

Dec. 9, 1924.

1,518,480

I. W. P. BUCHANAN

HAIRBRUSH

Filed Sept. 16, 1922

3 Sheets-Sheet 1

Fig. 1.

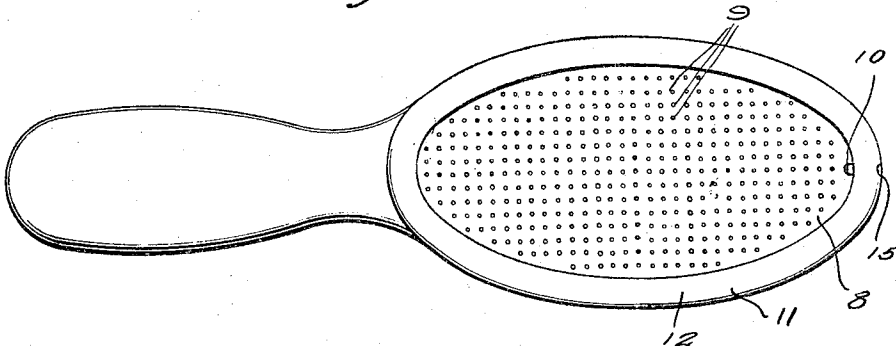


Fig. 2.

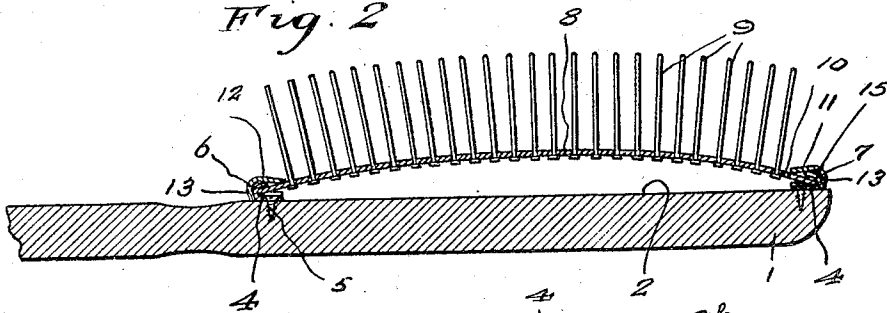
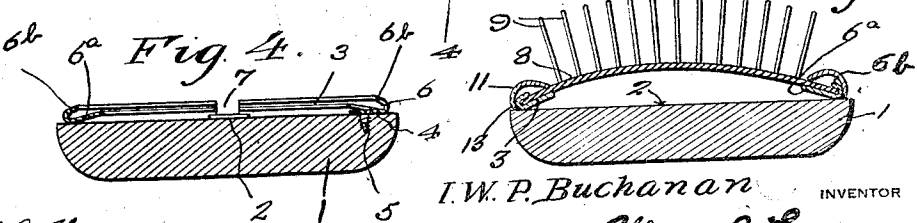
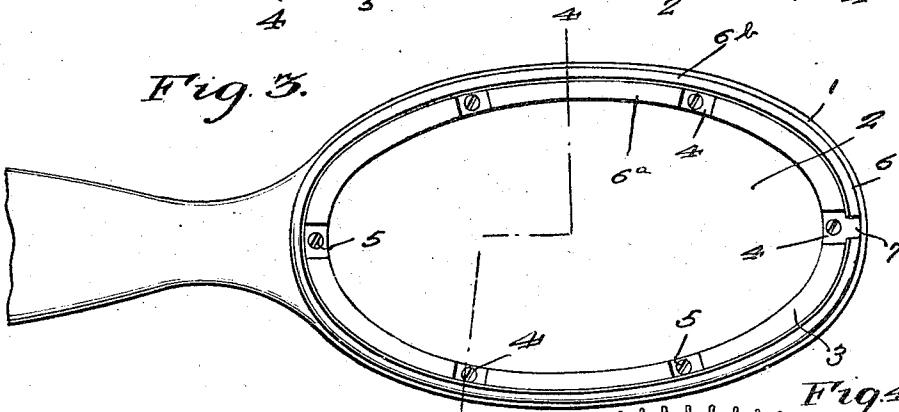


Fig. 3.



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3 Sheets-Sheet 2

Fig. 5.

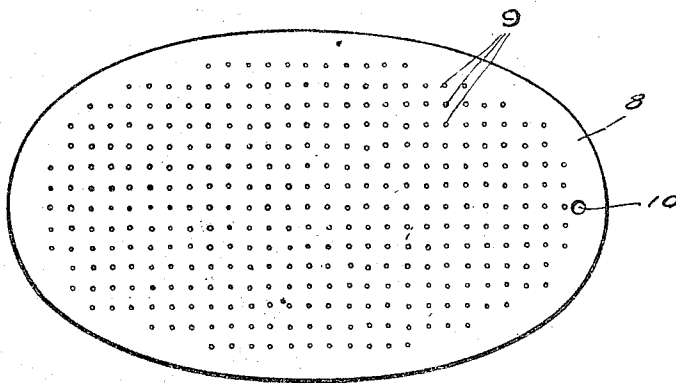


Fig. 6.

