

March 2, 1926.

L. MARTOCCI-PISCULLI

1,575,123

MEDICAL APPLIANCE

Filed August 1, 1922

Fig. 1.

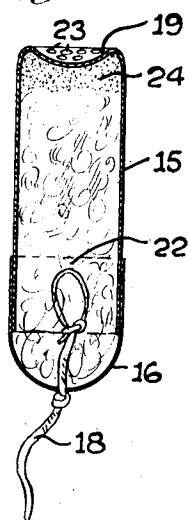


Fig. 2.

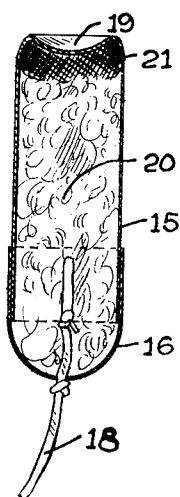
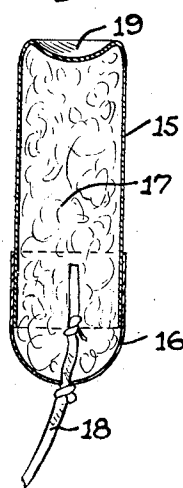


Fig. 3.



Inventor

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By His Attorneys

Thomas H. Parker

Patented Mar. 2, 1926.

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UNITED STATES PATENT OFFICE.

LEON MARTOCCI-PISCULLI, OF NEW YORK, N. Y.

MEDICAL APPLIANCE.

Application filed August 1, 1922. Serial No. 578,860.

To all whom it may concern:

Be it known that I, LEON MARTOCCI-PISCULLI, a citizen of the United States, and a resident of the city of New York, in the
5 county of New York and State of New York, have invented certain new and useful Improvements in Medical Appliances, of which the following is a specification.

My invention relates to a medical appliance, and aims to provide a device of this character particularly in the nature of what is commonly known as a "tampon".

It is a well appreciated fact in connection with the treatment of certain conditions of
15 the generative organs, that it is necessary to utilize a speculum, which will serve to extend the vagina or other parts, so that a mass of gauze, fiber or similar material may be packed into the parts. Also it
20 is necessary to utilize this instrument when it is desired to apply a medicament to the cervix, or vaginal walls for the treatment of affected parts.

In both of these instances, it has been
25 found that, subsequent to the application of either the material or medicament, upon the speculum being withdrawn, the ends of the same necessarily scrape against the parts treated, which removes the greater part of the applied substance, and where a tampon
30 has been inserted into the vagina, it renders it necessary that a physician utilize a smaller amount of material than would be desirable, for the reason that if the vagina were
35 packed completely with the gauze, etc., it would be impossible to effect a removal of the speculum, or in the event that this were possible, the greater amount of the tampon would be removed from the vagina, incident
40 to being engaged by the instrument.

Also a physician has often desired to apply certain substances to the mucous membranes of the vagina and adjacent parts, which substances in his opinion would have
45 beneficial results, but it has proven impractical to utilize these substances, for the reason that it has been extremely difficult to properly apply the same, and further, due to the fact that the necessarily limited size of the tampon would have permitted the ready escape of the substance from within the vagina.

Having these and further difficulties in mind, the present invention has reference to
55 a member in the nature of a tampon, which is adapted to be introduced into the vagina,

for the treatment of the mucous membranes of the same, as well as the cervix, and adjacent parts, and it is primarily an object of this invention to provide a device of the character stated by means of which the vagina will be packed to the greatest practical extent.

A further object of my invention is that of providing a tampon, which subsequent to its insertion into the orifice will remain
60 in position, and which may be applied to the parts without the use of any instrument, so that the services of a physician will not necessarily be required for the use of the device.

A still further object of my present invention is that of providing a medical appliance of the type referred to, which may be utilized to advantage in the application of medicaments, such as for instance, salves, powders,
75 etc., to the cervix and mucous membranes of the vagina in such a manner that the greatest of benefits will be derived from its use.

With these and further objects in mind which will become hereinafter apparent, the invention includes essentially a container within which the gauze, lamb's wool, or similar substance forming the tampon is placed,
80 together with a medicament, if the same is to be utilized, the said container being adapted to be inserted into the vagina.

Reference is had to the attached sheet of drawings as illustrating a practical embodiment of my invention, and it will be seen in these drawings that,

Figure 1 is a sectional side view of one form of tampon embodying my improved construction, and

Figures 2 and 3 are views similar to Figure 1, but showing a slightly different form of tampon.

The essence of my invention consists in the provision of a container which is constructed of a soluble material, such as gelatine, this container or capsule enclosing a suitable body which may be of any desirable material as hereinafter specified.

