Feb. 17, 1970 R. S. WALTERS 3,495,588

SURGICAL SPLINT

Filed Sept. 12, 1966

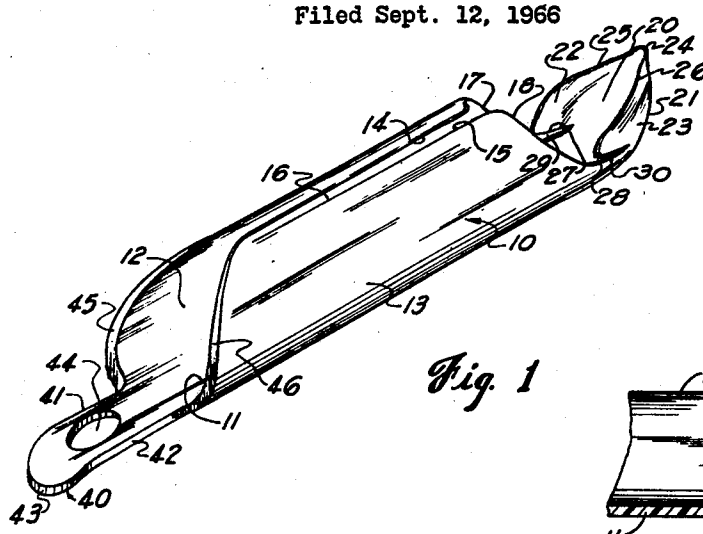


Fig. 1

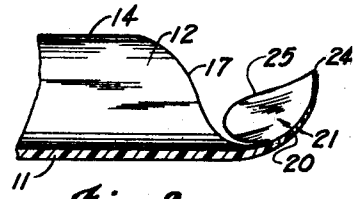


Fig. 2

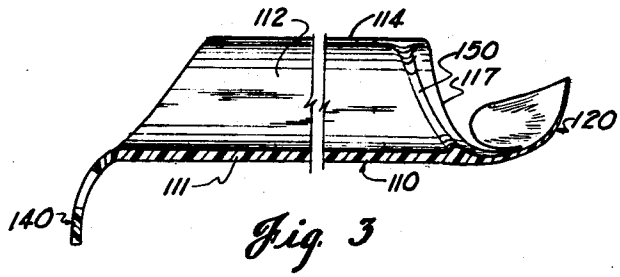


Fig. 3

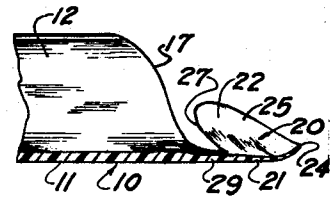


Fig. 4

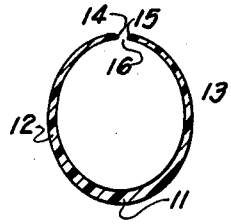


Fig. 5

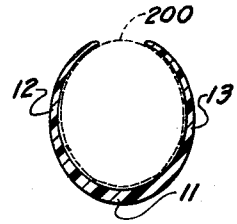


Fig. 6

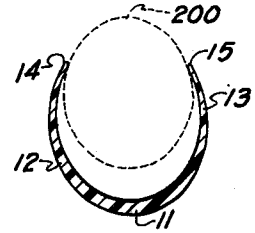


Fig. 7

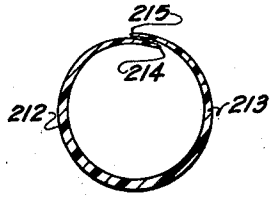


Fig. 8

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SURGICAL SPLINT

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ABSTRACT OF THE DISCLOSURE

A surgical splint formed of a yieldable, firm elastomer and including a hollow tubular shank provided with an axial, open-ended slot along one side thereof, the shank being of an appropriate size to receive the body of the penis. A flexible, extractor tab is provided for removing the surgical splint during copulation without passing the surgical splint over the head of the penis.

This invention relates to a surgical splint and is more particularly concerned with an instrument which will aid during copulation.

It is quite generally known that, as a male advances in age, the ability to perform copulation decreases and during the later years may present quite a problem. In some instances the problem involved is a mental problem, as much as a physical problem. The present instrument is designed as an aid in solving this problem.

The surgical splint itself is formed of a yieldable yet rigid elastomer and includes a hollow tubular central shank which is open at both ends, the shank being an appropriate size to receive the body of the penis. The central shank is also open along its upper edge, being provided with an axial, open ended, slot which permits the sidewise removal of the shank from the penis. At the lower end of the shank is an extractor tab which is flexible, lying generally axially and protruding outwardly from the shank. By means of the extractor tab, the surgical splint is removed during copulation without passing the instrument over the head of the penis.

At the front end of the shank, carried only by a small peripheral edge portion of the shank is the rounded or spherical nose or cap for partially enclosing the head of the penis, the cap being so shaped and sufficiently flexible that it will pivot outwardly, riding along the bottom portion of the penis, as the instrument is simultaneously removed from the penis and extracted from the vagina.

