April 10, 1951

P. L. FOWLER, JR

2,548,149

URINAL SPECIMEN BAG

Filed Sept. 29, 1949

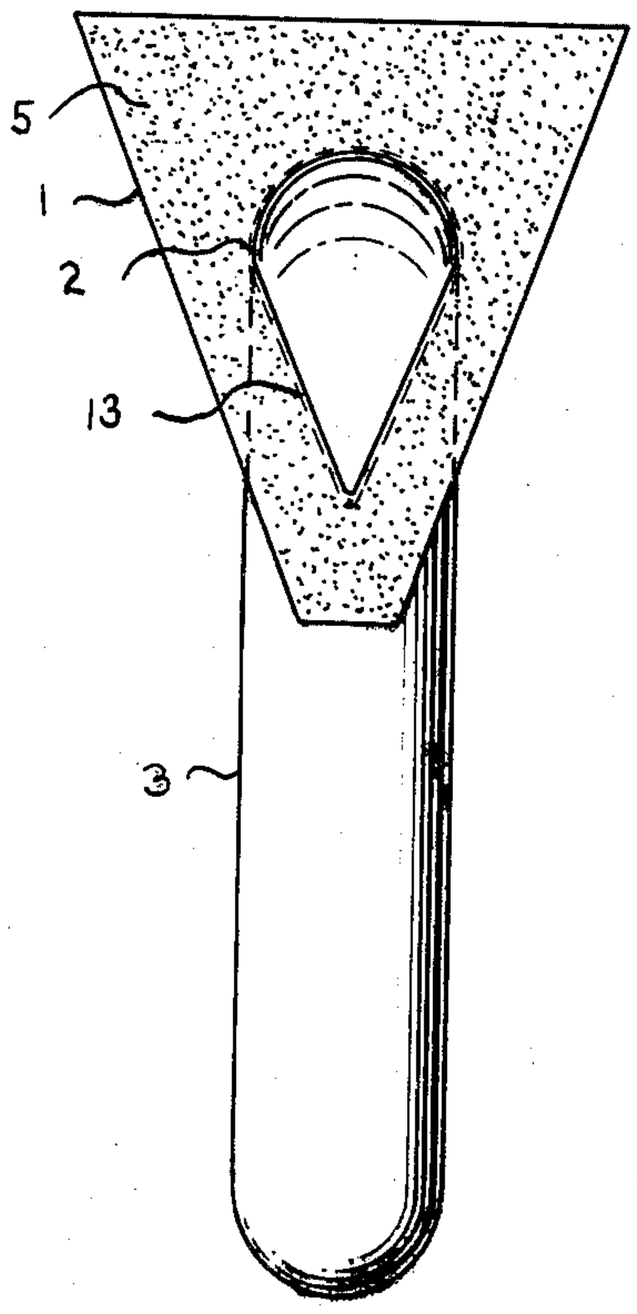

FIG. 1.

