D. A. RANNELLS.

MEDICAL APPLIANCE.

APPLICATION FILED FEB. 6, 1920.

1,355,846. Patented Oct. 19, 1920.

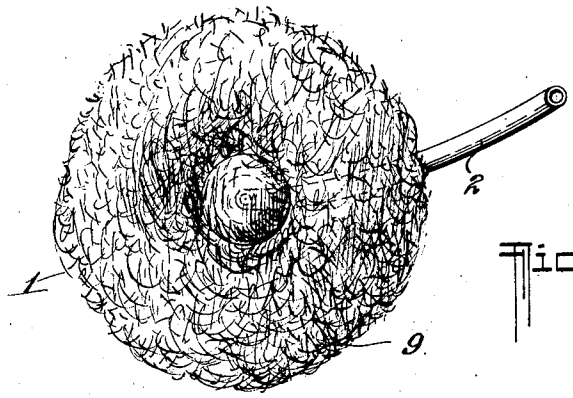

Fig. 1.

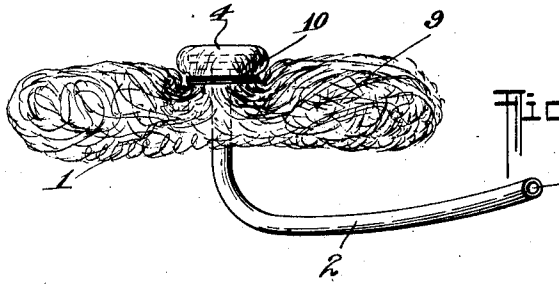

Fig. 2.

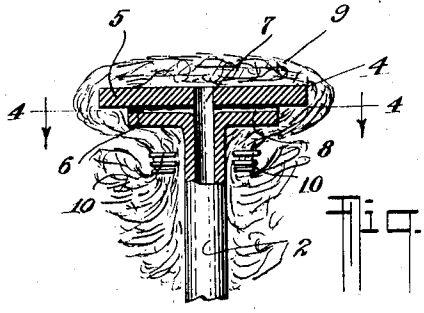

Fig. 3.

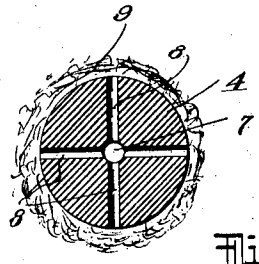

Fig. 4.

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MEDICAL APPLIANCE.

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To all whom it may concern:

Be it known that I, DAVID A. RANNELLS, a citizen of the United States, residing at Logan, in the county of Hocking and State of Ohio, have invented certain new and useful Improvements in Medical Appliances, of which the following is a specification.

This invention relates to medical appliances, and has particular reference to an improved appliance designed for the specific purpose of administering healing medicines to affected tissues or organs of and adjacent to the genital canal.

The invention consists in the provision of a device of the aforesaid character wherein is embodied a flexible tube structure which terminates in a relatively enlarged circular head member, the latter being of such formation as to permit a fibrous body to be detachably connected therewith, and to provide said head member with radiating and longitudinal passages, whereby upon the proper positioning of the appliance, medicine may be introduced into the tube structure and thence caused to flow through the passages of the head member and into intimate engagement with the fibrous body, in order that the affected parts may receive medicinal applications from said body without involving the necessity of comparatively frequent removals of the appliance from its operative position, as has been the prior practice.

Another object of the invention resides in forming the appliance in such manner and from such materials as to insure its comfortable and convenient use, and to permit the same to be readily and thoroughly cleaned for sanitation maintaining means.

For a further and more complete understanding of the invention, reference is to be had to the following description and to the accompanying drawings, in which:

Figure 1 is a top plan view of the medicinal appliance comprising the present invention,

Fig. 2 is a side elevation thereof,

Fig. 3 is an enlarged vertical sectional view taken through the head member and connected parts, and

Fig. 4 is a longitudinal sectional view taken along the line 4—4 of Fig. 3.

