Jan. 12, 1932. R. BESOCKE 1,840,369

TWEEZERS

Filed Dec. 29, 1930

Fig. 1

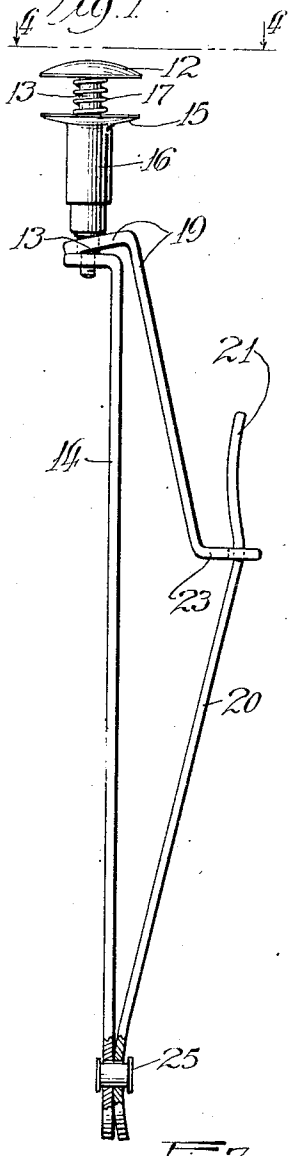


Fig. 2

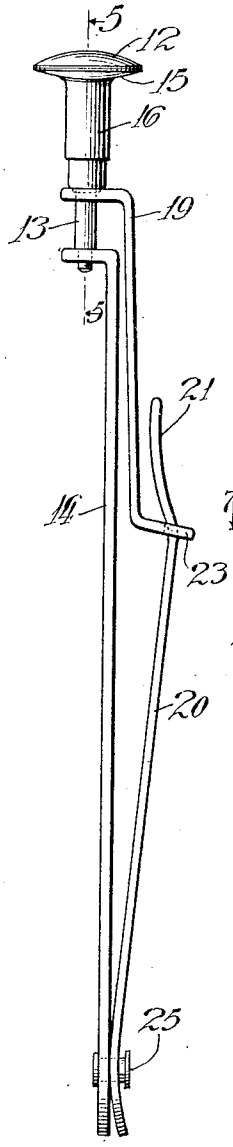


Fig. 3

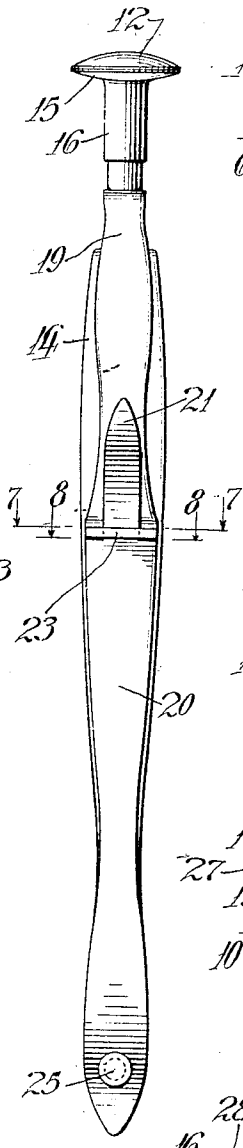


Fig. 5

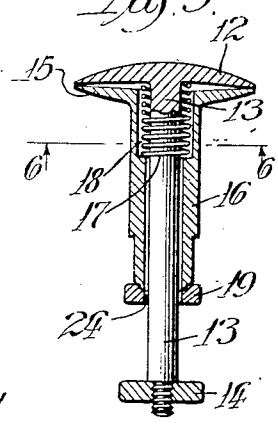


Fig. 6

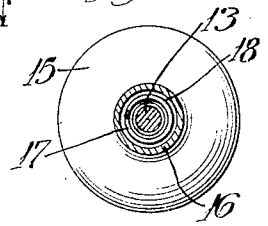


Fig. 9

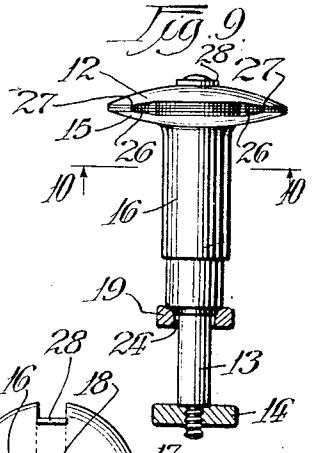


Fig. 7

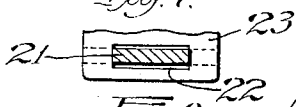


Fig. 8

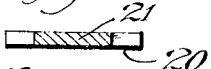


Fig. 4

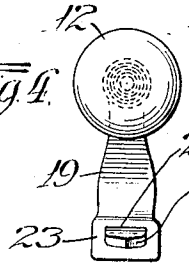
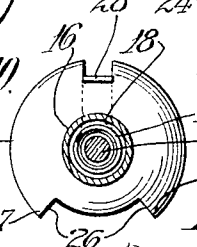


Fig. 10



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his Attorney

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UNITED STATES PATENT OFFICE

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TWEEZERS

Application filed December 29, 1930. Serial No. 505,431.