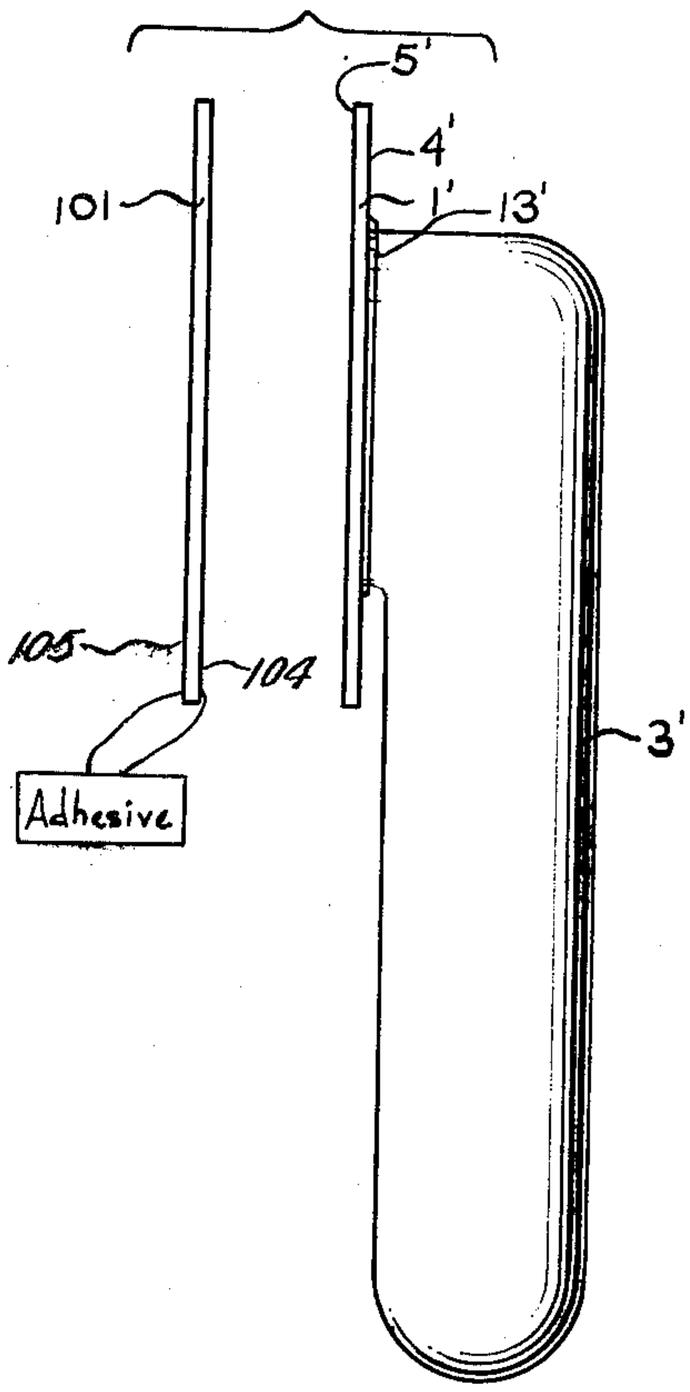

FIG. 2.

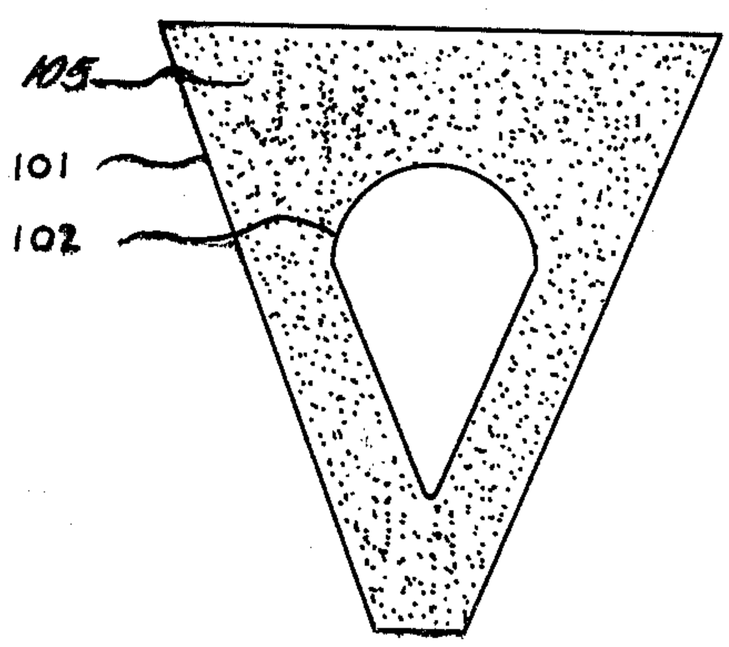

FIG. 3.

INVENTOR.

PRESTON L. FOWLER, JR.

BY James K. Littlepage

Patented Apr. 10, 1951

2,548,149

UNITED STATES PATENT OFFICE

2,548,149

URINAL SPECIMEN BAG

Preston L. Fowler, Jr., Durham, N. C.

Application September 29, 1949, Serial No. 118,511

1 Claim. (Cl. 128—295)

1

This invention relates to an infant's urinal specimen bag and, more particularly, to a bag adapted to be attached to and worn by an infant.

The primary object of this invention is the provision of a specimen bag for attachment to an infant so that a definite and quantitatively measurable specimen may be obtained. This is particularly a problem with girl babies for which the invention was principally, but not exclusively, intended. Another problem solved by the invention is in the assurance that a specimen will be obtained on the occasion next succeeding installation of the device, however unpredictable in specific time it may be.

Another object is to provide a bag for obtaining an uncontaminated specimen from infants, particularly those of such early age as to be incapable of discriminating cooperation. By this invention it is intended to provide for the sanitary procurement of a sample of urine alone, regardless of whatever other excretion may have occured during the period of observation.