Accordingly, it is an object of the present invention to provide a surgical splint which is inexpensive to manufacture, durable in structure and efficient in operation.

Another object of the present invention is to provide a surgical splint which will enable the ready and easy insertion of the male genitalia into the female genitalia regardless of the condition of erection of the male genital.

Another object of the present invention is to provide a surgical splint which may readily and easily be removed during the act of copulation, without the necessity of removing the penis from the vagina.

Other objects, features and advantages of the present invention will become apparent from the following description when taken in conjunction with the accompanying drawings wherein like characters of reference designate corresponding parts throughout the several views and wherein:

FIG. 1 is a perspective view of a surgical splint constructed in accordance with the present invention;

FIG. 2 is a fragmentary vertical sectional view of the nose portion of the surgical splint shown in FIG. 1;

FIG. 3 is a vertical sectional view of a modified form of surgical splint construction in accordance with the present invention;

FIG. 4 is a fragmentary vertical sectional view similar to FIG. 2 and showing the nose of the surgical splint of FIG. 1 in a pivoted condition such as when the device is being removed;

FIG. 5 is a cross sectional view of the shank of the surgical splint shown in FIG. 1;

FIG. 6 is a view similar to FIG. 5 and showing the device in an installed condition on the penis;

FIG. 7 is a view similar to FIGS. 5 and 6 but illustrating the device as it is being removed from the penis; and

FIG. 8 is a view of still another modified form of the present invention showing the edges of the shank of the prostatic instrument in an overlapped relaxed condition.

Referring now in detail to the embodiments chosen for the purpose of illustrating the present invention, it being understood that, in its broader aspects, the present invention is not limited to the exact details herein depicted, numeral **10** denotes the hollow tubular open ended open sided shank of the surgical splint illustrated in FIGS. 1, 2, 4, 5, 6 and 7. In more detail, the shank **10** includes a lower straight transversely concaved back or base **11**, the side edges of which merge with the edges of the complementary transversely concaved sides **12** and **13** of shank **10**. The sides **12** and **13** curve upwardly and inwardly so as to terminate in straight parallel upper edges **14** and **15** respectively, the upper edges **14** and **15** being rounded in cross section and spaced from each other to define, therebetween, an open ended axially extending slot **16**.

Thus, in cross section, as seen in FIGS. 5, 6 and 7, the shank **10** is a rounded U-shaped member having an inside diameter slightly less than the diameter of an average size penis. Base **11** is relatively thick while the sides **12** and **13** progressively taper toward edges **14** and **15** whereby both the inside and outside surfaces of shank **10** are smooth and the sides **12** and **13** may be resiliently urged apart for purposes to be described hereinafter.

The forward edges **17** and **18** of the complementary sides **12** and **13** curve downwardly and forwardly from the edges **14** and **15**, respectively, and then curve forwardly, adjacent the back **11**.

Protruding forwardly from and carried solely by the back **11** is a nose, head or cap, denoted generally by numeral **20**. The nose **20** includes a back portion **21** which is aligned with the back **11** and normally curves upwardly to terminate along essentially the plane of the upper periphery of shank **10** and the axis of the shank **10**. From the back portion **21** of nose **20**, a pair of curved flexible complementary wings **22** and **23** diverge rearwardly so as to terminate adjacent and in alignment with the lower portions of edges **17** and **18**, respectively. The upper extremity of back portion **21** forms a U-shaped apex **24**, the edge of which merge with the upper edges **25** and **26** of wings **22** and **23**, respectively. The upper edges **25** and **26** extend rearwardly and downwardly from apex **24** and then are curved progressively downwardly and then extend forwardly to join the ends of edges **17** and **18** respectively. Thus, the lower edges **27** and **28** of the wings are formed and define, with edges **25** and **26**, the rear curved lobes of the wings **22** and **23**.

In the normal position of wings **22** and **23**, the lower edges **27** and **28** diverge slightly from edges **17** and **18** to provide V-shaped slots **29** and **30**, respectively. The thickness of nose **20** tapers toward apex **24** and even though the nose is generally spherical or rounded in shape, it is sufficiently thin and flexible for the nose **20** to be pivoted from its transverse position, covering a portion of the head of the penis, to an axial position, as illustrated in FIG. 4, the lower edges **27** and **28** pivoting away from the edges **17** and **18**, respectively, as the nose **20** is pivoted outwardly.

Extending rearwardly from the lower edge of the back **11** is a flexible extractor tab or strap **40**. The tab **40** is normally in alignment with the back **11** and is provided with a pair of opposed parallel side edges **41** and **42** which merge with a semi-circular or curvilinear rear most edge **43** of tab **40**. Within the confines of edges **41**, **42** and **43** is a central hole **44**.

The forward ends of side edges **41** and **42** merge respectively with the rear ends of rear edges **45** and **46** of the sides **12** and **13**, the rear edges **45** and **46** extending upwardly and forwardly and merging with the rear opposed edges **14** and **15**, respectively, of sides **12** and **13**.

