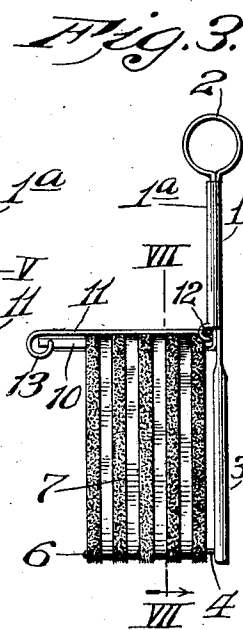
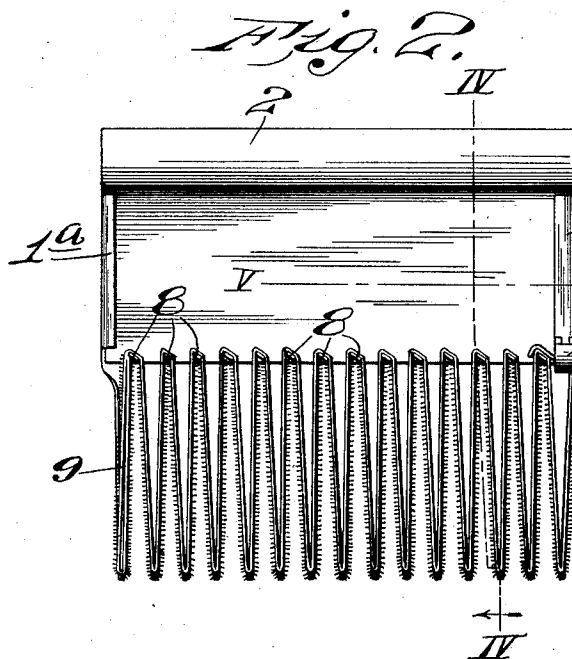
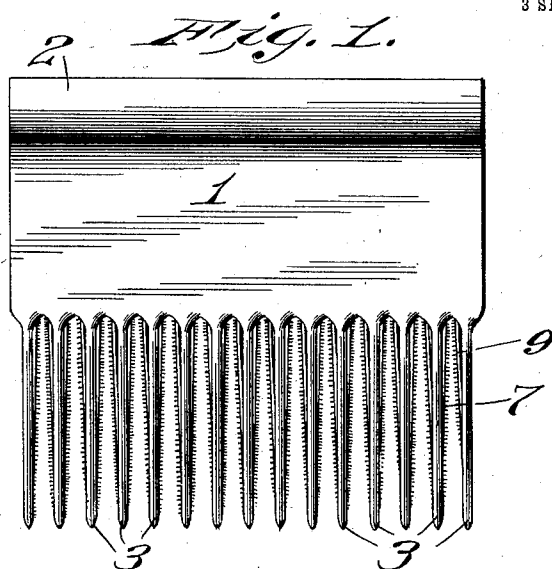


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 ABSORBENT COMB.
 APPLICATION FILED MAY 17, 1911.

1,039,982.

Patented Oct. 1, 1912.