It is a particular object now to provide a specimen bag incapable of harming or alarming an infant during installation, wear, operation, or removal, lest the infant, during a prolonged illness when successive specimens must be analyzed, be conditioned to a justifiable distrust of the device. While providing a leak-proof seal of the device to the infant, another object is to ensure that the parts which most intimately engage the infant are warm to the touch and not irritating to the skin.

More specifically, it is now proposed to provide a flexible, elongate waterproof bag, which may take the form of a leakproof rubber finger cot supported at its open end in normally open condition around an opening in a shield of pliable, waterproof material which, in one embodiment of the invention, may be formed of the familiar adhesive tape or plaster for direct application to the skin of the user. In another form of the invention it is intended to form the shield at the top of the container of plain, non-adhesive fabric and to interpose an intermediate shield faced on opposite sides with adhesive so that successive units may be applied to the intermediate shield or, alternatively, the intermediate shield may be replaced between uses of the assembly.

These and other objects will be apparent from the following specification and drawings, in which:

Fig. 1 is a rear elevation of one form of the device;

2

Fig. 2 is an exploded view in side elevation of an alternate form of the device; and

Fig. 3 is a rear elevation of the intermediate shield used in the Fig. 2 modification.

Referring now to the drawing in which like reference numerals denote similar elements, prime numerals denote elements like those previously described and numerals bearing hundreds prefixes denote elements analogous to previously described ones, the embodiment illustrated in Fig. 1 is formed of a generally frusto-conical shield 1 having a somewhat triangular central opening 2. Shield 1 is preferably formed of a waterproof pliable fabric such as adhesive tape or plaster with a rear face 5 coated with adhesive material. A tube or bladder 3 of thin flexible, waterproof material, such as a rubber finger cot is secured dependent from the front face of shield 1 with the open top of tube 3 in registry with opening 2. This is preferably accomplished by cementing the welt or top edge 13 of tube 3 to the surface of shield 1 adjacent opening 2.

In the use of the Fig. 1 embodiment, the adhesive-surfaced rear face 5 of shield 1 is applied directly to the skin of the infant with opening 2 disposed to receive the desired urine specimen directly from the outlet of the infant. When the specimen is obtained in tube 3, the device is removed and may be held closed by folding in shield 1. In this manner the specimen may be taken directly to the analyst with no danger of contamination and without using additional specimen bottles.

The assembly illustrated in Figs. 2 and 3 is generally similar to that previously described except that the front and rear surfaces 4', 5' of shield 1' are plain, and not adhesively coated. Instead, an intermediate shield 101 similar in configuration to shield 1' is used, and both the front and rear surfaces 104 and 105 are coated with adhesive material.

In operation of the modification shown in Figs. 2 and 3, the front face 104 of intermediate shield 101 is first adhesively applied to the rear face 5' of shield 1, and then the assembly is installed by applying the rear, adhesively coated face 105 directly to the skin of the infant. If successive specimens are needed shield 101 may be left on the infant by stripping of shield 1' and tube 3' and applying a duplicate shield and tube similar to 1', 3' to front face 104, thereby avoiding any disturbance to the infant. Alternatively, if it is desired to re-use the device at some future date, the entire assembly may be

stripped from the infant, it being preferable then to dispose of intermediate shield 101, empty and sterilize the shield and tube 1', 3', and use a fresh, sanitary shield 101 with fresh adhesive. Shield 1' will, of course, be relatively easy to handle and sterilize because substantially no adhesive coating will have stuck to its rear surface 5'.

It is apparent that various materials may be substituted for those detailed above; that the shields and tubes may be of various form and volume to meet the needs of infants of different sexes and sizes; that the shield and tube may be molded or otherwise formed of one piece; and that other modifications and alterations may be made without departing from the spirit of the following claim.

I claim:

A bag for obtaining urinary specimens from female infants and the like subjects comprising, a first generally triangular, flat shield of pliable sheet material having a generally triangular central opening therethrough, an adhesive coating on one side of said first shield whereby said one side may be adhesively attached against the skin of a subject around a body opening with

the opening in said first shield in registry with said body opening while the other side of said shield constitutes an outwardly-presented surface, an open-ended receiving tube, a second generally triangular, flat shield of pliable sheet material having a generally triangular central opening therethrough, means securing the open end of said receiving tube to one side of said second shield with the open end of said tube in registry with the central opening thereof and another adhesive coating on the other side of said second shield for releasably holding the open end of said receiving tube in registry with said body opening.

PRESTON L. FOWLER, JR.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
697,637	Lee	Apr. 15, 1902
2,305,453	Martos	Dec. 15, 1942
2,448,938	Wayne	Sept. 7, 1948