# United States Patent [19]

**Lepar**

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[54] **EQUIPMENT FOR RECTALLY ADMINISTERING ENEMAS**


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[52] **U.S. Cl.** ..... **128/245,** 128/2 R, 128/246, 128/283, 128/349

[51] **Int. Cl.** ..... **A61m 3/00,** A61m 25/00, A61f 5/44

[58] **Field of Search** ..... 128/239, 241, 245, 128/246, 276, 348, 2 R



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*Primary Examiner*—Aldrich F. Medbery
*Attorney*—Andrew R. Klein et al.



[57] **ABSTRACT**

Equipment for delivering a liquid such as a barium solution into the anus, in which equipment provision is made for retaining the equipment in the desired position under the influence of reduced pressure or vacuum. One or more vacuum chambers are provided for this purpose and a catheter is mounted on the vacuum chamber or chambers and has a mass of porous resilient material surrounding the catheter in position to engage the body surfaces surrounding the anus in order to provide a seal to prevent leakage of the enema liquid.


**12 Claims, 18 Drawing Figures**

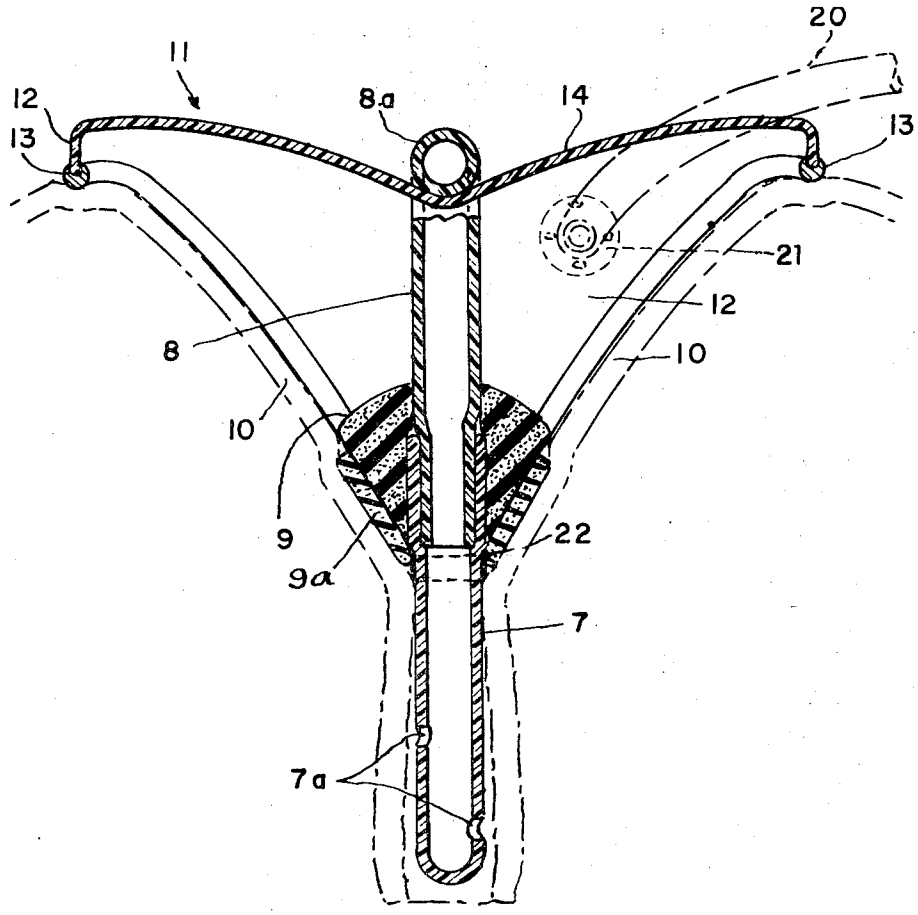
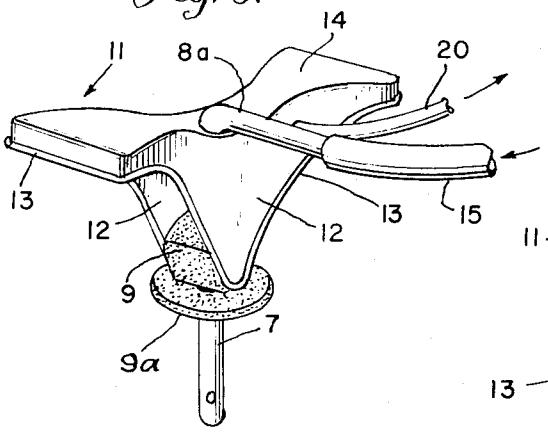


Fig. 3.



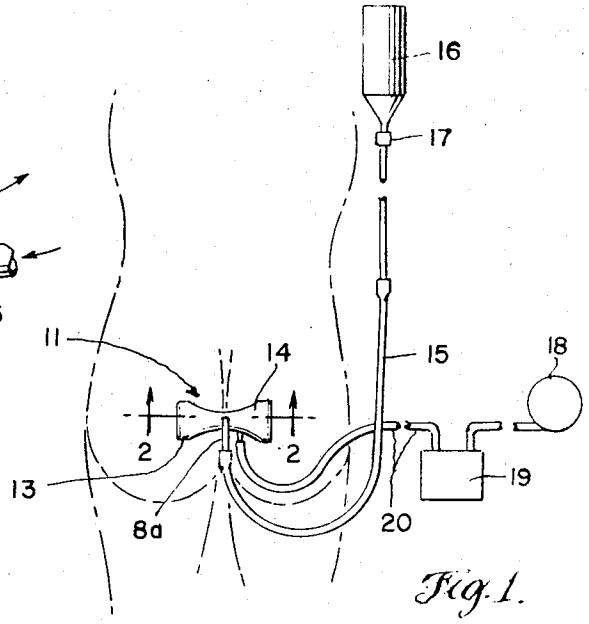




Fig. 1.