3 SHEETS—SHEET 1.



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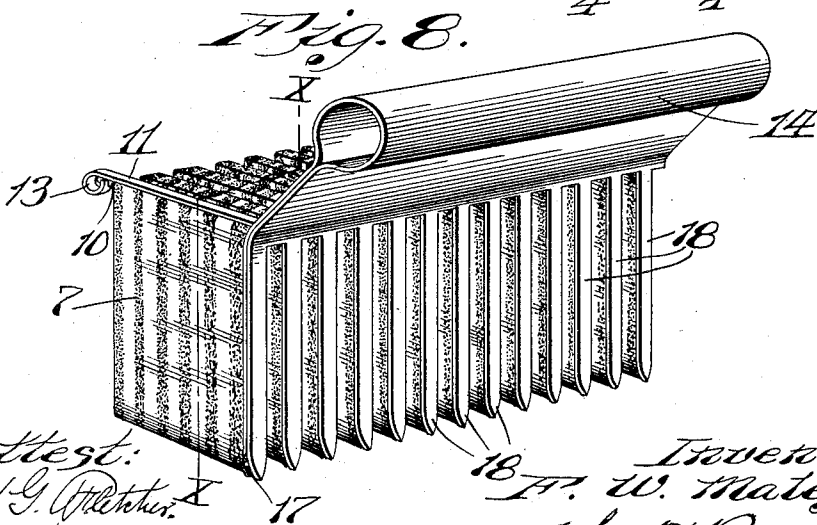
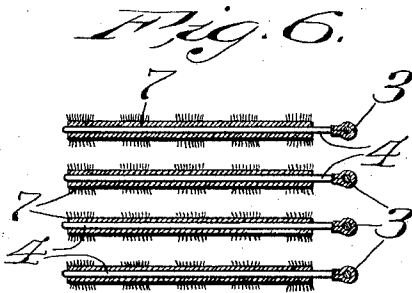
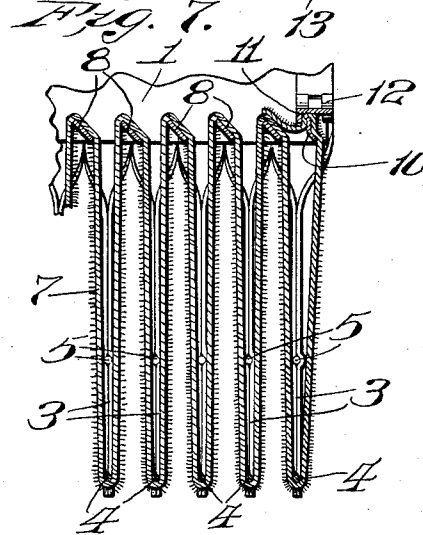
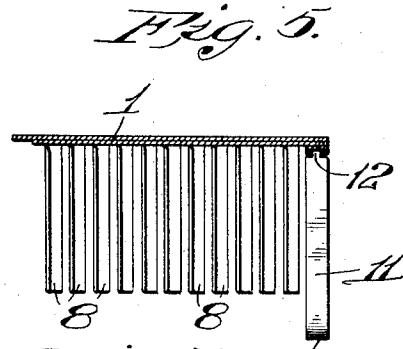
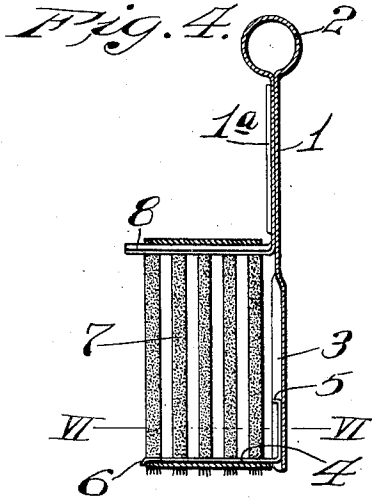
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

Fig. 9.

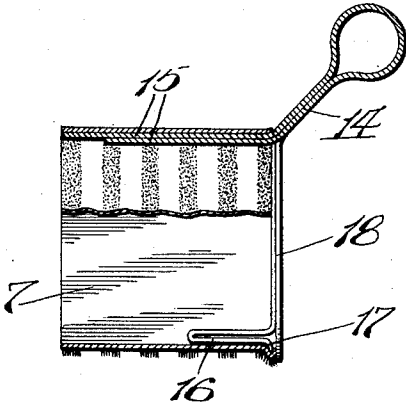


Fig. 10.

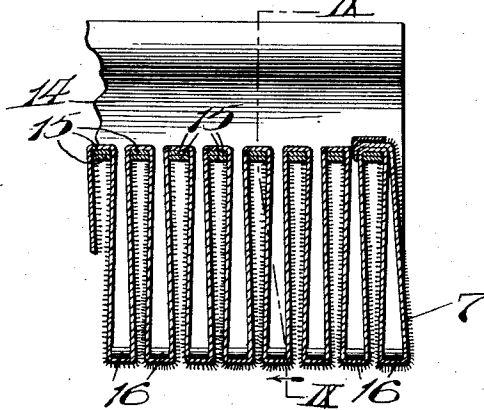


Fig. 11.

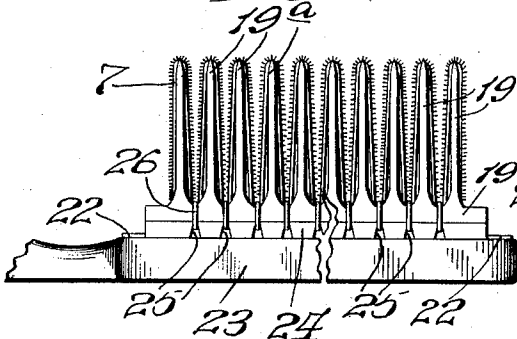


Fig. 12.

