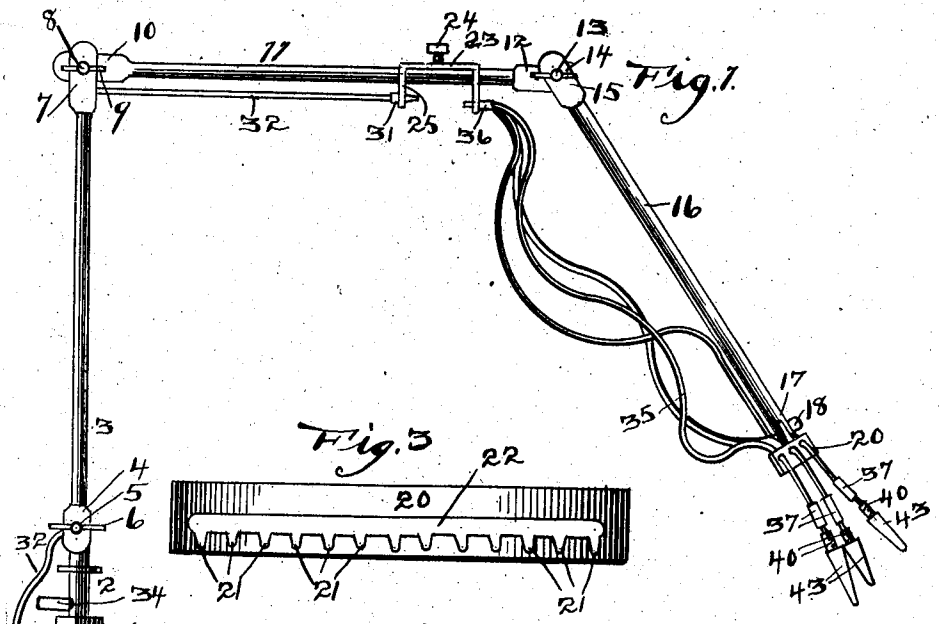
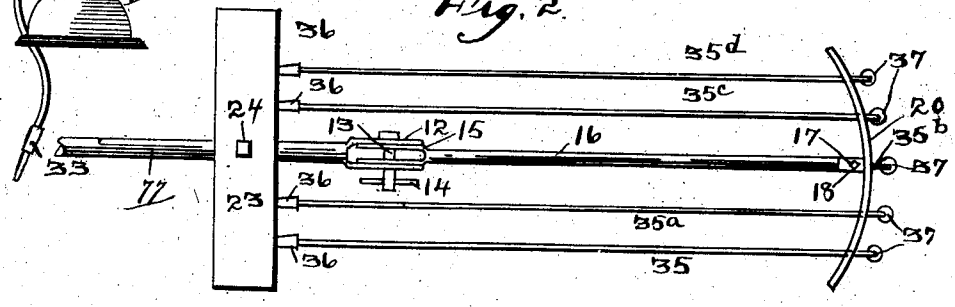
No. 839,268. PATENTED DEC. 25, 1906.

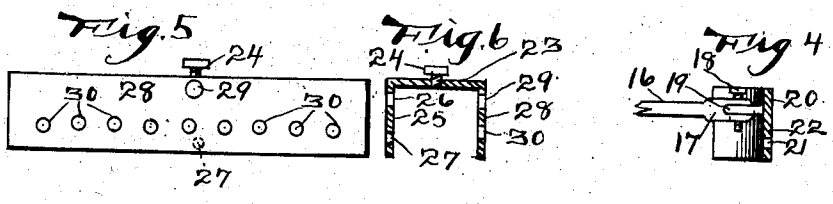
W. R. BURCH.

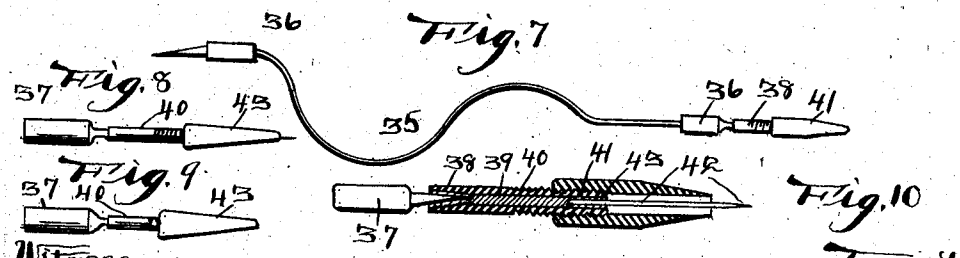
SUPPORT FOR SURGICAL NEEDLES.

APPLICATION FILED JULY 14, 1905.









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SUPPORT FOR SURGICAL NEEDLES.

No. 839,268. Specification of Letters Patent. Patented Dec. 25, 1906.

Application filed July 14, 1905. Serial No. 269,651.