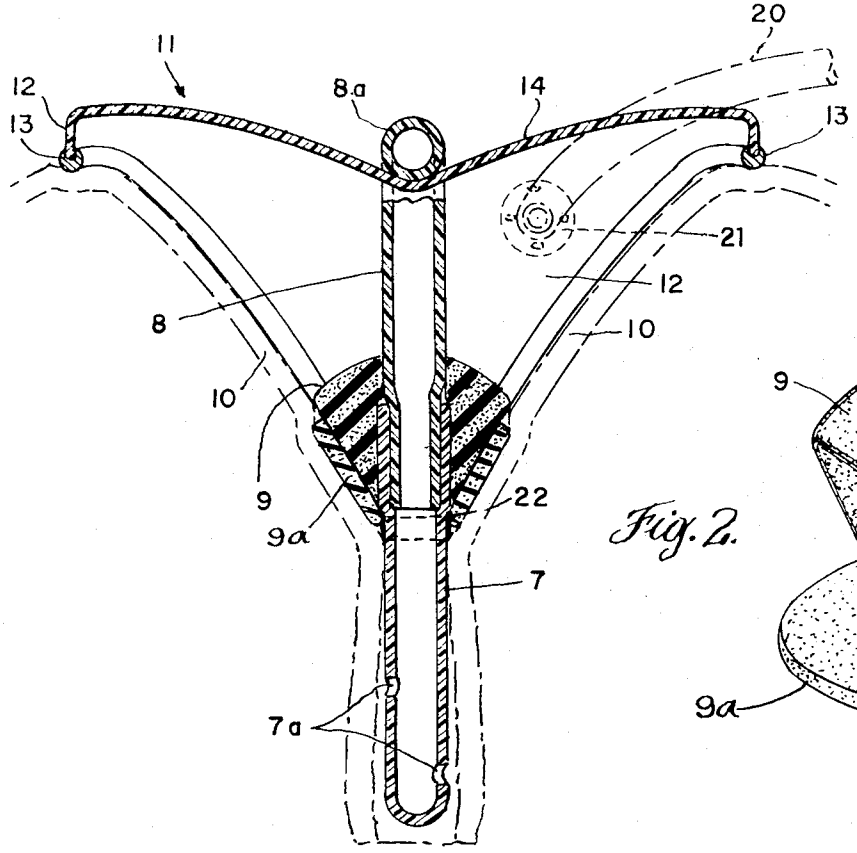



Fig. 4.

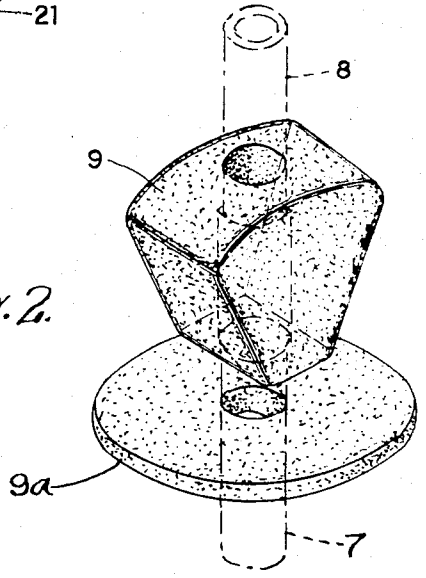



Fig. 2.

Fig. 5.

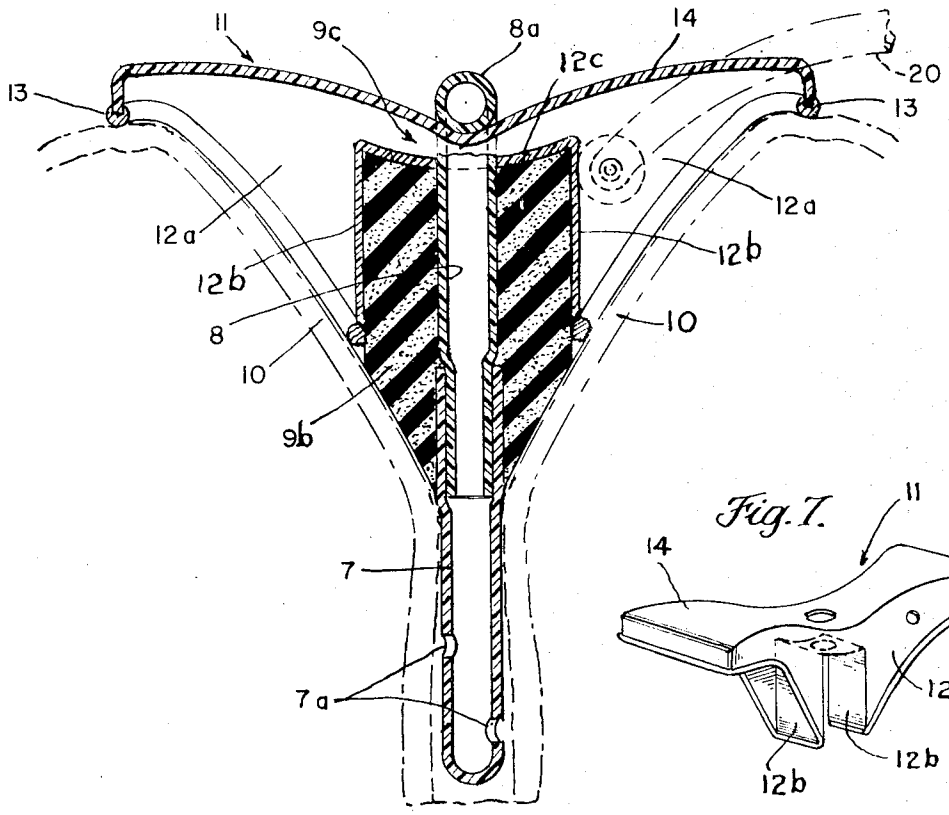



Fig. 7.




Fig. 6.

