

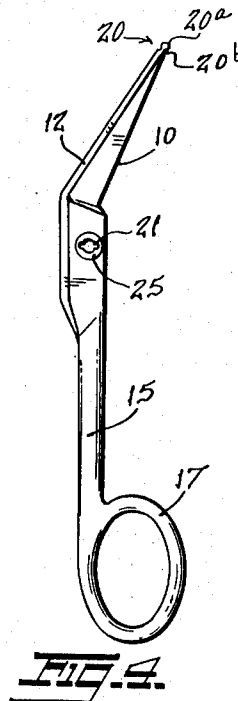
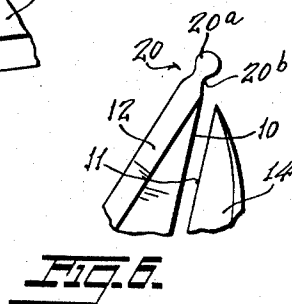
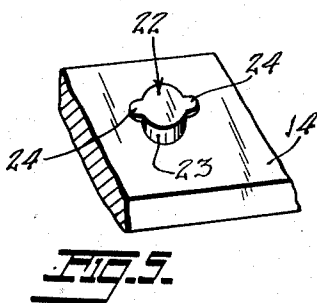
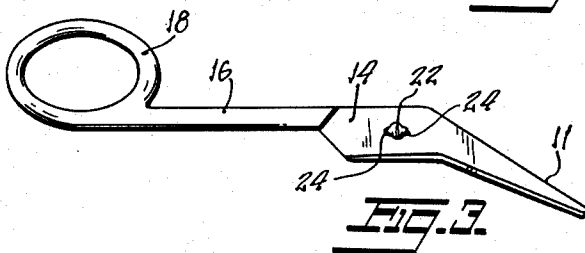
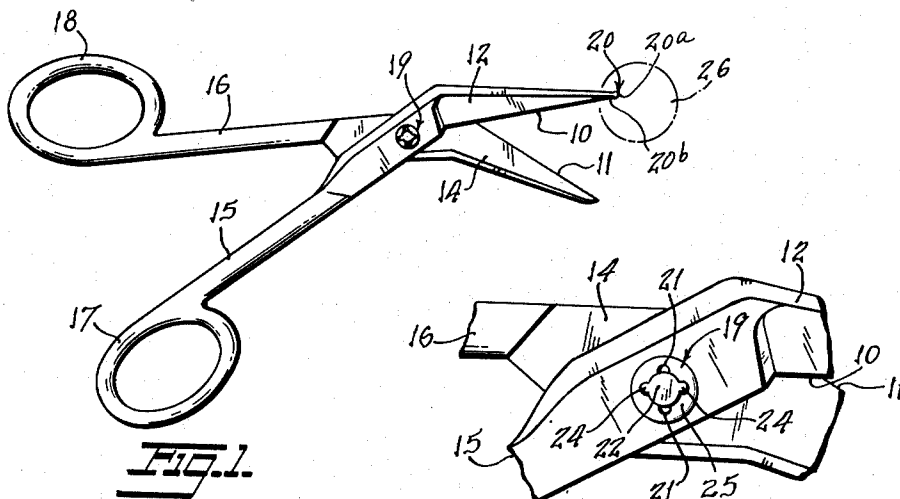
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SCISSORS WITH PROBE USED FOR CIRCUMCISION

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SCISSORS WITH PROBE USED FOR
CIRCUMCISION

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3 Claims. (Cl. 128—318)

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This invention relates to new and useful improvements in surgical instruments and, more particularly, the aim is to provide a novel and valuable surgical instrument of the scissors type adapted especially for use in performing such a surgical operation as that of circumcision.

An object of the invention is to provide such an instrument and one comprising merely two parts, additional to the elements present for pivotally operatively connecting said two parts, and yet an instrument which may be employed for the purpose stated, quickly, efficiently and hence substantially painlessly, yet always safely, that is in a way certainly to avoid any chance of an accidental incision at any point and in regard to any tissue not intended to be cut.

