J. F. MORRIS.

DEVICE FOR TREATMENT BY TEMPERATURE.

APPLICATION FILED JAN. 14, 1921.

1,393,153. Patented Oct. 11, 1921.

Fig. 1.

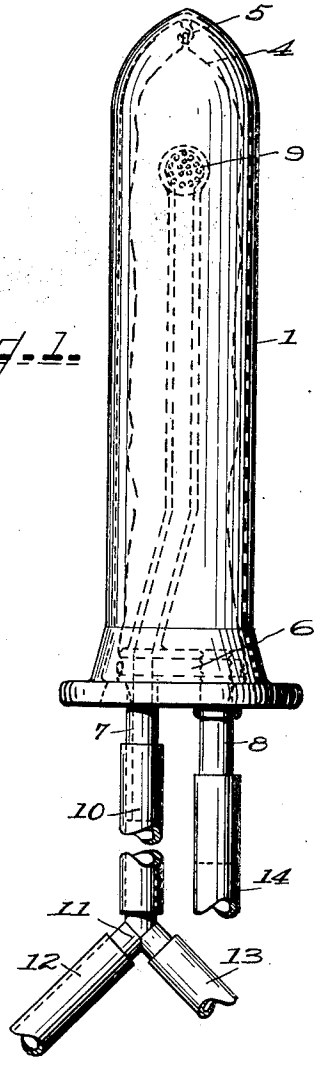


Fig. 2.

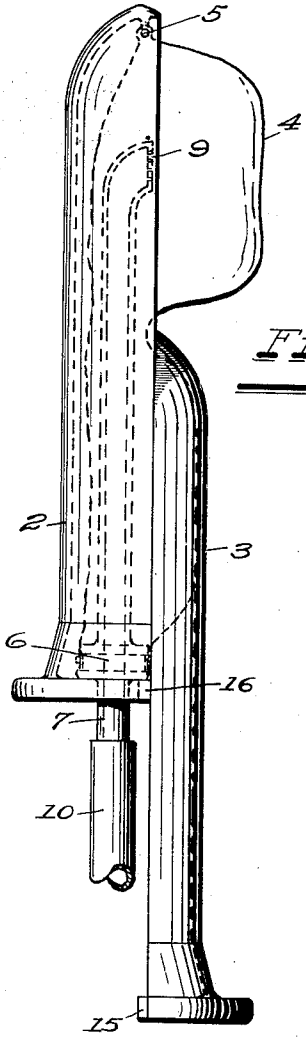
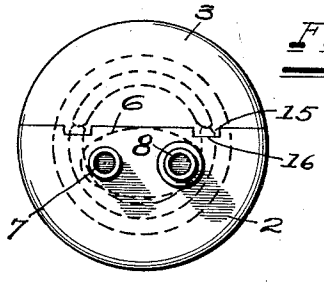


Fig. 3.



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DEVICE FOR TREATMENT BY TEMPERATURE.

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To all whom it may concern:

Be it known that I, JOHN FOX MORRIS, a citizen of the United States, and a resident of Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Devices for Treatments by Temperature, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to devices whereby local applications of either heat or cold may be made at various points of the human anatomy such as rectal applications of heat or cold to the prostate gland or applications of heat or cold to the vagina, or applications of a change of temperature to any localized portion of the nasal passages or the head or throat spaces or cavities.

One object of my invention is the provision of a relatively inflexible case or holder, having a movable part and a relatively flexible treatment medium container with means for introducing a treatment medium into the container to distend or expand it to bring a portion of the container into contact with the subject of the treatment.

Another object of my invention is to so shape and arrange the parts of the device that it may be easily placed in position and operated and removed.

Another object of my invention is to so arrange the parts of the device that it may be readily dis-assembled for cleaning or other purposes.

Other objects of my invention will appear and be described in the specification.

The novelty of my invention will be hereinafter more fully set forth and specifically pointed out in the claims.

In the accompanying drawing:

Figure 1 is an elevation of a device embodying my invention.

Fig. 2 is an elevation of the device shown in Fig. 1 showing the parts in operating position.

Fig. 3 is an end view of Fig. 1.

The same numerals of reference are used to indicate identical parts in all the figures.

As illustrating one form of device embodying my invention, I have shown in the drawing a relatively inflexible case or housing 1 which is in two parts 2 and 3 as shown more clearly in Figs. 2 and 3, the case being preferably cylindrical and rounded at one end and tapered and flanged at the other end, and of sufficient length and of a suitable size for the various treatments which it is intended to be used for.

A relatively flexible treatment medium container 4 is mounted within the case and attached thereto adjacent the top thereof as by a suitable hook 5, the lower end of the treatment medium container being connected to a base 6 through which the inlet tube 7 and the outlet tube 8 pass, the inlet tube 7 extending through a portion of the length of the case and terminating in a discharge portion 9 which may have a series of perforations as shown in Fig. 1 to the end that the treatment medium may be projected as a series of relatively fine streams for certain classes of treatments.

