United States Patent

[11] 3,537,454

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1072 NE 179 Terrace, North Miami Beach, Florida 33162

[21] Appl. No. **714,223**
[22] Filed **March 19, 1968**
[45] Patented **Nov. 3, 1970**

[54] **INSERTER AND RETAINER FOR SUPPOSITORIES**
12 Claims, 22 Drawing Figs.

[52] **U.S. Cl.** **128/261,** 128/271; 206/63.2
[51] **Int. Cl.** **A61m 35/00**
[50] **Field of Search** 128/261, 271, 272; 206/63.2

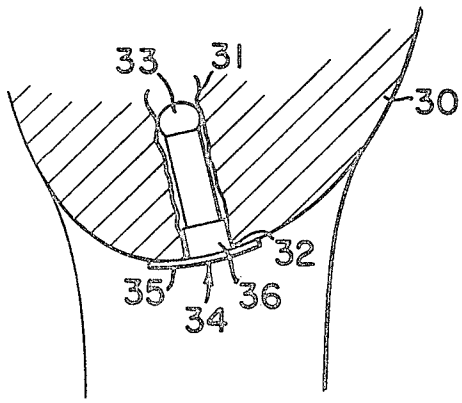
[56] **References Cited**

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2,017,334	10/1935	Ackerman	128/272
2,049,270	7/1936	Munro	128/271
2,974,666	3/1961	Coumbis et al.	128/271
3,335,725	8/1967	Gordon	128/261

Primary Examiner—Adele M. Eager
Attorney—John Cyril Malloy

ABSTRACT: An inserter and retainer for meltable rectal suppositories comprised of a base member to which a suppository is attached. The base member and suppository are inserted into the anal canal as a unit, holding the meltable suppository in the anal canal during its melting or dissolving, and preventing the expulsion or propulsion of any part or all of the unit into or from the anus.



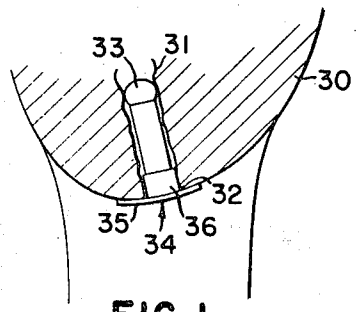


FIG. 1

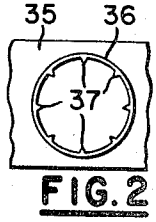


FIG. 2

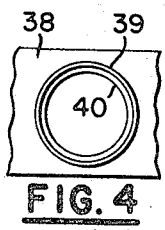


FIG. 4

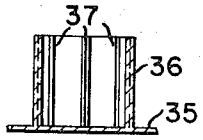


FIG. 3

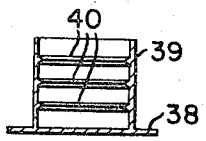


FIG. 5

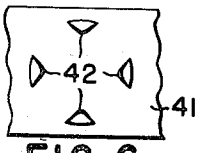


FIG. 6

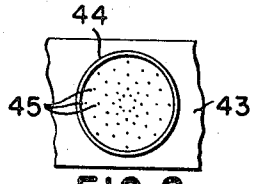


FIG. 8

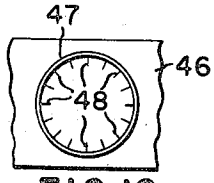


FIG. 10

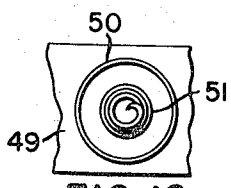


FIG. 12

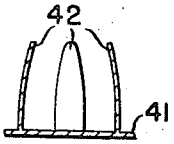


FIG. 7

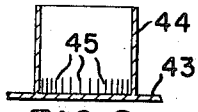


FIG. 9

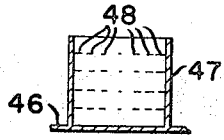


FIG. 11

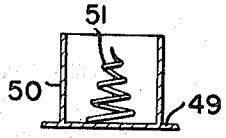


FIG. 13

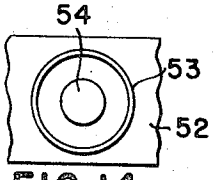


FIG. 14

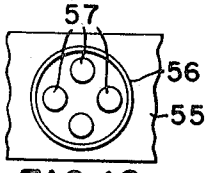


FIG. 16

FIG. 18

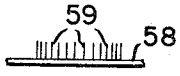


FIG. 19



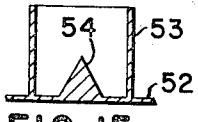


FIG. 15

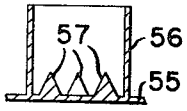


FIG. 17

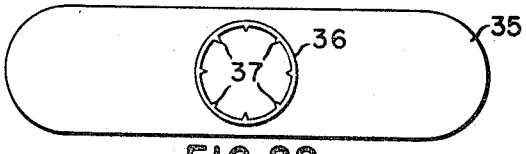


FIG. 22

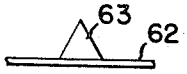


FIG. 20

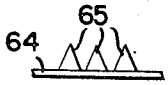


FIG. 21

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INSERTER AND RETAINER FOR SUPPOSITORIES

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates in general to a suppository holder and more particularity to a device to which a suppository is attached and which is used to insert the suppository into and retain it in a predetermined position within the anal canal and rectal ampulla during the application of the medication contained in the suppository.

