

C. GAMACHE, JR. & W. S. McNEAR.

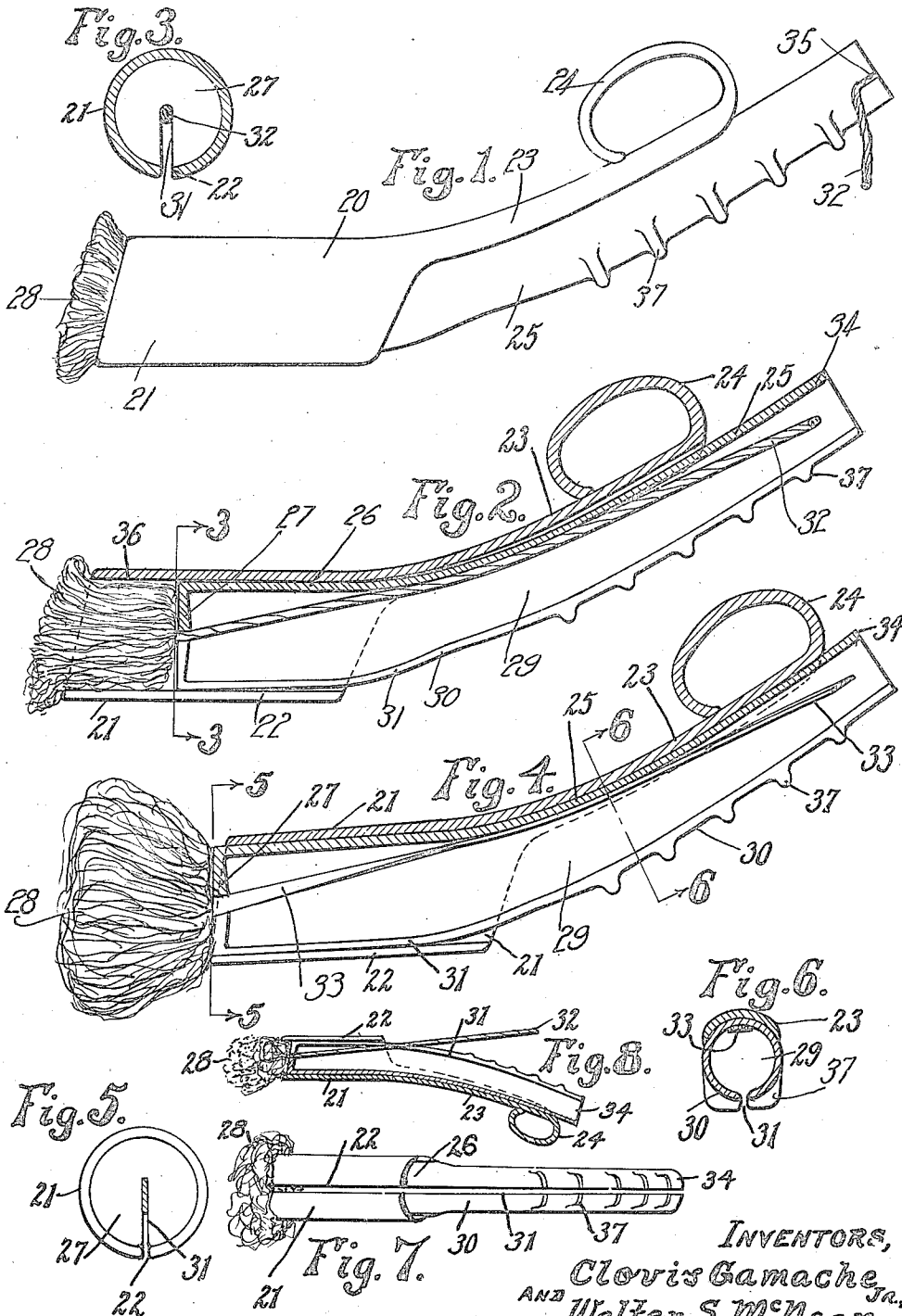
TAMPON APPLICATOR.

APPLICATION FILED OCT. 21, 1916.

1,224,735.

Patented May 1, 1917.

2 SHEETS—SHEET 1.



INVENTORS,
 Clovis Gamache, Jr.,
 AND Walter S. McNear,
 BY David Lichtenstein
 ATT'Y.

