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W. J. REICH ET AL

2,466,042

INTERNAL HEAT-TREATMENT DEVICE

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Fig. 2.

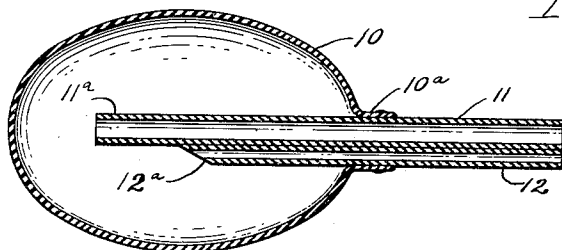


Fig. 1.

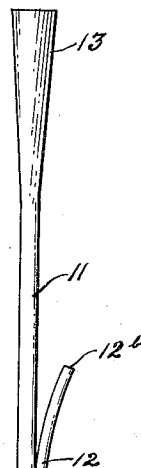


Fig. 3.

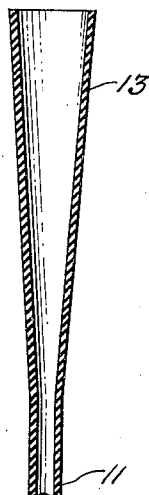
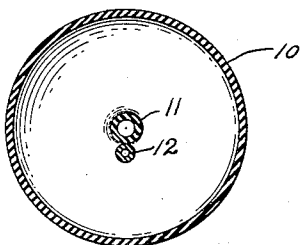
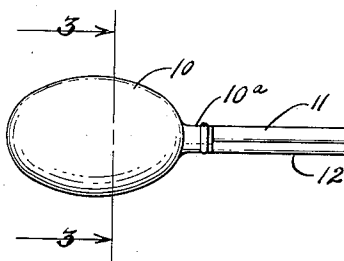


Fig. 4.



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INTERNAL HEAT-TREATMENT DEVICE

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2 Claims. (Cl. 128—401)

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This invention relates to a treatment device, and more especially to a hydro-therapy vaginal bag.

In certain inflammatory or other abnormal or undesired conditions of portions of the body it has been found very helpful to apply heat within a body cavity having its walls in the undesired condition, or communicating with or being closely adjacent the organ or organs in the undesired condition, and this application of heat has frequently been effected by flowing a warmed fluid into and out of the body cavity. While this has sometimes been accomplished by the use of hot air, hydro-therapy treatments by the use of warm air are by far the most generally accepted and practiced methods of treatment.

The conditions with which we are particularly concerned are disturbances or abnormalities of the female organs which may be helped by the application of heat, preferably accompanied by mild dilation, within the vaginal vault. Examples of these conditions are inflammations of the walls of the vaginal vault or uterus, or of closely associated parts, too small uteri or vaults, an unduly large uterus which has not regressed or involuted to normalcy following childbirth, and the like, no attempt being made to list all of the conditions under which, and ways in which, our treatment device may be used, as these will be readily apparent not only to a gynecologist, but also to any other skilled physician, to whom uses in other fields will be apparent. For example, the principles of our treatment device are equally applicable to such disorders as those of the prostate gland in a man, where a device of the character disclosed herewith, preferably with a somewhat modified bag shape, may be used in the body cavity adjacent the anus for the application of heat to the prostate gland. The particular device illustrated in the accompanying drawings, however, is an intra-vaginal hydro-therapy or hot compress bag, and the remainder of this specification will concern itself with this device.

Treatment of the interior of a body cavity by flowing a warmed fluid therethrough has heretofore, at least in practice, required expensive and relatively complicated machines for controlling the heating and flow of the fluid and the delivery and discharge thereof from the body vault, as the machines commonly used for the so-called Elliot and Newman treatments. Since these machines are relatively large and expensive, they are not adapted for home use, but require that the treatments be given at a doctor's offices, at a hospital, or the like. Moreover,

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the application of heat should preferably be for a substantial period, as of the order of a half hour to an hour, for best results in most cases, and this limits the number of treatments per day which can be given with a machine. These and other disadvantages make such treatments, particularly intra-vaginal hot compress treatments, expensive and inconvenient to the patient, with the result that the treatments are frequently avoided entirely even when their desirability is known, or taken too infrequently or for too short a period for best results.

The treatment device which we are here disclosing and claiming, obviates these and other disadvantages in that it is very inexpensive, small enough to be readily put away in a drawer or cabinet or carried in an overnight bag, and adapted for self-administered, individual and private use at the convenience of the patient; and yet it provides all of the effectiveness and beneficial results of treatments heretofore obtainable only away from the home and under medical supervision and administration by others.