This invention relates to tweezers especially adapted for the removal of superfluous hair or the extraction of hair of the eyebrows, or where desirable to remove superfluous or unsightly hair growths.

An object of the invention is the provision of an improved device of the character indicated, by means of which ready and effective access is had to the particular hair desired to be removed, and by means of which a firm and substantial holding or engaging action of the device on the engaged hair is attained. A further object is the provision of an improved hair engaging tweezer characterized by a pair of cooperating resilient disk engaging members adapted to provide a peripheral engaging area and constructed and arranged to insure engaging contact throughout the peripheral engaging portion.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which:

Fig. 1 is an enlarged side elevational view illustrating the preferred embodiment of the invention, with the disk members in disengaged position;

Fig. 2 is a view similar to Fig. 1 showing the disk members in engaged position;

Fig. 3 is a front elevational view of the device as shown in Fig. 2;

Fig. 4 is a top plan view of the device as shown in Fig. 1, taken substantially on the line 4—4 of Fig. 1;

Fig. 5 is a vertically sectional view taken substantially on the line 5—5 of Fig. 2;

Fig. 6 is a cross-sectional view taken on the line 6—6 of Fig. 5;

Fig. 7 is a sectional view of the operating link portion taken substantially on the line 7—7 of Fig. 3;

Fig. 8 is a view similar to Fig. 7, taken substantially on the line 8—8 of Fig. 3;

Fig. 9 is an elevational view, partly in section, of a modified form of device in which the engaging disks are notched to provide hair engaging or gripping corners; and

Fig. 10 is a sectional view taken substantially on the line 10—10 of Fig. 9.

As illustrated in the drawings, the preferred embodiment of the invention disclosed comprises a stationary jaw 12 integrally formed at one end of a straight stem or rod 13, which is threaded into, or otherwise secured to, a handle member 14. As shown in the various views, the contacting margin of the stationary jaw 12 is preferably in right angle relation to the stem 13. A second jaw 15 is mounted for cooperative engagement with the jaw 12, and is preferably formed integrally with a sleeve extension 16 arranged for sliding movement on the stem or rod 13. In addition, each jaw 12 and 15 is of cupped formation, as shown in Fig. 5, and sufficient clearance is provided between the stem 13 and the inner surface of the sleeve 16 to insure contacting engagement of the peripheral edges of the jaw members, as shown in Fig. 5.

The jaw members 12 and 15 are normally maintained spaced apart in a yielding manner by a compression spring 17 encircling the stem or rod 13 and arranged between the jaws, as shown in Fig. 5. In the preferred construction, the lower portion of the spring 17 rests in a socketed enlargement 18 of the sleeve extension 16 on the movable jaw 15, with a view to the provision of sufficient length in the spring, and also to provide uniform and adequate resiliency when in active use.

The sliding action on the movable jaw to bring the jaw members into operative contact or engagement, is preferably attained by the following construction. A pair of links 19 and 20 are pivotally connected together

by means of a narrowed tongue portion 21 on the lower link 20 extending vertically through opening 22 provided on the laterally extending portion 23 of the upper link 19. Thus, the links 19 and 20 provide a toggle unit with the upper free extremity of link 19 formed with an eye 24 encircling and sliding upon the stem or rod 13, and having bearing against the lower extremity of guide sleeve 16 of the movable jaw 15, in order to impart positive movement of the latter toward the stationary jaw 12 in actual use. The lower extremity of the companion link 20 is also provided with an eye encircling a rivet member 25 extending through the eye of link 20 and also through a corresponding eye formed in the handle 14. This mounting provides a pivotal connection between the toggle link and the handle 14, but, as shown in Fig. 1, a slight clearance is provided between the respective parts and the rivet 25 so as to allow free movement and eliminate any binding action.

In the modified form of construction shown in Figs. 9 and 10, the engaging disks are provided with registering notches 26 which provide sharp corners 27 in spaced relation, with each pair of corners adapted to aid in a ready selection of, and engagement with a hair to be removed. A guide member 28 is secured to the upper disk 12 and extends through a slot in disk 15 to maintain the corners 27 in vertical alignment.