In the modification shown in FIG. 3, it is seen, that, if desired, an internal ridge **150** is provided in the instrument of FIG. 1. Otherwise, the surgical splint of FIG. 3 is essentially identical to the surgical splint of FIG. 1. In the embodiment illustrated in FIG. 3, the ridge **150** is a peripheral ridge formed along the inner surface of the sides, such as side **112**, and the back **111** and is disposed rearwardly adjacent and approximately parallel to the leading edges, such as edge **117**. The ridge **150** is convex and integral with shank **10**, extending from edge **114** around the inside surface of shank **10** to terminate at the opposed edge (not shown), the plane of the ridge **150** being angled from the axis of the surgical splint so as to conform generally with the head of the penis. This ridge **150** will enable the surgical splint to be maintained in place on the penis with the head of the penis being confined between the ridge **150** and the head **120** of the device. It will be also noted in FIG. 3 that, if desired, the extraction tab **140** may be curved downwardly so that it may be more readily grasped when it is desired to remove the device.

In the embodiment shown in FIG. 8, it will be seen that the opposed edges **214** and **215** of the opposed sides **212** and **213**, in the relaxed condition of the instrument, may, if desired, overlap. By such an overlapping arrangement, the instrument may be made to fit various sizes of penises.

It will be understood that while, preferably, the surgical splint of the present invention is to be manufactured from a relatively flexible elastomer, such as polyethylene, polypropylene, nylon, a plasticized polyvinylchloride, or the like, the device may also be made from natural or synthetic rubber. A suitable material from which the surgical splint of the present invention may be constructed is known as hospital grade "Tygon" which is supplied as surgical tubing by Stoneware Company of Akron, Ohio. It is a vinyl tubing having the following characteristics:

Color	Clear.
Hardness	Durometer 68.
Tensile strength	2,200 lbs./sq./in.
Flexible @	90° F.
Brittle @	40° F.

Preferably the sides **12** and **13** taper from back **11** so as to terminate in relatively thin edges **14** and **15**. Furthermore, the back **21** of nose **20** is also tapered from the back **11** so as to be flexible and sufficiently rigid for its intended purpose.

In operation, the surgical splint is placed on the penis so that the head of the penis is received in the head **20** and the shank of the penis is received in the tubular cavity defined by the back **11** and the sides **12** and **13**. As illustrated in FIG. 6, when the device is properly installed, it snugly receives the shank **200** of the penis with the sides **12** and **13** being resiliently deflected, slightly outwardly. It is not, a prerequisite, however, that the penis

200 be in an erected condition since, regardless of the condition, the surgical splint itself is sufficiently rigid to enable penetration.

After insertion of the instrument containing the penis **200** into the vagina, the surgical splint may remain in place throughout copulation or be readily and easily removed by pulling rearwardly and downwardly upon the tab **40** or tab **140**, as the case may be. As the surgical splint is simultaneously stripped from the penis and retracted from the vagina, the sides **12** and **13** will be urged outwardly against the yieldable wall of the vagina, as the edges **14** and **15** ride along opposite sides of the penis **200**, whereby the penis **200** passes out of slot **16**, as illustrated in FIG. 7. At the same time, due to the rearward urging of the surgical splint, the nose **20** will pivot outwardly to the position shown in FIG. 4 so as to be essentially coaxial with the shank **10** and thereby permit the nose **20** to pass along the lower portion of the penis.

The hole **44** is sufficiently large that a person's finger may be inserted into it, thereby facilitating the removal of the instrument.

I claim:

1. A surgical splint comprising a unitary hollow flexible and rigid tubular shank composed essentially of an elastomer open at at least one end and open along its side said shank being of an appropriate size and of sufficient flexibility and rigidity to be installed on a penis for imparting an artificial rigidity thereto sufficient for copulation, said shank being sufficiently flexible that said shank may be stripped from said penis during such copulation, the penis passing through the side opening of said shank, said shank includes a back and a pair of opposed sides extending arcuately from opposite sides of said back, said sides having upwardly and forwardly extending edges terminating in straight parallel edges.

2. The structure defined in claim **1** including a pivotable nose protruding from and carried by one end of said shank for receiving the head of said penis, said nose being constructed and arranged to pivot outwardly and ride along one side of said penis as said shank is being removed rearwardly from said penis.

3. The structure defined in claim **2** including an extractor tab secured to the other end of said shank by means of which the instrument may be removed.

4. The structure defined in claim **3** wherein said tab is provided with a hole through which a person's finger may be inserted.

5. The structure defined in claim **2** wherein said nose includes a forwardly and upwardly curved back portion and a pair of opposed wings diverging rearwardly from said back portion and wherein said nose is secured to only the lower portion of the forward edge of said shank.

6. The structure defined in claim **1** wherein said shank includes a transversely curved back and a pair of opposed sides which curve upwardly from said back and extend toward each other, said sides terminating in spaced opposed edges defining an open ended slot.

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L. W. TRAPP, Primary Examiner