

No. 639,864.

Patented Dec. 26, 1899.

F. VON RAITZ.
MEDICAL TAMPON.

(Application filed Aug. 3, 1899.)

(No Model.)

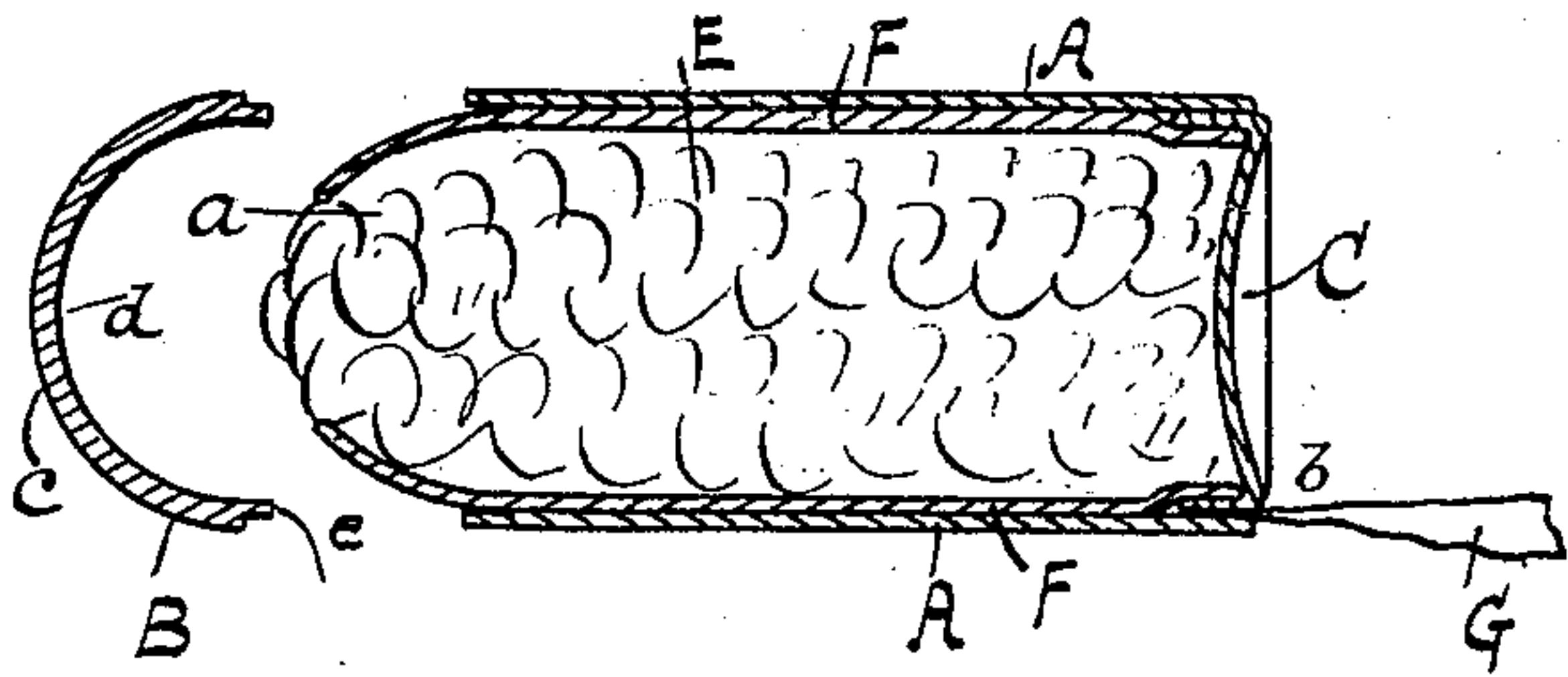


Fig. 1.

