

May 19, 1925.

1,537,992

E. GEARON

MEDICATOR

Filed Feb. 16, 1923

Fig-1

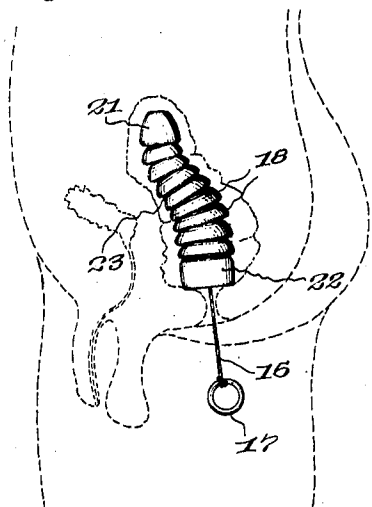


Fig-2

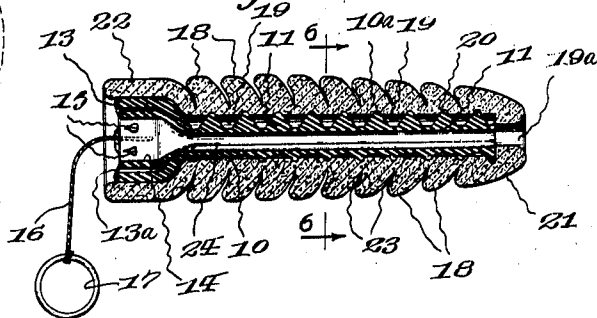


Fig-3

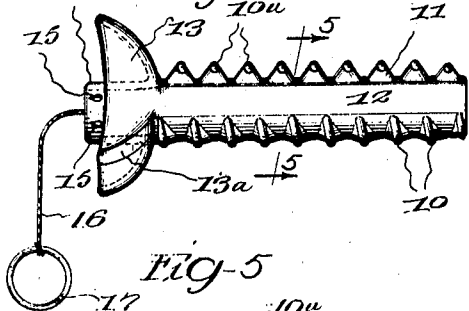


Fig-4

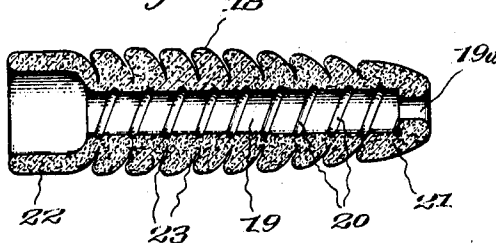


Fig-5

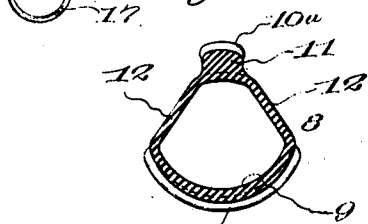


Fig-6

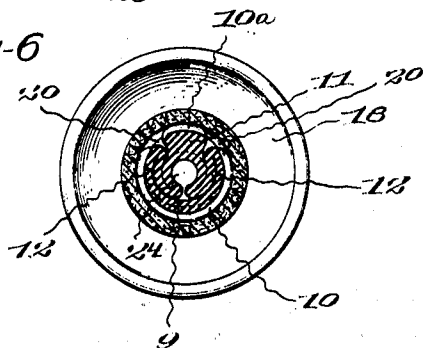
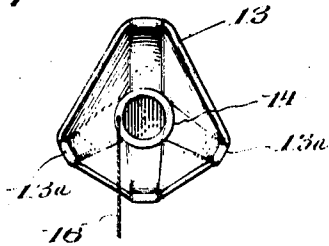


Fig-7



Inventor:
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By: Milo B. Stevenson, Atty.

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UNITED STATES PATENT OFFICE.

EDWARD GEARON, OF CHICAGO, ILLINOIS.

MEDICATOR.

Application filed February 16, 1923. Serial No. 619,525.

To all whom it may concern:

Be it known that I, EDWARD GEARON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Medicators, of which the following is a specification.

My invention relates to medicators of the suppository type, the invention having for its primary object the provision of an improved device of this kind which is particularly adapted for insertion into the rectal or pelvic passages of the body and which will assure a highly efficient diffusion of a medicament throughout the surrounding tissues of the passage.

Another important object of the invention is to provide a medicator of the character set forth which is designed to conform itself in use to the natural or unnatural positions of the passages in which it is inserted, and which will thus be made adaptable to the individual anatomical and physiological requirements of each user.