The inlet and outlet tubes 7 and 8 pass through suitable openings in the end of the section 2 of the case 1, the inlet tube 7 being preferably connected as by flexible tube 10 to a Y connection 11, one leg of which may be connected to a source of supply for a heated medium of treatment while the other leg 13 may be connected to a cool supply and each of the sources of supply provided with a suitable control valve to the end that the treatment medium may be permitted to pass through the device and its temperature changed as required by either admitting the warm or cool treating medium or any combination of the two.

Water at the proper temperature may be used as it would have the least harmful effect on the treatment medium container, which is preferably made of thin soft rubber though if the treatment medium container is made of other material, other treatment mediums might be used to advantage. The two sections of the case 1 are preferably made of hard rubber though other material may be used where desired.

The outlet tube 8 is preferably connected as by any flexible tube 14 to any suitable receptacle from which the treatment medium may be removed for subsequent use if desired.

A pair of guides 15 are carried by the section 3 of the case 1 and these guides enter recesses 16 in the section 2 to the end that when it is desired to place the device in position for operation, the two sections may be properly registered and handled together.

The operation of the device is as follows: If it is desired to treat a prostate gland, the two sections of the case 1 are placed together as shown in Fig. 1 with the soft rubber container inclosed between them and

the outside of the case 1 properly lubricated for insertion into the rectum of the patient with the movable section 3 of the case 1 adjacent that portion of the patient which it is desired to treat, after which the movable section 3 is either partly or entirely withdrawn and the treatment medium introduced into the container. Where it is desired to treat a relatively small area, the section 3 of the case would be withdrawn to approximately the position shown in Fig. 2. The treatment medium will distend the container 4 until it comes in contact with the membrane or tissue of the patient on that side of the device which is opened by the moving of the section 3 as shown in Fig. 2, the amount of the distention being determined by the amount of pressure upon the treatment medium which can be regulated either by elevating the discharge tube 14 until a sufficient head is developed or by restricting the outlet by means of any suitable valve to the end that the container 4 may be forced against the parts to be treated with any required amount of pressure.

By carrying the inlet tube 7 to a point adjacent the pointed end of the case 1 and then turning it, a pulsating treatment may be given by subjecting the treatment medium to pressure and admitting it intermittently whereby it will be thrown against the container to distend it to contact with the patient at the times when the treatment medium is being admitted and this pulsating treatment may be combined with a temperature treatment by controlling the temperature of the treatment medium while intermittently introducing it under pressure.

If it is desired to treat a larger area than would be possible with the parts in the position of Fig. 2, the section 3 may be withdrawn to a greater extent or entirely while a small area may be treated by withdrawing the section 3 to a less extent than shown in Fig. 2.

After the treatment has been accomplished, the treatment medium is permitted to drain from the container and the device removed from the patient.

It is to be noted that the base 6 is arranged with a depressed channel so that the container 4 may be slipped over the base and held in place thereon by means of a rubber band or other suitable binder to make a tight joint against the escape of the treatment medium when pressure is applied, this form of joint being easily disconnected for removal of the treatment medium container should it be ruptured, or for other purposes.

It is to be noted that where water is used as a treatment medium, no injurious results then follow a rupture of the treatment medium container.

To remove the interior parts of the device from the case, it is only necessary to disconnect the tubes 10 and 14, unscrew the tube 8 from the base 6 and the container 4 from the hook 5 whereupon the interior parts may be moved toward the rounded end of the case and removed therefrom.

The assembling is accomplished by inserting the tube 7 through the opening in the end of the case and placing the other parts in position, engaging the container 4 with the hook 5, screwing the tube 8 into the base 6 and connecting the tubes 10 and 14.

Having thus fully described my invention, I claim:

1. In a treatment device the combination of a relatively inflexible case having a movable portion, a relatively flexible treatment medium container in said case, and means for introducing a treatment medium into the container whereby when the movable portion of the case is moved a portion of the flexible container will be distended.

2. In a treatment device the combination of a two-part relatively inflexible case, a treatment medium container carried by one part of the case, and means for introducing a treatment medium into the container whereby the container will be distended when one part of the case is moved with relation to the other part.

3. In a treatment device the combination of a two-part relatively inflexible case, guides coöperating between the two portions of the case when the parts are in registration, a relatively flexible treatment medium container carried by one member of the case, and a treatment medium inlet for introducing a treatment medium into the container whereby when one part of the case is moved with relation to the other part, the flexible container may be distended.

4. In a treatment device the combination of a two-part relatively inflexible case, a relatively flexible treatment medium container carried by one part of the case, a treatment medium introducing tube projecting into the treatment container and discharging laterally whereby when one portion of the case is moved with relation to the other and a treatment medium is introduced under a pulsating pressure, a portion of the treatment medium container will be pulsatingly distended.

5. In a treatment device the combination of a relatively inflexible two-part case, a treatment medium container carried by one part of the case, and means whereby the relatively flexible container may be distended to treat a localized area of a patient when one part of the case is moved with relation to the other part.

JOHN FOX MORRIS.