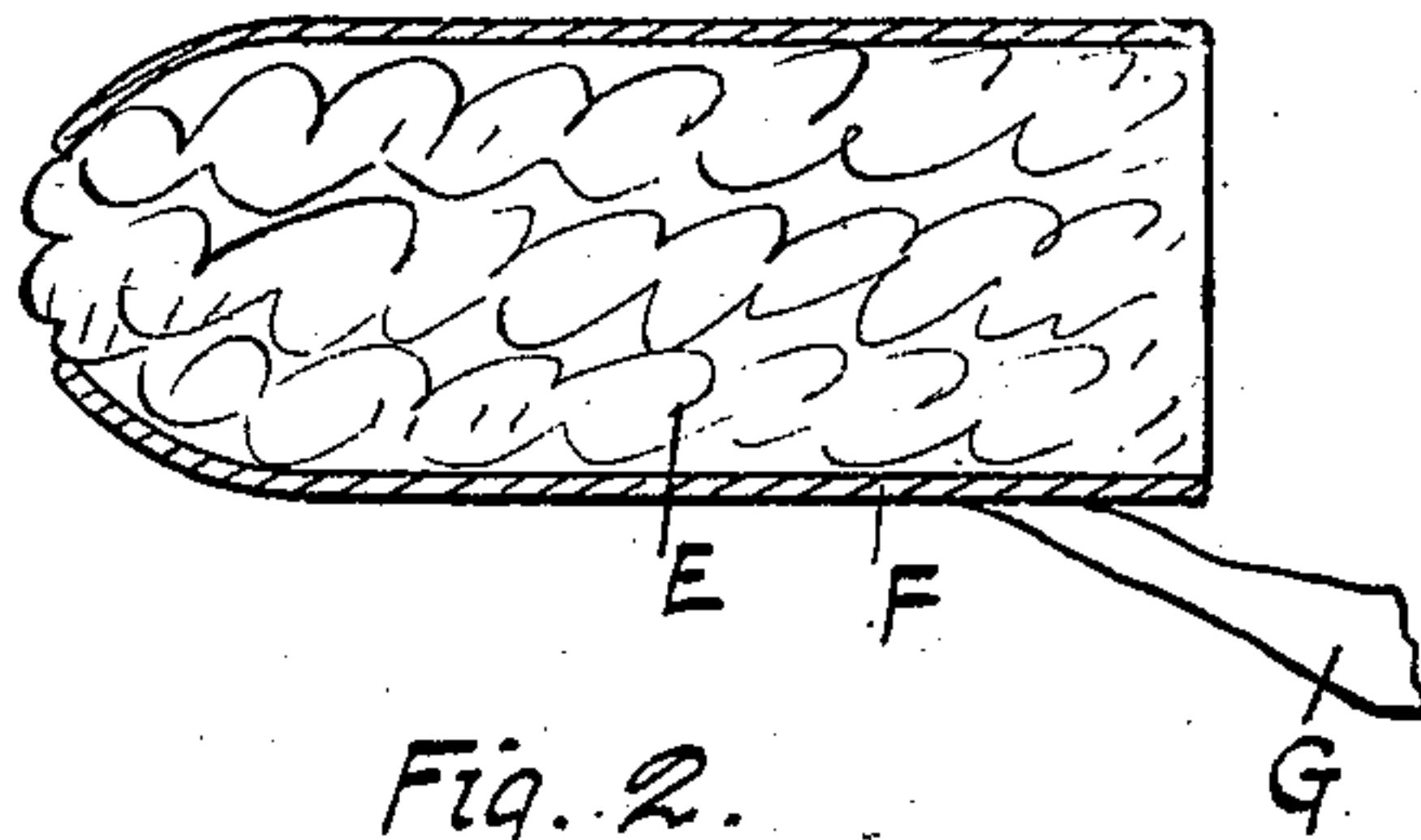


Fig. 2.

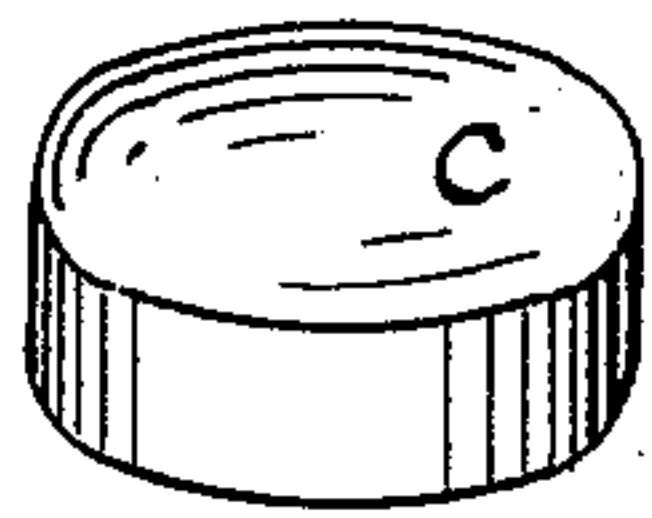


Fig. 4.

