March 17, 1953 A. GOURSE 2,631,587

CIRCUMCISION CLAMP

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Fig. 1.

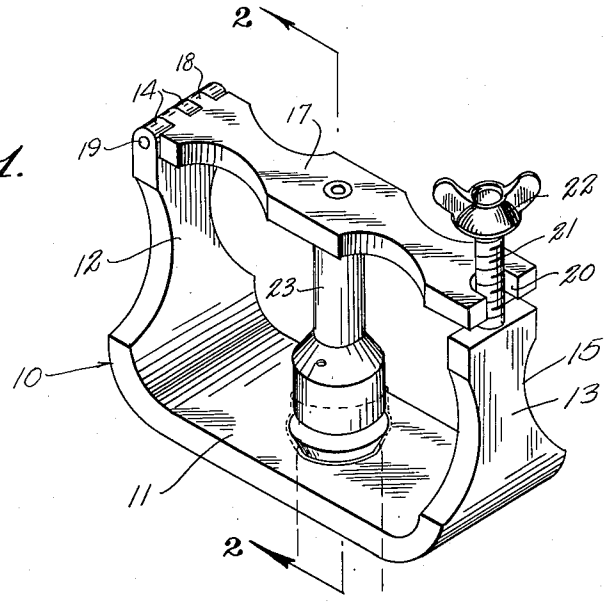
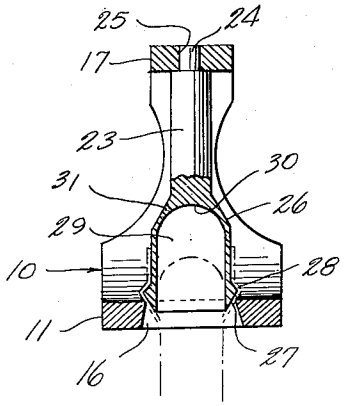


Fig. 2.



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CIRCUMCISION CLAMP

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3 Claims. (Cl. 128—346)

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This invention relates to circumcision clamps and more particularly to a clamp for substantially eliminating haemostasis incident to a circumcision operation.

It is among the objects of the invention to provide an improved circumcision clamp which is easy to apply and can be accurately adjusted to apply the proper pressure to a prepuce clamped therein to avoid hemorrhage upon severing of the prepuce without cutting or tearing of the prepuce by the clamp; which accurately centers the parts of the clamp to avoid the application of uneven pressure to a prepuce clamped therein; which completely protects the glans penis during a circumcision operation and provides a firm guide for the operating knife or scalpel; which is easy to clean and maintain in a sterilized condition; and which is simple and durable in construction, easy to use, and positive and effective in use.

Other objects and advantages will become apparent from a consideration of the following description and the appended claims in conjunction with the accompanying drawing wherein:

Figure 1 is a perspective view of a circumcision clamp illustrative of the invention; and

Figure 2 is a cross sectional view on the line 2—2 of Figure 1.

The clamp comprises a U-shaped frame, generally indicated at 10, provided by a flat bar of elongated rectangular, cross sectional shape bent to form a substantially straight intermediate portion 11 and legs 12 and 13 extending substantially perpendicular from the same side of the intermediate portion 11, one at each end of the latter and disposed in spaced apart and substantially parallel relationship to each other. These legs are of substantially the same length, but the leg 12 is provided at its distal end with a hinge butt formation 14. Both legs are reduced in width by lateral cut outs, as indicated at 15, and the legs extend from one of the wider surfaces of the intermediate portion 11.

The intermediate portion 11 is provided with a substantially centrally located hole 16 which tapers slightly in diameter from the side of the intermediate portion remote from the legs 12 and 13 to the side of the intermediate portion between these legs and provides a substantially sharp angular or circular edge at its smaller end.

A flat lever 17 has at one end a hinge formation 18 pivotally connected to the hinge formation 14 of the leg 12 by a hinge pin 19 extending through registering apertures in the hinge butt formations 14 and 18 and is provided at its other end with a notch 20.

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A screw 21 is secured at one end to the leg 13 at the distal end of this leg and projects longitudinally from the associated leg. This screw is received in the notch 20 of the lever 17 and a wing nut 22 is threaded onto the screw at the side of the lever 17 remote from the intermediate portion 11 of the frame 10 to force the lever 17 toward the intermediate portion of the frame.

A shank 23 is detachably mounted at one end on the lever 17 by having an extension 24 of reduced diameter at one end thereof received in a centrally located aperture 25 in the lever with a precision fit. The shank 23 extends perpendicularly from the lever 17 toward the intermediate portion 11 of the frame and has at its end remote from the lever 17 a bell formation 26. This bell formation has at its distal end an externally beveled annular surface 27, the smallest diameter of which, at the extreme end of the bell formation, is smaller than the smallest diameter of the tapered hole 16 and the largest diameter of which is larger than the smallest diameter of the hole, so that the beveled surface of the bell formation will not pass through the hole 16. Inwardly of the beveled annular surface 27 the bell formation is provided with a complementary annular beveled surface 28, the two surfaces providing a ridge of V-shape cross section extending around the distal end of the bell formation 26. The bell formation includes a cavity 29 of cylindrical shape having an inner end 30 of substantially hemispherical shape and a small aperture 31 extends through the wall of the bell formation near the adjacent end of the shank 23 to connect the inner end of the cavity 29 with the outer surface of the bell formation.

