

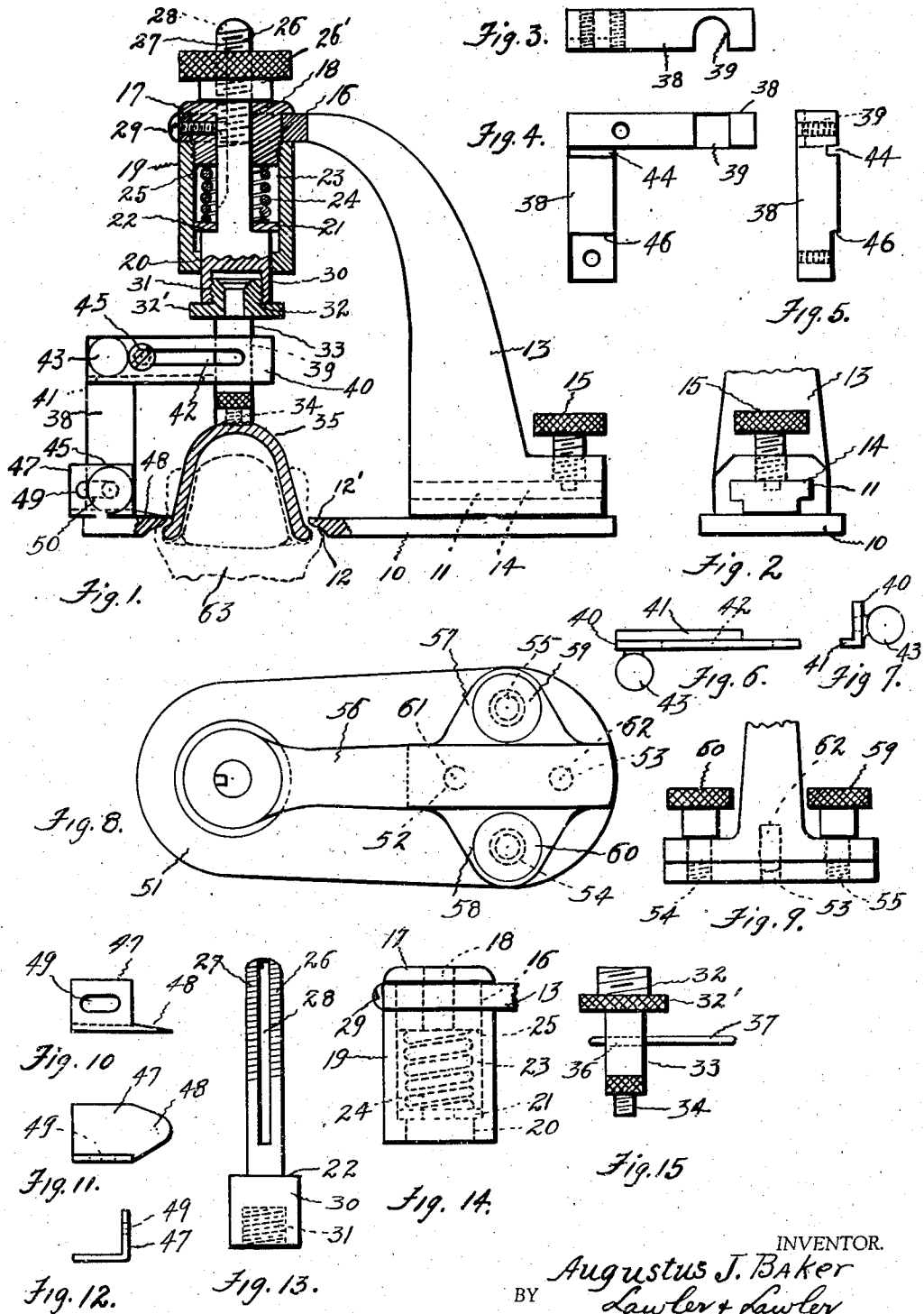
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CIRCUMCISER

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## UNITED STATES PATENT OFFICE

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## CIRCUMCISER

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4 Claims. (Cl. 128—305)

This application is a continuation-in-part of my application Serial Number 399,099, filed June 21, 1941.

This invention relates generally to a surgical instrument commonly known as a circumciser, used in the surgical operation known as circumcision, which consists in removing a portion of the prepuce, leaving the glans penis exposed.