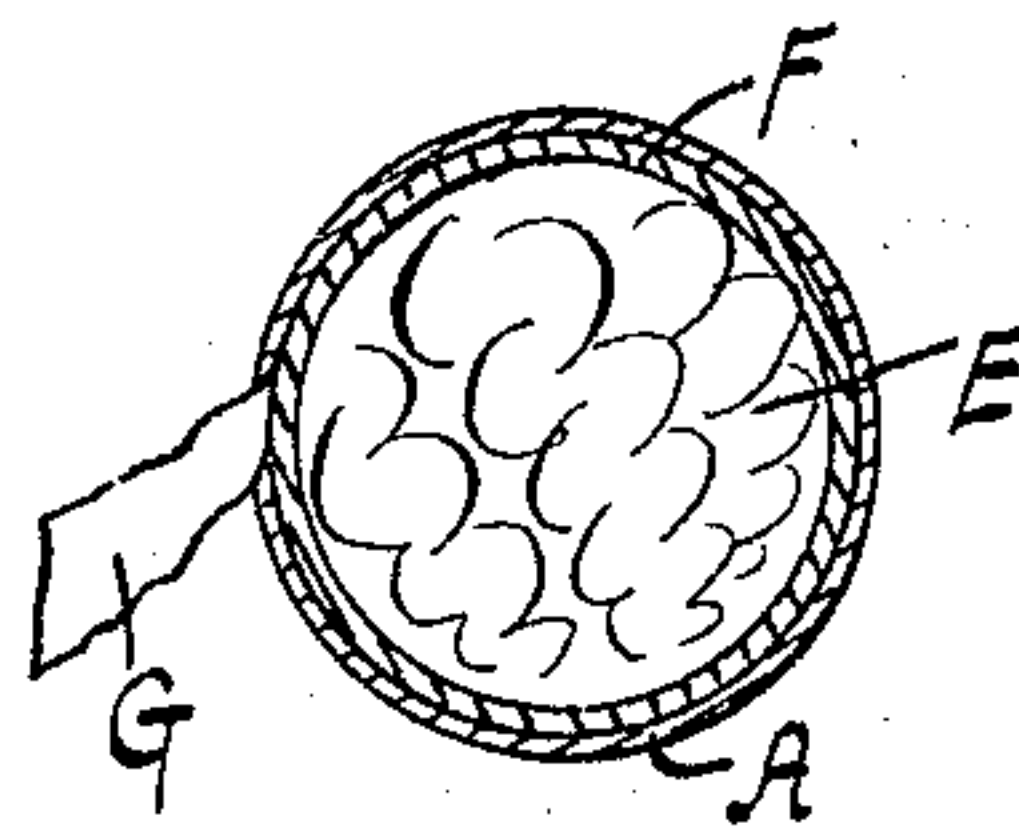


Fig. 3.

