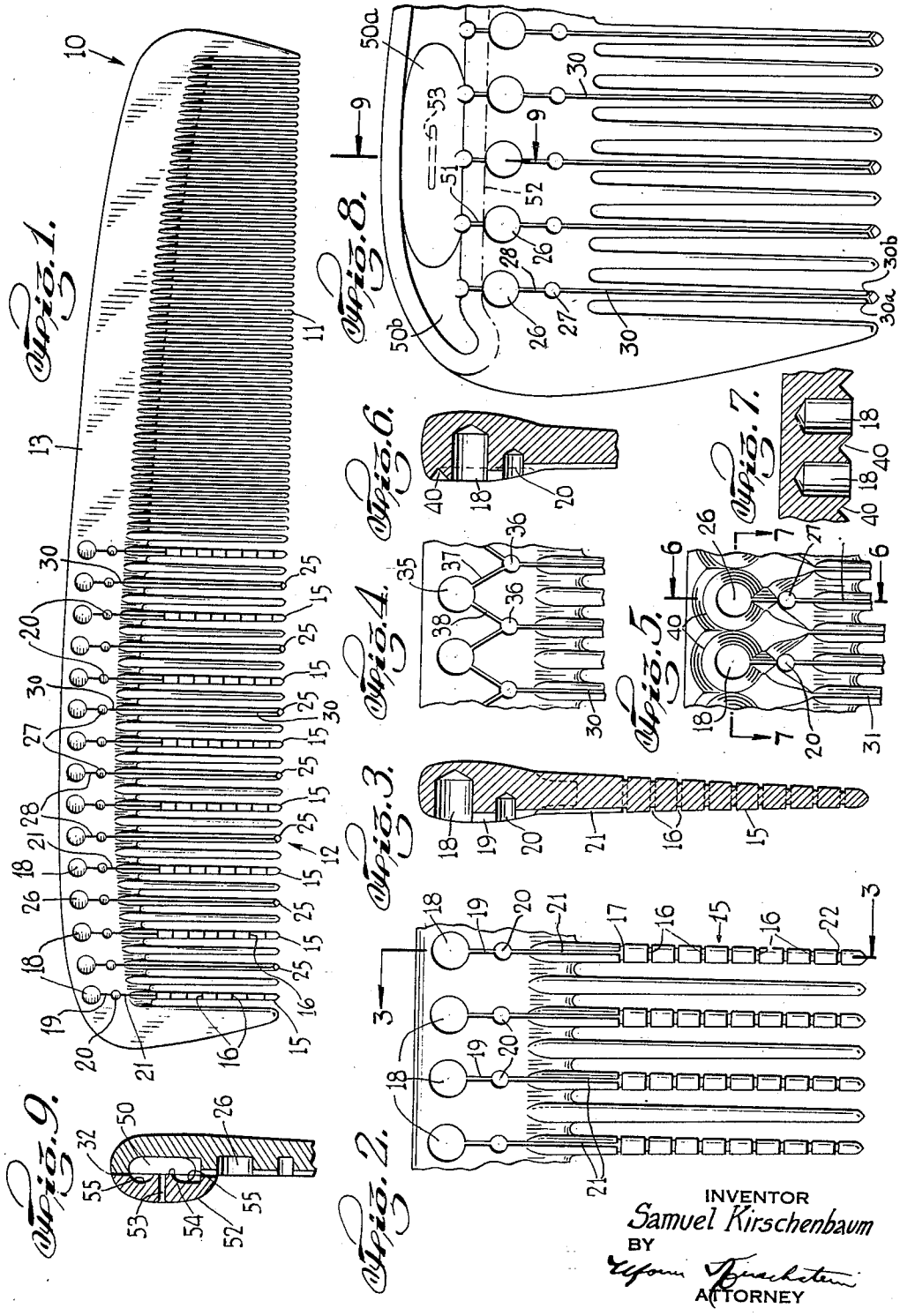
Jan. 20, 1942. S. KIRSCHENBAUM 2,270,528

COMB

Filed Feb. 6, 1940



INVENTOR
Samuel Kirschenbaum
BY
ATTORNEY

Patented Jan. 20, 1942 2,270,528

UNITED STATES PATENT OFFICE

2,270,528

COMB

Samuel Kirschenbaum, Brooklyn, N. Y.