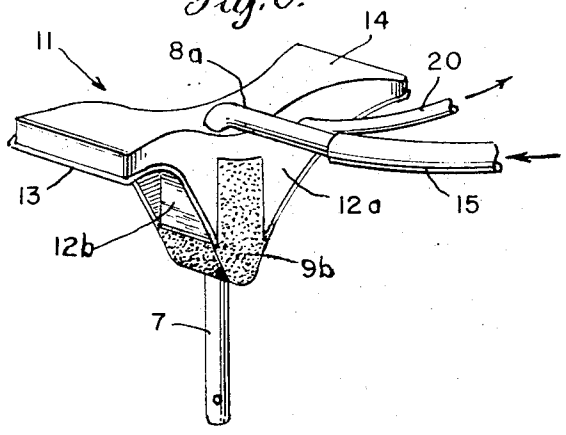


Fig. 8.

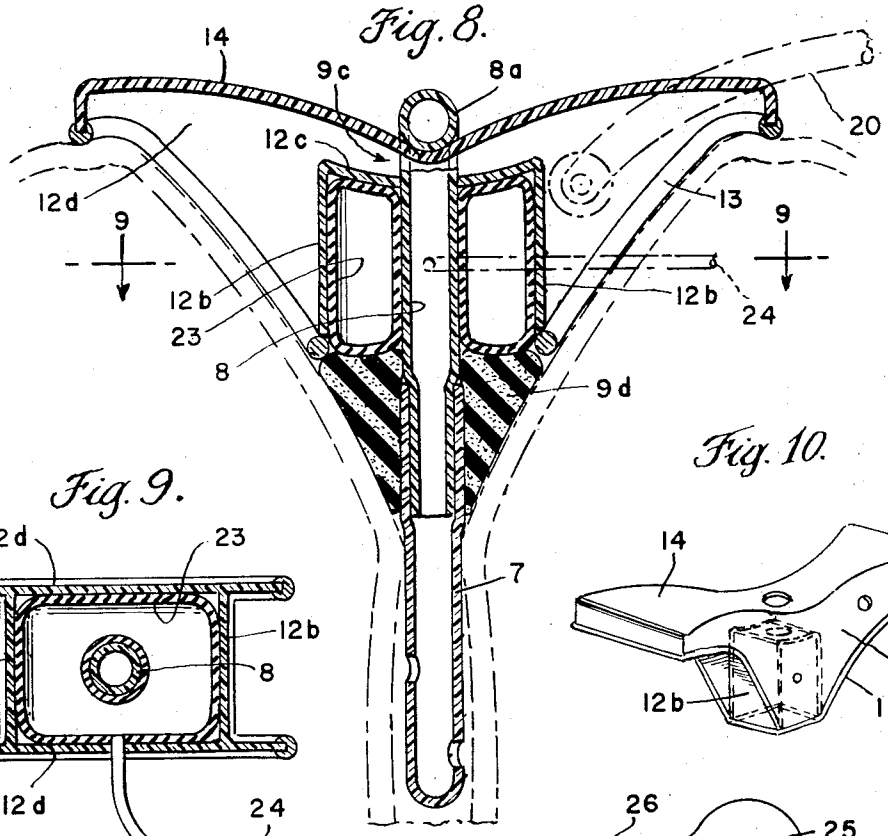



Fig. 9.




Fig. 10.







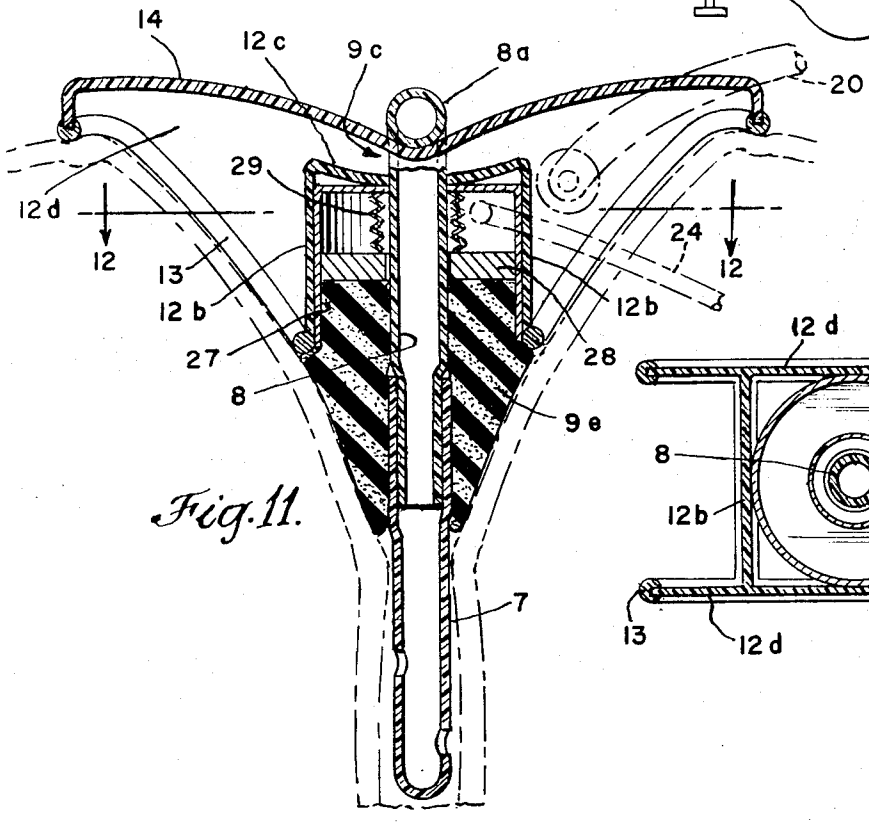



Fig. 11.

Fig. 12.

Fig. 13.