It is an object of this invention to generally improve upon the construction of the circumciser, and to produce a compact, convenient instrument of the kind which will facilitate making the operation more expeditiously.

It is a further object of this invention to provide a circumciser with means to carry a knife circumferentially around the cone or bell that shields the glans penis to sever the prepuce or foreskin at a predetermined plane.

Other objects and advantages reside in certain novel features of construction, arrangement and combination of parts, which will hereinafter be more fully described and pointed out in the appended claims.

Referring to the drawing:

Fig. 1 is a side elevational view of the assembled instrument with portions broken away and in section to illustrate details of structure and to show the relation of the parts of the instrument.

Fig. 2 is a fragmentary end view of Fig. 1, and showing a means for connecting the base with the arm and also the set screw that holds the members in assembled locked position.

Figs. 3, 4 and 5 show details of the knife carrying member.

Figs. 6 and 7 show details of the keeper that is slidably mounted on the knife carrying member.

Figs. 8 and 9 show an alternative form of means for securing the base and arm in assembled relationship.

Figs. 10, 11 and 12 show details of the knife that is adjustably mounted on the knife carrying member.

Figs. 13, 14 and 15 show details of the clamping screw, the spring housing and the removably mounted connecting pin between the clamping screw and the cone or bell shielding member.

Similar reference numerals indicate the same parts throughout the several views of the drawing.

Referring more in detail to the accompanying drawing, 10 is the base member, 11 is a T shaped member fast thereon. 12 is an aperture or hole in the base having a flange 12' to prevent the cone or bell member from passing therethrough. 13 is the arm of the instrument having a recess

14 therein corresponding to the T shaped member fast on the base and adapted to receive the same.

15 is a set screw adapted to hold the base member and arm in locked relationship. 16 is a bore

5 in the arm provided for the reception of the headed screw 17 that passes therethrough and which is provided with a central bore 18 for the reception of the clamping screw 26. 19 is a spring housing tapped to receive the thread in the screw 17, and is held in assembled relationship thereby.

20 is an integral flange in the spring housing and is provided with a bore to receive snugly the enlarged end of the clamping screw. 21 is a washer mounted on the clamping screw and bears against

15 the shoulder 22 of the clamping screw, and slidably fits in the bore 23 of the spring housing. 24

is a helical spring that bears on the upper surface of the washer at its lower end, and at its upper end against the end 25 of the screw 17. 26 is the

20 clamping screw having a portion thereof threaded as at 27, and is longitudinally recessed as at 28 for the reception of the end of the screw 29. 26'

is the clamping nut. The screw 29 may be tapped directly through the arm 13 and the headed

25 screw 17 or into either alone. The screw 29 has a dual function, namely, to hold the headed screw 17 in place, and to prevent the clamping

screw from turning when the clamping nut is manually operated. The clamping screw is provided with an enlarged portion 30, internally

30 threaded as at 31. 32 is a threaded member, swivelled on the connecting pin 33, and is adapted to threadedly engage the internally threaded bore

31 in the enlarged portion of the clamping screw. 35

The flange 32' of the member 32 is knurled to facilitate the removal or replacement of the connecting pin. The connecting pin may be provided with a threaded end as at 34 for the recep-

tion of the penis cone or bell 35. The various cones or bells range in size, the inside diameters being substantially as follows: Number 1—10

40 mm., number 2—12 mm., number 3—15 mm., number 4—20 mm., and number 5—25 mm. The connecting pin may be provided with a through

45 bore 36 for the reception of pin 37 which may be used to hold the connecting pin while detaching the swivelled member from the clamping

screw 26 or detaching the cone or bell from the threaded end of the connecting pin. 38 is the

50 knife carrying arm, and is provided with a U shaped bearing 39 adapted to engage the connecting pin. The pin 33 is positioned within the U-shaped bearing 39 and is retained in position by

the keeper 40 clamped over the open end of the

55 notch. On the knife carrying arm there is pro-

vided a slidably mounted keeper 40. The keeper is provided with a longitudinally extending flange 41, see Fig. 6, and a longitudinally extending slot 42 and a knob 43. The flange slides in the notch 44 in the knife carrying arm, and the flange and the notch cooperate to keep the keeper in alignment on the arm, while the screw 45 is threaded into the knife carrying arm remote from the U-shaped bearing and cooperates with the longitudinally extending slot to hold the keeper in place on the arm and limit the travel of the keeper when moved back and forth on the arm in mounting and removing the same.