A further object of the invention is to furnish a novel and improved means for reducing the diametrical dimensions of the medicator for more painless insertion into the passage to be treated, and whereby communication is permitted through the medicator after it has been positioned in the passage.

With the above and other objects in view, as will become more apparent as the description proceeds, the invention comprises a novel combination and arrangement of parts to be hereinafter described and claimed, and in order that the same may be better understood, reference is had to the accompanying drawing forming a part of this specification.

In the drawing,

Figure 1 is an elevation showing the application of the invention;

Fig. 2 is a central longitudinal section through the medicator illustrating my improved suppository for compressing the same;

Fig. 3 is a side elevation of the medicator with the suppository removed;

Fig. 4 is a central longitudinal section through the medicator-compressing suppository;

Fig. 5 is a section on the line 5—5 of Fig. 3;

Fig. 6 is a similar view taken on the line 6—6 of Fig. 2, and

Fig. 7 is an end elevation of the medicator.

Referring specifically to the drawing, wherein like reference numerals designate like parts throughout the several views, numeral 8 denotes my improved medicator as a whole, the same being formed of rubber or other similar pliable vulcanizable material which is composed of two elongated concavo-convex sections 9 and 11 as best shown in Fig. 5, which latter are provided with raised threaded portions 10 and 10^a respectively. These threaded sections 10 and 10^a of the sections 9 and 11 are molded firm so as to maintain the arcuate shape of said opposed sections under pressure, and the section 11 is smaller in width and thicker than the section 9 for a purpose which will presently appear. Connecting these opposed arcuate portions 9 and 11 are substantially plane flexible walls 12 running throughout the length of said sections. Between the adjacent threaded portions of the sections 9 and 11 are intervening elastic portions, the purpose of which is to permit flexing of the medicator to conform it to the passage into which it is inserted. Upon the lower end of the medicator 8 there is formed adjacent its extremity, a concavo-convex circumferential projection 13, which is formed of rubber or other flexible substance, being vulcanized to the body of the medicator, the end of which projects through the center of the circumferential projection 13, which latter is provided with radial supporting ribs 13^a for yieldably maintaining its contour.

The end of the medicator 8 is provided with substantially wedge shaped apertures 15 for the reception of cotton, gauze or other material for carrying hygienic or antiseptic dressings that may be utilized. Upon this extension 14 of the medicator 8 is carried a cord 16 the end of which carries a ring 17, the purpose of the cord and ring being to better facilitate withdrawal of the medicator from the passage.

My improved suppository for compressing the medicator to reduce its diametrical dimensions to facilitate insertion comprises a body portion of substantially cylindrical configuration, which is provided with a central longitudinal concavity 19 as shown in Fig. 4, this latter being internally threaded as shown at 20, the purpose of this construction being to permit the medicator to be screwed within the suppository.

Upon reference to Figs. 2 and 4. it will

be noted that the body portion of the suppository is formed with a plurality of annular concavo-convex portions 18 which are convex upon their upper surfaces to facilitate insertion of suppository, the lower surfaces being concave to retard the downward movement of the medicator and suppository and to prevent them from being dislodged from the proper position in the passage, by means other than those provided therefor. The suppository will be formed of a suitable medicament for treating the passage, and will be made soluble by the heat in the passage. The lower end of the suppository is of substantially cup-like form as shown at 22 for compressing the circumferential projection 13 of the medicator to permit its insertion within the passage. The upper end of the suppository is reduced and formed with a gradual convex slope as shown at 21 to facilitate its insertion into the passage. As will be noted in Figs. 2 and 4, the disk-like portions of the suppository are formed by oblique annular grooves 23 which approach to points in proximity to the concavity 19.

From the foregoing, it will be readily seen that upon compression of the upper or forward end of the medicator 8, that is by depressing the concavo-convex portion 11 and rolling the edges of the section 9 upwardly and inwardly, the walls 12, by reason of their flexibility will be folded outwardly and downwardly as shown in Fig. 6, thus compressing the medicator to give it a cylindrical cross section and reducing its diametrical dimensions. The arcuate formation of the section 11 will be maintained by reason of the thickened and relatively rigid construction thereof and a longitudinal channel or opening 24 will be maintained through the medicator when the suppository is in place, as clearly shown in Fig. 2. After the end of the medicator 8 has been compressed and started in the threads of the concavity 19 of the suppository, the remaining longitudinal portion thereof may be screwed therein in an obvious manner until the circumferential projection 13 has been received and compressed within the cup-like portion 22 of the suppository as previously described.