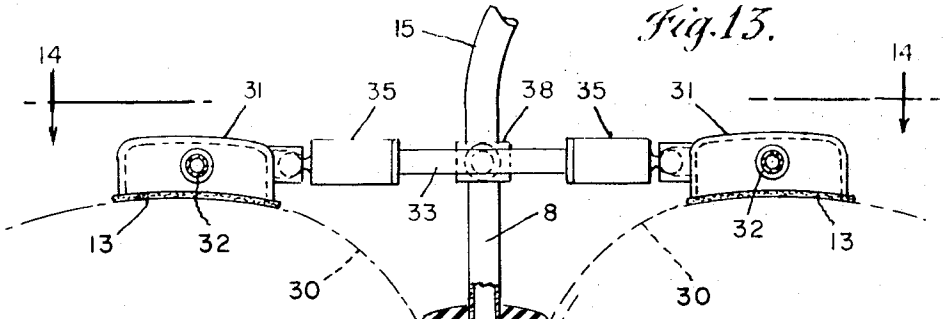



Fig. 14.

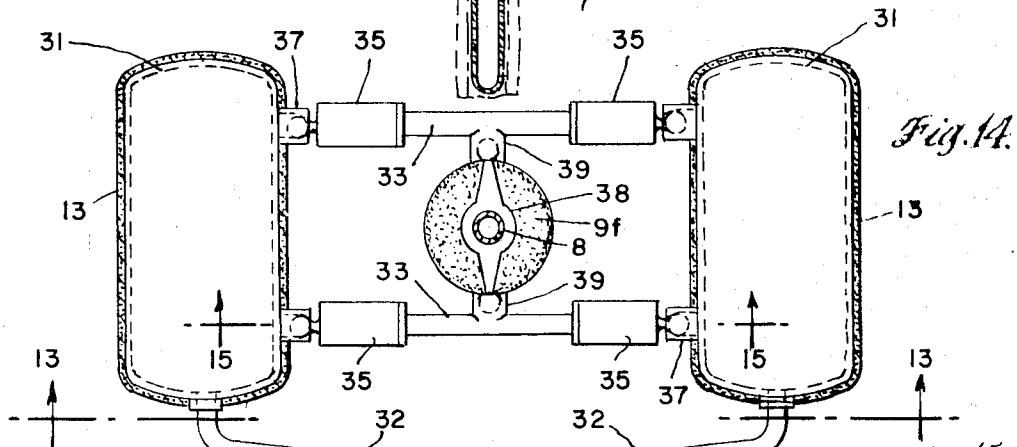
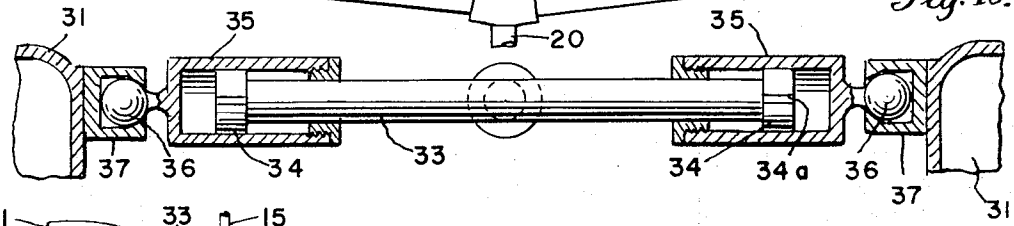



Fig. 15.



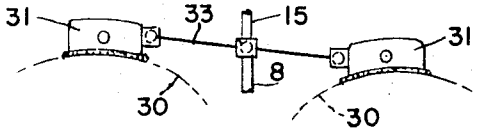
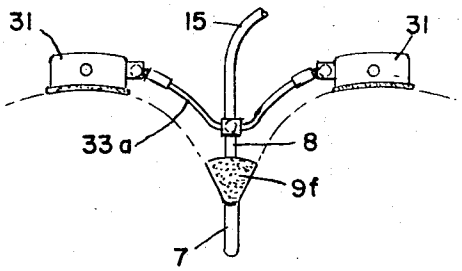




Fig. 16.

Fig. 18.



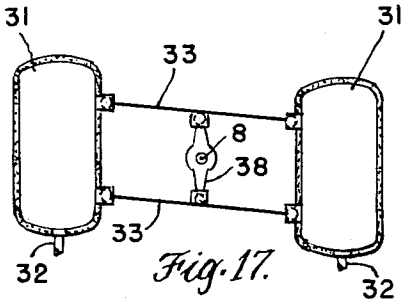




Fig. 17.

# EQUIPMENT FOR RECTALLY ADMINISTERING ENEMAS

This invention relates to equipment for rectally adminstering enemas and is especially adapted to administration of enemas, such as barium enemas, used in radiological examination. The present invention contemplates certain improvements upon the equipment disclosed and claimed in my U.S. Pat. No. 3,577,982 issued May 11, 1971.

Some of the general objectives of the present invention are in common with those of my prior patent, and some of these general objectives, as well as the distinctive advantages and improvements of the present invention, are referred to hereinafter.

As pointed out in my prior patent, although the muscle tone of the rectal sphincter in some patients is adequate to retain the liquid of a barium enema during a radiological examination, there are many patients in which this is not true. Some efforts have been made to meet this problem by the use of an obturator associated with a catheter and adapted to be expanded inside the rectum into which the catheter is inserted in order to provide a means for preventing undesired loss of enema liquid. In the case of barium enemas administered for radiological purposes, such loss of the barium liquid is particularly disadvantageous, not only because of the undesirable flow of the liquid onto the adjacent surfaces of the body, but also because such loss results in delivery to the surfaces of the body a radio-opaque material which is at least confusing in the radiological examination and, in many instances, even obliterates the very images sought to be identified either in the fluoroscope or in the x-ray pictures being taken.

The prior attempts to meet this problem by the use of an obturator are subject to a number of disadvantages as is well known and which will not here be extensively reviewed, although it may be noted a major disadvantage lies in the fact that an interior obturator is likely to exert excessive internal pressure, sometimes sufficient to damage or even rupture the intestinal wall.

