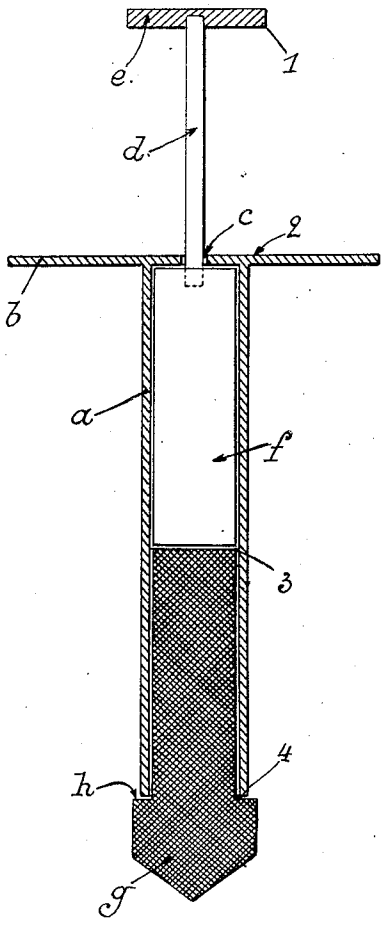
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H. C. L. GOUGNARD

SUPPOSITORY AND MEANS FOR INSERTION OF THE SAME

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H.C.L. Gougnard inventor

By: Marks & Clerk Attys

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HENRI CLÉMENT LAMBERT GOUGNARD, OF AHIN-LEZ-HUY, BELGIUM, ASSIGNOR TO SOCIETE BELGE DES PRODUITS RATIONNELS, OF AHIN-LEZ-HUY, BELGIUM.

SUPPOSITORY AND MEANS FOR INSERTION OF THE SAME.

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Egg-shaped masses or suppositories are usually used for applying medicaments to the body and contain various medicinal substances, such as quinine, tannin, aloes or the like; suppositories are also employed in the treatment of constipation, and consist of cocoa butter, solidified glycerin or like substances, well known in pharmaceutical practice.

Whatever may be the shape and use of the suppositories, the latter are introduced by means of the finger, and it is recommended that they should be pushed forward to the maximum degree in order to increase their efficacity and to prevent their premature expulsion. But in practice it is difficult to insert the egg-shaped mass or suppository very far into the rectum, and a premature expulsion is usually the result. Since the suppository is given an egg shape or a tapered form to facilitate its insertion, this causes it to readily return to the anal orifice due to the pressure exercised thereon by the mucous membrane.

Furthermore, the operation of inserting the suppository is uncleanly, and it is very disagreeable when the patient himself cannot perform the operation, and the insertion is even dangerous because the walls may be wounded by the finger nail at a point which may be readily infected.

The present invention has for its object to obviate all such drawbacks. For this purpose I employ an improved suppository and improved means for inserting the same whereby the insertion may be performed without danger and in a ready manner.

According to the invention, the suppository comprises a cylindrical body and a head of greater diameter than said body so as to form a circular projection which will oppose the expulsion of the suppository as the same is inserted within the intestine.

According to another feature of the invention, the device for the insertion of the suppository, comprises a cylindrical part adapted to receive the cylindrical body of the suppository and a piston for expelling the latter, the outer diameter of said cylindrical part being such that the head of the suppository projects beyond the outer wall of said cylindrical part and covers the front edge of the latter when said suppository is in place.

The appended drawing shows a lengthwise section of the improved suppository and the apparatus for inserting the same.

The said apparatus comprises a cylindrical body *a* which is made of metal, ebonite or like substances and is secured to the plate *b* serving as a support for the fingers when the apparatus is inserted. The ends of said plate may be bent up vertically, or may even be replaced by rings. At the middle of the plate *b* is an aperture *c* in which is slidable a rod *d* having at one end a disc *e* and at the other end a small piston *f* forming a push-piece; the disc *e* may be replaced by a ring, and the push-piece *f* may consist of a rod upon which are mounted two discs corresponding to the ends of the piston *f*.

The suppository according to the invention is shown in the drawing, and it has a general cylindrical form; the narrower part has the same diameter as the cylinder *a* (or a somewhat smaller diameter) and it is formed at the end with a head *g* whose diameter is at least equal to the outer diameter of the tube *a*, said head preferably terminating in a tapered portion.

The operation is as follows:

The apparatus containing the suppository being placed in the intestine, the disc *e* is pushed in to the maximum in order to expel the suppository. But, in order to obtain the necessary effect without danger, the two combined parts must comply with the following characteristics. The distance between the points 1 and 2 should correspond to the distance between the points 3 and 4, or it may be somewhat shorter than the latter, for instance 1 or 2 millimeters; when the suppository is inserted to the maximum into the cylinder *a*, the edge *h* should coincide with the end of the tube, so that the latter will be protected during the insertion by the edge *h*, and hence the apparatus may be inserted into the body without any friction of the end of the tube upon the walls of the large intestine. The effort of the resistance will be exercised upon the end of the suppository which is in contact with the push-piece, and not upon the edge *h*, so that this latter edge will not be sheared off. Inversely, when the push-piece *f* is driven in to the maximum and the suppository expelled from the tube, the end of the push piece will coincide with the end of the tube or will be

somewhat in the rear of the latter, and cannot be displaced, so that the person will not be wounded by the said push-piece.

The particular shape which is given to the suppository offers great advantages as concerns its efficacy. On the contrary to what prevails for the known suppositories, the head offers the maximum surface, and furthermore, the tendency to expulsion is counteracted with success, since the mucous membrane surrounds the head of the suppository and thus holds it in place, so that the substance such as glycerin or cocoa butter will melt at a point situated much farther than usual from the anal orifice. In all cases, the suppository is inserted farther than in usual practice, whereby its efficacy for a given weight of substance will be much increased.

The dimensions of the apparatus will vary according as it is to be used for children or adult persons.

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

A device for the insertion of suppositories having a cylindrical body and a pointed head of greater diameter than said body, comprising a cylindrical rigid part of uniform diameter and smooth upon its whole length and adapted to receive the cylindrical body of the suppository, the outer diameter of said cylindrical part being such that the head of the suppository projects beyond the outer wall of said cylindrical part and covers the front edge thereof and a piston slidably mounted in the latter.

In testimony whereof I have signed my name to this specification.

HENRI CLÉMENT LAMBERT GOUGNARD.