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

Figure 1 is an elevational view, partly broken away, of an intra-vaginal hydro-therapy treatment device embodying our inventions; Figure 2 is an enlarged vertical sectional view of the portion of the device at the lower left of Figure 1; Figure 3 is an enlarged sectional view of the same portion, but transverse to that of Figure 2 and along the line 3—3 of Figure 1; and Figure 4 is an enlarged vertical sectional view of the connector device at the upper end of the delivery tube as shown in Figure 1.

In the particular embodiment of our inventions illustrated herewith there is a bag 10 having in communication with its interior one end of each of a fluid delivery tube 11 and a fluid discharge tube 12, the delivery tube having at its other end a connector device 13 and the other end of the discharge tube 12 terminating adjacent but preferably short of said connector device.

The bag 10 is of oblate form and of a size appropriate to the vaginal cavity of the woman who is to use the device. Treatment devices otherwise identical but with bags of several different sizes should be available, and the doctor should provide the patient with a suitably fitting bag when he first prescribes the device and gives instructions in its use. The bag is of flexible

material, preferably very flexible, relatively thin and at least somewhat resilient, as by being formed of a thin sheet of latex or other suitable natural or synthetic rubber, or of flexible plastic or other suitable material.

The delivery and discharge tubes 11 and 12 are flexible tubes of rubber or other suitable material, preferably of the order of four to six feet long and fastened together throughout substantially their entire length. An end of each of the tubes, the ends here identified as 11a and 12a, lie within the bag 10 so that they communicate with the interior thereof, the neck 10a of the bag being sealed around the tubes, slightly back of such ends, in fluid-tight relationship. The other end of the delivery tube 11 is provided with the connector device 13, here shown as a rather long funnel-shaped member of resilient material, as soft rubber, adapted to be readily slipped onto the end of a mixing faucet capable of delivering mixed hot and cold water at a suitable temperature above that of the body but not so hot as to cause discomfort or injury to the tissue in contact with the bag. In order to keep the bag dilated during use of the device the discharge tube 12 presents more restriction to flow of fluid there-through than through the delivery tube 11, preferably by having a substantially smaller internal cross section than the delivery tube. While it will be understood that we are in no way limiting ourselves to specific dimensions in any portion of our device, we have found that a delivery tube with an internal diameter of about a quarter of an inch and a discharge tube with an internal diameter of about an eighth of an inch work well in practice.

It is believed that the manner of using our treatment device will be obvious from the foregoing, and accordingly the same will be only briefly described, and in connection with intra-vaginal hydro-therapy. The woman using the device for treatment would insert the bag 10 (in collapsed condition, and preferably after having first sterilized the exterior of the bag by boiling water or other suitable means) in suitable position in her vaginal vault, and would slip the connector device 13 up over the end of a mixing faucet sufficiently far to have the connector hold itself firmly in place. The flow of water, and regulation of the temperature by suitable adjustment of the hot and cold water valves, can be effected either before or after placing the connector device 13 on the faucet, although it is somewhat preferable to make the initial flow adjustment before making the connection; and the rate of flow through the faucet should always be made substantially greater than that which the discharge tube 12 will permit at the available water pressures, in order to insure dilation of the bag 10 during the treatment. Since the end 12b of the discharge tube is preferably a few inches below the connector device 13, water discharging from such end 12b discharges into the bowl or

the tub associated with the faucet being used, and out through the drain opening provided in such bowl or tub. Since the wall material of the bag 10 provides some retardation of heat transfer therethrough, holding a hand or finger where it will be contacted by water leaving the end 12b of the discharge tube enables adjustment of the water valves during the treatment period, at such times as changes in pressure in the hot or cold water pipes may require, to forestall any noticeable changes in the heat being delivered to the tissues in contact with the outer surface of the bag. When the treatment has been carried on for a suitable period, the water is turned off, the connector 13 removed from the faucet, and the water drained from the device, whereupon the bag 10 will collapse and can be readily removed. The great ease and convenience of intra-vaginal hydro-therapy treatments by use of our device, particularly in comparison with present treatment methods and devices, will be readily apparent.

While we have shown and described certain embodiments of our invention, it is to be understood that it is capable of many modifications. Changes, therefore, in the construction and arrangement may be made without departing from the spirit and scope of the invention as described in the appended claims.

We claim:

1. A treatment device of the character described, including: a bag of flexible material adapted to be inserted in a body cavity; a flexible liquid delivery tube having one end opening into the interior of the bag and the other end adapted to be supplied with a stream of liquid; and a flexible liquid discharge tube communicating with the interior of the bag, the internal cross section of the delivery tube being greater than the internal cross section of the discharge tube to present more restriction to flow of liquid through the discharge tube than through the delivery tube.

2. Apparatus of the character claimed in claim 1 wherein the bag is adapted to be inserted in and fit well in the vaginal vault of a woman, said other end of the delivery tube is provided with a connector device adapted to make connection with a faucet, said discharge tube being shorter than said delivery tube and said tubes are fastened together throughout substantially the entire length of the discharge tube.

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