In accordance with the present invention, the problems of administering barium enemas are greatly diminished by the provision of a special form of equipment adapted to form an external seal against the surfaces of the body surrounding the rectum into which the catheter is inserted, the seal being established under the influence of reduced pressure or vacuum, thereby rendering the seal effective without the necessity of employing an obturator in any position and, moreover, without the necessity of employing straps or other fastening devices such as body-encircling belts.

The vacuum chamber in the equipment of my patent above identified is effectively isolated from the immediate region of the anus by the walls of a cup through which the catheter projects. The present invention, however, contemplates alternative arrangements for isolating the vacuum chamber from the immediate vicinity of the anus. In one embodiment according to the present invention this is accomplished by the use of a mass or block of porous and resilient material such as sponge or foam rubber, preferably having an impervious surface layer so that an effective seal will be provided in order to isolate the vacuum chamber from the body surfaces in the vicinity of the anus and also so as to substantially completely infill the space in the gluteal cleft in the immediate vicinity of the anus, thereby further minimizing tendencies toward loss of the barium



or other enema liquid. In another embodiment this is accomplished by the employment of separate and spaced vacuum chambers, together with means providing for the mounting or support of the catheter between the spaced vacuum chambers, while also providing the catheter with a mass or block of porous and resilient material to effect a seal against the body surfaces in the vicinity of the anus.

This represents a substantial improvement as compared with the arrangement of my prior patent because of further reduction in undesired flow of the radio-opaque liquid upon the surfaces of the body in the immediate vicinity of the anus. In this way the desired radiological examination may be carried out with a minimum of extraneous images required to be interpreted.

Still further, the improvement of the present invention is of particular advantage in the case of female patients because of the very limited perineal area over which to effect the desired seal. With the mass of resilient and porous material such seal may readily be effected notwithstanding the limited perineal area.

In accordance with still another aspect of the invention, provision is made for adjusting or regulating the pressure of engagement of the mass of resilient material employed as a seal, to thereby accommodate the equipment to variations in body contours, from patient to patient and to accommodate the equipment to different body contours resulting from changes in position of a patient. The invention also contemplates provision of means providing for relative movement of the vacuum means and the catheter, thereby further adapting the equipment to variations in body contours.

How the foregoing objects and advantages are attained will appear more fully from the following description referring to the accompanying drawings, in which:

FIG. 1 is a somewhat diagrammatic elevational view of one form of equipment constructed according to the present invention, the equipment here being shown in outline in position as it would be applied to the rectum of a patient;

FIG. 2 is a sectional view on an enlarged scale, taken as indicated by the section line 2—2 on FIG. 1;

FIG. 3 is a perspective view of the device shown in FIGS. 1 and 2;

FIG. 4 is an enlarged fragmentary isometric view of a portion of the device shown in the other figures, with certain parts shown in relatively separated positions for the purpose of clarity of illustration;

FIG. 5 is a view similar to FIG. 2 but illustrating a second embodiment of the invention;

FIG. 6 is a view similar to FIG. 3 but showing the arrangement of FIG. 5;

FIG. 7 is a perspective view of the portion of the equipment providing the vacuum means or chambers in the embodiment of FIGS. 5 and 6;

FIG. 8 is a view of another embodiment, this view being taken in the same general manner as FIGS. 2 and 5;

FIG. 9 is a transverse sectional view taken as indicated by the section line 9—9 on FIG. 8;

FIG. 10 is a view similar to FIG. 7 but illustrating the modified form of vacuum means incorporated in the embodiment of FIGS. 8 and 9;

FIGS. 11 and 12 are views illustrating a still further embodiment, these views being taken in the same man-

ner as FIGS. 8 and 9, FIG. 12 being a transverse section on the line 12—12 of FIG. 11;

FIG. 13 is a view of still another embodiment, in accordance with which two completely separate and flexibly interconnected vacuum chambers are provided and in which the catheter, with its resilient sealing mass is supported on the means flexibly interconnecting the vacuum chambers, FIG. 13 being taken as indicated by the line 13—13 on FIG. 14, but showing certain parts in section;

FIG. 14 is a view of the embodiment of FIG. 13 taken as indicated by the line 14—14 on FIG. 13;

FIG. 15 is an enlarged fragmentary view of certain details of the structure flexibly interconnecting the vacuum chambers in the embodiment of FIGS. 13 and 14, this view showing certain parts in section as indicated by the line 15—15 on FIG. 14;

FIGS. 16 and 17 are somewhat diagrammatic views on a reduced scale illustrating the action of the embodiment of FIGS. 13–15 in adapting the equipment to different body contours; and

FIG. 18 is a view on a reduced scale of an arrangement similar to FIG. 13 but showning a modification.

It is to be observed that the equipment here shown is especially adapted for use in the administration of barium enemas through the rectum. In the arrangement of FIGS. 1 to 4, the equipment includes a catheter which is made up of several pieces. Thus, the catheter includes a relatively flexible and soft tip portion 7 formed, for example, of rubber having sufficient rigidity to permit insertion through the anus and rectum into the intestine, but of sufficient flexibility so that the catheter tip will readily follow the contours of the intestine into which it is inserted. This tip is provided with apertures as indicated at 7*a*, preferably at several circumferentially and longitudinally spaced points, to facilitate the free flow of the liquid being delivered into the intestine. This tip portion is telescopically associated with the outer portion of the catheter indicated at 8, the portion 8 desirably having some rigidity and preferably formed of a plastic or resinous material, for instance rigid polyvinyl chloride resin, polymethyl methacrylate, or nylon. In all instances, it is contemplated that both the rubber of the tip portion 7 and the resin of the intermediate portion 8 shall be radiolucent, as, for instance, by omission of any inorganic pigment which would cast any appreciable shadow in the radiological examination.

