May 24, 1949. C. J. THORNE 2,471,360

PROSTHETIC DEVICE

Filed Feb. 10, 1947

Fig. 1.

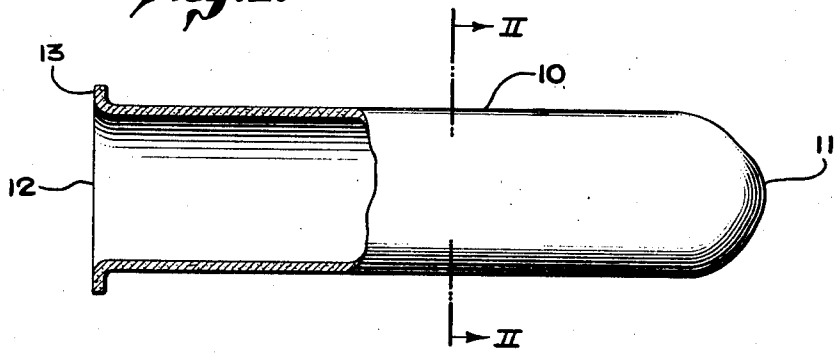


Fig. 2.

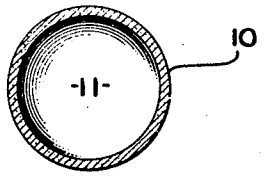
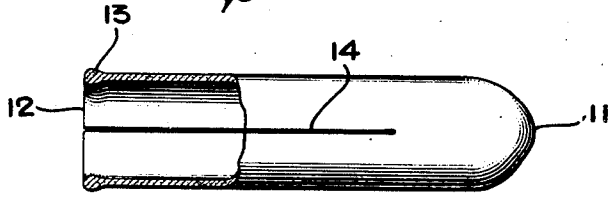


Fig. 3.



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PROSTHETIC DEVICE

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9 Claims. (Cl. 128—79)

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This invention relates to apparatus for transient prosthesis, and more particularly to a prosthetic apparatus or device adapted to assist in maintaining suitable marital relations and in facilitating copulation and resulting fecundation when the male genital organ temporarily lacks the ability to make the necessary entry.

There is an ever increasing number of healthy, intelligent and relatively young men who, for various reasons, are unfitted for their share in intercourse, or who are incapable of the erection necessary to initiate coitus and fecundation resulting therefrom. Many of such cases are due to true nervous, neurasthenic impotence and are thought to be caused, in part at least, by modern high tension living. Transient mental distraction or instantaneous ideas which suddenly act as psychical inhibitions, often annul the existing potency in the male.

Moreover, since many cases of temporary impotence are non-organic in cause, many desirable married men (eugenically speaking) are incapable of implanting the sperm in a normal manner due to insufficient penetration of the female genital organ, thereby depriving society of healthy progeny at a time the nation can ill afford the loss.

The present invention is directed to means whereby the temporary impotence may be masked or nullified, thereby permitting penetration so that coitus may be completed. The apparatus is of assistance to those suffering from psychic impotence.

Devices for supporting and imparting rigidity to the male genital organ have been devised heretofore (see United States Letters Patent No. 1,511,572) but prior devices fail to satisfactorily treat the neurasthenia which is the primary cause of the impotence. The present invention is predicated, in part at least, upon the observation that if penetration is effected without difficulty, the peripheral stimuli, including stimulation of the erection nerves, produce enlargement of the corpora cavernosa and stimulation of the ischio-cavernosus muscle, thereby producing a normal erection.

In order to attain these objects, this invention provides a sheath for the penis, the sheath being normally rigid so that penetration may be readily effected. In order to assure fecundation, the sheath is made of a composition which disintegrates in the presence of aqueous media (such as the fluids of the vagina) at body temperatures. No undesirable aftermath imposes itself upon

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the married couple to becloud the conception of progeny.

It is an object of this invention, therefore, to provide a prosthetic device or apparatus for the purposes set forth.

The drawings attached hereto illustrate forms of devices embraced by this invention, and in said drawings—

Fig. 1 is an elevational view of an exemplary form.

Fig. 2 is a section taken along the plane II—II of Fig. 1.

Fig. 3 is an elevation of a modified form.

As shown in Fig. 1, the prosthetic device comprises a hollow, virtually cylindrical, thin walled sheath 10 provided with a rounded, closed end portion 11 and an open end 12. The thickness of the walls of the sheath is sufficient to impart adequate rigidity to the sheath at normal atmospheric temperatures, the internal diameter and the length of the sheath being suitable for the intended purposes. Preferably the open end of the sheath terminates in an abutment capable of resting against the body in the pubic region. The abutment may consist of a thickening 13 of the walls of the sheath adjacent the open end. The internal diameter of the device may be uniform or the diameter at the open end may be slightly smaller so as to assist in holding the device in position.

The entire device is preferably made of a non-metallic organic composition of low specific heat and thermal conductivity. By the use of such materials, temperature shock is avoided. Numerous compositions may be employed but in accordance with this invention such compositions should impart rigidity to the sheath at normal atmospheric temperatures and should soften and disintegrate at body temperatures and in the presence of aqueous liquids or other fluids.

