Oct. 20, 1942. J. J. BATTLE 2,299,295

HAIR OPERATOR'S INSTRUMENT

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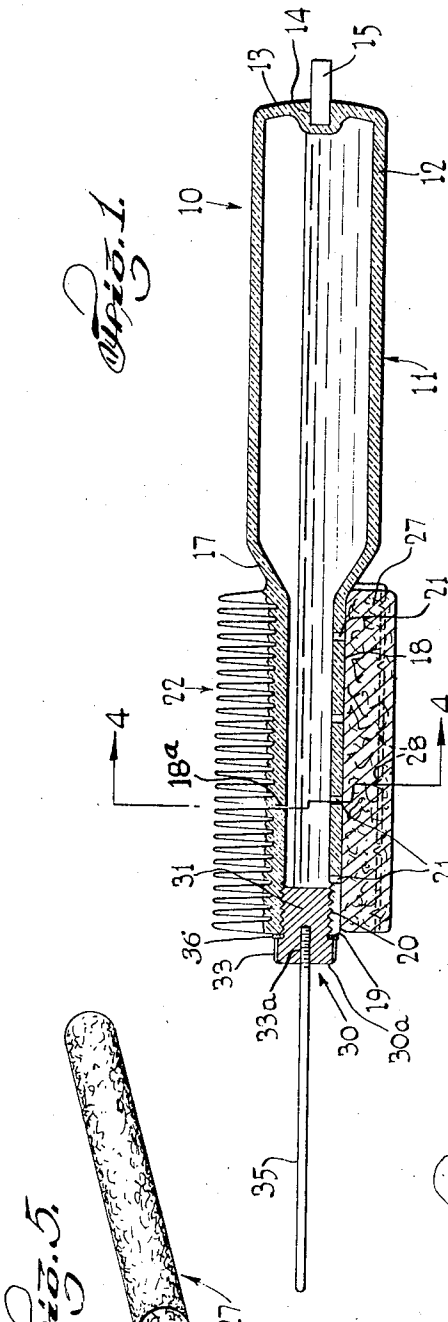

Fig. 1.

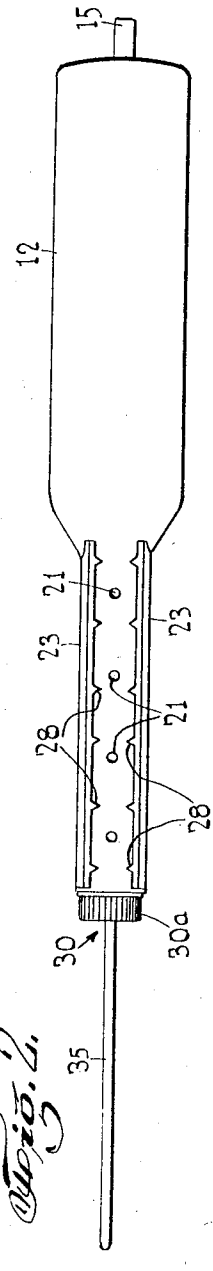

Fig. 2.

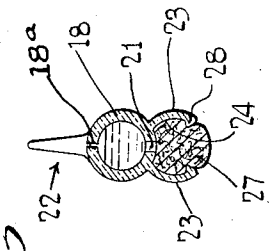

Fig. 4.

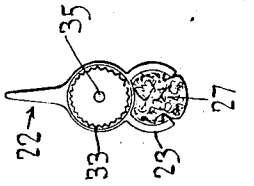

Fig. 3.

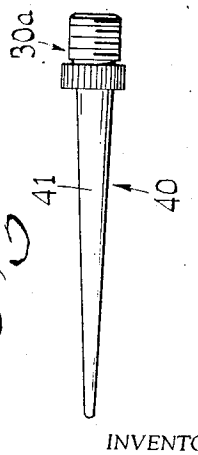

Fig. 6.

Fig. 5.

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HAIR OPERATOR'S INSTRUMENT

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14 Claims. (Cl. 132—13)

This invention relates to hair operator's instruments. It is particularly directed to an instrument for treating the hair or for preparing the hair for permanent waving, hair dyeing, and to the like instruments.

An object of this invention is to provide a highly improved instrument of the character described, having means to comb out a lock of hair, means to apply a liquid, such as permanent waving solution thereto, and means for smoothing out the lock of hair while the lock is being wound on the curler rod.

