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H. H. HARRIS
SURGICAL INSTRUMENT
Filed Aug. 28, 1931

1,918,700

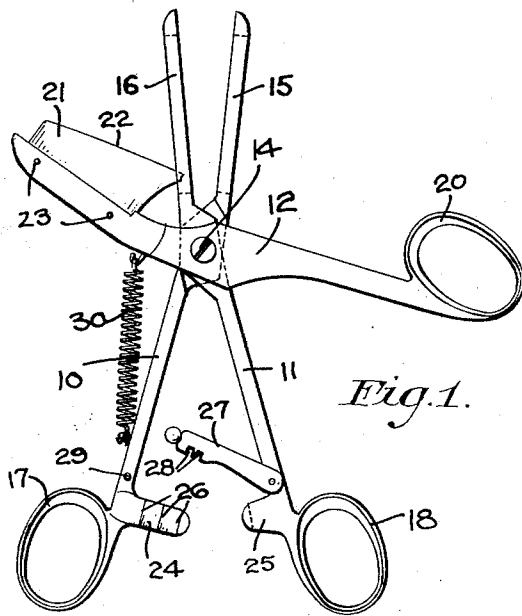


Fig. 1.

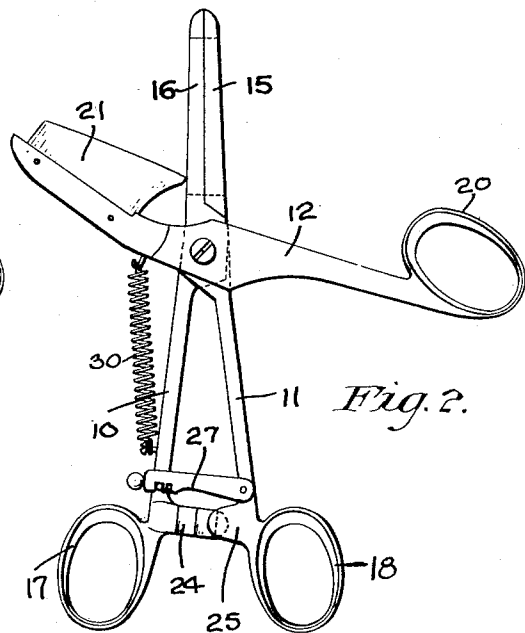


Fig. 2.

Fig. 6.

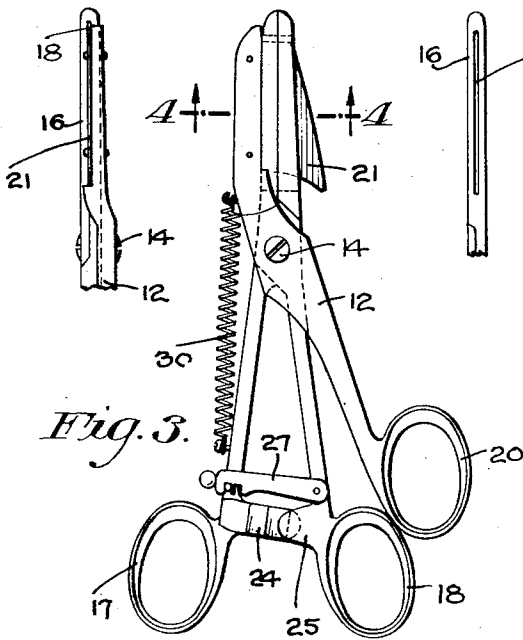


Fig. 3.

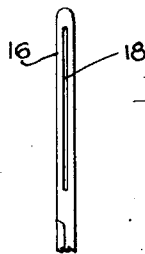


Fig. 5.

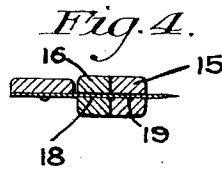


Fig. 4.

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SURGICAL INSTRUMENT

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This invention relates to surgical appliances and more particularly to improvements in instruments such as are employed in the operation of cutting off or removing the fore-skin.

brought into contacting engagement with each throughout their entire length.

The operating shanks of the members 10 and 11 are respectively provided with thumb and middle finger grips 17 and 18, it being apparent that upon pressing these grips together the jaws 15 and 16 will be moved into flatwise engagement with each other. As appears most clearly in Figures 4 and 5, the jaws 15 and 16 are respectively provided with elongated slots 18 and 19, these slots being adapted for registry with each other when the jaws are brought together so as to provide in effect a narrow slot extending commonly through both jaws 15 and 16.