The most common method in use today in treating hemorrhoids and other diseases of the rectum, anal canal, rectal ampulla, and anus, is to insert a molded suppository made of a dissolvable composition, such as cocoa butter, polyethylene glycol, or any other suitable vehicle, with a medicament evenly distributed therethrough. When fully dissolved, there is no insoluble residue left in the anal canal.

When such a device is inserted through the anus into the anal canal, usually by gripping it between two fingers and gently shoving it in, the sphincter muscle at the anus will grip the suppository and propel it upwardly into the rectum, defined as that portion of the large intestine which opens above and into the sigmoid colon and below narrowing to join the anal canal, away from the anus, the site of the pain and disease, thereby rendering the medicament useless. To quote from Proctology by Bacon et al. (1956), page 191: "Suppositories are of little or no value except for their psychological effect since they slip into the rectum immediately, thus removing themselves from the anus, the site of the pain." To properly medicate the area near the anal opening, the suppository should be held in a relatively stationary position until the suppository has melted or dissolved.

2. Description of the Prior Art

In my prior U.S. Pat. No. 3,126,887, entitled SUPPOSITORY, I disclosed a suppository of unique design which is shaped to hold the suppository in a position with the tail of the suppository outside the body. As the tail is of greater cross-sectional area than the body, the sphincter muscle cannot propel it up into the body. In using suppositories such as these the body portion melts, due to the body temperature of the wearer, and the tail portion melts to treat the prolapsed internal hemorrhoids. This melting takes place due to the body heat generated by the buttocks, which are in apposition, preventing propulsion and expulsion as well.

There have also been several suppository holders proposed in which a relatively solid member is adapted to hold a medicament on the inside thereof and which disperses the medicine to the disturbed areas by means of openings therein. Examples of this type of device are shown in the following patents: Freedman 1,762,858; Ackerman 2,017,334; and Coumbis et al. 2,974,666.

There have also been suppositories proposed in which the holder is an integral part of the suppository and is removed from the body once the portion containing the medicine has dissolved. Two examples of these are: Miller et al. 604,063; and Gearon 1,537,992.

My prior U.S. Pat. No. 3,335,725 discloses a holder into which an ordinary suppository purchased in the marketplace can be inserted and which holds the suppository while it is inserted into the rectum and also holds it in position in the anal canal until it dissolves and treats the hemorrhoidal area. The holder disclosed in the Gordon U.S. Pat. No. 3,335,725 relies on a friction fit of the suppository within the holder.

SUMMARY OF THE INVENTION

It is the primary object of this invention to provide an inserter and retainer for suppositories in which the inserter provides a positive mechanical means for holding the two members, the holder and the suppository, together during the use thereof.

A still further object of my invention is to provide a device to which any rectal suppository of any manufacture can be attached for use.

Another object of my invention is to provide a device to which a rectal suppository may be attached and which may be used to insert the suppository without having to touch the medicated material with the hands and without having the hands touch the anus itself.

A still further object of my invention is to provide a holder for a suppository in which the base member which remains outside the body is shaped to conform to the configuration of the body.

Another object of my invention is to provide a holder for a suppository which is sturdy in construction, relatively small in size, light in weight, economical in price, and relatively simple to manufacture.

Further features, objects, and advantages will either be specifically pointed out or become apparent when, for a better understanding of the invention, reference is made to the following written description taken in conjunction with the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWING

FIG. **1** is a sectional view through the body of a user of an inserter and retainer according to my invention;

FIGS. **2**, **4**, **6**, **8**, **10**, **12**, **14** and **16** are plan views of several embodiments of my invention of the type in which the suppository is inserted into the holder;

FIGS. **3**, **5**, **7**, **9**, **11**, **13**, **15** and **17** are cross-sectional views of the embodiments shown in FIGS. **2**, **4**, **6**, **8**, **10**, **12**, **14** and **16**, respectively;

FIGS. **18**, **19**, **20** and **21** are sections of elevational views of several embodiments of my invention to which the suppository is attached without inserting it into the holder.

FIG. **22** is a top plan view of the inserter illustrated in FIGS. **2** and **3**.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawing, FIG. **1** shows a body **30** having an anal canal **31** located between the buttocks. Anal canal **31** terminates in an anus **32** and has the usual Crypts of Morgagni residing in the rectal ampulla. A sphincter muscle, although not delineated here, surrounds the anus **32**.

