

1,210,316.

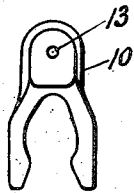


Fig 2



Fig 3

Witnesses:
Ada R. Miller
May Adams.

Witness, B. Hollingshead
By the Attorney
Frank J. Kent

UNITED STATES PATENT OFFICE.

WILLIAM B. HOLLINGSHEAD, OF MOUNT VERNON, NEW YORK.

DEPILATORY APPARATUS.

1,210,316.

Specification of Letters Patent.

Patented Dec. 26, 1916.

Application filed November 23, 1912. Serial No. 733,092.

To all whom it may concern:

Be it known that I, WILLIAM B. HOLLINGSHEAD, a citizen of the United States of America, and resident of Mount Vernon, in the county of Westchester and State of New York, (whose post-office address is Mount Vernon, New York,) have invented certain new and useful Improvements in Depilatory Apparatus, of which the following is a specification.

This invention relates to electric depilators, although it will be obvious that it is capable of advantageous utilization in many other connections.

One of the objects of this invention is to provide a device wherein the application of the electric current may be conveniently controlled and guided.

Another object is to disclose a means adapted during operation of the device to permit of the escape of gases generated by such operation; and in this connection it should be noted that in apparatus heretofore used the needle or the like has been merely thrust into the tissue and the current thereupon applied without any provision being made for the escape of gases generated by the usual electrolytic action concurrently set up.

A further object is to provide a device wherein the various portions thereof will be conformed and arranged in such manner that skilful and rapid operation of the said device will be made possible.

Another object is to provide an economical structure adapted for the support and utilization in connection therewith of various elements contributing to capacitate the device for extreme efficiency; and in connection therewith, a simple structure capable of inexpensive manufacture.

Other objects and aims of the invention, together with the advantages inherent, will be in part obvious and in part specifically referred to in the course of the following description of the elements, combinations, arrangements of parts and applications of principles constituting the invention; and the scope of protection contemplated will appear from the claims.

In the accompanying drawing which is to be taken as a part of this specification, and in which I have shown a preferred embodiment of the invention: Figure 1 is a view in perspective; Fig. 2 is a top plan view of the

foot 10; Fig. 3 is a view in elevation, partly in section, showing a form of needle capable of utilization with this embodiment.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Referring to the numerals on the drawing, and particularly to Figs. 1 and 2, there is shown at 4 a preferably unitary standard provided with the overhang 5 and the depending arm 6. This unitary structure is preferably also constructed of some insulating material, such as fiber or rubber composition or the like; and is here conformed as shown at 7, 8 and 9, the purpose for which conformations will appear hereinafter. A base-member or foot 10, preferably of a metal of low resistance, is provided upon which is mounted standard 4. Foot 10 is preferably bifurcated as shown. A conductor 11, electrically connected as at 12, passes downwardly through standard 4 and thence suitably into the passage 13 (Fig. 2) arranged in foot 10. Overhang 5 is provided with a bell-mounting 14, through which extends a conductor-rod 15, the latter being electrically connected as at 16. Rod 15 carries at its lower end a hollow box 18, which in turn carries a needle 19. Mounted immediately upon said rod 15, and capacitated for various fixed adjustments thereon by means of the screw 20, are a plurality of wings 21 or the like, preferably conformed as shown and constructed of proper insulating material. Retractable spring 22 normally maintains said rod 15 in such position that the point of needle 19 is removed from the plane upon which foot 10 rests, and hence from contact with the tissue or other matter adjacent such foot. Arm 6 is here provided with the terminal bifurcation shown, in which, as by means of the transverse pin 23, is mounted the tongue 24, supporting the lens-case 25. Lens-case 25, carrying therein the lens 26, may be adjusted to be focused upon the predetermined application-point of the needle 19.

The method of operating this embodiment of my invention should be obvious, and is substantially as follows: The standard 4 is placed in position so that the bifurcations of foot 10 will substantially surround the area to be treated and preferably stretch taut the surface of such area; the standard being

preferably grasped in one hand, the first and second fingers including between them the flattened portion 7 and the tips of these fingers resting each upon a wing 21, and the thumb and third finger, with the little finger aiding the latter, including between them the relatively wide, grip-portion 8. The flare-portion 9 tends to prevent vertical displacement of the fingers grasping the grip-portion 8; while the dissimilar conformation at the portion 7 tends to render movement of the first and second fingers relatively to said portion 7 exceedingly convenient, whereby the tips of these fingers, pressing upon the wings 21, and against the influence of spring 22, may cause the needle 19 to pierce the adjacent tissue, and may, moreover, on account of the provision of the bell-mounting 14, control the angle of approach and exact point of entry of said needle. It should be understood that preliminarily the electric circuit indicated at 12 and 16 has been properly closed exteriorly of the device; and that preferably the lens-case 25 has been properly adjusted. It will then be seen that upon the needle 19 entering the tissue, as aforesaid, the usual electrolytic action will take place; and that in this embodiment, constructed as aforesaid preferably for depilatory purposes, this electrolytic action will properly take place within the follicle and thereby permanently remove the seed of growth.

The foregoing description of the operation of this embodiment of my invention has not included a description of an important feature of the invention which may or may not be included in any embodiment of my invention. It should be noted that heretofore a great disadvantage in connection with electrical depilation has been the marring, scarring and discoloration of the epidermis and subcutaneous and neighboring tissue, due to the inevitable generation of gases at the instant of electrolytic decomposition. And in this connection attention is called to the needle 19 illustrated in Figs. 1 and 3, which is preferably of hollow construction, having an inlet for said hollow at the needle-point and an outlet for said hollow at some point above the surface of the tissue, the function of which should be obvious, and is for providing means for the escape, simultaneously with their instantaneous generation, of the otherwise encysted and muffled gases. Two embodiments of this hollow needle are disclosed, although all various forms and arrangements are contemplated by this invention; one as shown in Fig. 1, wherein the hollow needle 19 is shown broken away at

19' and is interiorly constructed and so mounted within hollow box 18 that the hollow therein is arranged so as to be in communication with the interior of said box, the latter being provided with the outlet-aperture 27; and another embodiment as shown in Fig. 3, wherein the needle 19 is disclosed as being provided with a central bore 28 and a plurality of various outlet-apertures 29 leading directly from said bore. It should also be noted that while in this embodiment rod 15 is normally restrained against displacement from the mounting 14 by means of the action of spring 22 in forcing the conical portion 15' home into said mounting, thereby normally to maintain said rod substantially fixed fast within said mounting, yet upon the actuation of the device said portion 15' will be sufficiently cleared from close engagement with said mounting to enable the convenient and universal manipulation aforesaid of the needle 19.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

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

1. In a device of the class described, in combination, a needle-carrier and a supporting means for the same including a resilient mounting for said needle.

2. In a device of the class described, in combination, a needle carrier including an enlarged portion, a supporting means for said carrier, said supporting means having an upwardly extending recess, and a resilient means adapted normally to urge said enlarged portion upwardly to approach the bottom of said recess.

3. In a device of the class described, in combination, a supporting member, a needle-carrier resiliently mounted for relative adjustment with relation to said support, and manipulative means adapted to be actuated to place or maintain said needle-carrier in any such relative adjustment against the tendency of such resilient mounting.

In witness whereof, I have hereunto signed my name in the presence of two witnesses.

WILLIAM B. HOLLINGSHEAD.

Witnesses:

A. M. HENRY,
ALDA L. MILLER.