46 is a shoulder on the knife carrying arm and is adapted to maintain the knife 47 in alignment thereon. The knife is of right angle configuration and is provided with an extending portion 48 that is sharpened to form the cutting portion of the knife. The knife is provided with a longitudinally extending slot 49 for the reception of the thumb screw 50 mounted in the arm adjacent its lower end, adapted to clamp the knife in adjusted position on the knife carrying arm.

In the variant represented in Figs. 8 and 9, the base member 51 is provided with two apertures extending therethrough as at 52 and 53, and two threaded bores 54 and 55 extending therethrough. Projecting from the arm 56 are two integral lugs 57 and 58, each having a bore therethrough for the reception of a lock screw as at 59 and 60. Projecting from the bottom of the arm, are two fixed pins 61 and 62, adapted to cooperate with the two apertures in the base to accurately position the arm on the base and at the same time to align the bores in the lugs with the threaded bores in the base for the reception of the lock screws that secure the arm and base in assembled position. Otherwise the assemblies may be the same as previously described.

In Fig. 1 the glans and prepuce is shown diagrammatically in place in the instrument in dotted lines as at 63.

The operative technic of circumcision with the use of the instrument herein described is as follows:

The patient is placed on the operating table, the organ is given the usual preoperative treatment with an antiseptic and is then anesthetized. The proper shield is then selected. If the foreskin is irretractable, a dorsal slit is made in the foreskin or prepuce just long enough to allow the prepuce to be stretched over the shield. The shield member is then mounted in the instrument and the instrument is placed over the organ, the prepuce is then pulled up between the base and the shield member then up on the shield member, and when properly positioned, the prepuce is clamped and crushed between the base of the instrument and the shield member thus causing haemostasis over all the blood vessels. The clamp is allowed to remain from three to ten minutes to prevent hemorrhage. The knife carrying arm is then mounted on the connecting pin, and the keeper is then moved to hold the arm in place on the connecting pin. The knife is then adjusted to cutting position, and locked in that position on the arm. The arm member is then rotated around connecting pin 33 as an axis, the knife abscises the

prepuce on an exact line with the top of the base of the clamp. The clamp is then removed, and should sutures be required, the surgeon inserts them where needed.

Altho I have shown and described a specific structure of apparatus and a particular form and relation of the parts thereof I do not desire to restrict myself to the details of form, construction or arrangement as various changes and modifications can be made within the scope of the appended claims.

I claim:

1. A circumcision instrument comprising a base portion, an arm portion, each of the aforesaid portions having an aperture therein, a shielding instrumentality extending into and partly through the aperture in the base and provided with a clamping screw portion that is non-rotatable but axially movable in the aperture in the arm portion, a removably mounted knife, a knife carrying arm attachment removably secured on the clamping screw portion adapted to carry the removably mounted knife circumferentially of the shielding instrumentality, and means on the knife carrying arm attachment for adjusting at will the operable distance of the removably mounted knife with respect to the shielding instrumentality.

2. A circumcision instrument comprising a support consisting of a base portion and an arm portion, each of the aforesaid portions having an aperture therein, a shielding instrumentality extending into and partly through the aperture in the base portion and provided with a removably mounted pin portion, a clamping screw portion non-rotatable but axially movable in the arm portion and cooperating with the pin portion by means of a swivelled threaded member on the pin portion, a clamping nut cooperating with the non-rotatable but axially movable clamping screw portion, a yielding means normally moving the shielding instrumentality with its cooperating members downward in the base, a removably mounted knife, a knife carrying arm attachment removably secured on the pin portion for carrying the knife circumferentially of the shielding instrumentality, and means to adjust the knife on the knife carrying arm attachment relative to the shielding instrumentality.

3. The structure of claim 1 comprising interlocking means to hold the arm portion on the base portion, said interlocking means consisting of a slot-engaging element on the base portion and a complementary receiving slot in the arm portion, and a set screw to lock the interlocking means in predetermined position.

4. The structure of claim 1 comprising interlocking and positioning means to hold and align the arm portion on the base portion, said interlocking and positioning means consisting of a plurality of set screws and positioning pins, the positioning pins being fast in the arm portion and engaging complementary receiving bores in the base to definitely position the base portion relative to the arm portion before inserting the set screws in the arm portion and screwing them into the base portion.

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