June 14, 1966 P. A. HASBROUCK 3,255,841

STETHOSCOPE BELL COVER

Filed Jan. 22, 1965

Fig. 1

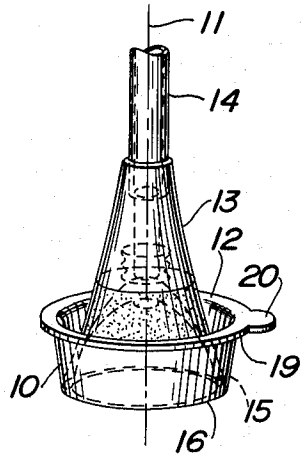


Fig. 2

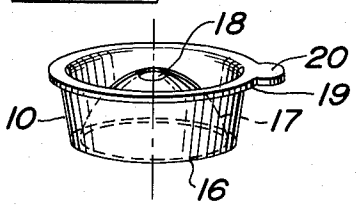


Fig. 3

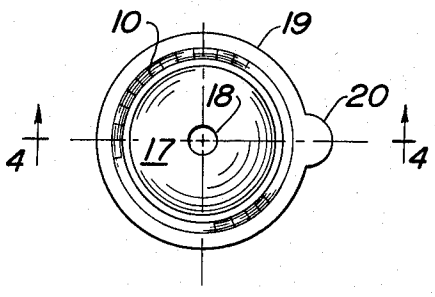
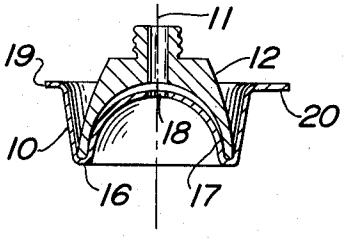


Fig. 4



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STETHOSCOPE BELL COVER

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My invention relates to stethoscopes and has a particular reference to a method of keeping the bell of the stethoscope readily sterile by covering the bell with a sterile plastic cover which is disposable after the stethoscope has been used and which offers no hindrance to the use or function of the stethoscope.

The principal object of my invention is to provide a sterile, smooth, well fitting, but readily disposable covering surface for the bell of a stethoscope which also will not impair the sound transmitting function or the use of the stethoscope when it is protectively covered.

Another object is to provide a sterile covering surface for the bell of the stethoscope of relatively low cost material such as thin molded paper or plastic sterile covers which will not have to be resterilized for reuse but will be economically disposed of after use on a patient.

Still another object is the particular design which permits easy handling for the doctor or user in placement and removal of the sterile cover which also is so precisely shaped and designed that a firm and sufficient frictional grip is provided to the cover keeping it attached to the bell of the stethoscope during use.

With the foregoing objects as paramount, my invention has particular reference to its salient features of construction and shape arrangement of surfaces which will become manifest as the description proceeds, taken in connection with the accompanying drawings, wherein

FIGURE 1 is a perspective transparent view of a stethoscope bell equipped and covered in accordance with the present invention.

FIGURE 2 is a perspective view of the one piece, specially shaped, sterilized cover for a stethoscope bell.

FIGURE 3 is a plan view of the pattern for the stethoscope cover shown in FIGURE 2.

FIGURE 4 is a vertical cross section through the middle of the stethoscope bell and the sterile cover.

Continuing with a more detailed description of the drawing, reference is primarily made to FIGURE 3 and FIGURE 4, in which are shown the pattern and cross section of the stethoscope bell cover and which embodies the invention.

Plastic, paper or rubber like material is molded by various well established manufacturing processes into a relatively thin, semirigid form which will conform substantially in plan to FIGURE 3 and in vertical cross section **21** as shown in FIGURE 4. This is the desired shape for use with the majority and conventional stethoscope. It is understood that there will be small differences in manufacturing, but they do not affect the general construction and design of this invention except in minor detail.

It is observed that this invention is a special form uniform about the vertical axis except for the protruding incidental tab type handle **20**. The exterior rim **19** is the actual useful handle for replacement and removal of the cover **10** from the bell **12**. This continuous concentric rim handle **19** is integral and gives the thin plastic wall **10** additional rigidity. The projecting tab **20** is particularly useful in separating a single new and sterile cover from a packaged group of nested covers.

The opening **18** through the center of the cover is necessary for the proper sound transmission from the patient's body through the stethoscope to the listener's ears. A single central hole about ⅛ inch in diameter is optimum for this shape and is so shown at **18**.

The cover **10** has an annular marginal edge portion **16** which engages the outer marginal edge of the bell **12**.

The interior surface **17** of the cover **10** conforms to the interior of the stethoscope bell **12** and substantially covers and protects it from direct contact with the patient's skin or hair.

The exterior side of the cover **10** is designed to fit snugly around the lower outer edge **15** of the bell **12** and so to grip it firmly with the lower edge of the interior cover surface **17**. Therefore, it is only when a substantial pressure on the externally protruding rim **19** is exerted downwardly in a direction away from the stethoscope bell **12** that the cover **10** is easily removed for disposal. A new clean cover **10** is also easily snapped into firm position in a similar upward motion while holding the cover by the protruding rim handle **20**.

It will be observed therefore that the above mentioned and featured parts of this specially designed stethoscope cover are combined into one simple functioning form for the purposes and objects already mentioned which includes preventing a stethoscope bell from spreading contamination of bacteria from one patient's skin to another's and that this is the spirit and intent of this invention.

Manifestly, the construction as shown and described is capable of some modification and such modification as may be construed to fall within the scope and meaning of the claims are also considered to be within the spirit and intent of this invention.

What I claim is:

1. A removable and disposable cover unit for a stethoscope bell of the type which includes a bell body having a hollow dome-shaped inner surface having an open outer end and having a marginal wall extending around and defining the said hollow dome-shaped inner surface of the said stethoscope bell, the said removable and disposable cover unit comprising a cover body including a dome-shaped hollow portion adapted to be removably inserted and fitted into the said hollow dome-shaped inner surface of the said stethoscope bell, the said dome-shaped hollow portion of the said removable and disposable cover unit including an annular marginal edge portion adapted to be disposed adjacent the said open outer end of the said body of the said stethoscope bell, the said cover body of the said removable and disposable cover unit including an outwardly tapering portion disposed externally of the said dome-shaped hollow portion thereof and cooperating with the said dome-shaped hollow portion and with the said annular marginal edge portion of the said cover body for releasably gripping the marginal wall of the said hollow bell body adjacent the said open outer end thereof so as to releasably attach the said removable and disposable cover unit to the said hollow body of the said stethoscope bell, the said outwardly tapering portion and the said dome-shaped hollow portion and the said annular marginal edge portion of the said cover body cooperating to provide an annular trough-like portion in the said removable and disposable cover unit for

the reception of a portion of the said marginal wall of the said hollow bell body adjacent the said open outer end thereof, and the said dome-shaped hollow portion of the said cover body having a sound-conducting opening formed therein at its inner end for transmitting sound from the interior of the dome-shaped hollow portion of the said cover body into the body of the said stethoscope bell.

2. A removable and disposable cover unit for a stethoscope bell as defined in claim 1 in which the outwardly tapering portion of the said cover body has a handle member thereon and projecting laterally therefrom.

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