

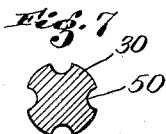
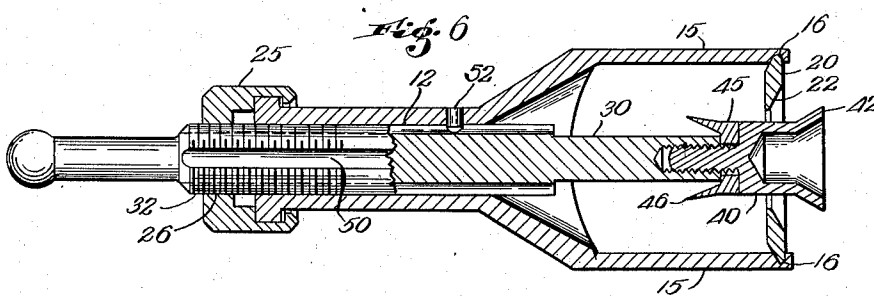
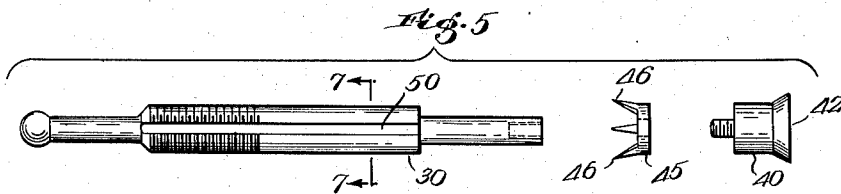
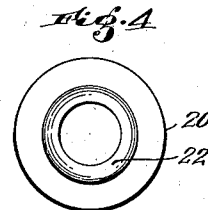
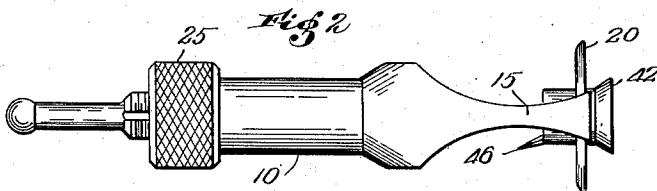
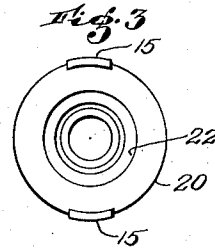
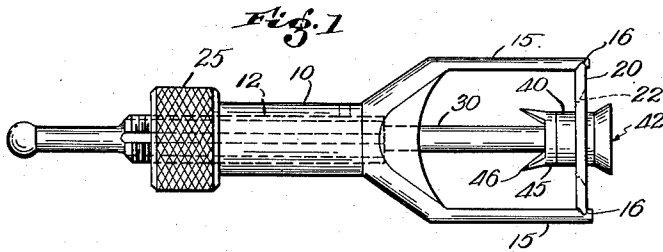
May 31, 1949.