The channel 24 permits the introduction of a medicament therethrough after the medicator with its suppository has been positioned in the passage, and this construction also permits the escape of liquids and gases from the passage while the medicator is still in place. Electrical treatment of the portion of the passage beyond the upper end of the medicator may also be had, the electrode being introduced through the passage 24.

In using the medicator, the suppository is screwed thereon as hereinbefore described,

until the cup-like end of the suppository 22 has received and compressed the circumferential projection 13 of the medicator. The medicator with the suppository thereon is then inserted into the rectum or other passage to be treated. As will be evident from an inspection of Figs. 1 and 2, the weakened construction of the walls of the suppository by reason of the annular grooves 23 therein permits the breaking thereof upon flexion of the medicator to conform to the cause of the passage. The suppository having been broken into disk like sections 18 as shown in Fig. 1, may now be flexed and will follow the course of the passage. It will be understood that the walls 12 of the medicator have sufficient elasticity to normally strive to return to their original positions. Therefore, after the insertion of the suppository into the passageway and the subsequent melting thereof, the walls 12 of the medicator will be forced outwardly to their normal positions thus spreading the portions of the suppository to the surrounding tissues and insuring a more beneficial effect therefrom. The circumferential projection 13 of the medicator serves to cooperate with the lower end of the rectum or other passage to prevent withdrawal of the medicator therefrom. The flexible construction of both medicator and suppository when in use permits their passage around irregular growths or obstructions which might be met in the rectum or other passage being treated. I have found that beneficial results may be derived in using this medicator from the effects of the gentle dilating pressures which it exerts when it has been released from compression, these dilating pressures having a corrective effect on strictures and other irregularities in the walls of the rectum.

Another vital improvement of this medicator is that when in use in the rectum, it allows the sphincter muscles to flex and relax naturally and there is no part of the medicator surrounded by or distending the muscles of the orifice of the anus, except the fine cord 16 which is almost imperceptible to the user. Complete relaxation of these muscles and the promotion of rest which is essential in curing piles, fissure, fistula and other diseases of the rectum will be assured. While I have illustrated the invention for treatment of the rectum, yet it will be understood that the medicator and suppository may be made of different dimensions for use in medicating the vagina and the genital passages adjacent to it, and also for medicating the urethra of males or females, and the nasal, aural, and throat passages.

While I have described and illustrated the preferred embodiment of the invention as required by the patent statutes, it will be distinctly understood that I do not mean to limit myself strictly thereto, since various

changes and modifications may be made therein within the spirit and scope of the appended claims.

I claim:

5 1. The combination with a medicator having a hollow partially-collapsible body; of a means for compressing said collapsible body for reducing the diametric dimensions thereof, and means associated with said body
10 portion for maintaining a concavity therein upon reduction of its diametric dimensions.

2. The combination with a medicator having a hollow partially-collapsible body; of a means for compressing said collapsible
15 body for reducing the diametric dimensions thereof, said means comprising a jacket of normally solid and soluble vegetable matter, and means associated with said body portion for maintaining a concavity therein
20 upon reduction of its diametric dimensions.

3. The combination with a medicator comprising a resilient body portion; of a means for compressing said body portion for reducing the diametric dimensions thereof, said means comprising a normally hard and soluble suppository having a longitudinal
25 concavity extending therethrough, threads molded upon the outer surface of the medicator body portion, and said concavity of said suppository being internally threaded
30 to receive the threads of said body portion to permit screwing of the medicator in the suppository.

4. The combination with a medicator having a hollow resilient body portion; of a means for compressing said body portion for reducing the diametric dimensions thereof, said means comprising a normally hard and soluble suppository having a longitudinal
35 concavity extending therethrough, threads molded upon the outer surface of the medicator body, and said suppository being internally threaded to receive the threads of said body portion to permit screwing of the
40 medicator into the suppository.

5. The combination with a medicator comprising a relatively flexible and elongated body portion, said body portion comprising two opposed walls having concave inner surfaces, one of said walls being narrower than the other and being depressible to a point with its edges in proximity to the concave surface of the other wall, elastic walls for joining said opposed walls, a plurality of
50 laterally spaced reinforcing portions extending transversely of each of said opposed walls for maintaining the interior contour thereof, said elastic walls being foldable upon the inner concave surface of the other
55 opposed wall upon depression of the narrower opposed wall; of a soluble medicament jacket for receiving and compressing said medicator.