The catheter 7–8 extends through a mass or block 9 of resilient porous material, such as sponge rubber as above referred to, this mass being somewhat wedge-shaped as clearly appears in the drawings so as to fit into the gluteal cleft formed between the buttocks 10 and provide the desired seal against the body surfaces in the immediate vicinity of the anus. To further enhance the sealing action of the device, I preferably provide a resilient, for instance cellular rubber, sealing disc or washer 9*a* mounted upon the catheter immediately below the block or mass 9. This element is shown in FIG. 4 somewhat separated from the mass 9 for convenience of illustration, and from FIGS. 3 and 2 it will be seen that the element 9*a*, although normally lying in a plane perpendicular to the axis of the catheter, flexes and folds upwardly in the gluteal cleft when the catheter is inserted. The mass 9 provides a resilient backing for the washer 9*a*, and the action of the two elements is highly effective in preventing or at least minimizing leakage of the enema liquid. For providing an effective seal both with respect to leakage of the enema liquid and also with respect to maintaining the vacuum in the vacuum chamber to be described herebelow, the mass 9 and also the washer 9*a* are desirably completely encased within non-porous surface layers of the rubber. In this way absorption of liquids into the sponge rubber will also be prevented.

As seen in FIGS. 1, 2 and 3, the device also includes a structure generally indicated at 11 interconnected with the catheter and having side walls 12 with a sealing bead 13 at the free edges thereof. The walls 12 are shaped to conform with and fit into the gluteal cleft in the region surrounding the mass 9, the sealing bead 13 being adapted to engage and form a seal with the buttocks at opposite sides of the gluteal cleft in the manner clearly indicated in FIGS. 1 and 2.

As will be apparent from the drawings, the device of FIGS. 1, 2 and 3 is also preferably made of relatively large dimension in the direction across the gluteal cleft, but of relatively small dimension in the direction or plane normal to the large dimension. Indeed, as appears in both FIGS. 1 and 3, the overall shape of this device somewhat resembles a butterfly shape having enlarged areas extended to overlie the buttocks and having a narrow intermediate area in the central region of the device adjacent to the catheter. By this shaping of the device and by the provision of the sponge mass 9 and washer 9*a*, a substantial vacuum chamber area is provided overlying each of the buttocks at opposite sides of the gluteal cleft, while at the same time avoiding any necessity for applying vacuum in the region overlying the perineum. Since it is contemplated that the equipment be retained in its desired position by pressure reduction or vacuum, some appreciable surface area of the body is desirably engaged by the device, and the shape of the device as just described provides this appreciable surface area engagement, and thus introduces a positional stability tending to avoid undesired shifting of the device or catheter with respect to the anus.

From FIGS. 2 and 3 it will further be seen that the outer wall 14 of the device of FIGS. 1, 2 and 3 is provided with a central valley through which the catheter projects, and from which the rigid plastic part 8 of the catheter projects downwardly as indicated at 8*a*. A flexible rubber tube 15 is associated with the portion 8*a* and extended to any desired source of the enema liquid, such as the enema can 16 shown in FIG. 1, the flow being controlled by any suitable valve such as indicated at 17.

By arranging the portions of the catheter 8 and 8*a* in the manner just described, especially the nesting of the latter portion in the valley of the outer wall 14, when the device is applied to a patient upon an examination table, the catheter connection is protected within the valley of the wall 14, so that for the most part the only contact of the device with the table will be high points of the wall 14. This is desirable not only for the protection of the equipment but also for the comfort of the patient.

Pressure reduction in the vacuum chamber is effected by any suitable vacuum pump or system such as indicated diagrammatically at 18 in FIG. 1 which is connected with a trap or receiver 19 which, in turn, is connected by means of the tube 20 extended for con-

nection to the interior of the device through the fitting **21.**

The sponge mass **9,** washer **9***a* and the various walls of the surrounding vacuum chamber, including the walls **12** and **14** are desirably formed of radiolucent material. The vacuum chamber wall parts are also desirably substantially rigid although it is preferred that the mass **9** and washer **9***a* be quite soft and resilient. The wall elements **12** and **14** may be made of the same materials as referred to for the catheter part **8.** The beads or sealing elements **13** are also desirably formed of radiolucent material, and for the purpose of these beads a sponge type of rubber is suitable. The sponge rubber of the sealing elements **13** is also desirably formed with an impervious surface layer so that the sponge rubber material will not soak up any barium liquid in the sealing area, as this would render those sealing elements radio-opaque and undesirably cast shadows in the radiological examination. In the application of the device to a patient it is contemplated that these beads be wiped with petroleum jelly or other similar material adapted to produce a tight seal when the pressure is reduced in the vacuum compartment.

Since all of the parts of the equipment immediately associated with the patient are contemplated to be formed of radiolucent material, those parts will not appear or cast any appreciable shadow in the radiological examination. However, it is desirable to provide a marker formed of radio-opaque material, so that the radiologist is assisted in locating the positional relationship of the equipment and the anus. For this purpose it is contemplated to use a marker such as indicated at **22** in the form of a ring of material applied to the catheter just at the anus. The marker need not necessarily completely encircle the catheter but may be in the form of a spot or bead at one or more sides, and in any event whatever marker is used, it may be formed of or include lead, barium or an iodide compound. This marker **22** is indicated as a ring around the catheter and is shown only in FIG. **2,** but it is to be understood that such a marker is desirably used upon the catheter of any of the embodiments herein disclosed. The marker **22** is shown as applied to the tip portion **7** of the catheter but it may alternatively be applied to the lower end of the upper catheter part **8.**

In the construction of the device illustrated and described it is also of advantage that the rigid portion **8** of the catheter terminate closely adjacent to the anus itself, thereby further minimizing danger of injury to the rectum or intestinal wall.

In the embodiment illustrated in FIGS. **5** and **6** the general arrangement is similar to the first embodiment, and parts for which the description already given is applicable are identified by the same reference numerals.