Application February 6, 1940, Serial No. 317,467

16 Claims. (Cl. 132—13)

This invention relates generally to combs. More particularly, my invention relates to the class of combs adapted to apply oils or other suitable liquids to the hair and scalp.

One of the objects of my invention is to provide a comb of the class described which shall be provided with a novel reservoir construction whereby the oil contained therein shall be retarded from flowing too freely and in which the oil will not run to undesired surface portions of the comb but will be directed and confined to selected teeth thereof.

Another object of my invention is to provide a comb of the class described in which certain of the teeth thereof, adapted to deliver oil to the hair, shall be so constructed as to retard the freedom of flow of oil from a reservoir and in which certain other teeth thereof shall be so constructed as to carry oil directly to the scalp.

Still another object of my invention is to provide a comb construction of the class described which shall be relatively inexpensive to manufacture and which shall be so designed that it will be equally efficient for combing or for use as a scalp or hair treating instrument and in which the said oil treatment occurs during the act of combing.

Other objects of my 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 claims.

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

Fig. 1 is an elevational view of a comb constructed in accordance with my invention;

Fig. 2 is an enlarged detail view of a portion of the comb shown in Fig. 1 but with a slightly different arrangement for the teeth thereof;

Fig. 3 is a cross-sectional view taken substantially on the line 3—3 of Fig. 2;

Figs. 4 and 5 are fragmentary views similar to Fig. 2 but illustrating modified forms of my invention;

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

Fig. 7 is a cross-sectional view taken substantially on the line 7—7 of Fig. 5;

Fig. 8 is a view similar to Fig. 2 but illustrating still another modified form of my invention; and

Fig. 9 is a cross-sectional view taken substantially on the line 9—9 of Fig. 8.

In the class of combs heretofore manufactured for the treating of the hair and scalp with oil or other suitable liquids, certain inherent disadvantages were found to exist. One such disadvantage, for example, was due to the fact that either an insufficient amount or too much oil was caused to flow haphazardly over the entire surface of the comb or down the teeth to the scalp or hair.

Another disadvantage was found in the fact that the combs heretofore manufactured required complicated constructional arrangements, which destroyed the natural appearance of the comb, and hindered its use for combing purposes.

Still another disadvantage was found in the fact that in many of the types of combs heretofore manufactured, the comb teeth were made of hollow construction communicating at the top with an oil reservoir and open at the bottom. In such cases, the said bottom openings would soon become clogged with the result that no oil would flow from the reservoir.

In accordance with my invention, I have provided a comb construction of the class described in which all the above disadvantages have been overcome and which contains further additional advantages.

Referring now in detail to the drawing, I have illustrated in Figs. 1, 2 and 3, one form of my invention in which a comb 10 of customary design is employed, having a set of teeth 11 relatively closely spaced and a set of teeth 12 relatively widely spaced and having a back portion 13. In order to adapt the comb 10 for the purpose of treating the scalp or hair with oil or other suitable liquids, and in accordance with my invention, I have provided certain of the teeth from the group of teeth 12 such as, for example, the teeth 15, with a plurality of peripheral grooves 16 (see Figs. 2 and 3), spaced from each other along the length of the teeth and disposed in a direction transversely of the said length. The said transverse grooves 16 of each tooth 15 may be disposed in spaced relationship extending upwardly from the lowermost groove 22 adjacent the bottom of the tooth for a predetermined distance such as, for example, to the uppermost groove 17. A main reservoir 18 disposed in the back portion 13 of the comb is provided for each tooth 15, the said reservoir 18 being open to the surrounding atmosphere and adapted to receive a quantity of oil therein. Communicating with the main reservoir 18 by a groove or narrow

channel 19 is an auxiliary reservoir 20 of smaller size and of less depth than the reservoir 18 and which may be disposed in alignment with the said reservoir 18 and the tooth 15. A second groove or narrow channel 21 extending along the surface of the tooth 15 interconnects the uppermost transverse groove 17 with the reservoir 20.