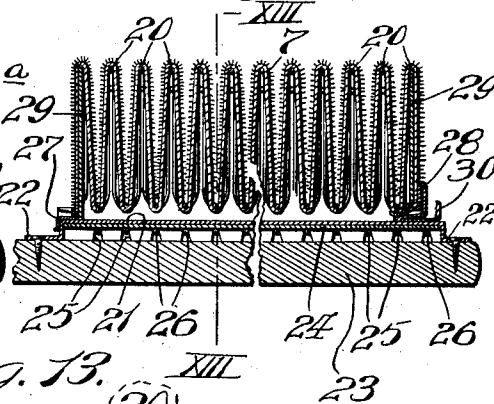


Fig. 13.

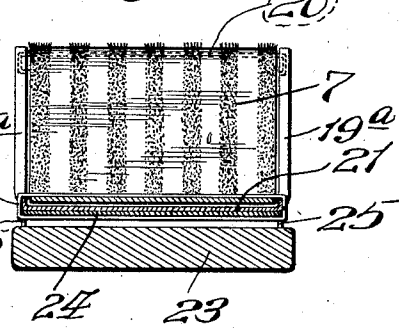
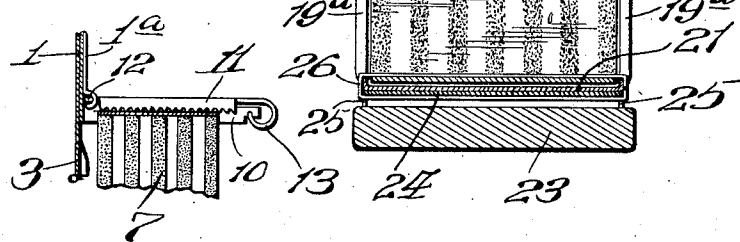


Fig. 14.



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UNITED STATES PATENT OFFICE.

FRED W. MALEY, OF BAKERSFIELD, CALIFORNIA.

ABSORBENT COMB.

1,039,982.

Specification of Letters Patent.

Patented Oct. 1, 1912.

Application filed May 17, 1911. Serial No. 627,746.

To all whom it may concern:

Be it known that I, FRED W. MALEY, a citizen of the United States, and a resident of the city of Bakersfield, in the county of Kern and State of California, have invented a certain new and useful Improvement in Absorbent Combs, of which the following is a specification.

The present invention relates to absorbent combs for use in cleaning and drying the hair, and has for its primary object to provide an improved device of this character consisting essentially in a suitable frame for mounting absorbent material in such position as to engage the hair of the user between opposing surfaces of such material to absorb the moisture and surplus oil in the hair.

A further object is to provide the absorbent material in such a form that the oppositely disposed portions thereof will form miniature combs which are adapted to operate upon each of the hairs individually for scraping off the dandruff and small particles of lint and other foreign matter. In the exemplification shown in the drawings, this purpose is carried out with plush having blank spaces formed in the web for receiving the foreign matter referred to.

Other and further objects will appear in the specification and be specifically pointed out in the appended claims, reference being had to the accompanying drawings exemplifying the invention, and in which—

Figure 1 is a front view of a preferred form of my improved absorbent comb. Fig. 2 is a rear view of the same. Fig. 3 is a side view of the same. Fig. 4 is a vertical section from front to rear on the line IV—IV, Fig. 2. Fig. 5 is a top plan view on the line V—V, Fig. 2, showing the upper or lateral plush holding or stretching tines with the plush removed. Fig. 6 is a horizontal sectional plan view on the line VI—VI, Fig. 4. Fig. 7 is an enlarged sectional view looking from rear to front of the comb on the line VII—VII, Fig. 3. Fig. 8 is a perspective view showing the comb with a slightly modified form of frame. Fig. 9 is a vertical section from front to rear on the line IX—IX, Fig. 10. Fig. 10 is a vertical section from side to side on the line X—X, Fig. 8. Fig. 11 is a side view of still another form of frame for the absorbent comb. Fig. 12 is a longitudinal section through the same. Fig. 13 is a transverse section through the same

on the line XIII—XIII, Fig. 12. Fig. 14 illustrates a detail view of the plush clamping device used in several of the forms of frames.