Thus, reference being had to Figure 3, it will be noted that the reference numeral 15 indicates the container body which, in this instance, is in the nature of a capsule, and constructed of gelatine, the open end of this body being closed by a cap 16. Packed within the body 15 and cap 16 is a mass of
110 lamb's wool, cotton or gauze 17, and at-

attached to this mass of material is a tape or string 18, which has its body extending through an opening in the cap 16 and beyond the same for a purpose hereinafter stated. Also it will be noted that one end of the container body 15 is pressed inwardly so that a concave portion 19 is provided, the face of this portion corresponding in general terms, to the contour of the cervix.

In Figure 2 I have shown a container in all respects similar to that illustrated in Figure 3, and this container may have its body filled with any desirable aseptic material 20, but it will be noted that I have shown, in this view, a layer of salve 21, within the capsule or container 15, and adjacent the end 18 thereof, the use of this container being also hereinafter more fully described.

Finally, in Figure 1 a container has been shown which embraces a body 15 of soluble material, the open end of which is closed by the cap 16, the container being filled with suitable material 22 to which there is attached the tape 18, passing through the open end of the cap 16. Further it will be seen that contrary to the form of container shown in Figures 2 and 3, the end face 19 of the container illustrated in Figure 1 is formed with a series of perforations 23, and a layer of powder 24 is interposed between the inner surface of the face 19, and the material 22 with which the container is filled.

It will be found, in using a tampon provided in accordance with my invention, that plain cotton plugs, or other medicated material, are capable of being introduced into the vagina for their medicinal, chemical or germicidal action on the external os, on the cervix, on the uterus, and on the vaginal mucous membranes, without the medium of a speculum, applicator, forceps or any vaginal instrument whatsoever. In other words, the tampon can be inserted by either the physician or patient, and the proper application of the same is assured incident to the fact that a correct introduction is effected for the reason that the face 19 of the container 15 in each instance, will finally come into contact with and embrace the cervix portion so that the patient will know that the device is in its proper position.

It will also be understood that the tampon and medicinal agent which may be carried thereby are capable of introduction into the vagina in an absolutely sterile condition in view of the fact that they are enclosed within the container. Further, in the event that medication is used it will remain in contact with the different parts of the cervix and vagina without being displaced or rubbed off, as would be the case if this agent were applied through a speculum.

Still further, the tampon, as soon as the gelatine covering dissolves, will expand to a

considerable extent thus causing the vagina wall to be stretched, and consequently obliterating its numerous folds within which germs may be secreted; this expanding action also serving to uncover any diseased areas which may exist.

Also a benefit is to be derived incident to the fact that certain chemical compounds generally in the form of powder, can be introduced into the vagina or into the material with which the container is filled. Thus any gaseous, germicidal agents emanating from these compounds will be liberated gradually, or suddenly for any desired interval of time upon these agents coming in contact with mucus, pus or the normal vaginal secretion.

A still further accomplishment of the present device is that in case of cervical or vaginal hemorrhage a plain or medicated tampon can be quickly inserted, as a first aid remedy, and the gelatine in itself will hasten the coagulation of blood in that the gelatine is one of the best haemostatic compounds known. In this connection it will also be appreciated that a device of this nature is readily applicable for use at the end of the menstrual period, particularly where the person using the same does not desire to wear the sanitary napkin, due to the discomfort, incident to the use of the latter, or due to the fact that an appliance of this nature is not available.

Still another benefit is to be attributed to the fact that a different dose of any medicinal preparation desired by the physician, may be administered in a sterile condition, and can readily be applied, thus saving time to the physician, it being also understood that the tampon may be used as a rapid prophylactic against venereal diseases, in that it is capable of ready insertion, and insures the germicidal agent coming in contact with the whole cervical, and vaginal mucous membranes, especially so if a gaseous compound is used, it being appreciated that the device will act quicker, and more efficiently, and with far less inconvenience to the user, than any methods of procedure used at the present time.

It will be understood that in all of the devices shown, incident to the fact that one end of the container is preferably concaved, a proper coaptation with the cervix is assured, and the opposite end of the capsule being provided with an opening for the passage of the tape 18 permits the patient to readily remove the mass of the material from the vagina at any time desired.

Also when the medical agent used is in the form of powder 24, as in Figure 1, this powder is not affected by any contaminating influence prior to its actual use, and the heat and moisture of the vagina will

first dissolve the container 15, and secondly cause the powder 24 to act so that the latter may give off the gases which will play directly upon the cervix, and the perforations 23 are provided for the escape of the gas before the whole capsule dissolves, and where ointment 21 is utilized, the latter will coat the parts upon the container dissolving.

10 Thus it will be understood that the objects of this invention have been accomplished, and it will be appreciated that the manner in which the device may be utilized, and the material which the container may

enclose is entirely optional, and further numerous modifications of structure may be resorted to without in the least departing from the scope of my claim, which is:

A medical appliance, including a substantially rigid soluble casing having a perforated end-portion, a tampon within said casing, and a medicinal agent disposed within said casing adjacent the perforated end thereof.

Signed at New York, in the county of New York and State of New York, this 31 day of July, A. D. 1922.

LEON MARTOCCI-PISCULLI.