To all whom it may concern:

Be it known that I, WILLIAM R. BURCH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Supports for Surgical Needles, of which the following is a specification.

This invention relates to supports for surgical instruments used in connection with electricity for various purposes, more particularly surgical needles for the removal of superfluous hair and blemishes of other character on the face or body of patients.

The objects of the invention are to construct a support that will enable a plurality of needles to be operated simultaneously, thereby increasing the amount of work done and decreasing the length of time under which the patient is subjected to treatment; to furnish a sectional support carrying the needles and the cord or other conductor by which the electric current is transmitted to the needles; to provide the support with a cross-head having a plurality of holes for receiving the several conducting wires or cords for the plurality of needles, which cross-head can be swung to varying positions, as required for the use of the needle; to provide a cross plate or head for the attachment of a plurality of conducting wires or cords for a plurality of needles and receiving the electric current from the sectional support for transmission to each needle, and to improve generally the construction and arrangement of the several elements entering into the formation of the support as a whole. The invention consists in the features of construction and combinations of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of the complete support with a plurality of surgical needles carried thereby; Fig. 2, a top or plan view showing the outer section and a part of an intermediate section of the support with the cross-plate and cross-head and the conducting cords or wires and needles; Fig. 3, a front face elevation of the cross-head carrying the conducting cords or wires for the surgical needles; Fig. 4, a detail partly in section, showing the pivotal connection of the cross-head to the outer section or arm of the support; Fig. 5, a front face elevation of the cross-plate for attaching the receiving end of the conducting cords or wires for the needles; Fig. 6, a detail in cross-section of the plate shown in Fig. 5; Fig. 7, a plan view showing one of the conducting cords or wires and the needle; Fig. 8, a view of the needle, showing the protecting-tip withdrawn to expose the point of the needle; Fig. 9, a similar view to Fig. 8, showing the protecting-tip advanced to cover the point of the needle; and Fig. 10 a sectional view of the needle.

The support is constructed of a base 1, extending up from which is a post or standard 2, to which is pivoted an arm or section 3 by means of a fork or ears 4, entered onto the end of the post and held in place by a pin or pivot 5, through which passes a cross-pin 6 for holding the pin or pivot in place. At the outer end of the arm or section 3 of the support is a fork or ear 7, through which passes a pin or pivot 8, having a cross-pin 9, which pin or pivot 8 passes through an ear or fork 10 of an arm or section 11 of the support, and the arm or section 11 at its outer end has a fork or ear 12, which is connected, by means of a pin or pivot 13, having a retaining cross-pin 14, to an ear or fork 15 on an arm or section 16 of the support. The several arms or sections of the support can be swung on the several pins or pivots, so that the arms or sections can be raised and lowered in proper position to bring the outer arm or section 16 in correct relation to the patient for operating the needles.

The outer end of the arm or section 16 has ears 17, through which pass a pin or pivot 18, pivotally connecting an ear 19 to the end of the arm or section 16, and the ear 19 projects out from a cross-head 20, having in its body a plurality of holes 21, which, as shown in Fig. 3, are connected by a longitudinal slot 22, so that a conducting cord or wire can be raised from one hole 21 and placed in an adjoining or another hole 21, as may be required to properly locate the needle in relation to the place of operation on the patient.

The arm or section 11 of the support in the construction shown has mounted thereon a cross-plate 23, which can be adjusted on the arm or section and when adjusted locked in position by a set-screw 24 or other suitable means. The cross-plate at its rear side has a depending ear or wall 25, in which is a hole 26 for the passage of the arm or section 11 of the support and also has a hole 27 for the reception of a main conductor or wire for an electric current. The cross-plate 23 has a depending front wall 28, in which is a central opening 29 for the passage of the arm or sec-

tion 11 of the support and also has a plurality of holes 30, each hole adapted to receive the plug of a conductor leading to a needle, as many holes 30 being provided as required for the placement of the number of conducting cords or wires for the needles used. A plug 31 is entered into the opening or hole 27 of the depending plate or wall 25, and this plug 31 is on the end of a conducting cord or wire 32, the other end of which has a plug 33 for connecting the conducting cord or wire 32 with a source of supply for an electric current, so that the current will be conducted to the cross-plate 23 and be transmitted from the cross-plate through the conducting cords or wires to the several needles. The construction shown has the arm or section 3 in the form of a tube, and the main conductor or wire 32 for the electric current is passed up through this tube and out therefrom to the cross-plate 23 for the electric current to pass onto the cross-plate; but instead of having the main conductor 32 pass up through the arm or section 3 the plug 31 of such cord could be entered into a socket 34 on the standard or upright 2 or on the base 1, in which case the support becomes a main conductor through the arms or sections 3 and 11, which are made of suitable metal or conducting material.