C. GAMACHE, JR. & W. S. McNEAR.

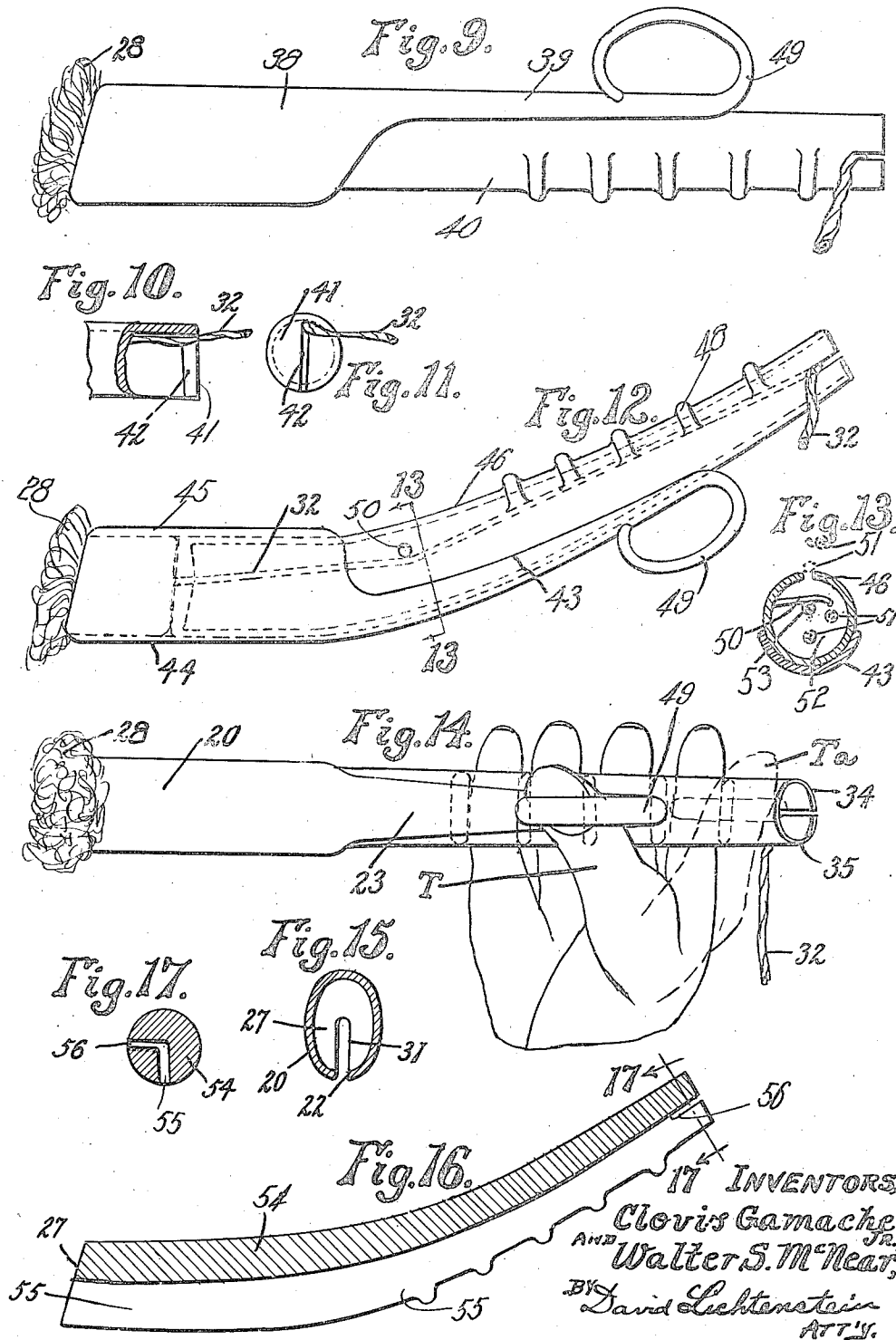
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UNITED STATES PATENT OFFICE.

CLOVIS GAMACHE, JR., OF NASHUA, NEW HAMPSHIRE, AND WALTER S. McNEAR, OF BOSTON, MASSACHUSETTS, ASSIGNORS TO NUR-PON COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

TAMPON-APPLICATOR.

