April 22, 1924. 1,491,011

E. E. HODGIN

LIVING CAVITY SHIELD

Original Filed July 14, 1922

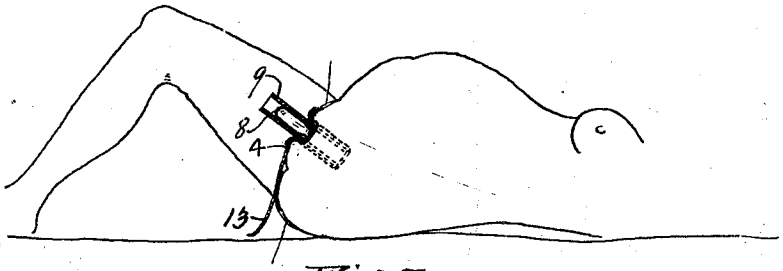


Fig. 3.

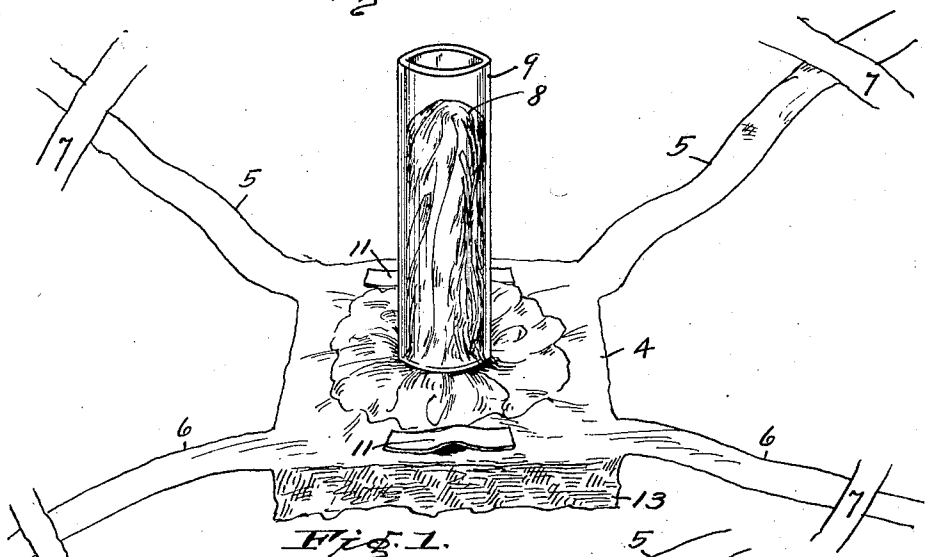


Fig. 1.

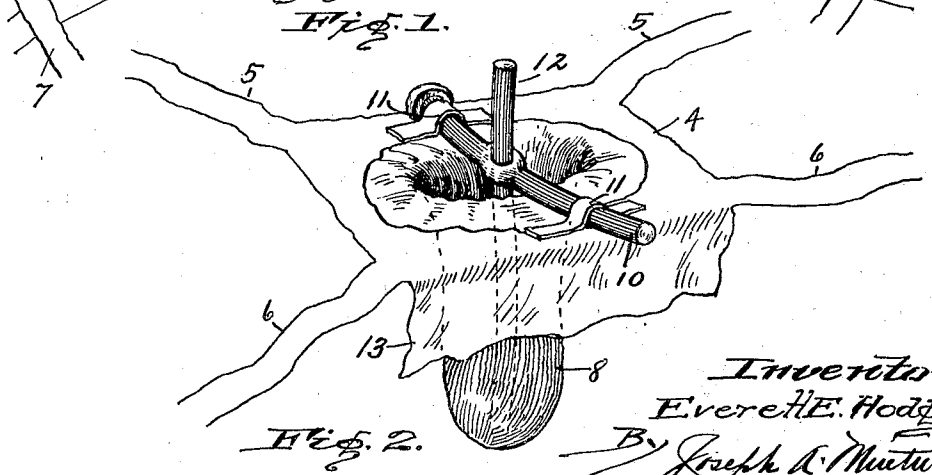


Fig. 2.

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UNITED STATES PATENT OFFICE.