In FIGS. **5** and **6,** instead of providing a porous and resilient mass or block **9** positioned between the walls **12** of the vacuum chambers, the two vacuum compartments at opposite sides of the device are separated from each other by interior walls **12***b*, **12***b*, and **12***c*, defining a recess or cavity for receiving a mass **9***b* of resilient or sponge type material, preferably also having an impervious surface layer as in the first embodiment. The vacuum compartments at the two sides are thus formed between side walls **12***a*, **12***a*, interior walls **12***b*, **12***b* and **12***c*, and the outer wall **14,** but the edges of the side walls **12***a*, with the sponge or soft edge beads **13** are not extended all the way to the central region for engagement with the body surfaces in the immediate vicinity of the anus. The only portion of the device which contacts this area of the body is the spongy resilient mass **9***b*, and this embodiment has the advantage of further minimizing patient discomfort.

The two vacuum compartments, being separated from each other by the mass **9***b* are, in the embodiment of FIGS. **5** and **6,** interconnected by means of a duct **9***c* formed above the interior wall **12***c* which lies above the mass **9***b*. In this way the single vacuum connection **20** will serve for evacuating both of the vacuum compartments.

In the embodiment of FIGS. **8, 9** and **10,** parts which are the same or essentially the same as heretofore described bear the same reference numerals. In this embodiment, however, the side walls **12***d* defining the vacuum device extend throughout the sides of the device and cooperate with the interior walls **12***b* and **12***c* to enclose a four-sided chamber having a closed top and which is open only at the bottom. The resilient mass **9***d* in this case does not extend upwardly into the chamber, but instead, an annular pneumatic device or balloon **23** is housed within the walls **12***b*, **12***c* and **12***d*. This balloon is provided with a flexible hose connection **24** having a rubber squeeze bulb **25** connected therewith through the controllable vent valve **26.** In this way the balloon **23** may be inflated or vented, and from FIG. **8** it will be seen that the inflation of this balloon will result in applying a downward force against the top of the resilient sealing mass **9***d*, thereby regulating the pressure of engagement of that mass with the body surfaces adjoining the anus. It will be understood that a sealing washer such as indicated at **9***a* may also be used in the embodiment of FIG. **8.**

The embodiment of FIGS. **11** and **12** is similar in certain respects to the embodiment of FIGS. **8–10,** but in this instance, instead of employing an inflatable annular balloon, a piston and cylinder type device is employed to controllably regulate the pressure applied to the top of the resilient sealing mass, which is here indicated at **9***e*. Thus, a cylinder element **27** is positioned within the central rectangular chamber formed by the walls **12***b*, **12***c* and **12***d*, and within this cylinder a piston element **28** is arranged, the chamber in the cylinder above the piston being in communication with the flexible tube **24** by means of which the pressure in the cylinder may be developed or vented, as required in the use of the equipment. A bulb **25** and valve **26** may be used for this purpose, as in FIGS. **8, 9** and **10.** The piston **28** is centrally apertured and is movable with respect to the catheter part **8** and thereby urges the rubber mass **9***e* downwardly. A sylphon bellows **29** surrounds the upper portion of the catheter **8** and is preferably sealed to the piston **28** and to the top wall of the cylinder **27** in order to minimize pressure leakage in the region where the catheter **8** extends through the piston **28.**

In both of the embodiments shown in FIGS. **8–12** provision is made for adjustment of the pressure of engagement of the sealing mass **9***d* or **9***e*. This is accomplished in a simple manner by the pneumatic means acting either to inflate the balloon of FIGS. **8–10** or to actuate the piston in the embodiment of FIGS. **11** and **12.**

In the arrangement shown in FIGS. **13–18** inclusive, provision is made to utilize a mass of resilient sealing material, here indicated at **9***f*, preferably in conjunction with a resilient washer **9***a* of the kind described above,

these parts being mounted upon the rigid portion 8 of the catheter, the catheter also having the desirable flexible portion 7 for insertion into the rectum.

In FIG. 13, the buttocks and the gluteal cleft are indicated by the lines 30, 30 and in this embodiment a pair of spaced vacuum chambers 31, 31 are provided, the vacuum chambers being positioned so as to respectively engage the buttocks at points spaced considerably from the anus and the perineal area in the gluteal cleft. Each of the vacuum chambers 31 desirably has an edge bead 13 of the kind above described, and the vacuum connection 20 here has a pair of branches 32, 32 extended respectively to the two vacuum chambers.

The two vacuum chambers 31, 31 are flexibly interconnected in order to provide freedom for relative adjustment movement thereof both with respect to each other and also with respect to the catheter. The flexible interconnection of the vacuum chambers is preferably accomplished by a flexibly jointed structure including a pair of parallel rods 33, 33 each of which has a piston 34 at each end thereof working in a cylinder 35. The piston and cylinder devices serve as motion limiting stops, but provide a sufficient range of motion to accommodate the equipment to various different body contours. As seen in FIG. 15, the outer end of each cylinder 35 is connected with the adjacent vacuum chamber 31 by means of a ball and socket joint including a ball 36 and a socket 37 providing freedom for universal angular movement. This angular movement, together with the freedom for telescoping action provided by the pistons 34 and the cylinders 35 afford a full measure of freedom for adjustment movement of the vacuum chambers with respect to each other. Thus the vacuum chambers may angularly tilt or swing upwardly or downwardly with respect to each other and may also approach or retreat from each other. Each piston 34 desirably has a port or passage 34*a* to avoid build up of pressure on either side of the piston and thereby avoid restraint upon the movement of the vacuum chambers toward and away from each other.

The ball and socket joints 36 and 37 are advantageously formed of plastic materials and arranged for convenient "snap action" for engagement and disengagement of the joints in order to simplify assembly and disassembly of the parts, for instance for purposes of cleaning or sterilization.

In the center of the flexible structure interconnecting the vacuum chambers 31, 31 and extended between the parallel rods 33 there is a cross beam 38 in the central portion of which the rigid part 8 of the catheter is fixed, the ends of this beam being provided with ball and sockets joints 39 of the type described above, thereby providing additional freedom for motion of the interconnecting parts, including the vacuum chambers and the catheter. Various of the motions provided for are indicated by the illustrations of FIGS. 16 and 17.

