

(No Model.)

R. ABUNDI, T. ELLIS, Jr. & J. T. SACKETT.
SYRINGE SUPPOSITORY.

No. 467,599.

Patented Jan. 26, 1892.

Fig. 4.

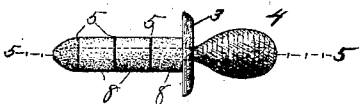


Fig. 5.

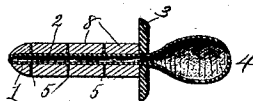


Fig. 1.

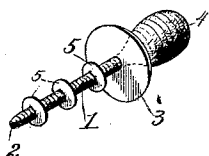


Fig. 2.

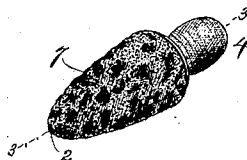


Fig. 7.

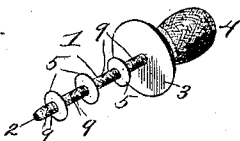


Fig. 3.

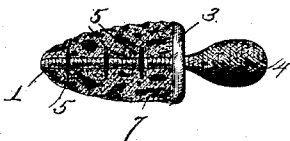
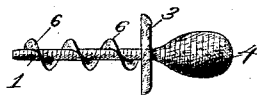


Fig. 6.



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UNITED STATES PATENT OFFICE.

ROLAND ABUNDI, THOMAS ELLIS, JR., AND JOSEPH T. SACKETT, OF KANSAS CITY, MISSOURI; SAID ABUNDI ASSIGNOR TO SAID SACKETT.

SYRINGE SUPPOSITORY.

SPECIFICATION forming part of Letters Patent No. 467,599, dated January 26, 1892.

Application filed May 7, 1891. Serial No. 391,889. (No model.)

To all whom it may concern:

Be it known that we, ROLAND ABUNDI, THOMAS ELLIS, Jr., and JOSEPH T. SACKETT, of Kansas City, Jackson county, Missouri, have invented certain new and useful Improvements in Syringe Suppositories, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

Our invention relates to that class of medical appliances which are designed to support and hold back hemorrhoidal protuberances and for various other analogous purposes; and the objects of our invention are to produce a suppository which shall be neat, compact, and simple in construction and which shall possess the advantages both of a suppository and a syringe, thus most effectively applying the medicaments to the parts affected. Furthermore, to produce a suppository which shall be easy of application to and removal from the parts to be treated, which shall come readily into direct contact with such parts, however secluded, and the use, application, and removal of which shall cause no pain or inconvenience whatever.

A still further object of our invention is to produce a suppository which shall be capable of effective application to various parts of the human body, such as the rectum, uterus, urethra, or other parts to be treated, and which shall be comparatively inexpensive in construction and easily and safely retained in position.

To these purposes our invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In order that our invention may be fully understood, we will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of one form of our improved suppository. Fig. 2 is a similar view of the same having its stem surrounded by a mass of surgical sponge or simi-

lar absorbent material. Fig. 3 is a central longitudinal section of the same on the line 3 3 of Fig. 2. Fig. 4 is a side elevation of our improved suppository having its stem surrounded by a mass of medicated compound. Fig. 5 is a central longitudinal section of the same on the line 5 5 of Fig. 4. Fig. 6 is a side elevation of a modified form of the suppository. Fig. 7 is a perspective view of a still further modification of the suppository.

In the said drawings, 1 designates the stem of our improved suppository, the said stem being of elongated form and preferably cylindrical in external contour. This stem is preferably of somewhat elastic or flexible vulcanized rubber; but it may be, if preferred, of hard vulcanized rubber, and it is of any preferred length and width suitable to the particular purposes for which any one suppository may be intended. Throughout this stem, from one end of the same to the other, extends an elongated axial outlet duct or opening 2, the purpose of which will be hereinafter explained. At one end this stem is provided with a disk-like enlargement 3, which is also of any such diametrical measurement as may be found best suitable and which may be of hard vulcanized rubber, if desired, but which is preferably of flexible vulcanized rubber. This enlargement is either formed integrally with the stem 1 or it is secured to the said stem in any manner which will prevent all possibility of accidental separation of the two parts. Beyond the enlargement 3 the stem 1 is provided with a collapsible or compressible bulb 4, which is also preferably of vulcanized rubber and which is either formed integrally with the stem or is secured thereto in any manner which will preclude all possibility of accidental separation of the bulb from the stem. At intervals of its length this stem 1 is provided with a number of external flexible projections 5, which are also either formed integrally with the stem or are so secured thereto in any suitable manner as to prevent all possibility of their accidental separation from the said stem. In all of the

figures of the drawings, excepting Fig. 6, these projections 5 are shown as of very thin disk-like form and as extending at right angles to the axis of the stem or barrel 1. These
 5 projections are preferably of flexible vulcanized rubber, but are permissibly of any material which possesses sufficient rigidity to normally retain their erect or protruding positions, while also being capable of yielding
 10 and folding downward toward the stem or barrel of the suppository. In Fig. 6 these projections are modified into the form of a continuous spiral 6, which winds longitudinally around the stem 1 from its center or
 15 middle to or toward its ends, and in this instance the spiral is of material similar to that of the projections 5, just described.