It is thus seen from the above described construction that when oil is placed in a reservoir 18 and the comb is held in its normal combing position, the oil therefrom will flow into the constricted channel 19 and into the auxiliary reservoir 20. The free flow of the oil will thus be retarded until the reservoir 20 is substantially filled, at which time it will overflow into the groove 21 and proceed downwardly to the uppermost transverse groove 17. At this point, it will be necessary for the oil to first fill up and overflow the groove 17 before it will continue downwardly along the tooth to the next groove 16, meanwhile covering the peripheral surface of the tooth 15 between the grooves 17 and 16 with a film of oil. The oil will then fill the said groove 16, the overflow therefrom traveling downwardly along the tooth to the next succeeding groove 16 and so on, until the lowermost groove 22 is reached. The oil will thus be greatly retarded in its flow from the main reservoir 18 to the lowermost groove 22. During the normal combing action, the film of oil which has covered the portions of the tooth 15 between the grooves 16 will be drawn off on to the hair by capillary attraction aided by the static electricity generated by the comb rubbing against the hair.

A comb constructed in the manner as above described, with each tooth 15 having its corresponding supply reservoirs 18 and 20, will oil the hair thoroughly with a minimum quantity of oil and with a uniformity of flow so that all portions will receive equal treatment. The main reservoir 18 may be filled in any desirable manner such as by the use of a medicine dropper.

The comb of my invention may also be adapted for use where it is desired to supply oil directly to the scalp without oiling the hair itself. To this end, I have provided certain other teeth 25 of the group of teeth 12, which may be alternately disposed with respect to the teeth 15, and for which corresponding reservoirs 26 and 27 are provided. The said reservoirs 26 and 27 are similarly disposed and similar in function to that of the reservoirs 18 and 20, respectively, and have interconnecting channels 28 similar to the channels 19. However, in place of the transverse grooves 16, 17 and 22 provided in the teeth 15, I prefer to provide each tooth 25 with a single groove 30 running along the length of the tooth and communicating with the auxiliary reservoir 27, as clearly illustrated in Fig. 8 of the drawing.

To prevent the collection of the oil into a large drop at the tip of the tooth 25, the groove 30 preferably terminates in a pair of grooves 30*a* and 30*b* separating outwardly from the groove 30 to distribute the oil.

It is thus seen that the comb of my invention may be employed to apply oil directly to the scalp in which case only the reservoirs 26 corresponding to the teeth 25 are supplied with oil, or the comb may be used for applying oil directly to the hair itself, in which case only the reservoirs 18 corresponding to the teeth 15 need be filled.

It is also noted that, if desired, all the teeth of the comb may be constructed as the teeth 25, to furnish oil directly to the scalp as shown in Fig. 2 or all the teeth may be constructed as the teeth 15, to supply the hair with oil as shown in Fig. 8, and my invention extends to such comb constructions.

In Fig. 4 I have shown a modified form of my invention in which the construction of the teeth may be the same as that illustrated in the Figs. 1 to 3 form, but in which the reservoir system is so arranged that one main reservoir 35 will communicate with two auxiliary reservoirs 36 by means of the channels 37 and 38. In this Fig. 4 form of invention, when oil is supplied to the main reservoir 35, it will feed two teeth.

In Figs. 5, 6 and 7, I have shown another modified form of my invention which is similar to the construction illustrated in Figs. 1 to 3 but in which the material of the back of the comb adjacent to and surrounding the reservoirs 18 and 20 and 26 and 27 is recessed as at 40 (see Figs. 6 and 7) so that should too much oil be received in any one of the reservoirs, it will not flow haphazardly over the surface of the comb but will be directed into the recesses 40 which, it is noted, communicate with the channels 31 of the comb teeth.