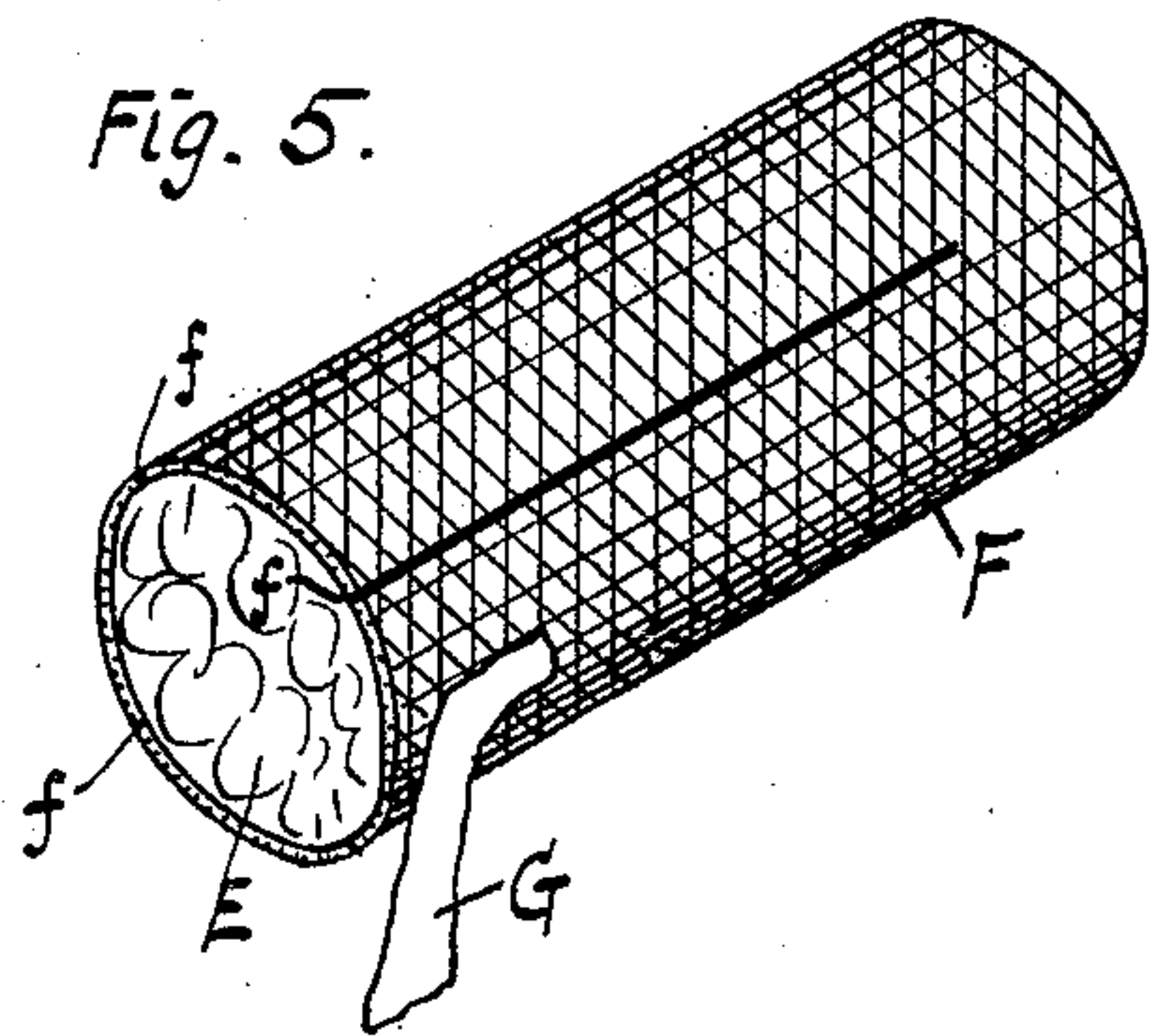


Fig. 5.