Another object of the present invention is to provide an instrument of the character described having a transparent, hollow handle forming a receptacle adapted to contain the hair treating solution, or other hair treating solution, and having an applicator covering openings in the instrument through which the solution seeps into the applicator, the applicator being removable and replaceable after use on each customer's head.

Still a further object of this invention is to provide an instrument of the character described in the form of a receptacle for liquid adapted to pass through suitable openings into an absorbent applicator, the open end of the receptacle being closed by a member carrying a smoother pin, or a rat tail comb, to smooth out a lock of hair, while the hair is being wound on the curler rod.

Yet another object of this invention is to provide a single instrument having means to fully prepare the hair for permanent waving operation. Thus, the improved instrument may be comfortably held in the hand, and has a comb portion to first comb out a lock of hair. Then the instrument may be turned around to permit hair treating solution to pass from the instrument onto an applicator, so that the solution may be readily applied to the lock. Thereafter, the instrument may be turned around again and the lock combed out once more. Thereafter, the lock may be wound on a curler rod and the lock smoothed out by the smoother pin on the instrument. After the hair is fully wound on the curler rod, the curler rod may be tightened on the clamp by means of a wrench portion on the instrument. The instrument may be made of transparent material to permit the operator to see how much solution is therein.

Yet a further object of this invention is to provide in an instrument of the character described, highly improved means for gripping a cotton applicator to hold the applicator in such position that liquid from the instrument will seep thereinto.

Still a further object of this invention is to provide a strong, compact and durable instrument of the character described, which shall be relatively inexpensive to manufacture, easy to use and refill, attractive in appearance, and yet practical and efficient to a high degree.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claims.

In the accompanying drawing, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is an axial, cross-sectional view of an instrument embodying the invention;

Fig. 2 is a top plan view thereof;

Fig. 3 is a front elevational view thereof;

Fig. 4 is a cross-sectional view taken on line 4—4 of Fig. 1;

Fig. 5 is a perspective view of one of the applicators; and

Fig. 6 is a top plan view of a member for closing the open end of the instrument, and carrying a rat tail comb.

Referring now in detail to the drawing, 10 designates a hair operator's instrument embodying the invention, for preparing the hair for permanent waving or for dyeing the hair, or for any similar purpose.

The instrument 10 comprises a member 11 preferably made of transparent material, such as "Lucite," or any other suitable plastic, or composition material. Member 11 has a hollow, cylindrical or tubular handle portion 12 closed at its rear end by a wall 13. Wall 13 has a central, inwardly extending, recess or socket portion 14 in which is embedded one end of a prismatic metal wrench 15 projecting beyond the rear wall, for the purpose hereinafter appearing.

At the forward end of the hollow handle 12, is a forwardly tapering portion 17, from which there extends forwardly, a tubular, narrow neck portion 18, open at its forward end, as at 19. The forward end of the tubular neck 18 is screw threaded internally, as at 20. Said tubular portion is furthermore formed with a longitudinal row of spaced openings 21.

Extending from the tubular portion 18 in a diametric plane, passing through the openings 21, is an integral comb portion 22. The teeth of the comb preferably project only slightly beyond the handle 12, so as not to project too far therefrom, whereby the teeth are more protected against breakage.

Integrally formed with the neck portion 18, are a pair of similar, symmetrically disposed, longitudinal, transversely curved walls 23, co-extensive with the neck and forming therebetween a longitudinal channel 24 with which the openings

21 communicate. Thus, the walls 23 are on opposite sides of the row of openings.

It will be noted that the comb 22 is in a plane longitudinally bisecting the channel 24. The clamping walls 23 are adapted to grippingly engage an applicator 27 forced into the channel 24. The applicator is preferably in the form of a cylindrical piece of cotton or other absorbent material, and is quite similar to a dental roll, except that the exterior surface thereof is not glazed, so that it will better absorb liquid seeping through the openings 21.

As shown in Fig. 4 of the drawing, the applicator covers the openings 21, so that the liquid will not freely pass out of the opening, but will seep into and saturate the applicator.

The walls 23 are formed adjacent the outer edges thereof with integral inwardly extending teeth 28 to grip the applicator and retain the same within the channel 24. The applicator 27 projects beyond the walls 23, so that said applicator may be rubbed against the hair to apply liquid thereto.

