No. 844,450. PATENTED FEB. 19, 1907

C. R. HARRIS.

RECTAL DILATOR.

APPLICATION FILED JUNE 9, 1904.

Fig. 1.

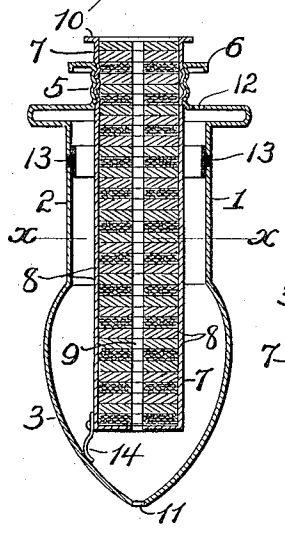


Fig. 2.

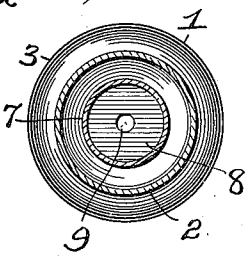


Fig. 3.

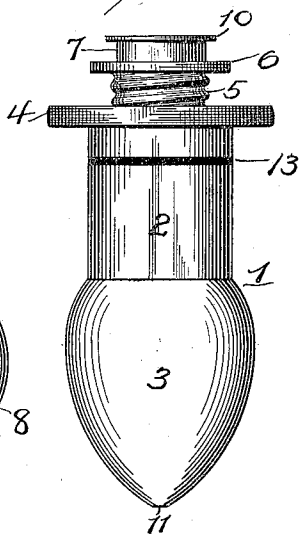


Fig. 4.

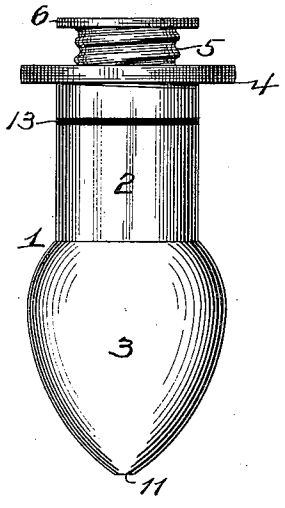


Fig. 5.

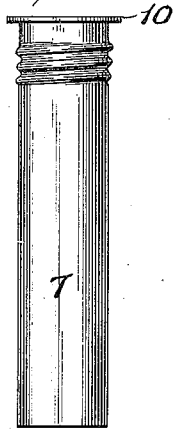
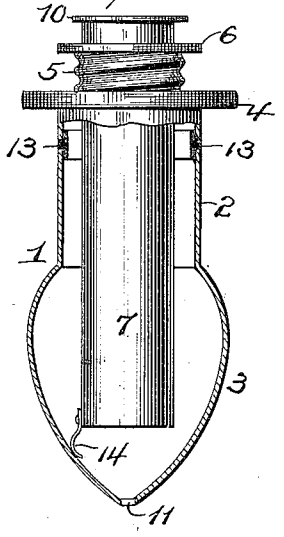


Fig. 6.



WITNESSES

E. A. Nottingham

G. F. Downing.

INVENTOR

C. R. Harris

By H. A. Seymour

Attorney

UNITED STATES PATENT OFFICE.

CHARLES R. HARRIS, OF LOS ANGELES, CALIFORNIA.

RECTAL DILATOR.

No. 844,450. Specification of Letters Patent. Patented Feb. 19, 1907.

Application filed June 9, 1904. Serial No. 211,836.

To all whom it may concern:

Be it known that I, CHARLES R. HARRIS, a resident of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Rectal Dilators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved rectal dilator, the object of the invention being to provide an improved device of this character which, owing to its shape, will be retained in proper position and not chafe or otherwise discommode the user.

A further object is to provide an improved dilator, comprising a casing inclosing a removable battery and having a ventilator-chamber between the battery and casing and inlet and outlet ports in the casing, permitting free escape of gases.

