

Nov. 2, 1926.

1,605,894

J. G. HOMAN

COMBINED DILATOR AND APPLICATOR

Filed June 7, 1924

Fig. 1

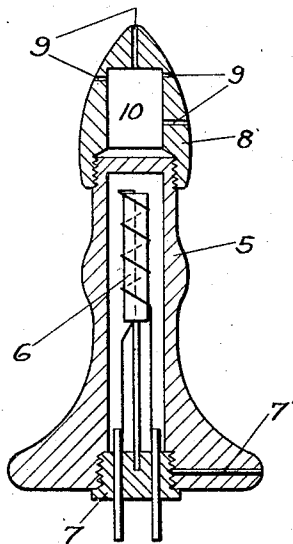


Fig. 3

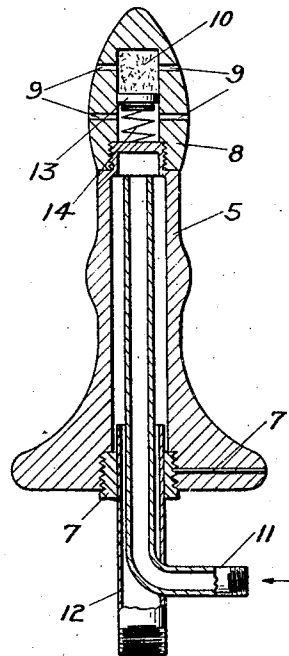


Fig. 2

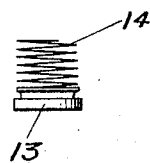
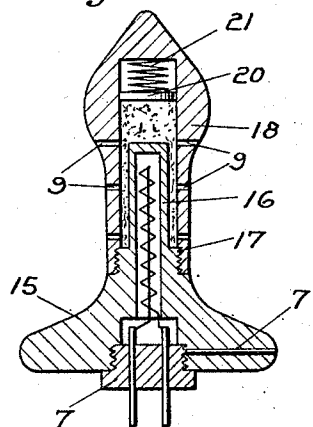


Fig. 4



INVENTOR

John G. Homan
By Clarke & Doolittle
his attorneys.

UNITED STATES PATENT OFFICE.

JOHN G. HOMAN, OF STEUBENVILLE, OHIO, ASSIGNOR TO THE ELECTRO THERMAL COMPANY, OF STEUBENVILLE, OHIO, A CORPORATION OF OHIO.

COMBINED DILATOR AND APPLICATOR.

Application filed June 7, 1924. Serial No. 718,538.

This invention is for a combined dilator and applicator for official treatment of certain bodily disorders.

The value of heat emitting dilators in the official treatment of certain disorders has long been known, and wide application thereof has been made. It has also been proposed to use in dilation treatments medicaments beneficial to the parts being treated. For instance, in the rectal treatment of prostatic disorders by dilation, or in the treatment of hemorrhoids, practitioners frequently desire to accompany the use of the dilator with the application of medicating substances to the rectal interior.

The present invention has for its principal object to provide a dilator comprising means for applying heat and infra-red radiations to the body tissues and for simultaneously applying medicaments to the parts being treated, so that medication may be effected under the most favorable circumstances, that is, when circulation in the parts being treated is stimulated and the tissues are in a receptive condition and, at the same time, enables the medicating compound or salve to be warmed as it is being applied.

A further important object of the invention is to provide an improved means for forcing the medicament out of the dilator onto the part being treated.

My invention may be readily understood by reference to the accompanying drawings, in which:

Fig. 1 is a longitudinal section through an electrically heated dilator constructed in accordance with my invention, the electric heating means being diagrammatically illustrated;

Fig. 2 is a detail view of a salve ejecting device which may be used in the device shown in Fig. 1, or in the other forms;

Fig. 3 is a view generally similar to Fig. 1, showing means for heating the dilator by the circulation of water therethrough, and showing the salve ejector in the salve or medicine receiving compartment; and

Fig. 4 is a sectional view of a modified form of dilator.