Mounted on the forward end of member 11 is a member 30. Member 30 comprises a screw threaded member 30*a* made of composition or plastic material having a stem 31 screwed within the screw threaded opening 20. Extending from the screw 31 is an annular knurled head 33 formed with an axial opening 33*a*. Mounted on the head 33 is a forwardly extending, axial pin 35 having its rear end inserted within the opening 33*a*, and fixed to the head 33. Interposed between the head 33 and the forward end of the neck 18, is a washer 36. The pin may be made of metal and may be rigidly fixed to the head 33 in any suitable manner.

The operation of the instrument 10 will now be described:

In using the instrument for preparing the hair for permanent waving, member 30 is first removed and the instrument filled with hair treating solution usually used for permanent waving. Member 30 is then re-applied to the instrument to close the open end of the neck 18. A clean cotton applicator 27 is then forced into channel 24. The instrument is then held with the comb down, and a lock of hair combed out. The instrument is then turned so that the applicator contacts the hair. The applicator is then moved up and down on the lock of hair, and the solution seeping through the openings 21 into the cotton applicator, saturates the latter so that the solution may be applied to the lock of hair. Thereafter, the instrument is again turned around and the lock of hair is again combed. The lock is then applied to a curler rod and as said curler rod is wound, the lock is smoothed by means of the smoother pin 35. After the curler rod is completely wound on the clamp, it may be tightened by means of wrench 15 at the rear end of the instrument.

The handle 12 is of such proportion as to permit the same to be easily held in the hand and to contain sufficient liquid to do a whole head of hair.

The applicator 27 is replaced for each head. When the hair is being combed out, the instrument is held in such a way that the solution will not pass through the openings 21. Obviously, hair dye may be applied to hair by means of the instrument, or any other solution may be applied to the hair with the improved instrument.

In Fig. 6 of the drawing, there is shown a member 40 which may replace member 30. Member 40 is similar to member 30, except that the pin 35 is replaced by a rat tail comb 41 integrally formed with member 30*a*. The rat tail comb may be used for working the hair. The tubular portion 18 is formed with a small through opening 18*a* extending to one of the spaces between teeth of the comb 22, to admit air into the container, so as to facilitate flow of liquid through the openings 21 to the applicator 27.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

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

1. An instrument of the character described, comprising a tubular handle closed at its rear end, a longitudinal hollow neck extending from the forward end of the handle and formed with a row of spaced openings, and a pair of substantially parallel walls extending longitudinally of said neck and forming a channel therebetween, said openings communicating with said channel, and said walls having teeth to grip an applicator pressed into said channel to cover said openings.

2. An instrument of the character described, comprising a tubular handle closed at its rear end, a longitudinal hollow neck extending from the forward end of the handle and formed with a row of spaced openings, and a pair of substantially parallel walls extending longitudinally of said neck and forming a channel therebetween, said openings communicating with said channel, and said walls having teeth to grip an applicator pressed into said channel to cover said openings, the front end of said neck being open, and means to close the open end of said neck.

3. An instrument of the character described, comprising a member made of transparent material and having a tubular portion closed at its rear end serving as a handle for the instrument, a tapering portion extending from the forward end of said tubular portion, an axial tubular neck extending from said tapering portion, said neck being formed with a row of spaced openings, means on said neck to form a longitudinal channel with which said row of spaced openings communicate, and adapted to grip an applicator roll of absorbent material to close said openings.

4. An instrument of the character described, comprising a hollow member formed with a row of openings and with a pair of outwardly extending walls on opposite sides of said row of openings forming a channel therebetween communicating with said openings, and adapted to receive an applicator.

5. An instrument of the character described, comprising a hollow member formed with a row of openings and with a pair of outwardly extending walls on opposite sides of said row of openings forming a channel therebetween communicating with said openings, and adapted to receive an applicator, said walls having integral teeth to grip said applicator.

6. An instrument of the character described, comprising a tubular member formed with a row of spaced openings, said tubular member being formed with a pair of similar, symmetrically dis-

posed curved walls forming a channel communicating with the openings.

7. An instrument of the character described, comprising a tubular member formed with a row of spaced openings, said tubular member being formed with a pair of similar, symmetrically disposed curved walls forming a channel communicating with the openings, and teeth extending inwardly from said walls adapted to grip an applicator inserted into the channel to close said openings.