EVERETT E. HODGIN, OF INDIANAPOLIS, INDIANA; MYRTLE HODGIN EXECUTRIX OF SAID EVERETT E. HODGIN, DECEASED.

LIVING-CAVITY SHIELD.

Application filed July 14, 1922, Serial No. 574,970. Renewed March 6, 1924.

To all whom it may concern:

Be it known that I, EVERETT E. HODGIN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Living-Cavity Shields, of which the following is a specification.

The object of this invention is to examine the lower segment of a cavity of a living body, which is not infected, through the outer segment which may be and generally is, carrying pathogenic bacteria or infections of some kind, by introducing a thin elastic shield into the lower segment by a rolling operation instead of a sliding one, to thereby render an examination of the infected inner part possible without carrying any of the outer poisons or infections into it.

The object also is to wall off the outside infected part so examination or manipulation of the inner part can be accomplished without danger of carrying infection from the outer to the inner part.

A further object is to provide means for holding the rubber shield in place for continued use over a period of several hours, as in obstetric cases and the like.

I accomplish the objects of the invention by the means illustrated in the accompanying drawings, in which—

Fig. 1 is a perspective view of my invention in operative position preparatory to the rolling of the elastic shield into the cavity. Fig. 2 shows the same with the shield applied, the living body not being shown in either of these views as it is in Fig. 3. Fig. 3 shows the device ready for insertion in the vaginal cavity in full lines, and after insertion but before the withdrawal of the inserting tube, in dotted lines.

Like characters of reference indicate like parts in the several views of the drawing.

A cover member 4, of strong flexible cloth, or other suitable material, here shown as substantially rectangular in shape, is placed over the cavity, where it is held by straps 5, 5, and 6, 6, extending from the corners of the cover member. The straps are laid against the living body and are secured to it by adhesive strips 7, in a manner to retain the member 4 in the desired given position.

The member 4 has a central opening to the edges of which the corresponding edges of a rubber nipple 8, thin and elastic, are evenly and securely fastened in any suitable manner. The then outwardly projecting rubber nipple is initially drawn into a tube 9, open at both ends and preferably made of glass so the condition of the nipple may be observed. By pressing the tube thus filled with the nipple, into the human cavity, the nipple will be withdrawn from the tube as the latter is pushed in and the nipple will be turned inside-out, with a rolling instead of a sliding and dragging movement over the infected segment of the cavity, and will be inserted through the outer into the inner cavity. This avoids the transfer of bacteria or poisons with which the outer segment is frequently infected, into the inner cavity, which is generally not infected normally. The operator's hand or fingers may now be inserted into the inverted nipples for the examination or the manipulation of the parts of the patient's body without coming in direct contact with it.

In some cases, such as obstetric ones, where the patient is often several hours in labor, it is desirable to leave the invention in place during that time for ready and frequent use, and as the changes in position of the patient will cause the nipple to be misplaced and sometimes ejected, I provide some elastic means for holding it, here shown as by an outside bar 10, which is held by loops 11, 11, on each side of the nipple-orifice, and has a diametrical hole through which a suitably elastic stem 12 is inserted and carried to the bottom of the unstretched nipple. The members 10 and 12 will be stiff enough to hold the nipple in a given position under normal stress, and sufficiently elastic to bend at other times. An apron 13 may be provided which will drop down over the anus for the purpose of protecting that cavity.

While my invention is particularly effective in obstetrics to avoid peritonitis and other bad results, it is effective with any of the cavities, not only of the human body, but with those of other animals, and it is not desired to limit its use. It is also capable of many variations in size, material, form, number and arrangement of parts, and I do not desire to be limited to the form shown, nor in other respects any more than is required by the appended claims.

What I claim, is—

1. In a device for the purposes specified,

a nipple of elastic material, means for securing the mouth of the nipple at the outer segment of a cavity in a living body with the nipple outside of the cavity, means for simultaneously reversing the sides of the nipple and placing the nipple within the cavity and means for preventing the accidental removal of the nipple.

2. In a device for the purposes specified, a member covering a cavity in a living body, a nipple secured to the cover-member and adapted to be located in the cavity, said cover-member having an opening into the nipple, and means for holding the nipple in a given position in the cavity.

Signed at Indianapolis, Indiana, this the 8th day of July, 1922.

EVERETT E. HODGIN.