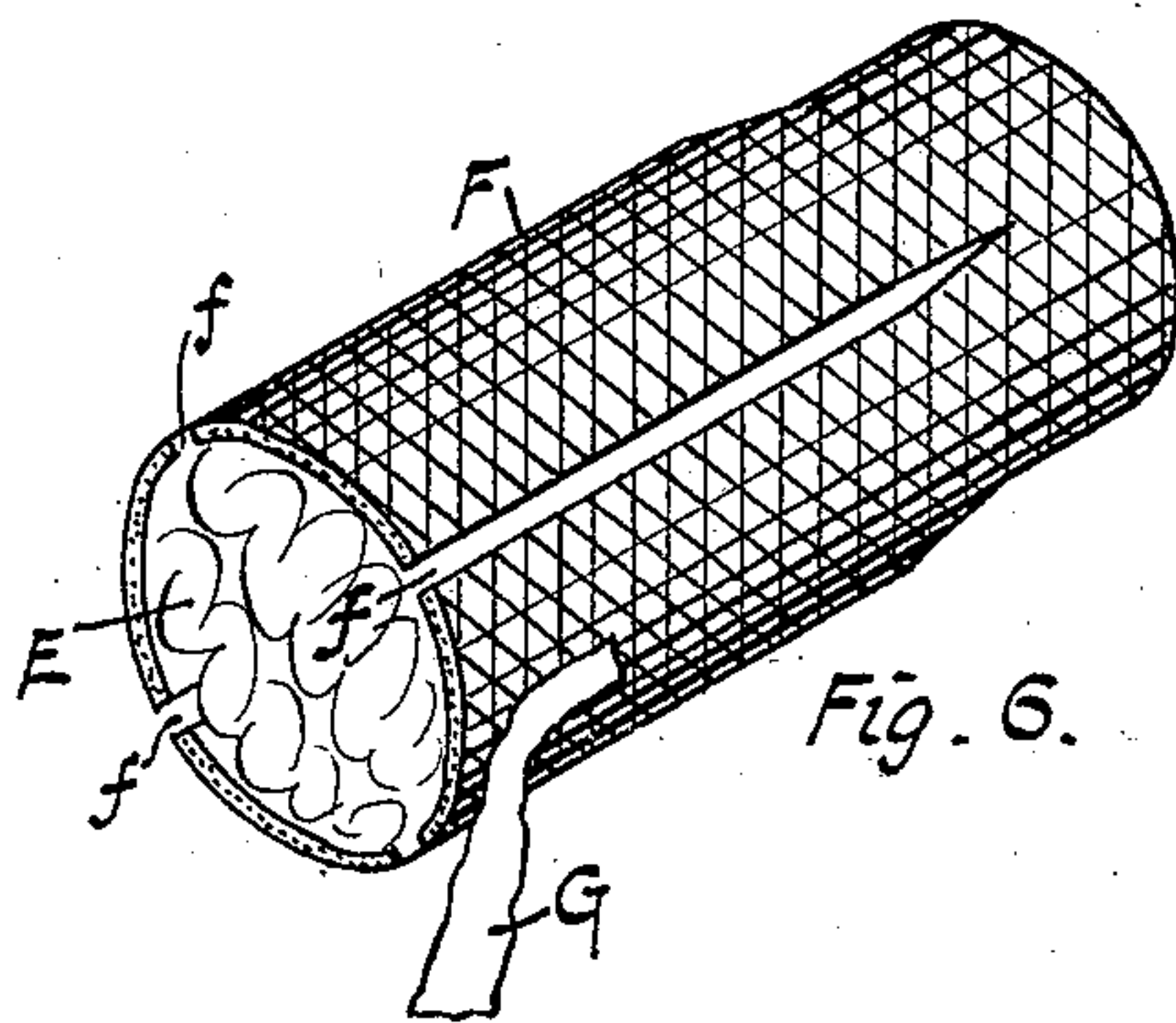


Fig. 6.