Each needle is to have a conductor for an electric current connected therewith, and these conductors 35, 35^a, 35^b, 35^c, and 35^d each have a connecting-plug 36, which is entered into one of the holes 30 of the cross-plate 23, so as to receive and conduct the electric current from the cross-plate to the needle of the respective cords or wires. The outer end of each conducting cord or wire 35 has a plug 37, which is entered into a socket 38 of a conductor 39, which is surrounded or incased by a shell or tube of non-conducting material, such as vulcanized rubber, vulcanized fiber, wood, or any other material having non-conductive property. The opposite end of the conductor 39 to the socket 38 has a socket 41, into which is entered a needle 42, and this needle is encircled or surrounded by a tip or guard 43, threaded onto the tube 40 and also made of any suitable non-conducting material, such as vulcanized rubber, vulcanized fiber, porcelain, wood, or other suitable material. The tip or guard 43 is adjustable on the tube 40, so that it can be receded, as shown in Figs. 8 and 10, to expose a greater or less length of the needle-point or can be advanced, as shown in Figs. 7 and 9, so as to cover and protect the needle-point.

The operation is as follows: The cross-head 20 is adjusted in proper position for the application of the needle or needles to the patient at the required point of treatment. The needle or needles is or are inserted beneath the skin or otherwise placed, according to the nature of the desired treatment, and the tip or guard for the needle is adjusted so as to give a projection for the needle-point of the required length for insertion and use. The first needle and the remaining needles are inserted successively, and by this means the needles can be kept at work continuously, as by the time the last needle is inserted the first needle can be withdrawn and reinserted in another place, thus making the treatment practically continuous and reducing the length or time during which the patient is under treatment. The support can be manipulated as required and in addition to carrying the needles and the current-transmitting cords or wires for the needles furnishes a conductor either by itself or through a main conductor cord or wire, by which the electric current is transmitted from the source of supply to the needles. The support can be mounted on a stand or table or otherwise secured in position for use and furnishes the carrier for the needles and also the conductor for the electric current.

What I claim as new, and desire to secure by Letters Patent, is—

1. A support for a surgical needle, comprising a base, a post upwardly extending from the base, swinging arms pivotally connected to each other and pivotally carried by the post, the arms furnishing an adjustable support for the conductor of an electric current, a cross-plate mounted on one of the swinging arms and adapted for connection with a main conductor for an electric current and serving as a distributer for said electric current, and a cross-head carried by the outer swinging arm and adapted for the suspension therefrom of a conductor of an electric current for a surgical needle, said conductor receiving its electric current from the main conductor at the cross-plate, substantially as described.

2. A support for a surgical needle, comprising a base, a post upwardly extending from the base, swinging arms pivotally connected to each other and pivotally carried by the post, the arms furnishing an adjustable support for the conductor of an electric current, a cross-plate mounted on one of the swinging arms and adapted for connection with a main conductor for an electric current and serving as a distributer for said electric current, and a cross-head carried by the outer swinging arm, the cross-head having a plurality of notches, each notch opening upwardly and adapted to receive and retain an independent conductor for an electric current, each independent conductor having a surgical needle thereto attached and the several conductors each receiving its electric current from the main conductor at the cross-plate, substantially as described.

3. In a support for a surgical needle, the combination of a plurality of swinging arms pivotally connected to each other and pivot-

ally mounted on a fixed support, a head carried by the outer swinging arm of the support and having an upwardly-opening notch adapted for the reception and suspension of a conductor for an electric current and having an electric needle attached thereto, a transmitting-conductor and a cross-plate mounted on one of the swinging arms and connected with the transmitting-conductor and with the conductor of the electric needle for supplying the needle with an electric current, substantially as described.

4. In a support for a surgical needle, the combination of a plurality of swinging arms pivotally connected to each other and pivotally carried by a fixed support, a cross-plate carried by one of the swinging arms and receiving and transmitting an electric current, a main conductor connected with the cross-plate, a cross-head carried by the outer swinging arm and a conductor for an electric current having an electric needle attached to its end and detachably suspended from the cross-head and connected with and receiving an electric current from the cross-plate, substantially as described.

5. A support for surgical needles comprising a swinging carrier and a cross-head mounted on the carrier, the carrier and cross-head adapted for supporting a main conductor and a plurality of transmitting-conductors for an electric current and having the transmitting-conductors free to swing in suspension from the cross-head, substantially as described.

6. A support for surgical needles comprising a vertical standard, a swinging carrier laterally extending from the vertical standard, and a cross-head mounted on the carrier, the lateral carrier and the cross-head adapted for supporting a main conductor, and a plurality of transmitting-conductors for an electric current and having the transmitting-conductors free to swing in suspension from the cross-head, substantially as described.

7. In a support for surgical needles, the combination of an adjustable swinging support, a cross-head carried by the adjustable swinging support and having a plurality of notches each notch opening upwardly and having straight edges and adapted to receive and retain a plurality of transmitting-conductors for an electric current, each conductor entered into and retained by a notch of the cross-head and free to swing in suspension from the cross-head, substantially as described.

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