The auxiliary member 12 is also provided with a grip 20 (for accommodating the index finger of the operator), the opposite extremity thereof being suitably equipped with a blade 21 having a sharp cutting edge 22. This blade 21 may be permanently fastened to the member 12, as by rivets 23, or it may be removably secured thereto to facilitate the ready replacement of a new blade for an old one. It will be understood that the member 12 is so designed relatively to the members 10 and 11, that the blade 21 lies in the common plane of the slots 18 and 19 and is adapted to pass freely there-through upon proper actuation of the grip 20. It will also be observed that the cutting edge 21 of the blade is so designed that a shearing action is had as the blade traverses the closed jaws 15 and 16.

The operating shanks of the members 10 and 11 are respectively provided adjacent the grips 17 and 18 thereof with lugs 24 and 25, the lug 24 being suitably serrated to provide several shoulders 26 with any one of which the toothed lug 25 may be interlocked. In addition to this interlocking means for maintaining the members 10 and 11 in the relation shown in Figure 2, the member 11 may be provided with a pivoted detent 27 the free end of which is notched, as at 28, for engagement with a pin 29 on the member 10. A coil spring 30 interconnects the member 10 and the blade-equipped member 12, the purpose of this spring being to normally maintain the blade in inoperative

Whenever it is necessary to perform a circumcision or any other operation requiring the removal of a thin layer of skin or tissue, exceeding care must be taken to insure against too deep an incision and it is among the principal objects of this invention to provide an instrument which facilitates the ease with which such operations may be made and which lessens considerably the usual dangers attending the same.

The invention consists substantially in the combination, construction, location and relative arrangement of parts, all as will appear more fully hereinafter, as shown in the accompanying drawing and as finally pointed out in the appended claims.

In the said accompanying drawing:—

Figure 1 is a view of the instrument in open condition ready for use;

Figure 2 is a view of the instrument with the pincers thereof brought together and the cutting element ready to be actuated;

Figure 3 is a view similar to Figure 2 but showing the position of the cutting element at the end of the cutting stroke;

Figure 4 is a sectional view taken on the line 4—4 of Figure 3;

Figure 5 is an edge view of the upper portion of one of the pincer elements; and

Figure 6 is an edge view of the upper portion of the instrument as it appears upon looking toward the left-hand side of Figure 3.

Referring now more particularly to the drawing, it will be seen that the instrument, as constructed in accordance with the principles of the present invention, comprises a pair of members 10 and 11 and an auxiliary member 12, all of these members being pivotally secured together, intermediately the extremities thereof, by a pin 14. It will be observed that the members 10 and 11 are connected together in such manner and are relatively so designed that the elongated jaws 15 and 16 thereof are adapted to be

position and at the same time provide a steadying tension to the member 12 during the actuation thereof.

In practice, the operator usually presses the jaws 15 and 16 together by means of his thumb and middle finger, the skin or tissue to be sheared off being clamped between the jaws in such manner as to overlie the slots 18 and 19. The members 10 and 11 are then locked together as described above and the operator, by means of his index finger and against the action of the spring 30, then draws the grip 20 into the position shown in Figure 3 with the result that the blade 20 shears through and so cuts off the skin or tissue which it is desired to remove.

What is claimed as new and useful is:—

1. In a surgical instrument of the character described, in combination, a pair of main members pivotally secured together immediate the ends thereof, each of said members being provided with a jaw having an elongated slot therein, means for actuating said members whereby to effect a contacting relation between said jaws with the slots therein in registry with each other, and an auxiliary member pivotally secured to said main members and equipped with a shearing blade adapted to be projected

through said slots upon actuation of said auxiliary member.

2. In a surgical instrument of the character described, in combination, a pair of clamping jaws respectively provided with elongated slots adapted to be brought into alinement with each other upon actuation of said jaws, means for actuating said jaws to present the same in clamping relation, and a shearing blade operatively associated with said clamping jaws and adapted to be projected through said alined slots.

3. In a surgical instrument of the character described, in combination, a pair of clamping members arranged in tong-like relation, said members being respectively provided with slotted clamping jaws, and a pivoted blade-equipped member operatively associated with said clamping members, said member being adapted upon actuation thereof to project the blade through the slotted clamping jaws.

4. A surgical instrument of the character defined in claim 3 including spring pressed means for maintaining said blade-equipped member in normally inoperative position.

5. A surgical instrument of the character defined in claim 3 including quick-detachable locking means for maintaining said clamping members in interlocked relation.

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