T. P. DE PALO
CIRCUMCISION CLAMP

2,471,864

Filed June 19, 1948

2 Sheets-Sheet 1



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Fig. 8

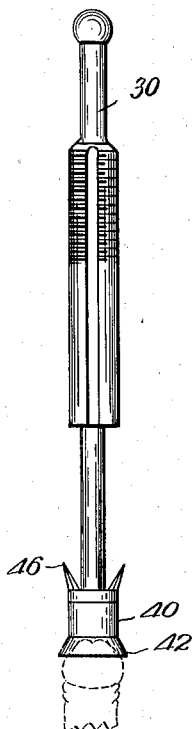


Fig. 9

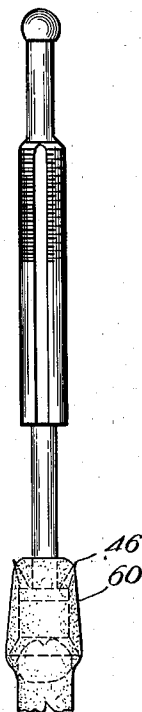


Fig. 10

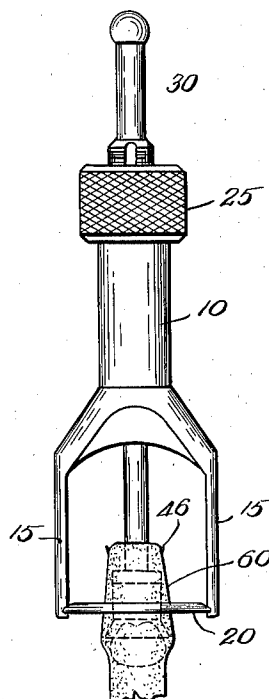


Fig. 11

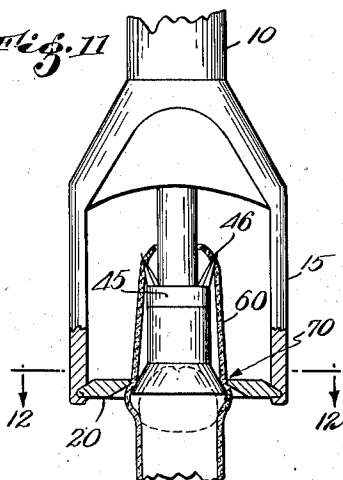
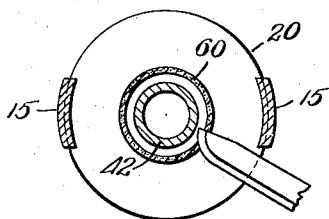


Fig. 12



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UNITED STATES PATENT OFFICE

2,471,864

CIRCUMCISION CLAMP

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Application June 19, 1948, Serial No. 34,023

3 Claims. (Cl. 128—346)

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This invention relates to surgical instruments and more particularly to an improved instrument for clamping the prepuce in the performance of circumcisions.

It is the general object of this invention to provide an instrument for circumferentially clamping the prepuce quickly and efficiently with little or no loss of blood and whereby a neat incision can easily be made. Other objects are to provide such an instrument which is easily cleaned and which has quickly interchangeable clamp elements for performing operations on organs of different sizes. A further object is to reduce the number of operable parts of such an instrument so that it is easily applied and other objects will appear from the description and drawings of a preferred embodiment which is illustrative and not intended to limit the scope of the invention beyond the requirements of the prior art.

In the drawings:

Figs. 1 and 2 are side views of the assembled instrument of the invention taken 90 degrees apart;

Fig. 3 is an end view of Fig. 1;

Fig. 4 is an end view similar to Fig. 3 of one of the parts;

Fig. 5 is an exploded view of some of the parts comprising the structure including one of the clamp elements;

Fig. 6 is a longitudinal substantially sectional view of the assembled instrument taken through its axis;

Fig. 7 is a cross sectional view of one of the parts taken on the line 7—7 of Fig. 5;

Figs. 8, 9 and 10 are side views of the instrument being applied in an operation;

Fig. 11 is an enlarged partial view in detail and partly in section showing the application of the instrument.

Fig. 12 is a cross sectional view along the lines 12—12 of Fig. 11 showing an incision being made in conjunction with the application of the instrument.

My instrument comprises a tubular body portion 10 having an internal conveniently cylindrical passage 12 along an axis thereof, and a pair of clamp element retaining arms 15 on one end thereof, the ends of which are yieldable outwardly or away from the axis of the body portion 10. The arms 15 have a pair of circular ring retaining grooves 16 lying in a common circle concentric to the axis of the body portion 10 and in which is removably and yieldably retained in any circumferential position a ring clamp ele-

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ment 20 which has an internal round partly bevelled and partly cylindrical opening 22 concentric to the axis of the body portion 10. On the other end of the body portion 10 and rotatably loose thereon but immovable axially of the body portion 10 is a nut 25 having internal threads 26. An internal cylindrical clamp element supporting member 30 with external threads 32 is adapted to be introduced through the opening 22 in the ring clamp 20 and slidably into the internal passage 12 of the body portion 10 until its external threads 32 become engaged with the internal threads 26 of the nut 25 whereupon further movement of the supporting member 30 through the passage 12 is imparted by rotating the nut 25. Threadably engaged to one end of the supporting member 30 and lying in the axis of the body portion 10 and opening 22 is an internal clamp element 40 having a circular cross section and a flaring outward cupped end 42 and adapted for receiving within it the glans penis as shown in Figs. 8, 9, 10 and 11, and which cooperates with the ring clamp element 20. A barbed prepuce retaining element 45 having a plurality of sharply pointed barbs 46 pointed angularly in a direction away from the inner clamp element 40 is removably supported on the end of the member 30 and conveniently between it and the clamp element 40 as shown. The supporting member 30 has a plurality of external longitudinal grooves 50 which are adapted slidably to receive a pin 52 in the body portion 10 which protrudes into the passage 12 to prevent relative rotation between the body portion 10 and the clamp element 40 when the clamp elements 20 and 40 have been brought into clamping engagement.