In performing the operation for which the present improved instrument is provided the prepuce must be severed from the bell-shaped structure known as the glans or crowns at the anterior part of the main member and there must be removed not only the prepuce or foreskin but also what is actually a part of the prepuce but which is a very thin elastic covering over the glans. This covering is commonly referred to as the mucous membrane.

The severing of the prepuce is most safely effected when the cutting instrument is one of the clipping or scissors type. Immediately before cutting the prepuce fully to remove the same the ordinary procedure is first to draw back the prepuce to beyond the basal limits of the glans, and then lift the mucous membrane so as visually to make certain that it is not in the urinal outlet. As these steps have been practiced, the thumb nail and the index finger of a hand have been used preliminarily to lift the membrane and then the cutting instrument, as a small pair of scissors, is inserted under the hand-lifted membrane to assist in further lifting of the latter so as to facilitate the just referred to visual inspection to be preparatorily made; and, with the situation thus seen, found to be satisfactory, the severing cut is made. Finally, the membrane is opened and rolled back over the glans.

The thumb nail lifting as described above is unsanitary and there is danger of bruising or otherwise injuring the delicate body parts having to be handled. The use of a separate probing instrument is awkward and delays unnecessarily an operation which should be speedily completed.

According to the present invention, a pair of scissors is provided which, comprising merely two parts as aforesaid, nevertheless incorporates

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a probe, and one of such shape, size and extension as to obviate the objections just above set forth and to obtain all the objectives hereinabove earlier stated.

The new probe is extended from what would ordinarily be the pointed end of one of the scissors blades, and it is used for lifting the prepuce before cutting, and, for lifting the membrane for inspection as above. Since the probe is integral with a scissors blade and is of smoothly rounded exterior, yet of relatively small dimension in any direction through its thickness, its presence allows one of the blades of the scissors to be easily and quickly inserted between the prepuce and glans with absolute insurance, however, that no piercing action can accidentally occur, and also without uncomfortably stretching the prepuce away from the glans. In this connection some of the problems having to be met is that sometimes the prepuce is loose and the mucous membrane is drawn very tight relative to the glans; sometimes the reverse of the last-mentioned situation exists; and in certain cases the prepuce covers the glans in an abnormal manner.

For easy cleaning and sterilization of the entirety of the new instrument, the means for pivotally connecting the two parts or members of the instrument are of the so-called French style take-apart type.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a view showing a now preferred embodiment of the new surgical instrument, with the same illustrated in use at its probe component relative to a prepuce schematically indicated in dot and dash.

Fig. 2 is an enlarged fragmentary detail view of the portion of the instrument where its two blade and handle carrying members or parts are pivoted together by a pivotal connecting means such as last above referred to.

Fig. 3 shows one of said two members or parts detached.

Fig. 4 shows the other of said two members or parts detached.

Fig. 5 is an enlarged fragmentary detail view showing in perspective the stud or post member seen in top plan in Fig. 3 and constituting the

male element of the take-apart connecting means.

Fig. 6 is an enlarged fragmentary detail view of the end portions of the blades.

The surgical instrument, according to the present invention, is of the scissors or snipping type and includes a pair of cooperant cutting edges 10 and 11 each carried along one end portion of one of two main parts or members 12 and 14.

Each of these main structures 12 and 14 at its opposite end is shaped to present one of a pair of handles 15 and 16, each terminating as herein shown in an eye-like receptor 17 or 18, one for the thumb and the other for a finger on the same hand of the person performing the operation.

In said illustrative embodiment, the cutting edge 10 is extended along a line at an obtuse angle to the direction of elongation of the handle portion 15, and the cutting edge 11 is also extended along a line at an obtuse angle to the direction of elongation of the handle portion 16. These angular relations, however, are such that the cutting edge 10 may be said to be extended along the general direction of extension of the handle portion 15 and the cutting edge 11 may be said to be extended along the general direction of extension of the handle portion 16.

Featured in said illustrative embodiment is a means for pivotally connecting the two main parts 12 and 14 which is of the French style male and female slotted take-apart type. This means, later to be described in detail, is as a whole designated 19 in Figs. 1 and 2.