The hole 16 in the intermediate portion 11 of the frame is of a size such that a penis can be drawn through this hole in the frame and will be relatively closely surrounded by the edge at the smaller end of the hole. The cavity 29 in the bell formation 26 is of a size to closely receive the glans penis and the bell formation itself is of a size to be inserted in the prepuce.

In the use of the device with the lever 17 swung away from the bar 10 and out of the way and with shank 23 and bell formation 26 detached from lever 17, the penis is drawn through the hole 16 in the intermediate portion of the frame and the glans penis is inserted into the cavity 29 in the bell formation 26 and the prepuce is drawn over the outside of the bell formation. The distal end of the bell formation is then inserted in the hole 16 and lever 17 is then moved until the extension 24 is received in aperture 25. The nut 22 is then placed on screw 21 and thread-

ed down against the adjacent surface of the lever to apply an accurately controlled pressure to the portion of the prepuce between the edge of the hole 16 and the beveled surface 27 of the bell formation 26. When the proper pressure has been obtained, the prepuce is severed by a knife guided around the smaller end of the hole 16 on the corresponding inner surface of the intermediate portion 11 of the frame. With the proper pressure exerted by the clamp on the prepuce, no hemorrhage will occur when the prepuce is thus severed. The clamp is left in place for a few minutes after the prepuce has been severed and when then removed, no hemorrhage will ordinarily occur, and the incision will heal rapidly and without complications.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is, therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are, therefore, intended to be embraced therein.

What is claimed is:

1. A circumcision clamp comprising a flat U-shaped frame including an intermediate portion provided with a centrally located hole tapering to one side of said intermediate portion and legs of substantially the same length and extending substantially perpendicularly from said one side of said intermediate portion one at each end of the latter, one of said legs having a hinge butt formation at one end thereof, a flat lever having a length substantially equal to the distance between the distal ends of said legs provided at one end with a hinge butt formation pivotally connected to the hinge butt formation on said one leg and having a notch in its other end, a screw secured at one end to the other of said legs at the distal end thereof and extending longitudinally therefrom for reception in the notch in said lever, a nut threaded on said screw and engageable with said lever at the side of the latter remote from said other leg for moving said lever toward the intermediate portion of said frame, and a shank detachably mounted at one end on said lever at a location in alignment with the hole in said intermediate portion and extending substantially perpendicularly from said lever toward the intermediate portion of said frame, said shank having at its end remote from said lever a bell formation having an externally beveled circular end the smaller diameter of which is less than the smaller diameter of the tapered hole in the intermediate portion of said frame and the larger diameter of which is greater than the smaller diameter of said hole and having an internal cavity of substantially cylindrical shape with a substantially hemispherical inner end connected by an aperture in said bell formation to the outer surface of the latter, the hole in said intermediate frame portion being of a size to receive a penis inserted therethrough, the cavity in said bell formation being of a size to receive a glans penis and said bell formation being of a size to be inserted in a prepuce and clamp the latter between the beveled end surface of said bell formation and the edge of said hole at the smaller end thereof.

2. A circumcision clamp comprising a U-shaped frame including an intermediate portion provided with a centrally located hole tapering to one side of said intermediate portion and legs of substantially the same length extending substantially perpendicularly from said one side of said intermediate portion one at each end of the latter, one of said legs having a hinge butt formation at one end thereof, a flat lever provided at one end with a hinge butt formation pivotally connected to the hinge butt formation on said one leg, screw means connected between said lever at the other end thereof and the other of said legs for moving said lever toward the intermediate portion of said frame, and a shank detachably mounted at one end on said lever at a location in alignment with the opening in said intermediate portion and extending substantially perpendicularly from said lever toward the intermediate portion of said frame, said shank having at its end remote from said lever a hollow bell formation having an external beveled circular end surface the smaller diameter of which is less than the smaller diameter of the tapered hole in the intermediate portion of said frame and the larger diameter of which is greater than the smaller diameter of said hole.

3. A circumcision clamp comprising a U-shaped frame including an intermediate portion provided with a centrally located hole tapering to one side of said intermediate portion and legs of substantially the same length extending substantially perpendicularly from said one side of said intermediate portion one at each end of the latter, one of said legs having a hinge butt formation at one end thereof, a flat lever provided at one end with a hinge butt formation pivotally connected to the hinge butt formation on said one leg, screw means connected between said lever at the other end thereof and the other of said legs for moving said lever toward the intermediate portion of said frame, and a shank detachably mounted at one end on said lever at a location in alignment with the opening in said intermediate portion and extending substantially perpendicularly from said lever toward the intermediate portion of said frame, said shank having at its end remote from said lever a hollow bell formation having an external beveled circular end surface the smaller diameter of which is less than the smaller diameter of the tapered hole in the intermediate portion of said frame and the larger diameter of which is greater than the smaller diameter of said hole, said screw means being effective to force said bell formation compressively against the adjacent side of the intermediate portion of said frame to compressively clamp a prepuce between the edge of said hole at the smaller end of the latter and the beveled end surface of said bell formation.

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No references cited.