A further object is to provide a removable battery for a dilator, having an opening for the admission of suitable liquid to increase the galvanic action of the battery.

With these and other objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal sectional view illustrating my improvements. Fig. 2 is a transverse sectional view. Fig. 3 is an elevation. Figs. 4 and 5 are views illustrating the casing and battery separated; and Fig. 6 is a view, partly in section and partly in elevation, showing the parts assembled.

1 represents the casing of my improved dilator, which throughout a portion of its length is made cylindrical, as shown at 2, and is enlarged into oval shape at one end, as shown at 3. The cylindrical portion of the metallic shell or casing is made in two parts, separated by a ring 13 of insulating material. The cylindrical end of the dilator has a hollow disk-like enlargement 4 and at the center of this end is provided with a screw-threaded sleeve 5, having an enlarged outer end 6 to form a finger-hold.

The battery 7 consists of a cylindrical casing, holding in proper formation a series of disks 8 of alternate arrangement of copper, zinc, or other combination, of metals and absorbent material, all having central openings forming a channel of duct 9 through the same, into which acetic acid or other like liquid can be inserted and be absorbed by the disks of absorbent material and insure the full galvanic action of the battery. The cylindrical shell or casing of the battery near one end is made screw-threaded to screw into sleeve 5 and has an annular enlargement or flange 10 at its outer end to facilitate its turning to insert or remove the same from casing 1. The end of the battery within the shell or casing is electrically connected with said shell or casing by means of the conductor 14, secured to the battery and having sliding contact with the inner face of the shell.

In operation the oval enlarged end 3 of the dilator can be readily inserted in the rectum and the sphincter muscles will tightly engage the cylindrical portion 2 of the casing 1, the enlargement 3 preventing outward movement of the dilator, while the enlargement 4 at the outer end of the dilator will prevent its being inserted too far into the rectum.

By constructing my improved dilator as above explained it will be observed that the parts of the battery do not come into direct contact with the body at all, but merely supply the necessary electric current which makes contact with the parts to be treated through the casing 1, and to prevent any injurious effect of the contact of this metal casing it is preferably nickel, silver, or gold plated or might be entirely of these or other like metals.

As clearly illustrated, an air or ventilator chamber is provided between the battery and casing and an opening 11 is made in the inner end of the casing 1 and an opening 12 in the outer end or enlargement 4, permitting free circulation of air and escape of gases from the bowels.

As is well known with this class of battery, the action of moisture of the body or difference in temperature causes the generation of the necessary electric current which passes to the hemorrhoids or other diseased tissue.

A great many slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not restrict myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A rectal dilator comprising a metallic shell having an oval forward portion, and a cylindrical rear portion a removable battery projecting into said cylindrical portion of the shell and means at the rear end of the shell for supporting the battery within the shell and in electrical connection therewith.

2. A rectal dilator comprising a metallic shell made in insulated sections and having a tubular portion projecting from one end thereof and a battery inclosed within said shell connected with the respective portions of the shell, said battery having a portion removably supported by said tubular portion of the shell.

3. A dilator comprising a metallic shell made in insulated sections, a battery inclosed within said shell and electrically connected with said sections, and means projecting from the rear end of the shell for supporting the battery in place.

4. A dilator, comprising a metallic shell and a removable battery therein and electrically connected therewith, said battery having a screw-threaded cylindrical portion, and the shell having a threaded portion to receive the threaded cylindrical portion of the battery.

5. A dilator, comprising a metallic shell having a hole in one end, and a battery within and electrically connected with said shell, said battery comprising a shell having a hole in its end, a series of disks of different metals alternating with each other, said disks having alined openings forming an unobstructed passage through the battery.

6. A rectal dilator comprising a metallic shell divided into two parts connected by insulating material, a battery disposed within said shell and electrically connected with the two sections thereof.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHAS. R. HARRIS.

Witnesses:
F. J. McClary,
Carl Pauly.