1,224,735.

Specification of Letters Patent.

Patented May 1, 1917.

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To all whom it may concern:

Be it known that we, CLOVIS GAMACHE, Jr., and WALTER S. McNEAR, citizens of the United States, and residents, respectively, of Nashua, in the county of Hillsborough and State of New Hampshire, and of Boston, in the county of Suffolk and State of Massachusetts, are the joint inventors of a new and useful Improvement in Tampon-Applicators, of which the following is a specification.

The object of our invention is to provide an applicator for medicated tampons, such as are used in the treatment of diseases peculiar to women, which furnishes a simple, sanitary, scientific, and effective means for a patient to use in the privacy of the home, and thus provides a long-felt want in the medical field of gynecology.

It is a known fact that the tampon treatment is to-day recognized the world over by the medical profession for treatment of women's diseases, such as inflammation of the vagina, uterus, ovaries, or Fallopian tubes, etc., chronic endometritis, subinvolution, leucorrhea, etc., and in such cases the tampons are most efficient if applied to the affected parts before retiring and left there over night while the patient is resting,—the applicator claimed herein being specially applicable for home use; thus affording the patient a ready, simple and inexpensive means for personally and privately carrying out the tampon treatment without being forced to submit to physicians for the purpose, as is otherwise the case and which is both humiliating and expensive for the patient, as well as unsatisfactory, since the good therefrom is soon lost on account of the exercise which is brought on by the trip home from the physician's office, instead of resting immediately after the application of the tampon to the affected parts, as is afforded by the private use of the applicator in the home of the patient.

To these as well as other ends, our invention consists of the novel features of construction, combination and arrangement of parts described in the following specification and particularly pointed out in the subjoined claims.

Referring to the accompanying two sheets of drawings—

Figure 1 represents an elevational view of the curved type of applicator, showing a medicated tampon set therewith and housed therein, ready for the insertion into the vagina or rectum.

Fig. 2 represents a longitudinal sectional view taken through Fig. 1, showing a tampon set in the housed position therewith and ready to be released therefrom when inserted into the vagina or rectum.

Fig. 3 represents a sectional view taken on line 3—3 in Fig. 2, looking in the direction of the arrows.

Fig. 4 represents the same view as Fig. 2 but shows the tampon released from the temporary housing furnished it by the co-acting members of the applicator as would be the case when the tampon had reached and located the proper spot in the vagina or rectum, and shows the tampon supplied with a narrow tape instead of the cord indicated in Fig. 2.

Fig. 5 represents a view taken on line 5—5 in Fig. 4 looking in the direction of the arrows, showing the tampon end of the tampon-holder of the applicator.

Fig. 6 represents a sectional view taken on line 6—6 Fig. 4, looking in the direction of the arrows.

Fig. 7 represents a part bottom view of the inserting end of the applicator, showing the tampon cord or tape-slots of the co-acting members of the applicator.

Fig. 8 represents a sectional view showing the method of engaging the tampon into working position with the applicator, said view showing the applicator turned around with the tampon cord or tape-receiving-slots positioned at the top, open to view and handy to the user.

Fig. 9 represents the same view as Fig. 1 but shows a modified type of applicator, in that the same is made straight instead of curved.

Fig. 10 represents a part elevation and sectional view of a modified end for the tampon-holder-member of the applicator, showing the same supplied with a blank end provided with a temporary locking slot for

locking the cord, ribbon, or tape of the tampon into holding position with the tampon-holding-member of the applicator.

Fig. 11 represents an end view of Fig. 10, showing the blank end and the temporary locking slot therein for the tampon cord or tape.

Fig. 12 represents a modified form of applicator, showing the co-acting members thereof arranged in reverse order, in that the slots thereof are positioned at the top instead of the bottom, and the shank of the guide-housing-member is positioned at the bottom of the applicator instead of at the

15 top.

Fig. 13 represents a sectional view taken on line 13—13, Fig. 12, looking in the direction of the arrows, showing the tampon tape-holding means within the tampon-
20 holder for preventing the tape from projecting out of the holder on account of the curvature thereof.

Fig. 14 represents a diagrammatic plan view showing the applicator held in the
25 right hand of the patient and ready for the insertion into the vagina, the dotted line representing the position of the thumb of the hand shifted to the tampon releasing position in which position the guide and
30 housing member of the applicator has been drawn back and the tampon becomes released from the housing provided therefor, as shown in Fig. 4.