In Figs. 2 and 3 the stem 1 is shown as surrounded by a mass 7 of surgical sponge or
 20 other suitable absorbent material, such material being either in a single piece or in separate pieces, which are retained by the projections or spiral, the said mass being designed to be permeated or saturated with any suitable or preferred medical composition.

In Figs. 4 and 5 the stem is shown as surrounded by a solid or pasty compound of any
 25 suitable or preferred medicament, and in either of these forms the sponge or the compound is retained upon the stem by the projections or the spiral, and such projections or the spiral yield or bend, owing to their flexibility, toward the stem when the latter is thrust into the sponge or compound or withdrawn from the same, and then resume their
 30 erect or projecting position, so as to insure the retention of the sponge or compound.

If desired, the sponge, either in the form of a single mass or in separate sections or otherwise, may be secured directly to the external
 40 surface of the stem or barrel by cement or by any other suitable or preferred means, thus aiding and insuring the permanent retention of the sponge by the projections or
 45 the spiral.

It is to be understood that the bulb 4 is to possess sufficient capacity to receive the desired quantity of any preferred liquid or fluid medicine, and it will be seen that when
 50 the suppository has been placed in position the liquid can be ejected directly upon the parts affected by compressing the bulb 4, thus forcing the liquid out through the outlet-duct 2 of the stem 1 and into direct contact with the parts to be treated.

In Fig. 7 the suppository is shown as constructed in all essential respects the same as has been above described. In this instance, however, the stem of the suppository is formed
 60 with any desired number of lateral outlet ducts or openings 9, which communicate at their inner ends with the longitudinal outlet-duct 2 of the stem. It is to be understood that, if desired, the outer end of the outlet-
 65 duct 2—that is, that end which is remote from

the bulb 4—may be closed, or said outer end of said duct may be left open, if desired. In either event the liquid will be discharged into the mass of absorbent material surrounding the stem. If the outer end of the duct 2 be
 70 closed, the entire quantity of the liquid will be discharged through the lateral ducts into the absorbent material, while if the outer end of said duct be left open the absorbent material is not only thoroughly saturated or permeated, but the beneficial syringing or injecting action above described will be preserved. If desired, the absorbent material may be dispensed with when these lateral ducts are used, the discharge-ducts in this instance permitting the liquid to be injected directly into contact with the parts to be treated.

It will be seen from the above description that the suppository possesses all of the advantages of other suppositories, and in addition thereto it operates as a syringe. Thus the most secreted parts can be directly reached and treated both by absorption and by injection, so that a most complete and thorough, as well as rapid and prompt, medicinal treatment
 85 can be assured. The suppository is, by virtue of its form and construction, capable of application to a great number of organs of the human system, including the rectum, the uterus, the urethra, and other parts. It is simple, compact, and neat in construction and form, can be easily applied to and removed from the parts affected, and its application, use, and removal are accompanied by no pain or inconvenience whatever. Moreover, its
 90 construction is such as to render the device comparatively inexpensive to produce. It is to be understood that, if desired, the channel 2 and bulb 4 can be dispensed with, the suppository in such event still being of very superior efficacy; but the preferred form is that having both the channel and the bulb.

Having thus described our invention, what we claim as new therein, and desire to secure by Letters Patent, is—

1. An improved suppository comprising a stem or barrel having a longitudinal duct, a collapsible bulb located at one end of the stem, an enlargement, also located at one end of the stem, a number of projections protruding from the exterior of the stem, and a mass of absorbent or medicated substance surrounding said stem, substantially as set forth.

2. An improved suppository comprising a stem, a number of flexible projections protruding from its external surface, and a mass of absorbent or medicated substance surrounding said stem, substantially as set forth.

3. An improved suppository comprising a barrel or stem, a number of external flexible
 125 projections, a mass of absorbent or medicated substance surrounding the barrel or stem and retained thereon by the projections, a duct extending longitudinally of the stem, an enlargement located at one end of the stem, and
 130

a compressible or collapsible bulb, also located at one end of the stem and communicating with the duct, substantially as set forth.

5 4. An improved suppository comprising a stem provided with a number of outlet-ducts and with a collapsible or compressible bulb communicating with said ducts, and a mass of absorbent or medicated substance surrounding said stem, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

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THOMAS ELLIS, JR.
JOSEPH T. SACKETT.

Witnesses:

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