In use, the device or instrument may be held in the hand, with the fingers bearing against the handle member 14, and the thumb in contact with the tongue portion 21. When the respective disk jaws 12 and 15 have been positioned on opposite sides of a hair to be removed, the toggle unit is straightened by compression of the fingers to the position shown in Fig. 2, causing a corresponding active movement of the movable jaw 15 into gripping relation with the stationary jaw 12. The slight resiliency of the jaw members, together with their cupped construction, insures peripheral contact upon engagement, and this operation is also aided by the clearance between the sleeve member 16 and the stem 13. The form shown in Figs. 9 and 10 affords an accurate and selective engagement when it is desired to remove a single hair, for example, when a pair of the corners 27 may be brought into engaging position.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. In a tweezer of the type described, the combination of a main stem, a stationary jaw of a dished form fixed on an end of said stem with its margin in right-angle relation to the stem, a correspondingly shaped movable jaw having a carrying sleeve slidable on said stem, an interposed spring tending to move said jaws apart, and manual means for moving said jaws together.

2. In a tweezer of the type described, the combination of a main stem, a stationary jaw of a dished form fixed on an end of said stem with its margin in right-angle relation to the stem, a correspondingly shaped movable jaw having a carrying sleeve slidable on said stem, a handle supporting said stem, an interposed spring tending to move said jaws apart, and manual means for moving said jaws together, the same comprising a pair of links pivotally connected at their adjoining ends, with the remote end of one link having pivotal attachment to said handle and the remote end of the other link having operative engagement with the sleeve of the movable jaw.

3. In a tweezer of the type described, the combination of a main stem, a stationary jaw of a dished and peripherally notched form fixed on an end of said stem with its margin in right-angle relation to the stem, a correspondingly formed movable jaw having a carrying sleeve slidable on said stem, an interposed spring tending to move said jaws apart, and manual means for moving said jaws together.

4. In a tweezer of the type described, the combination of a main stem, a stationary jaw of a dished and peripherally notched form fixed on an end of said stem with its margin in right-angle relation to the stem, a correspondingly formed movable jaw having a carrying sleeve slidable in said stem, a handle supporting said stem, an interposed spring tending to move said jaws apart, and manual means for moving said jaws together, the same comprising a pair of links pivotally connected at their adjoining ends, with the remote end of one link having pivotal attachment to said handle and the remote end of the other link having operative engagement with the sleeve of the movable jaw.

5. In a tweezer of the type described, the combination of a supporting handle, a stationary disk jaw carried by said supporting handle, a second disk jaw movably mounted relative to said first mentioned jaw and arranged to contact therewith to bring the peripheral portions into engagement, and manually operable means arranged to engage said movable jaw for bringing said jaws into engagement.

6. In a tweezer of the type described, the

combination of a supporting handle, a stationary disk jaw carried by said supporting handle, a second disk jaw movably mounted relative to said first mentioned jaw and arranged to contact therewith to bring the peripheral portions into engagement, manually operable means arranged to engage said movable jaw for bringing said jaws into engagement, and resilient means arranged normally to maintain said jaws in spaced relation.

7. In a tweezer of the type described, the combination of a supporting handle, a stationary disk jaw carried by said supporting handle, a second disk jaw movably mounted relative to said first mentioned jaw and arranged to contact therewith to bring the peripheral portions into engagement, and manually operable means arranged to engage said movable jaw for bringing said jaws into engagement, said jaws having notched portions to provide engaging corners.

8. In a tweezer of the type described, the combination of a supporting handle, a stationary disk jaw carried by said supporting handle, a second disk jaw movably mounted relative to said first mentioned jaw and arranged to contact therewith to bring the peripheral portions into engagement, manually operable means arranged to engage said movable jaw for bringing said jaws into engagement, said jaws having notched portions to provide engaging corners, and resilient means arranged normally to maintain said jaws in spaced relation.

9. In a tweezer of the type described, the combination of a main stem, a stationary jaw fixed on the end of said stem, a sleeve member slidably mounted on said stem, a movable jaw mounted upon said sleeve member and arranged to engage said stationary jaw, and manual means for moving said jaws together into contacting relation.

10. In a tweezer of the type described, the combination of a main stem, a stationary jaw fixed on the end of said stem, a sleeve member slidably mounted on said stem, a movable jaw mounted upon said sleeve member and arranged to engage said stationary jaw, an interposed spring tending to maintain said jaws in spaced relation, and manual means for moving said jaws together into contacting relation.

11. In a tweezer of the type described, the combination of a main stem, a stationary jaw fixed on the end of said stem, a sleeve member slidably mounted on said stem, a movable jaw mounted upon said sleeve member and arranged to engage said stationary jaw, and manual means for moving said jaws together into contacting relation, said jaws having notched portions to provide engaging corners.

12. In a tweezer of the type described, the combination of a main stem, a stationary jaw fixed on the end of said stem, a sleeve member slidably mounted on said stem, a movable jaw mounted upon said sleeve member and arranged to engage said stationary jaw, an interposed spring tending to maintain said jaws in spaced relation, and manual means for moving said jaws together into contacting relation, said jaws having notched portions to provide engaging corners.

In testimony whereof I have signed my name to this specification.

RICHARD BESOCKE.