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A. P. SCOTT
SURGICAL SPLINT

3,131,691

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FIG. 1

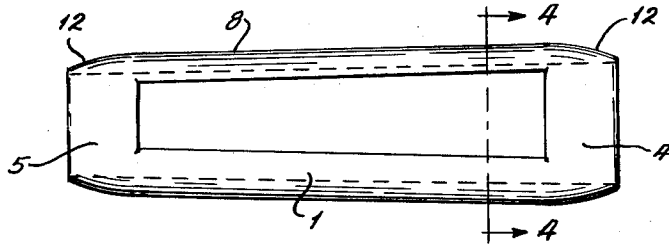


FIG. 2

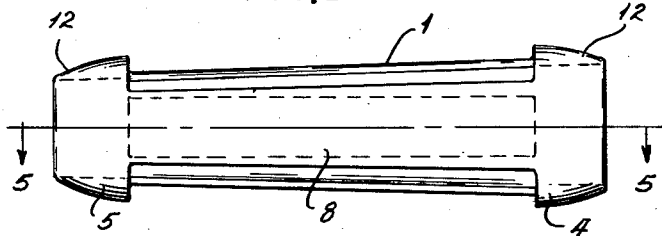


FIG. 3

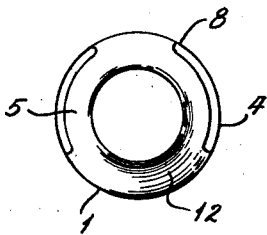


FIG. 4

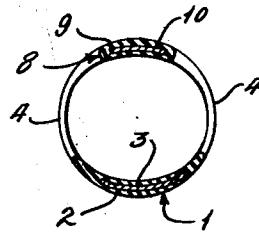
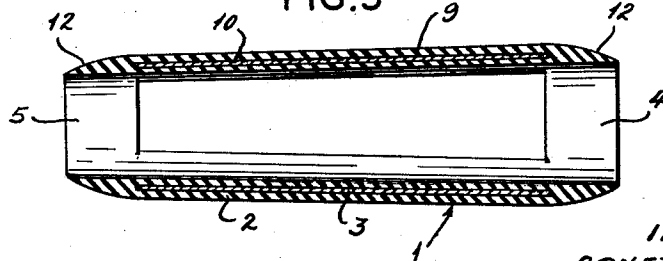


FIG. 5



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This invention relates to a penial appliance of the general nature of the appliances shown and described in United States patents to Hawley, No. 844,798, and Huff, No. 1,585,861.

Devices similar in construction to that of the surgical splint shown in Huff, are in widespread use. However, they are not uniformly satisfactory, failing to give adequate support in many instances, and lacking durability, particularly in the commercially produced band sections. On the other hand, the Hawley device is somewhat cumbersome and difficult to use.

One of the objects of this invention is to provide a penial appliance which is light but so constructed as to provide the necessary rigidity, comfortable but durable, easily put on and taken off, safe and effective.

Other objects will become apparent to those skilled in the art in the light of the following description and accompanying drawing.

In accordance with this invention, generally stated, a penial appliance is provided with a lower, elongate, axially extending cradle, an upper, axially extending strut, and, at the opposite ends of the cradle and strut, circumferentially extending connecting webs, preferably integral with the cradle and strut. The webs are provided with an exterior chamfer at their outer ends so as to make the outer edge of the webs relatively thin and flexible, producing a flutter-valve like arrangement. This permits easy axial movement of the penis relative to the webs in a direction from the center of the device outwardly, and inhibits contraction in the opposite direction.

Both the cradle and strut preferably contain, within a body of soft surgical rubber or a similar smooth, sanitary rubbery material, a rigid reinforcing member, which may be, but need not necessarily be steel, preferably arcuate in transverse cross-section. The struts extend between, but not within the compass of the webs. The cradle is preferably thicker radially and wider circumferentially than the strut. The root end of the appliance is preferably slightly larger in inside diameter than the head end, but both ends are tapered radially inwardly in their outside dimension.