In Figs. 8 and 9 I have shown a form of my invention in which the construction of the teeth and of the main auxiliary reservoirs may be the same as that shown in Figs. 1 to 3 but in which there is provided an additional supply reservoir 50 which extends longitudinally over an area taking in all of the teeth 15 and 25 and in which each reservoir 18 or 26 is provided with a channel 51 communicating with the supply reservoir 50, the said channels 51 being hidden so that the passage of oil from the reservoir 50 to the reservoirs 18 or 26 will not be visible. In this form of my invention, there is provided a cover member 52 designed to completely enclose the supply reservoir 50 and which may be attached thereto by any suitable means known to the trade, such as adhesive means 32 as shown. The said cover member 52 is provided with a slotted aperture 53 through which oil may be introduced into the reservoir 50. It is noted that the inner surface of the cover member 52 is provided with a central raised portion 54 forming recesses 55 on opposite sides thereof so that when the comb is tilted or turned so that the cover 52 is in a down position, oil from the reservoir 50 will not flow out through the aperture 53, but will flow into the recesses 55. The reservoir 50 is so designed that the central portion 50*a* thereof is recessed to a greater depth than adjacent end portions 50*b*. This will further prevent the loss of oil through the aperture 53 when the comb is turned in a position with the cover 52 downwardly disposed.

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 embodiments 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. In a comb of the class described having

teeth and a back, a main reservoir in one surface of said back adapted to receive a quantity of oil or the like, an auxiliary reservoir in the same surface of said back, a plurality of spaced grooves in one of said teeth transversely disposed with respect to the length thereof, a channel interconnecting said main and auxiliary reservoirs and a channel interconnecting said auxiliary reservoir with said transverse grooves, at least one of said channels being narrow and open to the surface of said comb, whereby the flow of oil from said reservoirs is retarded.

2. In a comb of the class described having teeth and a back, a main reservoir in said back adapted to receive a quantity of oil or the like, an auxiliary reservoir in said back, a plurality of spaced peripheral grooves around one of said teeth transversely disposed with respect to the length thereof, a channel interconnecting said main and auxiliary reservoirs and a channel interconnecting said auxiliary reservoir with one of said transverse grooves most remote from the free end of said tooth, at least one of said channels being narrow and open to the surface of said comb, whereby the flow of oil from said reservoirs is retarded.

3. In a comb of the class described having teeth and a back, a main reservoir in said back adapted to receive a quantity of oil or the like, an auxiliary reservoir in said back, a groove in one of said teeth extending from said back to a point adjacent the free end of said tooth, a channel interconnecting said main and auxiliary reservoirs and a channel interconnecting said auxiliary reservoir with said tooth groove, at least one of said channels being narrow and open to the surface of said comb, whereby the flow of oil from said reservoirs is retarded.

4. In a comb of the class described having teeth and a back, a main reservoir in said back adapted to receive a quantity of oil or the like, an auxiliary reservoir in said back, a groove in one of said teeth extending along the length thereof and a second groove in said tooth transversely disposed with respect to said first groove, a channel interconnecting said main and auxiliary reservoirs, said channel being narrow and open to the surface of said comb, whereby the flow of oil from said reservoir is retarded and said first groove communicating with said auxiliary reservoir.

5. In a comb of the class described having teeth and a back, a main reservoir in said back adapted to receive a quantity of oil or the like, an auxiliary reservoir in said back, a main groove in one of said teeth extending from said back to a point adjacent the free end thereof, a channel interconnecting said main and auxiliary reservoirs, said channel being narrow and open to the surface of said comb, whereby the flow of oil from said reservoir is retarded, said groove communicating with said auxiliary reservoir, and a pair of diverging grooves adjacent the free end of said tooth communicating with said main groove.