Referring first to the construction shown in Fig. 1, 5 designates a suitable body having its sides externally shaped to produce dilation. The interior of the body is hollow, and contains an electric heating element

6, which may be of any suitable construction, such, for instance, as that shown in my Patent No. 1,279,111, dated September 17, 1918, in which the heating element is carried on a removable connecting plug 7. A pin 7' is shown for preventing accidental removal of this plug. The end of body 5 is closed, and the end portion thereof is threaded to receive a hollow head or end part 8, of a suitable shape to cooperate with the remainder of the body in effecting dilation. In this head or cap are a plurality of openings or passages 9 through which salve or other medicating compound may escape from the interior of the head or cap to the parts being treated. By removal of the cap or head, the hollow chamber 10 therein may be readily refilled with salve, when necessary.

In the construction shown in Fig. 3, in which corresponding reference numerals designate corresponding parts, the general arrangement is similar to that shown in Fig. 1, but, instead of showing electric heating means, provision of an inlet pipe 11 and an outlet pipe 12 is made, so that hot water or other heating fluid may be passed through the dilator.

In either of the forms shown in Figs. 1 and 3, a valve ejector may be provided in the chamber 10 in the cap 8, this device comprising a disk or plunger 13 and a resilient spring 14. When a salve or similar substance, which will melt when heated to a slight extent, is used in the chamber 10, the spring reacting against the end of the body 5 causes the disk 13 to force the salve out of openings 9 as the salve is heated. In Fig. 3, I have shown the spring and disk in position in the cap.

In Fig. 4, 15 designates a base or body member having a central hollow projection or extension 16. At 17, at the point of juncture of the base and extension, the body is threaded to receive a cap or shell 18. This shell surrounds the hollow extension 16 and projects considerably beyond the end of the extension. The shell is shaped to effect dilation, and has suitably arranged holes therein through which the medicating substance may pass. The shell being hollow, and being larger in diameter and longer than the extension 16, provides a salve or medicament receiving space around the sides and at the end of the extension. This ar-

rangement provides an efficient way of heating the salve or other medicating substance. A disk 20 and spring 21, as described in connection with Fig. 2, may be provided in the shell to assist in forcing out the medicating salve or substance.

Various other changes and modifications may be made in the construction of the dilator, and I do not confine myself to any particular method or way of heating the dilator, although an electric heating means is generally preferred. I also prefer to make the body and shell of any substance, such as wood, transparent to the tissue penetrating infra-red radiations from the heating element.

I claim as my invention:

1. An official applicator comprising a body formed of two members, one of which is removably secured to the other, heating means in one member, the other member having a chamber therein for the reception of medicating substances.

2. An official applicator comprising a body formed of a main member and a detachable member fitted on to the main member, a heating chamber in the main member, and a medicating chamber in the detachable member, the walls of the detachable member being pervious to the passage of a medicating substance therethrough.

3. An official applicator comprising a main body, means in the interior of the body for heating it, and a separable refillable perforated container secured to the outside

of the body adapted to hold a medicating substance.

4. An official applicator comprising a body having a hollow interior provided with a heating element, a separable refillable container on the outside of the body, said container having perforated walls through which medicating substance may flow, and means in one end of the container for assisting in forcing medicating substances through the perforate walls thereof.

5. An official applicator comprising a body having a hollow interior provided with a heating element, a separable refillable container on the outside of the body, said container having perforated walls through which a medicating substance may flow, and means including a spring and plunger in one end of the container for assisting in forcing medicating substances through the perforate walls thereof.

6. An official applicator comprising a body having a hollow cylindrical extension thereon and adapted to receive a heating element, a shell detachably secured to the body and surrounding the extension thereon, said shell being spaced away from the extension, said shell being adapted to receive medicating substances, the shell having openings therein to permit of such substances passing from the shell onto the parts of an individual being treated.

In testimony whereof I have hereunto affixed my signature.

JOHN G. HOMAN.