Referring now in detail to the drawings, the improved comb comprises essentially a frame and strips of absorbent plush carried thereby or stretched thereon. Referring now to Figs. 1 to 7, inclusive, the frame shown therein consists of a handle or gripping portion 1 formed of a sheet of metal bent upon itself to form an enlargement 2, which forms an elongated knob to enable the user to obtain a more secure hold on the comb. The side edges of the folded sheet of material may be folded over in the form of flanges 1^a to hold the two engaging surfaces of the material together and form a stronger handle 1. One of the ends of the folded sheet of material is continued downwardly substantially in line with the handle 1 and is, by vertical splitting and pressing rearwardly, formed into a series of comb teeth 3. This rearward pressing of the portions of the material adjacent the slits or cuts forms a smooth and rearwardly reinforced tooth for the comb, thus giving it greater strength and removing all rough edges. From Fig. 7, it will be seen that the side edges or the edges of material which are adjacent the slits are pressed in to such an extent that they meet in the rear of the tooth 3 and gradually taper outwardly at their upper ends at the tops of the teeth 3. Teeth 3 are thus formed of double thickness with greatest depth in the direction of the strain. At the lower ends, teeth 3 carry laterally projecting tines 4, these tines 4, as shown in Fig. 4, being angular in shape and having a vertical portion extending upwardly inside of the teeth 3 and being provided at the upper ends with a bend 5 to prevent their dropping from their position in the teeth. Tines 4 are also provided at their rear ends with slight bends 6 to prevent the strip of absorbent plush 7 from slipping therefrom, said plush 7 being stretched under tines 4 at the base of the comb and over lateral tines 8 at the base of the handle 1. It will be noted that tines 4 are located slightly above the end of the teeth 3 for a purpose hereinafter described. The tines 8 are formed by slitting vertically the section or rear of the piece of material from which the frame is made, bending into a position perpendicular to said sheet and

twisting said tines 8 to a slight angle to give a greater plush-gripping tendency to the tines 8. Tines 8 are made of slightly greater length than the strip of absorbent plush material 7, it being found that the bur or bend 6 on the tine 4 is sufficient to prevent the strip from slipping off of the tines when properly stretched.

The absorbent plush is applied to the tines 4 and 8 in the manner shown in Fig. 2 wherein a loop 9 is provided at one end of the strip which is placed over the endmost tine 4 and the strip is then stretched upwardly to the nearest tine 8, from thence downwardly to the nearest tine 4, and so on zigzag until the strip has reached the opposite side of the comb, where it passes upwardly from beneath the lower tine 4 and between jaws 10, 11 of a plush clip, the jaw 10 being the endmost lateral tine and the jaw 11 being pivoted at 12 to the handle 1. The pivot 12 is sufficiently loose to enable slight sidewise movement of the jaw 11 so that a projection 13 on the underside of the jaw 11 may be moved under the jaw 10 and thus lock the jaw 11 in clamping position. The loose end of the plush strip 7 may project above the jaw 11 and will not interfere with the use of the comb.

As thus far described, it will be observed, as shown in Figs. 1 and 2, that we have a series of opposing plush faces extending at angles to each other so that they are nearer each other at their upper than at their lower ends and it will be further observed that these plush sections or surfaces are directly back of the teeth 3, as shown in Fig. 1, so that as the comb 1 is drawn over the scalp of the head with the teeth 3 forward, the hair of the user will pass into the elongated wedge shaped openings, formed by the plush strips so that the strips of plush will take up any moisture or excess of oil in the hair and this is facilitated by the teeth 3 opening furrows or paths through the hair and dividing the hair into finer bodies to be acted upon by the plush.

The form of comb shown in Figs. 8 to 10, inclusive, is quite similar to that shown in Fig. 1, but differs therefrom merely in the formation of the upper and the lower tines. In this case, the handle, here numbered 14, is formed by doubling a piece of material upon itself and pinching up the upper tines 15 of double thickness, the under thickness extending not quite so far in length as the upper thickness. The lower tine, here numbered 16, is formed in somewhat the same manner but is abbreviated and bent back upon itself after having been bent inwardly and curved downwardly at its end to form a bur 17 which engage the fabric or strip of absorbent plush. It is found that this will give sufficient lateral rigidity to the strip of plush when in use,