Rigidly carried at the free or outer end of one of the main parts 12 and 14 is a probe member 20 of varying circular cross-section pursuant to the invention. In the present case, the probe member is shown as being a part of the main member 12. The probe member 20 has at its free end a ball-shaped outer end portion 20^a, and has a root end formed as a reduced neck portion 20^b, joined to the ball-shaped outer portion, see particularly Fig. 6. At the same time, the probe member 20 is of rather minute length, that is, having a length such that its efficacy, as a probing or tissue lifter, is about the equivalent of that of a finger-nail of the average well-manicured hand.

Preferably, as shown, the probe member 20 is arranged so that longitudinally it is an obtuse angle relative to the cutting edge 10, and substantially parallel to the back edge of the main part 12.

The pivotal connecting means 19 incorporates a slot at opening 21 through one of the two main parts, as the main part 12 (as herein shown), and a stud or post 22 rigidly offset from the other of said main parts, here the main part 14.

Said post has a main cylindrical portion 23 projected above the main part or member 14 to an extent equal to the thickness of the main part or member 12 at the location of the opening 21. Above the upper limit of said portion 23 the post 22 has a top formation shaped to include a pair of oppositely located outwardly offset ears 24.

The opening 21 is of an outline corresponding to the top outline of the post 22, except for a difference clearly to be seen from a comparison of Figs. 3 and 4; that is, whereas the ears 24, 24 are in a line substantially perpendicular to the general direction of extension of the main part 12, the corresponding portions of the opening 21 are in a line substantially parallel to the general

direction of extension of the main member 14. In this connection, that is, as to said portions of the said opening, note Fig. 2.

Consequently, with the parts coupled as in Fig. 2, the handles 15 and 16 may be moved toward and away from each other, to make a snipping cut at the edges 10 and 11 and then again to separate said edges, without any chance of disabling the pivotal means 19. Yet when it is desired bodily to separate the two main parts 12 and 14, as for thorough cleaning and sterilization, or to resharpen either or both of the edges 10 and 11 with maximum facility, all that is necessary is to arrange the handles 15 and 16 so that the general direction of extension of one is substantially perpendicular to the general direction of extension of the other. Then the ears 24 will register with the portions of the opening 21 seen in Fig. 2 and hence will be able to pass through said portions, thus to allow bodily separation of the two main parts 12 and 14.

A wear plate 25, as one of extremely hard metal, is desirably fixedly embedded in the main member 12 at the location of the opening 21; for being engaged by the undersides of the ears 24 as they swing back and forth along arcuate paths of travel in use of the instrument for severing tissue projected between the cutting edges 10 and 11 with the latter divergently separated.

In Fig. 1 is illustrated a typical relationship between the cutting end of the instrument and a prepuce, this indicated at 26, just prior to the commencement of an automatically perfectly safeguarded cutting operation on the latter, that is, following a lifting thereof by, and the insertion thereunder of, the probe member 20.

While I have illustrated and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. As an improved article of manufacture, a scissors or snipping type surgical instrument incorporating two main members pivotally connected together, each of said members at one end portion carrying a cutting blade and at its other end portion carrying one of a pair of handles, said instrument also incorporating a probe member permanently rigidly carried by one of said blades at the free end thereof, said probe member being elongated and arranged so that longitudinally it is at an obtuse angle relative to the cutting edge of said last-named blade, said probe member comprising an outer ball-shaped portion and an inner reduced neck portion.

2. As an improved article of manufacture, a scissors or snipping type surgical instrument incorporating two main members pivotally connected together, each of said members at one end portion carrying a cutting blade and at its other end portion carrying one of a pair of handles, said instrument also incorporating a probe member permanently rigidly carried by one of said blades at the free end thereof, said probe member being elongate in the general direction of length of the last-named blade and having a smoothly rounded lateral and outer free end configuration.

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3. As an improved article of manufacture, a scissors or snipping type surgical instrument incorporating two main members pivotally connected together, each of said members at one end portion carrying a cutting blade and at its other end portion carrying one of a pair of handles, said instrument also incorporating a probe member permanently rigidly carried by one of said blades at the free end thereof, said probe member being elongate in the general direction of length of the last-named blade and being substantially of varying circular cross-section from its root end to the end of a ball-shaped portion at its free end.

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