Fig. 15 represents a modified sectional
35 view similar to Figs. 3 and 5, but shows the co-acting members elliptical, to a suitable degree, in cross-section, for preventing any tendency of turning of the co-acting members of the applicator, as might otherwise
40 be occasioned by the use of a perfect circular section, especially in the case of a straight type of applicator, as is shown in Fig. 9.

Fig. 16 represents a longitudinal section
45 taken through a modified type of tampon-holder, in that the same is made solid instead of hollow, and is preferably supplied with a longitudinal slot of sufficient depth to accommodate the tape, cord or ribbon of
50 the tampon, if desired.

Fig. 17 represents a sectional view taken on lines 17—17, Fig. 16, looking in the direction of the arrows.

Like numerals refer to like parts throughout the several views of the drawings.

The numeral 20 represents the guide and housing member of the curved type of applicator which may be made of any suitable material (preferably of hard rubber), and is
60 provided with the sleeved end 21 which has the longitudinal slot 22 and the curved top-shank-end 23 which is preferably provided with the loop 24 into which is fitted the thumb T, as shown in Fig. 14. 25 represents
65 a tampon-holder for the curved type of ap-

plicator, which may also be made of any suitable material (preferably of hard rubber) and is provided with the guide-member-bearing-end 26 which has the blank end 27, and which end serves as a backer for the
70 medicated tampon 28, when the same is housed in the applicator, as is shown in Fig. 2. The holder 25 may be made with a hollow section 29 which is open to the bottom 30 by a narrow longitudinal slot 31
75 which projects up into the blank backer end 27 slightly beyond the middle thereof, as is shown in Figs. 2, 3, 4 and 5, for permitting the insertion of the tampon cord 32, which is attached to the tampon 28 within the hollow
80 section 29 thereof, so that the same will be housed within the holder, as is shown in Figs. 2 and 4. 33 represents a ribbon or tape which is used with the tampon instead of the cord 32. The free end 34 of the tampon-holder is preferably provided with a
85 temporary locking-slot 35 at the side thereof, into which is pinched the tampon cord 32 or ribbon 33, as is shown in Fig. 1 for temporarily holding the tampon when the same is backed up against the backer end 27 of the tampon holding member 25 and is positioned within the inside housing 36 of the guide member 20 of the applicator. The tampon-holder 25 is preferably provided with abrasions, projections, or the like, 37
90 at the bottom thereof, as shown in Fig. 6 for serving as finger grooves or recesses for enabling the tampon-holder to be held by the hand of the user in a stationary position, as is indicated in Fig. 14, when the applicator is ready to be inserted into the vagina for applying and locating the tampon therein.

Fig. 9 shows a modified straight type of applicator, in which 38 is the guide member which is constructed exactly the same as the guide member 20 shown in Fig. 1, but is provided with a straight type of shank 39 instead of the curved shank 23; the tampon-holder 40 being also constructed in exactly the same manner as suggested in the case of the curved tampon-holder 25 shown in Fig. 1, with the exception that the same is straight instead of curved.
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The free end 34 of the tampon-holder 25 or 40 may be supplied with the modified blank end 41, as shown in Figs. 10 and 11, in which case the blank end 41 may be designed with the temporary tampon cord or tape-locking-slot 42, instead of the side slot 35, shown in Figs. 1 and 9 if desired.
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Fig. 12 shows a modified type of tampon applicator which is constructed practically similar to the other types hereinabove suggested, with the exception that the shank 43 is positioned at the bottom instead of at the top of the guide member 44 there shown, and the cord slots 45 and 46 of the guide member 44, and the tampon-holder 47, respec-
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tively, are positioned at the tops thereof instead of at the bottom, as is suggested in Figs. 2 and 4,—the lugs or projections 48 in this case being at the top of the tampon-holder and serve to accommodate the thumb of the hand while the loop 49 of the shank 43 serves to accommodate any of the other fingers of the hand—the thumb in that case being intended to retain the tampon-holder in the stationary position while the other fingers of the hand serve to act upon the guide member 44 for the purpose of drawing the same back upon the tampon-holder 47 for releasing the tampon 28 after the same has been located by the applicator in the body of the user. Because of the slot 46 being positioned in the top of the curved tampon-holder 47 shown in Fig. 12, it is necessary to provide a retaining means, as is suggested by the pin or retaining member 50 in Fig. 13, which, as is indicated by the dotted circles 51 representing the section of the cord of the tampon, permits the cord to enter within the hollow 52 of the tampon-holder 47 so that the same may gain a purchase with the member 50, as is indicated by the section of the cord 53 for retaining the same within the tampon-holder; thus overcoming the possibility of the cord working out of the inclosure of the tampon-holder, as might otherwise be the case, on account of the curvature thereof.