8. An instrument of the character described, comprising a hollow member formed with a row of openings and with a pair of outwardly extending walls on opposite sides of said row of openings forming a channel therebetween communicating with said openings, and adapted to receive an applicator, said hollow member being formed with an opening spaced from said channel to permit air to enter said member to facilitate flow of liquid through the row of openings.

9. An instrument of the character described, comprising a member having a tubular handle portion closed at its rear end, and a tubular neck portion of reduced transverse cross-section extending from the forward end of the handle portion, and formed with a longitudinal row of spaced openings, and a pair of substantially parallel, integral walls extending longitudinally from said neck portion and forming a channel therebetween, said openings communicating with said channel, and said walls having integral, inwardly extending teeth adapted to grip an applicator pressed into the channel to cover said openings, said walls being disposed on opposite sides of a plane passing through said row of openings and the axis of said neck.

10. An instrument of the character described, comprising a member having a tubular handle portion closed at its rear end, and a tubular neck portion of reduced transverse cross-section extending from the forward end of the handle portion, and formed with a longitudinal row of spaced openings, and a pair of substantially parallel, integral walls extending longitudinally from said neck portion and forming a channel therebetween, said openings communicating with said channel, and said walls having integral, inwardly extending teeth adapted to grip an applicator pressed into the channel to cover said openings, said walls being disposed on opposite sides of a plane passing through said row of openings and the axis of said neck, said member being made of transparent material.

11. An instrument of the character described, comprising a member having a tubular handle portion closed at its rear end, and a tubular neck portion of reduced transverse cross-section extending from the forward end of the handle portion, and formed with a longitudinal row of spaced openings, and a pair of substantially parallel, integral walls extending longitudinally from said neck portion and forming a channel therebetween, said openings communicating with said channel, and said walls having integral, inwardly extending teeth adapted to grip an applicator pressed into the channel to cover said openings, said walls being disposed on opposite sides of a plane passing through said row of openings and the axis of said neck, said member being made of transparent material, the outer end of said neck being open, and a plug to close the open end of said neck.

12. An instrument of the character described, comprising a member having a tubular handle portion closed at its rear end, and a tubular neck portion of reduced transverse cross-section extending from the forward end of the handle portion, and formed with a longitudinal row of spaced openings, and a pair of substantially parallel, integral walls extending longitudinally from said neck portion and forming a channel therebetween, said openings communicating with said channel, and said walls having integral, inwardly extending teeth adapted to grip an applicator pressed into the channel to cover said openings, said walls being disposed on opposite sides of a plane passing through said row of openings and the axis of said neck, said member being made of transparent material, the outer end of said neck being open, and a plug to close the open end of said neck, said walls being of curved transverse cross-section.

13. An instrument of the character described, comprising a member having a tubular handle portion closed at its rear end, and a tubular neck portion of reduced transverse cross-section extending from the forward end of the handle portion, and formed with a longitudinal row of spaced openings, and a pair of substantially parallel, integral walls extending longitudinally from said neck portion and forming a channel therebetween, said openings communicating with said channel, and said walls having integral, inwardly extending teeth adapted to grip an applicator pressed into the channel to cover said openings, said walls being disposed on opposite sides of a plane passing through said row of openings and the axis of said neck, said member being made of transparent material, the outer end of said neck being open, and a plug to close the open end of said neck, said walls being of curved transverse cross-section, said member having a tapering portion between the handle portion and the neck portion.

14. An instrument of the character described, comprising a member having a tubular handle portion closed at its rear end, and a tubular neck portion of reduced transverse cross-section extending from the forward end of the handle portion, and formed with a longitudinal row of spaced openings, and a pair of substantially parallel, integral walls extending longitudinally from said neck portion and forming a channel therebetween, said openings communicating with said channel, and said walls having integral, inwardly extending teeth adapted to grip an applicator pressed into the channel to cover said openings, said walls being disposed on opposite sides of a plane passing through said row of openings and the axis of said neck, said member being made of transparent material, the outer end of said neck being open, and a plug to close the open end of said neck, said walls being of curved transverse cross-section, said member having a tapering portion between the handle portion and the neck portion, said member being formed with an opening spaced from said channel to permit air to enter said member to facilitate flow of liquid through the row of openings.

JOSEPH J. BATTLE.