6. In a comb of the class described having teeth and a back, a main reservoir in said back adapted to receive a quantity of oil or the like, an auxiliary reservoir in said back, a plurality of spaced grooves in one of said teeth transversely disposed with respect to the length thereof, a channel interconnecting said main and auxiliary reservoirs, and a channel interconnecting said auxiliary reservoir with said transverse grooves, said reservoirs and said channels being in alignment with said tooth, at least one of said channels being narrow and open to the surface of said comb, whereby the flow of oil from said reservoirs is retarded.

7. In a comb of the class described having teeth and a back, a main reservoir in said back adapted to receive a quantity of oil or the like, an auxiliary reservoir in said back, a plurality of spaced grooves in one of said teeth transversely disposed with respect to the length thereof, a channel interconnecting said main and auxiliary reservoirs, and a channel interconnecting said auxiliary reservoir with said transverse grooves, said main reservoir being open to the surface of said comb, at least one of said channels being narrow and open to the surface of said comb, whereby the flow of oil from said reservoirs is retarded.

8. In a comb of the class described having teeth and a back, a main reservoir in said back adapted to receive a quantity of oil or the like, an auxiliary reservoir in said back, a plurality of spaced grooves in one of said teeth transversely disposed with respect to the length thereof, a channel interconnecting said main and auxiliary reservoirs and a channel interconnecting said auxiliary reservoir with said transverse grooves, said reservoirs and said channels being open to the surface of said comb, at least one of said channels being narrow, whereby the flow of oil from said reservoirs is retarded.

9. In a comb of the class described wherein a reservoir is employed for supplying oil to the hair or scalp via the comb teeth, that improvement which consists of providing said teeth with narrow peripheral grooves transversely disposed with respect to the axis of said teeth.

10. In a comb of the class described wherein a reservoir is employed for supplying oil to the hair or scalp via the comb teeth, that improvement which consists of providing said teeth with a plurality of narrow peripheral grooves spaced from each other along the length of said teeth and transversely disposed with respect to said teeth.

11. In a comb of the class described wherein oil is supplied to the hair or scalp via the comb teeth, that improvement which consists of providing said comb with a reservoir adapted to receive oil therein, said reservoir comprising bottom and side walls and being open at the top thereof to the surface of said comb and a narrow channel interconnecting said reservoir and one of said teeth, said channel being open to the surface of said comb, whereby the flow of oil from said reservoir is retarded.

12. In a comb of the class described wherein oil is supplied to the hair or scalp via the comb teeth, that improvement which consists of providing said comb with a main reservoir, an auxiliary reservoir and a narrow channel interconnecting said reservoirs, said channel being open to the surface of said comb, whereby the flow of oil from said reservoirs is retarded.

13. In a comb of the class described wherein oil is supplied to the hair or scalp via the comb teeth, that improvement which consists of providing said comb with a main reservoir, an auxiliary reservoir and an open narrow groove interconnecting said reservoirs whereby the flow of oil from said reservoirs is retarded.

14. In a comb of the class described wherein oil is supplied to the hair or scalp via the comb teeth, that improvement which consists of providing said comb with a supply reservoir, a sec-

ond reservoir, a third reservoir, a first channel interconnecting said supply and said second reservoirs, and a second channel interconnecting said second and said third reservoirs, at least one of said channels being narrow and open to the surface of said comb, whereby the flow of oil from said reservoirs is retarded.

15. In a comb of the class described wherein oil is supplied to the hair or scalp via the comb teeth, that improvement which consists of providing said comb with a supply reservoir, a second reservoir, a third reservoir, a first channel interconnecting said supply and said second reservoirs, a second channel interconnecting said second and said third reservoirs, and a cover member for said supply reservoir and said first channel, said second and third reservoirs being open to the surface of said comb, at least one of said channels being narrow and open to the surface of said comb, whereby the flow of oil from said reservoirs is retarded.

16. In a comb of the class described having teeth and a back, grooves in said teeth open to the surface thereof, a reservoir disposed in said back, and a narrow channel open to the surface of said comb and interconnecting said reservoir and one of said grooves.

SAMUEL KIRSCHENBAUM.