Examples of suitable compositions are those including gelatin or other protein substance hardened with formaldehyde, alcohols, dichromate, etc. Hydrocolloid compositions of the glycero-tannate type and reversible gel-forming compositions are also adapted for use in devices of this character. For example, a suitable composition may be made by adding a small amount of formaldehyde to a solution of glycerine and water, pigmenting the solution by the addition of suitable dyes or pigments such as zinc oxide, incorporating granulated gelatin into the heated solution, heating and digesting the mass until a composition of a suitable low melting point is attained, and then molding the devices from the hot liquid mass. It will be found that the cooled

product has a cartilaginous consistency, thereby imparting sufficient strength and rigidity to the sheath with a desirable resiliency. Such composition may include mild antiseptic compounds which are dissolved or liberated in the presence of body fluids or mucosa. Other hydrophilic colloid compounds, such as those containing agar-agar and also containing plasticizing agents (preferably water miscible) may be employed. The precipitating or hardening agents may inculde not only formaldehyde but tannic acid, sulfosalicylic acid, and the like. Waxes may be incorporated into the composition.

As shown in Fig. 3, the sheath may be slotted, the slot 14 preferably extending longitudinally and terminating at a point adjacent the closed end 11 of the sheath. One or more of the slots may be formed, such slots being preferably narrow and provided with rounded edges incapable of causing damage or injury to the mucosa. The slot 14 may extend to the open end of the sheath, interrupting the abutment 13. Such interruption facilitates the application of the device and the removal of the portion of the sheath adjacent the open end which does not readily disintegrate or dissolve during use.

It may also be noted that in actual practice it may be desirable to employ a suitable lubricant, such as an emulsion or cream, within the sheath for the purpose of increasing the rapidity with which the sheath disintegrates, the emulsion or cream exerting a dissolving or disintegrating effect upon the sheath.

Prosthetic devices of the character herein stated may also be made in laminated form. A sheath made from an hydrophylic colloid or from a reversible gel composition may be coated internally and externally with a thin protective film (which may be waxy or unctuous) not only for the purpose of imparting suitable penetrating qualities to the sheath but also to protect the inner, rapidly disintegratable composition until such time as the device is in use.

All changes coming within the scope of the appended claims are embraced thereby.

I claim:

1. A prosthetic apparatus of the character stated comprising: a hollow, virtually cylindrical thin-walled sheath provided with a rounded, closed end portion and an open end, said sheath being normally of cartilaginous strength and rigidity but capable of disintegrating in the presence of fluids at body temperatures.

2. A prosthetic apparatus of the character stated comprising: a hollow, virtually cylindrical thin-walled sheath provided with a rounded, closed end portion and an open end, said sheath being composed of a glycero-tannate composition imparting a cartilaginous strength and rigidity to the sheath at normal atmospheric temperatures, said composition disintegrating in the presence of aqueous liquid at body temperatures.

3. A prosthetic apparatus of the character stated comprising: a hollow, virtually cylindrical thin-walled sheath provided with a rounded, closed end portion and an open end, said sheath being composed of a non-metallic, organic composition having a low specific heat and capable of disintegrating in the presence of aqueous liquid and body heat.

4. A prosthetic apparatus of the character stated, comprising: a hollow, virtually cylindrical thin-walled sheath provided with a rounded, closed end portion and an open end, the open end of the sheath terminating in an abutment, said sheath being normally of cartilaginous strength and rigidity but capable of disintegrating in the presence of aqueous liquid at body temperatures.

5. An apparatus of the character stated in claim 4 wherein the sheath is composed of non-metallic organic composition of low specific heat.

6. A prosthetic apparatus of the character stated, comprising: a hollow, virtually cylindrical thin-walled sheath provided with a rounded, closed end portion and an open end, the open end of the sheath terminating in an abutment, a longitudinal slot formed in the wall of the sheath, said slot terminating adjacent the closed end, said sheath being normally of cartilaginous strength and rigidity but capable of disintegrating in the presence of aqueous liquid at body temperatures.

7. A prosthetic apparatus of the character stated, comprising: a hollow, virtually cylindrical thin-walled sheath provided with a rounded, closed end portion and an open end, a longitudinal slot formed in the wall of the sheath, said slot terminating adjacent the closed end, said sheath being normally of cartilaginous strength and rigidity but capable of disintegrating in the presence of aqueous liquid at body temperatures.

8. An apparatus of the character stated in claim 7 wherein the sheath is composed of a non-metallic organic composition of low specific heat.

9. An apparatus of the character stated in claim 1 wherein the sheath is composed of a composition of low thermal conductivity.

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REFERENCES CITED

The following references are of record in the file of this patent:

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Fraud Orders Nos. 4180, 7418, 5062, and 8453, issued by the Post Office Department, Washington, D. C., on Nov. 6, 1926, Nov. 20, 1928, Jan. 22, 1927, and Nov. 9, 1924, respectively. Copies of said Fraud Orders are available in Div. 55 of the U. S. Patent Office and in the Post Office Department, Washington, D. C.