In Fig. 14, *Ta* represents the position of the thumb swung to the tampon-releasing position of the applicator, corresponding to Fig. 4.

In Figs. 16 and 17, 54 represents a solid type of tampon-holding-member, which is provided with the longitudinal slot 55 for housing the tampon cord and the temporary and locking slot 56 for temporarily holding the tampon cord in secured position with the holder, which solid type of tampon-holder may be employed instead of the hollow type indicated in any of the other views of the drawings.

It may be here noted that in the case of curved types of applicators, that the same may be designed with concentric curves throughout their lengths and without the straight tampon portion shown in Fig. 1.

Having thus described our invention in detail, the manner in which the same may be used and operated, is as follows:

The applicator is first supplied with the medicated tampon, which may be set therewith in the following manner: The applicator is turned to the user with the cord-inserting-slots 22 and 31 of the co-acting members 20 and 25, respectively, positioned uppermost and in view of the user. The applicator may be held in one hand (say the left hand) with the tampon cord slots uppermost; the medicated tampon, which, as is known, is saturated with a wet and

greasy substance, but has the dry cord 32 or tape 33 attached thereto, may be picked up with the other hand by the dry cord, so that the tampon itself, which hangs suspended by the cord, need not be touched by the hand of the user. The user then guides the tampon cord with the tampon at the housing end of the applicator through the tampon-cord-slots of the co-acting members of the applicator, as is shown in Fig. 8, until the cord is housed within the tampon-holder, when, by pulling on the free end of the cord, the tampon may be forced into the housing provided therefor between the co-acting members of the applicator and allowed to back up against the backing end 27 of the tampon-holding-member, after which the extreme and free end of the cord may be temporarily pinched into the slot 35 or 42, as the case may be, provided for the purpose. The tampon-holder thus having disengagingly secured thereto the tampon 28, the same is preferably positioned, as is shown in Fig. 2, so that a small portion of the tampon may still project beyond the housing furnished by the co-acting members of the applicator; then the applicator is set with the tampon, ready for the insertion to be made into the vagina or rectum.

Now, to insert the applicator thus provided with the tampon into the vagina, the co-acting parts of the applicator are first set into the position indicated in Figs. 1 and 2, so that they house the tampon and preferably permit a part of it to project therefrom for lubricating purposes. The patient, who is preferably lying flat on her back, takes hold of the applicator just as it is set and holds it in such position in the hand as is shown in Fig. 14, where it will be observed that the thumb *T* is brought well up forward and toward the little finger of the hand. With the applicator thus held in the hand and with a slight grip between the thumb and the other fingers of the hand, the co-acting parts of the applicator may be pushed forward together, with the two acting as a unit, into the vagina, the projecting tampon leading and lubricating the way into the same; and may be thus inserted therein as far as may be necessary for locating the tampon in contact position with the part or membrane to be treated. When the tampon is thus brought into contact with such part or membrane, the patient then releases the grip between the fingers and the thumb and swings the thumb over to the position indicated by *Ta*, Fig. 14, and thus carries back with it the guide member 20 which immediately releases the tampon, as shown in Fig. 4,—it being here observed that the tampon-holder has remained stationary while the guide member was being moved to the releasing position. With the tampon released from the housing

of the applicator, the cord, ribbon or tape attached thereto may then be freed from the temporary locking slot 35 of the tampon-holder, and is thus entirely freed therefrom, after which the applicator may be withdrawn from the vagina; thus leaving behind it the tampon positioned to treat the required part or membrane within the vagina, with the cord of the tampon projecting therethrough.