As shown in the drawing, the appliance 1 comprising the subject matter of the present invention, in its preferred form, consists of a suitable length of a flexible rubber tube 2, which is adapted to have its outer or free end 3 suitably attached to a convenient portion of the user's clothing. The inner end of the tube terminates ordinarily in a circular, integral, head member 4, which occupies a plane substantially at right angles to the axis of the tube. This head member is further formed to embody an outer enlarged disk shaped portion 5 and a second inner disk portion 6, the latter being of less diameter than the portion 5 so that the peripheral wall of the portion 6 will lie within the confines of the said portion 5. Further, the head member is provided with a longitudinal main passageway 7, which is located in direct communication with the bore of the tube 2. Radial passageways 8 extend from the axial passageway 7 and terminate at the peripheral wall or portion 6. The outlets of these passageways 7 are thus protected by the protruding circumferential edge of the portion 6. This arrangement is believed to be one of the salient features of the invention in that it insures a free and uninterrupted flow of a fluid through the appliance, particularly when the latter is operatively positioned.

As shown in Figs. 2 and 3, the head member is adapted to have a body 9 of fibrous material, for example, raw cotton, detachably positioned thereabout, and in such manner as to surround the fluid outlets of the head member, in order that the flowing medicinal matter, emerging from the tube 2 and the passageways 7 and 8 will be brought into intimate or saturating contact with the fibrous material, and thence into proper engagement with the affected bodily members. Many methods may be employed for connecting the fibrous body or tampon 9 to the head member; however, a simple and practical method is to merely pass one or more flexible rubber bands 10 around the inner portion of the body 9 so as to press the latter into firm engagement with the tube 2 at a position immediately beneath this head member. This construction results in securely positioning the fibrous body so as to prevent accidental dislocation when in service and yet enable the same to be easily and quickly renewed at proper interval of use.

When the services of the appliance or tampon are necessary, the physician in attendance will be employed to properly position

the same in contiguous relationship with the affected organs, and this may be accomplished in such manner as to permit the tube 2 to extend to a position of convenient accessibility, and to be received in any suitable manner within the concealed clothing of the patient. By the instrumentality of the tube, it is obvious that the medicine employed in the treatment, may be readily inserted into the tube, by means of a medicine dropper or other analogous device, and permitted to flow through the tube and thence outwardly through the passageways 7 and 8 into contact with the body 9 and the affected parts. The main advantage of the appliance resides in the fact that the patient may administer the required medicines without the services of the physician. In prior practice it has been customary in the treatment of female disorders to require the patient to make frequent visits to the physician for the purposes of permitting the tampons to be replenished with the required medicines. By the present invention, however, this necessity has been eliminated by enabling the patient to apply the medicines in an unaided manner and with the certainty that the application has been properly effected. The services of the physician, therefore, need only be employed to remove or adjust the appliance which may occur relatively infrequently. Further, it has been my experience that, by reason of the convenient and self controlled feature of the appliance, better results are to be obtained than when a patient is required upon individual volition to make irregular calls upon a physician, this being due to the continuous effective application of the necessary medicines. It will be observed that the outlets of the passageways 7 and 8 are within the confines of the head portion 5, so that an uninterrupted flow of the medicine into the absorbing cotton may take place when the appliance is actively positioned. It will therefore be apparent that the present invention provides an effective device for the self treatment and continuous application of remedial agents in the treatment of the uterus and vagina and particularly such disorders as endometritis, vaginitis, fissures, lacerations, erosions and other analogous female complaints.

I claim:

1. A medical appliance in the nature of a tampon, comprising a disk shaped head member having a plurality of exteriorly leading passageways formed therein, said head member being capable of being embedded within a fibrous body, and a flexible tube leading from said head member, said tube having its bore in communication with the passageways of said head member.

2. A medical appliance in the nature of a tampon, comprising a head member capable of being embedded in a body of fibrous material, said head member being provided with a plurality of radiating passageways leading exteriorly of said head member, the outlets of said passageway being located appreciably within the confines of the head member, and a flexible tube leading from said head member and in communication with the passageways thereof.

3. A medical appliance of the character described, comprising a substantially yieldable head member of circular formation, said head member being formed with a plurality of exteriorly leading passageways, a tube formed axially with said head member and extending from the under side of the latter, said tube being in communication with the passageways of said head member and of considerably smaller diameter than the latter, and a body of fibrous material situated to surround said head member and to be medicated by the flow of medicines through said passageways said body being detachably connected with said head member adjacent to the underside of the latter.

In testimony whereof I affix my signature.

DAVID A. RANNELLS.