In the drawing,

FIGURE 1 is a view in side elevation of one embodiment of appliance of this invention;

FIGURE 2 is a top plan view of the appliance shown in FIGURE 1;

FIGURE 3 is a view in front elevation of the appliance of FIGURE 1;

FIGURE 4 is a sectional view taken along the line 4—4 of FIGURE 1; and

FIGURE 5 is a sectional view taken along the line 5—5 of FIGURE 2.

Referring now to the drawing for an illustrative embodiment of the apparatus of this invention, reference numeral 1 indicates the cradle of the preferred form of the apparatus. The cradle 1, which, in the embodiment shown, extends through about 120° of arc, has a body

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2 of soft surgical rubber. Imbedded within the body 2 is a concave steel reinforcement 3. A body web 4, at the root end of the cradle 1 and a head web 5, at the head end of the cradle 1, both integral with the cradle 1, connect the cradle 1 with a strut 8, with which they are also integral.

The strut 8, in the preferred embodiment shown, extends, symmetrically with respect to the cradle 1 and diametrically opposite it, through about 60° of arc. The strut 8 also has a body 9 of soft surgical rubber, and contains a concave steel reinforcing member 10, also completely embedded in the soft surgical rubber of which the strut body is composed. The reinforcing member 10, like the reinforcing member 3 of the cradle, does not extend within the compass of either of the webs 4 and 5.

As can be seen particularly from FIGURE 1, the walls defining the inner surfaces of the apparatus are uniformly divergent from the head end to the root end of the device. At both ends, however, the outside surfaces of the webs 4 and 5 are provided with a chamfer 12, which makes the ends of the webs quite thin and flexible relative to the thicker body sections.

It can also be seen, particularly from FIGURE 5, that the cradle section is radially thicker than the strut section.

Simply by way of illustration, but not by way of limitation, in a device of this invention with an over-all length of four inches, the webs can be about 3/8" in axial width, and 1/16" thick at their ends. The steel reinforcing members 9 may be 1/32" thick, 5/16" wide and 3/4" long, curved transversely in substantially the same arc as that of the cradle and strut respectively.

The cradle may be about 1/8" thick; the strut, 3/32".

The internal diameter of the head end of the device can be 3/8", the internal diameter of the body end, 3/4".

It can be seen that the various dimensions can be modified, and should be modified to accommodate the individual who is to use the apparatus.

In operation, the glans penis is passed successively through the openings defined by the body web 4 and head web 5 until the thin end edges of the head web 5 lie snugly behind the glans penis. The cradle 1 should lie below the penis, the strut, along its top. It can be seen that both webs act as kinds of flutter valves, permitting movement in a direction from the center of the device axially outwardly in either direction, but resisting movement in the other direction. The importance of this arrangement will be immediately apparent from its description.

While the "flutter valve" action of the device is of great help in use, it does not make removal of the appliance unduly difficult because the webs are resilient, and inhibit, but do not prevent relative movement, especially in removal after use.

Having thus described the invention, what is claimed and desired to be secured by Letters Patent is:

A penial appliance comprising an elongate cradle adapted to extend along, receive and support the underside of the penis, an elongate strut positioned diametrically opposite said cradle, a circumferentially extending body web at the root end of and integral with said cradle and strut, and a circumferentially extending head web, at the head end and integral with said cradle and strut, said cradle, strut and web being formed of smooth, resilient, rubbery

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material, said cradle being of a greater radial thickness and circumferential width than the said strut, both cradle and strut having a longitudinally extending reinforcing member embedded in them, said reinforcing member extending between but not within the compass of the head 5 and body webs, both of said webs being formed with a substantially cylindrical bore and an outside chamfer to provide a relatively thin flexible outer edge whereby a flutter-valve like action is obtained, said webs defining 10 openings of a size snugly to admit the glans penis.

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References Cited in the file of this patent

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