as the separated bodies of hair will press equally against the opposite plush faces of the fabric and cause equal pressure upon the hair resulting in an efficient removal of excess oil, moisture, etc. The comb teeth in the form shown in Figs. 8 to 10 are formed by striking up the upper teeth 15 which leaves separated teeth 18. As it is necessary in order to form integral lower tines 16 that the material from which the handle 14, and in fact the entire frame, is made, must be folded upon itself so as to make the inner layer of much greater depth than the outer. This gives greater length to the instruck upper layer on the upper tine 15 and provides sufficient excess length beyond the required length of teeth 18 to permit the abbreviated lower tines 16 to be formed. In the form shown in Figs. 8 to 10, we have an integral frame. Teeth 18 differ from teeth 3 of the form shown in Figs. 1 to 7 in that the latter are rounded, whereas the form shown in Figs. 8 to 10 are merely pointed at their lower ends. In other respects, the frames correspond in structure, the strip of absorbent plush being applied in the same manner.

In the form shown in Figs. 11 to 13, inclusive, which is more on the order of an ordinary hair brush, a U-shaped frame 19 is provided having a series of upwardly projecting comb teeth 19^a formed by slitting and pressing inwardly the sides of the U-shaped frame to form rounded teeth similar to the teeth of Fig. 1. These teeth appear on both sides of the brush and near their upper end they carry tines which extend across the comb and upon which the strip of absorbent plush is stretched. These tines 20 extend directly across the comb and connect the teeth in pairs. The web 21 of the U-shaped frame is slightly raised and provided with depending securing lugs 22 by means of which the comb may be secured to a suitable back similar to a hair brush back 23. Located beneath the web of the frame 19 is a U-shaped guide plate 24 having at each side a series of apertures or cuts 25 for the purpose later described. This guide plate 24 is trapped or held in position by web 21 of the U-shaped frame 19. The cuts or apertures 25 are located in vertical planes intermediate the vertical planes of the tines 20. 26 is a strip securing cord which is wound about the absorbent strip 7 and threaded through the apertures 25 to perform the function of lower tines in stretching the absorbent cloth. This securing string, such as wire, may be applied with an instrument such as a needle through the apertures 25 and in applying the absorbent strip one end of it is secured in the same manner as heretofore in the forms of comb already described, by a loop engaging one end of the frame and then stretching the

strip over the tines 20 and winding the cord as the stretching proceeds. The openings 25 being wedge-shaped form a grip on the cord which prevents its slipping. The strip of absorbent cloth may be secured to the form shown in Figs. 11 to 13 in any suitable way, such as by the clip 27, similar in arrangement to the clip formed by the jaws 10 and 11, Fig. 3, at one end of the strip and by the spring clip 28 adapted to engage the underside of one of a pair of cross brace plates 29, one of which is located at each end of the brush between the end pairs of teeth and which presses the sides or teeth 19. Clip 28 may be operated or removed by pull 30.

I claim:

1. In an absorbent comb, a frame comprising separate stretching members and absorbent fabric secured at its ends to said frame and stretched between said stretching members.

2. In an absorbent comb, a frame formed with a series of comb teeth, stretching members back of said comb teeth, absorbent fabric stretched between said members and forming opposing absorbent surfaces back of said teeth.

3. In an absorbent comb, a frame provided with projecting comb teeth, and absorbent fabric hung upon said teeth, and means projecting at right angles to the teeth for stretching said absorbent fabric.

4. In a device of the character described, the combination with plush provided with spaced blank spaces formed in the web thereof, of rigidly mounted tines parallelly

disposed in staggered relation to each other for stretching said plush to form a comb.

5. In a device of the character described, the combination with a strip of plush, of means for stretching it in oppositely disposed folds to provide an absorbent comb, said plush being provided with parallel blank spaces in the web thereof, extending longitudinally of said strip.

6. In an absorbent comb, a series of comb teeth, and surfaces of absorbent cloth carried by said teeth behind each tooth and projecting rearwardly therefrom.

7. An absorbent comb comprising a metallic plate folded upon itself to form a handle, and a downwardly projecting portion, said downwardly projecting portion having sections displaced to form laterally projecting tines and vertical comb teeth, and other lateral tines carried at the bottom of the comb teeth with absorbent cloth stretched zigzag between the respective tines.

8. An absorbent comb comprising a metallic plate folded upon itself to form a handle and a downwardly projecting portion, said downwardly projecting portion having sections displaced to form laterally projecting tines and vertical comb teeth and other lateral tines secured to the comb teeth with absorbent cloth stretched zigzag between the respective tines.

FRED W. MALEY.

In the presence of—

B. G. BALLAGH,
BESSIE BRUNSON.