It may be here observed that when holding the applicator as has been explained hereinabove and as is shown in Fig. 14, that with the thumb set in the foremost position, indicated by "T" it is almost impossible to move the guide member 20 farther forward, that the tampon-holder can either work forward or backward by the independent action of the fingers engaging therewith, the fingers in that position being unable to swing independently unless the whole hand moves with them which would naturally carry the thumb and thus produce no change of the set relation between the co-acting parts of the applicator, but that the thumb, on the contrary, which carries the guide member is absolutely free to swing back to the T_a position which slidably moves the guide member back along the tampon-holder and frees the tampon completely; thus assuring the applicator of a feature which makes the same absolutely reliable in that the same will, after the tampon has once been positioned into the proper part of the vagina, hold and leave it set in that position, and will not in any way disturb it or cause it to move away therefrom, since the tampon may, by the design of the applicator, be ushered into position and released at that point and freed from the applicator so that the applicator itself may be entirely withdrawn while the tampon will remain in the vagina and will not be disturbed from its located position.

It may be observed that the device is sanitary and simple in construction, and is easy to manipulate and handle; that the same is absolutely fool-proof and furnishes a sanitary device which permits of the ready association of the medicated tampon therewith, without requiring the need for the user to touch or handle any part of the medicated and saturated tampon when setting the same in the applicator, and thus introduces a very satisfactory and sanitary feature, inasmuch as the same permits of the handling of the tampon in the most sanitary manner and relieves the medicated part thereof entirely from the need of being subjected to touching and handling by the patient before being applied to the affected parts.

It may be understood that the applicator may be made up of any desired dimensions to suit conditions and of any desired ma-

terial suitable for the purpose, hard rubber being the most preferable, however, that the same affords a patient a ready and simple means for carrying out the tampon treatment, prescribed by the physicians, in the privacy of the home, and thus relieves the patient of the trouble, humiliation and expense attached to the same when submitting to the physician for such treatment, and also carries with it the additional benefit of affording the patient a means for applying the tampon at such times as will result in the most good therefrom.

While the preferred embodiments of our invention have been described in detail, it will be understood that we do not wish to be limited to the particular construction set forth, since various changes in the form, material, proportion and arrangement of parts, and in the details of construction may be resorted to without departing from the spirit and scope of the invention, or destroying any of the advantages contained in the same, heretofore described and defined in the subjoined claims.

What we claim is:—

1. An applicator for medicated tampons, provided with cords or tapes consisting of a slotted guide member adapted to releasably house the tampon therein; and a slotted co-acting tampon-holder adapted to disengagingly engage the tampon therewith by the insertion of the cord or tape within the slot provided therein for the purpose.

2. An applicator for medicated tampons provided with cords or tapes, consisting of a slotted movable sleeve member provided with a holding and operating shank; and a tampon-holding member provided with a slotted section for receiving and housing the tampon cord or tape, and adapted to support said movable sleeve member thereupon and to form a housing therewith for the tampon held thereby.

3. An applicator for medicated tampons provided with cords or tapes, consisting of a slotted tubular sleeve member provided with a shank member; and a tampon-holding-member provided with a bearing end for said sleeve member and a longitudinal slot adapted to coincide with the slot of said tubular sleeve member for receiving the cord or tape of the tampon.

4. An applicator for medicated tampons, having projecting cords or tapes attached thereto consisting of an outer and slotted tubular member having an extension shank provided with a retaining finger section; and a tampon-holder adapted to slidably support said outer and slotted tubular member and provided with a grooved recess longitudinally positioned therein and coinciding with the slot of said outer and slotted tubular member for receiving the tampon cord and freely housing the same therein,

and retaining means for the fingers of the hand holding the same.

5 5. An applicator for medicated tampons, having projecting cords or tapes attached thereto for handling purposes, consisting of an outer split sleeve member provided with a shank-piece having a hand engaging recess thereon; and a co-acting tampon-holder adapted to slidably support said
10 outer split sleeve member thereon on the tampon end thereof, and provided with a tampon cord or tape recess adjacent to the

split of said outer member and extending clear across the same longitudinally, and temporary locking means at the free end of said tampon-holder for temporarily engaging with and locking the cord or tape of the tampon with said tampon-holder in working position therewith.

CLOVIS GAMACHE, JR.
WALTER S. McNEAR.

Witnesses:

B. H. CHERTOK,
R. LICHTENSTEIN.