As in other embodiments, the catheter may be supplied with the desired enema liquid through a flexible hose connection 15 which is connected in this instance with the rigid part of the catheter 8 adjacent to the beam 38 of the flexible interconnecting structure between the vacuum chambers.

If desired the parallel bars 33 between the vacuum chambers 31 may be somewhat U-shaped as indicated at 33*a* in FIG. 18, in order to more closely follow the contours of the gluteal cleft.

All of the mounting structure and flexible means for interconnecting the vacuum chambers as shown in FIGS. 13 to 18 are desirably formed of radiolucent materials in order to avoid casting confusing shadows in the fluoroscopic or x-ray pictures being taken.

The embodiments of FIGS. 13–18 are highly adaptable to body contours of various patients and this flexible type of system is also desirable from the standpoint of maintaining the vacuum engagement with the body, notwithstanding various motions of the patient, as are frequently required in order to make possible the desired radiological examination.

With all the embodiments illustrated and described, it is contemplated that at least certain of the parts be so formed as to be disposable, for instance the flexible rubber catheter tip. While the entire device might be disposable, this would not be necessary and the principal portion of the device, especially when formed of certain materials such as polymethyl methacrylate, nylon or rigid polyvinyl chloride can readily be sterilized by known techniques after removal of the catheter tip and the enema liquid supply and vacuum tubes. Resin materials of the kind mentioned are radiolucent, as is contemplated, so that the desired examination will not be impaired.

In any of the embodiments illustrated and described the rubber sealing mass or block surrounding the catheter may be made readily replaceable or disposable if desired. Thus the rubber block may be provided with an aperture snugly fitting the catheter but slidably removable therefrom. Similarly, the rubber sealing washer 9*a* may also be readily replaceable.

Devices of the kind disclosed may readily be made in graduated sizes adapted for use not only with adult patients but also with pediatric patients.

I claim:

1. Equipment for use in rectally administering enemas comprising a catheter having a flexible tip portion for insertion into the intestine through the anus and a relatively rigid portion adapted to project externally of the body when the tip portion is inserted, a mass of porous and resilient material having an impervious surface layer surrounding the rigid portion of the catheter adjacent the flexible tip portion, said mass being positioned to engage the body surface in the immediate vicinity of the anus, and mechanism for retaining the equipment in position as applied to a patient including a vacuum device having walls defining a vacuum compartment with open areas adapted to be presented toward the buttocks when the device is positioned in the gluteal cleft and thereby provide for vacuum adherence of the device to the buttocks, the catheter being extended through said device and having a liquid supply connection for delivering enema liquid to and through the catheter.

2. Equipment as defined in claim 1 in which the mass of resilient material is generally wedge-shaped to fit the gluteal cleft adjacent to the anus.

3. Equipment as defined in claim 1 and further including a flexible and resilient sealing washer projecting from the catheter adjacent to and downstream of said mass of porous material.

4. Equipment for use in rectally administering enemas comprising a mass of resilient material having a surface adapted to engage the surface of the body in a region surrounding the anus, a catheter extended through said mass and having a flexible tip portion for

insertion into the intestine through the anus, and mechanism for retaining the equipment in position as applied to a patient including a vacuum device having walls defining vacuum compartments with open areas extended in opposite directions from said mass and adapted to be presented toward the buttocks when the device is positioned in the gluteal cleft and thereby provide for vacuum adherence of the device to the buttocks.

**5.** Equipment as defined in claim **3** in which the vacuum compartments at opposite sides of the mass of resilient material are interconnected, and a vacuum connection communicating with one of said compartments.

**6.** Equipment for use in rectally administering enemas comprising a catheter having a flexible tip portion for insertion into the intestine through the anus, a mass of porous and resilient material having an impervious surface layer positioned to engage the body surface in the immediate vicinity of the anus, mechanism for retaining the equipment in position as applied to a patient comprising a device having a vacuum chamber in which said mass of material is enclosed and having open areas extended in opposite directions and adapted to be presented toward the buttocks when the device is positioned in the gluteal cleft and thereby provide for vacuum adherence of the device to the buttocks, and fluid pressure means for urging the mass of resilient material against the body surface engaged thereby comprising an expandable pressure inflatable device positioned in said vacuum chamber and adapted to bear against said mass of material to advance the mass against the body surface adjacent to the anus, the catheter being extended through the fluid pressure means and having a liquid supply connection for delivering enema liquid to and through the catheter.

**7.** Equipment as defined in claim **6** in which the fluid pressure means comprises an inflatable annular balloon surrounding the catheter adjacent to said mass of porous material.

**8.** Equipment as defined in claim **6** in which the fluid pressure means comprises a piston and cylinder device, one element of which reacts against said porous mass of material to urge it against the body surface engaged thereby.

**9.** Equipment for use in rectally administering enemas comprising a mass of resilient material having a surface adapted to engage the surface of the body in a region surrounding the anus, a catheter extended through said mass and having a flexible tip portion for insertion into the intestine through the anus, and mechanism for retaining the equipment in position as applied to a patient including a pair of vacuum chambers spaced at opposite sides of the catheter and adapted respectively to engage and adhere to the buttocks in regions spaced from the anus, and means flexibly interconnecting said chambers and providing freedom for relative adjustment movement of the chambers and thereby provide for accuracy of fit notwithstanding changes in positions of the buttocks engaged by said chambers.

**10.** Equipment as defined in claim **9** in which said means flexibly interconnecting the vacuum chambers comprises a flexibly jointed structure including means providing for angular movement of the vacuum chambers with respect to each other.

**11.** Equipment as defined in claim **10** in which the flexibly jointed structure further includes means providing for movement of the vacuum chambers toward and away from each other.

**12.** Equipment as defined in claim **10** in which the catheter is pivotally connected with said flexibly jointed structure.

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