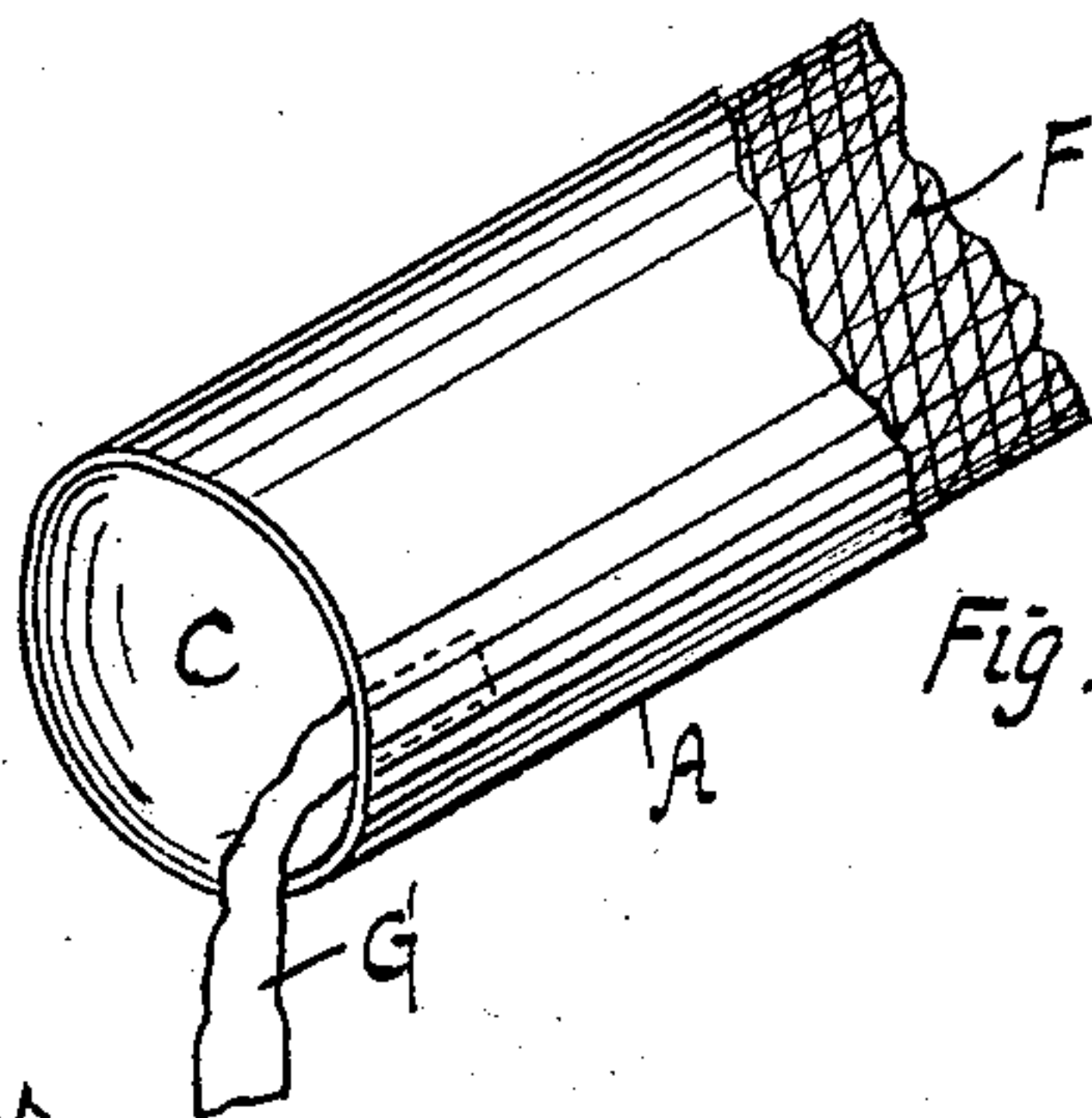


Fig. 7.

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UNITED STATES PATENT OFFICE.

FEODOR VON RAITZ, OF NEW YORK, N. Y., ASSIGNOR TO MINNIE VON RAITZ, OF SAME PLACE.

MEDICAL TAMPON.

SPECIFICATION forming part of Letters Patent No. 639,864, dated December 26, 1899.

Application filed August 3, 1899. Serial No. 726,033. (No model.)

To all whom it may concern:

Be it known that I, FEODOR VON RAITZ, a citizen of the United States, and a resident of the borough of Manhattan, in the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Medical Tampons, of which the following is a specification.

My invention relates to improvements in medical tampons, which latter are intended for use in the treatment of different diseases of the cavities of the human system and by which even less skilled members of the medical profession will be enabled to render services of especially-skilled surgeons, removing thus the danger which rests in wrong or careless treatment.

It consists in the construction, combination, and arrangement of the parts hereinafter described and claimed.

My improved tampon is illustrated in the drawings which form a part of this specification and are annexed hereto, and in which—

Figure 1 is a central longitudinal section of the tampon and its container. Fig. 2 is a central longitudinal section of the tampon proper. Fig. 3 is a transverse section of the latter. Fig. 4 is a perspective view of the closing-cap. Fig. 5 is a side view of the tampon proper, illustrating its compressed state, with band attached to it ready for insertion into container. Fig. 6 is a side view of the tampon proper, illustrating the separation of its incisions after the compression has been released. Fig. 7 is a view of the bottom portion of my improved tampon, showing the hermetically-sealed closing-cap and the exit of the band.

Similar letters refer to similar parts throughout the several views.

A in the drawings represents a cylindrical tube. One end *a* I shall denote as the "upper," the other end *b* as the "lower," end.

The closing-cap B, of a substance soluble in water, in moisture, or by heat, has a top *c*, having circular convex outlines and forming the roof of the cavity *d*. Its bottom consists of a flange or a rim *e*, fitting tightly into the upper end *a* of the tube A, as shown in Fig. 1.