6. The combination with a medicator having a hollow elongated body prtion of

elastic material, two opposed walls thereof having concave interior surfaces, spaced transverse reinforcements arranged upon each of said opposed walls, one of said walls being compressible with its longitudinal
70 edges in proximity to the concave surface of the other wall for reducing the diametric dimension of said medicator, and said transverse reinforcements preserving a concavity throughout the length of said medicator; of
75 a soluble medicament jacket for receiving and compressing said medicator.

7. A medicator comprising a relatively flexible and elongated body portion, said body portion comprising two opposed walls
80 having concave inner surfaces, one of said walls being narrower than the other and being depressible to a point with its edges in proximity to the concave surface of the other wall, elastic walls for joining said opposed
85 walls, a plurality of laterally spaced reinforcing portions extending transversely of each of said opposed walls for maintaining the interior contour thereof, and said elastic walls being foldable upon the inner concave surface of the other opposed wall upon
90 depression of the narrower opposed wall.

8. A medicator having a hollow elongated body portion of elastic material, two opposed walls thereof having concave interior
95 surfaces, spaced transverse reinforcements arranged upon each of said opposed walls, one of said walls being compressible with its longitudinal edges in proximity to the concave surface of the other wall for reducing
100 the diametric dimensions of said medicator, and said transverse reinforcements preserving a concavity throughout the length of said medicator.

9. The combination with a medicator having a hollow elongated body portion of partially-collapsible construction, and transverse threaded sections upon the exterior surface thereof; of a means for reducing the diametric dimension of said medicator, said
105 means comprising a soluble jacket, said jacket being interiorly threaded to engage the threaded sections of said medicator.

10. The combination with a medicator having a hollow partially-collapsible body, and a flexible lateral extension carried by said body; of a means for compressing said body for reducing the diametric dimensions thereof and compressing said flexible lateral
110 extension, said means comprising a normally hard and soluble suppository having a longitudinal concavity extending therethrough.

11. The combination with a medicator having an elongated flexible body portion; of a normally hard and soluble suppository having a longitudinal concavity therein for the reception of said medicator, and said
115 suppository having spaced transverse weakened portions breakable upon flexion of said medicator.
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12. The combination with a medicator having an elongated flexible body portion; of a normally hard and soluble suppository having a longitudinal concavity therein for the reception of said medicator, said suppository having spaced circumferential inwardly and obliquely directed grooves inclined toward the upper end of said suppository, and said suppository being separable at said grooves into disks upon flexion of said medicator.

13. The combination with a medicator having an elongated flexible body portion and a flexible lateral extension projecting therefrom; of a normally hard and soluble suppository having a longitudinal concavity therein for the reception of said medicator, said suppository having spaced circumferential inwardly and obliquely directed grooves inclined toward the upper end of said suppository, and said suppository being separable at said grooves into concavo convex disks upon flexion, and said suppository being formed with a portion for compressing said flexible lateral extension of said medicator.

14. A medicator comprising a resilient partially-collapsible hollow body portion, and means for maintaining the hollow character of said body portion in relatively reduced form when said medicator is in partially-collapsed condition.

15. A medicator comprising a resilient partially-collapsible hollow body portion, means for maintaining the hollow character of said body portion in relatively reduced form when said medicator is in partially-collapsed condition, and said medicator being substantially annular in cross-section when in partially collapsed condition.

16. A medicator comprising a resilient

partially-collapsible hollow body portion, means for maintaining the hollow character of said body portion in relatively reduced form when said medicator is in partially-collapsed condition, said medicator being substantially annular in cross-section when in partially-collapsed condition, and a lateral flexible projection carried by said body portion intermediate its ends.

17. A medicator comprising a resilient partially-collapsible hollow body portion, means for maintaining the hollow character of said body portion in relatively reduced form when said medicator is in partially-collapsed condition, said medicator being substantially annular in cross-section when in partially-collapsed condition, and a lateral flexible projection carried by said body portion intermediate its ends, said body portion having gauze retaining recesses between said lateral flexible projection and the proximate end of said body portion.

18. The combination of a medicator comprising a resilient partially-collapsible hollow body portion, means residing in the construction of opposite walls of said body portion for maintaining the hollow character thereof in relatively reduced form when in partially-collapsed condition, and a dissoluble medicament for maintaining said medicator in partially-collapsed condition.

19. The combination of a medicator comprising a flexible partially collapsible body portion, each of the side walls of which have portions foldable together when the medicator is compressed, and means insertible upon said body portion when partially compressed whereby the same will be so maintained.

In testimony whereof I affix my signature.
EDWARD GEARON.