent collection of specimens from expectant mothers by way of a simple and comfortable method of such collection. Its portability enables it to be easily transported and used on toilet bowls in various locations.

Without further elaboration, the foregoing will so fully explain the invention that others may, by applying current knowledge, readily adapt the same for use under various conditions of service. Moreover, it is not indispensable that all the features of the invention be used conjointly since they may be employed advantageously in various combinations and subcombinations.

It is obvious that the invention is not confined solely to the use herein disclosed in connection therewith as it may be utilized for any purpose to which it is adaptable. It is therefore to be understood that the invention is not limited to the specific construction as illustrated and described, as the same is only illustrative of the principles involved which are capable of extended application in various forms, and the invention comprehends all construction within the scope of the appended claim.

What is claimed is:

A specimen collecting receptacle for use within the confines of a toilet bowl of a type provided with a trap in its bottom and an opening at its top defined by a substantially ovaliform flushing rim formed with an inner side face; said receptacle comprising a dish-like body having a bottom adapted to be disposed within the bowl above the trap and formed with an open top defined by an ovate brim, said brim being formed with front and side outer margins and of a definite size for disposing said margins in contiguous relation with the inner face of the rim to substantially close the opening of the bowl between said margins and the inner face to preclude the passage of contaminants from the toilet bowl into the body, and fastening means carried by said body and extending upwardly from the brim and including a generally horizontally disposed portion spaced upwardly from the brim and a downwardly extending portion spaced outwardly from the brim to maintain said body in a supported position within said bowl and below the rim thereof when said fastening means is connected to said rim.

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