The cup 42 of the clamp element 40 is placed over the glans penis as in Fig. 8. Then the prepuce 60 is drawn over the clamp element 40 and impaled upon the barbs 46 whereby it is thus securely retained in position, Fig. 9. Then the body portion 10, Fig. 10, is placed over the supporting member 30, the latter passing through the ring clamp opening 22 and into the passage 12 until the threads 26 and 32 are engaged. The pin 42 has entered one of the grooves 50 thus preventing relative rotation of the parts 10 and 30 and of the clamp elements 20 and 40. The nut 25 is set up on the threads 32 and the internal clamp member 40 is thereby moved axially relative to the opening 22 in the ring clamp element 20 until the prepuce 60 is clamped with the desired pressure between the internal surface of the ring clamp element 20 and the outer surface

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of the clamp element 40 as shown in Fig. 11. A scalpel can be applied at 70 in a cutting motion circumferentially around the prepuce 60 using the elements 20 and 40 as a guide and resulting in a neat, clean circumferential incision, Fig. 12.

Circumcisions have been very successfully, quickly and easily performed with the instrument of the invention with haemostasis (without loss of blood). The clamp elements 20 and 40 are easily interchangeable for cleaning and to provide clamp elements of various sizes for use with various size organs. The ring clamp element 20 is firmly held between the arms 15 and yet can be quickly snapped in and out of the grooves 16 in any circumferential position of the ring 20 which, however, is fast rotatably relative to the body portion 10 during use of the instrument. By providing a number of longitudinal grooves 50 on the supporting member 30 the instrument can be conveniently and quickly assembled in several convenient rotational positions of the parts. When the instrument is assembled and ready for use there are only two working parts to be handled by the operator and the instrument is therefore simple to use under working conditions.

I claim:

1. A surgical instrument for use in performing circumcisions comprising a tubular body portion having a cylindrical passage along its axis and a pair of clamping ring retaining arms at one end thereof, the ends of said arms being yieldable outwardly from the axis of said body portion and each having a ring retaining groove lying in a circle common to said grooves and concentric to the axis of said body portion, said arms being adapted yieldably to receive and retain a ring clamp element in said grooves, a freely rotatable nut on the opposite end of said body portion, said nut being immovable in either direction longitudinally of the axis of said body portion and having internal threads concentric to said axis, a ring clamp element adapted to be received and retained in said grooves, said ring clamp element having a circular opening concentric to the axis of said body portion, an inner cylindrical clamp element supporting member adapted to pass through said opening and through said passage, said supporting member having threads engageable by said nut, one of said parts having at least one longitudinal groove and the other having a corresponding pin slidable relatively within said groove to prevent relative rotation of said parts, an inner clamp element circular in cross section and cooperating with said ring clamp element and having a flaring outward cupped glans penis receiving end, said inner clamp element being threadably engaged to one end of and supported by said inner clamp supporting member, a barbed, prepuce retaining element between said inner clamp element and said inner clamp supporting member, said inner clamp element being adapted to be moved relatively

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longitudinally of the axis of said body portion and ring clamp opening and through said ring clamp opening and against said ring clamp to clamp a prepuce which has been drawn over said inner clamp element and retained by said barbed prepuce retaining element.

2. A surgical instrument for use in performing circumcisions comprising a hollow tubular body portion having an axial passage therethrough and a pair of clamping ring retaining arms at one end thereof, said arms being adapted yieldably to receive and retain between their ends a ring clamp element, an inner clamp supporting member slidable axially through said axial passage, one of said parts having a plurality of longitudinal grooves and the other having a cooperating pin slidable within one of said grooves and preventing relative rotation of said parts, a ring clamp element adapted to be received and retained in any circumferential position between said arms concentrically with the axis of said body portion and having a circular internal opening concentric to said axis and larger than said inner supporting element, an inner clamp element circular in cross section and cooperating with said ring clamp element and having a cupped flaring outward glans penis receiving end, said inner clamp element being removably engaged to one end of and supported by said inner clamp supporting member, a barbed prepuce retaining element between said inner clamp element and said inner clamp supporting member, said inner clamp element being adapted to be moved relatively longitudinally of the axis of said body portion and through said ring clamp opening to clamp a prepuce which has been drawn over said inner clamp member and retained by said barbed prepuce retaining element.

3. A surgical instrument for use in performing circumcisions comprising a hollow tubular body portion having an axial passage therethrough and a pair of outwardly yieldable clamping ring retaining arms at one end thereof, said arms being adapted to receive and retain between them a ring clamp element, a ring clamp element retained between said arms having a circular opening concentric to the axis of said passage, a clamp supporting member slidable through said passage and said opening, an inner clamp element circular in cross section and cooperating with said ring clamp element and removably supported by said supporting member, concentrically with the axis of said body portion, and having a cupped flaring outward glans penis receiving end, and a barbed prepuce retaining element also supported by said supporting member and adapted to retain a prepuce drawn over the outside of said inner clamp element, and thread means moving said clamp elements relatively together along said axis to clamp said prepuce.

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No references cited.