Suppository **33** is shown as being held in position within the body by means of holder **34** which is comprised of a base member **35** and an upstanding member **36**. As can be seen in FIG. **1**, base member **35** is in the form of an arcuate strip shaped to generally conform to the shape of the body. Since it is in the form of an elongated strip, it will fit snugly between the buttocks and be held by the overlapping engagement of the flesh of the buttocks. It will be appreciated by those familiar with the art that the base member does not necessarily have to be in the shape of an arcuate strip but may be of any design whatsoever as long as it conforms generally to the shape of the buttocks. As illustrated in FIGS. **2** and **3**, holder **36** has a plurality of vertical ribs **37** placed around the inside perimeter thereof. The suppository is made of a relatively soft waxlike substance; therefore when it is pushed downwardly into holder **36**, ribs **37** will form their own grooves on the outside of the suppository and will firmly hold the suppository by providing more surface contact area.

In the embodiment shown in FIGS. **4** and **5**, a base member **38** is provided with a holder **39** having a plurality of horizontal ribs **40** spaced vertically from each other.

FIGS. **6** and **7** illustrate an embodiment in which a base member **41** is provided with a plurality of springlike fingers **42** extending upwardly to receive a suppository. As the fingers are bent slightly inward, they provide a secure grip for the suppository.

Base member **43** of FIGS. **8** and **9** is provided with a holder **44** into which a suppository is to be inserted. The bottom of holder **44** is provided with a plurality of upstanding wirelike fingers **45** which go up into the bottom surface of the suppository.

FIGS. **10** and **11** illustrate an embodiment with a base **46**, a holder **47** and a plurality of inwardly extending wirelike members **48** on the inner wall of holder **47**.

Base member **49** of the embodiment shown in FIGS. **12** and **13** is provided with a spiral member **51** extending upwardly within holder **50**. It would be obvious to a routineer in the art that in using an inserter and retainer according to this embodiment, the suppository would be screwed onto the spiral **51** to hold the suppository within holder **50**.

In FIGS. **14** and **15** base member **52** is provided with the usual holder **53**. Within the holder **53** and extending upwardly from base member **52** is a conical-shaped member **54** which inserts itself into the bottom of the suppository when it is pushed downwardly thereon.

Instead of a single conical member such as illustrated in FIGS. **14** and **15**, the embodiment shown in FIGS. **16** and **17** provides a plurality of conical members **57** mounted on base **55** within the holder **56**.

In the modifications illustrated in FIGS. **18** through **21** the holder has been eliminated and an upstanding means is provided on the base member in each instance for holding the suppository.

In FIG. **18** base member **58** is provided with a plurality of wirelike prongs **59** extending upwardly therefrom upon which the suppository is held.

FIG. **19** shows an embodiment in which base **60** has a spiral member **61**, similar to spiral member **51** of FIGS. **12** and **13**, onto which the suppository is screwed.

The embodiment shown in FIG. **20** has a conical member **63** extending upwardly from base **62** while the embodiment shown in FIG. **21** has a plurality of conical members **65** extending upwardly from base **64**.

It will be apparent that there has been provided a new and novel means for employing a suppository with respect to the human body and the anal canal and a means for facilitating the entry of the suppository to a full engagement with the anal canal.

When the suppository has fully dissolved or melted, the device is removed and may be used again as an injector and a retainer.

It should be understood, of course, that the foregoing disclosure relates to only some preferred embodiments of my invention and that it is intended to cover all changes and modifications of the examples of the invention herein chosen for the purpose of this disclosure which do not constitute departures from the spirit and scope of the invention set forth in the appended claims.

I claim:

1. A device for inserting a meltable object into a body opening and for holding the object therein comprising:

a. a base member to overlie the outside of the body opening;

b. an upstanding portion for insertion into the body opening; and

c. means on said upstanding portion for attachment thereto of a meltable object and said means for attachment presenting a terminal surface of predetermined pattern and configuration on the device to confront the meltable object and to penetrate the surface of the object to grip and to hold the same in a fixed orientation with respect to the intersection of the centerline of the portion and base member and extending in coaxial relation with respect to the upstanding portion and in a common direction generally, said means for attachment comprising an object-retaining means.

2. A device according to claim **1** with said object-retaining means comprising a plurality of vertical ribs spaced from each other and extending vertically on the inside of said upstanding portion.

3. A device according to claim **1** with said object-retaining means comprising a plurality of horizontal ribs spaced from each other and extending for at least a portion of the inside circumference of said upstanding portion.

4. A device according to claim **1** with said object-retaining means comprising a plurality of inwardly tapering fingers formed from the wall of said upstanding portion.

5. A device according to claim **1** with said object-retaining means comprising a plurality of vertically extending pinlike members located on said base member.

6. A device according to claim **1** with said object-retaining means comprising a plurality of horizontally extending pinlike members located on the inside of the wall of said upstanding portion.

7. A device according to claim **1** with said object-retaining means comprising a spiral-shaped member located on said base member.

8. A device according to claim **1** with said object-retaining means comprising a conical member located on said base member.

9. A device according to claim **1** with said object-retaining means comprising a plurality of conical members located on said base member.

10. A device according to claim **1** with said upstanding portion comprising a plurality of vertically extending pinlike members.

11. A device according to claim **1** with said upstanding portion comprising a spiral-shaped member.

12. A device according to claim **1** with said upstanding portion comprising a plurality of conical members.