C is a closing-disk. It is circular and concave in form to facilitate the introduction of

the tampon into the cavities of the human system by giving the propelling-finger a convenient resting-place, and fits tightly into the open lower end *b* of the container A.

The concave surface of the closing-disk C, with the surrounding edge of the container A, is of great importance, as it prevents the falling out of the tampon of the cavity, for physical and physiological reasons.

The walls and mucous membranes of the cavities of the human system will close around the relatively sharp edge of the container, the edge thereby resting upon said walls.

If the closing-disk would have a circular convex surface, it would slip along the walls of the cavities and fall out of the same by the joint action of the muscles and the own gravity of the lubricated tampon by the vaginal secretions, and the patient would be compelled to preserve a lying position until the healing agents are absorbed.

The inner cylindrical body E of the tampon consists of absorbent and elastic soft material—as, for instance, wool, sponge, oakum, or moss—which has a tendency to expand, according to the treatment to be applied and to the compatibility of the healing agents used with the tampon. It is impregnated with suitable ingredients to start osmosis. The expanding body is compressed and inclosed by a sheet F, which consists of various layers of a net-like reticulated non-absorbing material—as, for instance, waterproof bolting-cloth, wire-cloth, waterproof gauze, &c. It is medicated with healing agents and incised at several places, as *ff*, as shown in Figs. 5 and 6, to allow the expansion of the body E. The cellular net-like structure of this non-absorbent sheet facilitates the passing through of the secretions of the diseased parts of the cavity to be cured to the central body E, the only part of the compound tampon having absorbing properties, in contradistinction to the inclosing sheet F, having none.

A band or ribbon G is fastened to the medicated sheet F, so as not to interfere with the expansion of the body E. It allows to draw the tampon out of the cavity after it has served its purpose.

The body E and the surrounding sheet F having been placed in the tube A, the latter is closed by means of the cap B, with its flange

e projecting into the tube and the closing-
 disk C, while the ribbon G emerges from the
 thus-closed tube between the latter and the
 disk, as indicated in Fig. 7. The cap B and
 5 the disk C are then hermetically sealed to the
 tube A by means of a suitable substance—as,
 for instance, vegetable fat, paraffin, &c., em-
 ployed as a cement—so as to prevent the outer
 air from entering the tampon. When the
 10 tampon is inserted in the respective cavity of
 the human system, the body E will expand,
 which action is facilitated by the incisions
f f of the non-absorbent sheet F, and will
 force the sheet F toward the diseased parts,
 15 which thereby come in intimate contact with
 the healing agents carried by the sheet F.
 Osmosis—that is, an exchange between fluids
 of different specific gravity separated by
 membranes—will be set up immediately.
 20 The pathological secretions pass through the
 reticulations of the non-absorbent sheet F
 and are absorbed by the central body E,
 whereas the medicated sheet F remains com-
 paratively dry and its medication in intimate
 25 contact with the diseased parts of the cavity.
 As soon as the tampon has served its purpose
 it is removed from the cavity by means of the
 ribbon G.

It is evident that the tampon may be va-

riously medicated to meet various patholog- 30
ical conditions.

I am aware that heretofore tampons have
 been in use in the medical profession, con-
 sisting of a gelatin capsule and a filling or a
 packing contained therein and carrying medi- 35
 caments, also hollow capsules having a sus-
 taining filling of medicaments, and I there-
 fore do not claim any of these, but only a com-
 pound tampon, as described.

What I do claim as my invention, and de- 40
sire to secure by Letters Patent, is—

The combination, in a medical tampon, of
 a central body of compressed elastic and ab-
 sorbent material, one or more sheets of non-
 absorbent reticulated and medicated mate- 45
 rial surrounding the central body and pro-
 vided with longitudinal slits to allow of the
 expansion of the same; a string attached to
 said sheet, and the whole incased in a cylin-
 der of suitable material provided at each end 50
 with the closing means, substantially as set
 forth.

In testimony whereof I have hereunto set
 my hand this 23d day of July, 1899.

FEODOR VON RAITZ.

Witnesses:

HENRY B. STACEY,

RALPH JULIAN SACHERS.