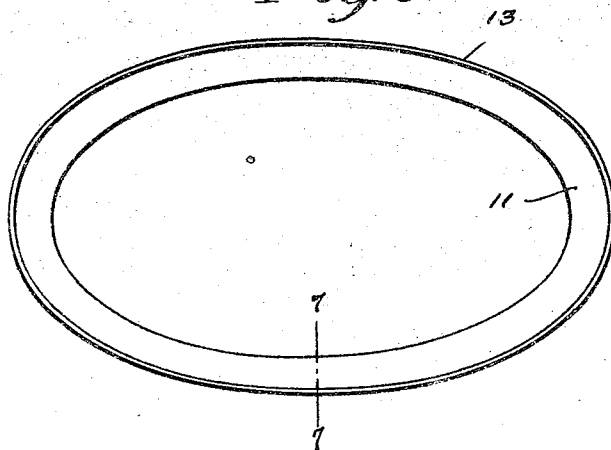


Fig. 7.

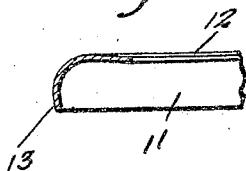
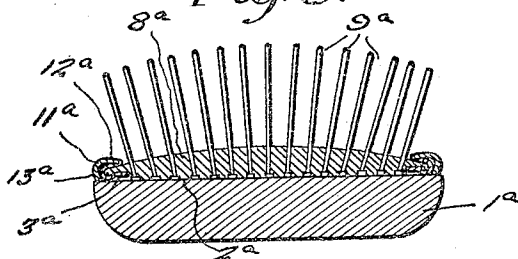


Fig. 8.



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3 Sheets-Sheet 3

Fig. 9.

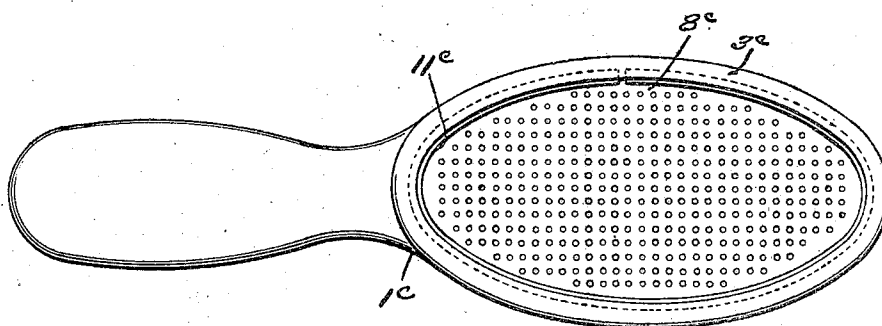
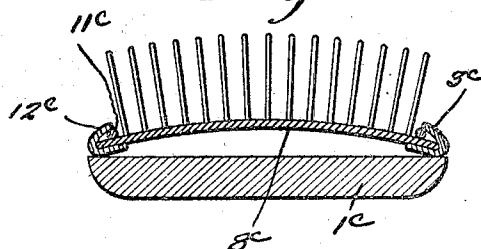


Fig. 10.



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[Signature]

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UNITED STATES PATENT OFFICE.

ISAAC W. P. BUCHANAN, OF LEBANON, TENNESSEE.

HAIRBRUSH.

Application filed September 16, 1922. Serial No. 538,676.

To all whom it may concern:

Be it known that I, ISAAC W. P. BUCHANAN, a citizen of the United States, residing at Lebanon, in the county of Wilson and State of Tennessee, have invented new and useful Improvements in Hair Brushes, of which the following is a specification.

One object of my said invention is the provision of a brush, more especially a hair brush, characterized by a detachable feature which renders feasible effective sterilization by hot water or otherwise without injuring the back with which the brush is ordinarily provided.

Another object is the provision of a hair brush having bristles of metal or alloy adapted to slip through the hair and to straighten out tangles without liability of breaking the hairs.

The renewability of the bristle pad comprised in my novel brush affords a practically new brush for an indefinite period of time at a very low cost.

To the attainment of the foregoing, the invention consists in the improvement as hereinafter described and definitely described.

In the accompanying drawings, forming part of this specification:—

Figure 1 is a plan view showing the bristle side of a hair brush constituting the best practical embodiment of my invention of which I am cognizant.

Figure 2 is an enlarged detail longitudinal section of the same.

Figure 3 is a plan view showing the inner side of the brush head or back.

Figure 4 is a transverse section on the line 4—4 of Figure 3.

Figure 4^a is a transverse section of the complete brush.

Figure 5 is a view of the bristle carrying pad per se.

Figure 6 is an inverted plan view of the resilient or spring fastener member.

Figure 7 is an enlarged section of said fastener, taken on the line 7—7 of Figure 6.

Figure 8 is a transverse section of a modification hereinafter explicitly referred to.

Figure 9 is a face view of another modification.

Figure 10 is a transverse section of the last named modification.

Similar numerals of reference designate corresponding parts in Figures 1 to 7 to which reference will first be made.

The preferred embodiment of my invention shown in Figures 1 to 7 comprises among other elements a head or back 1, the said head particularly for hair brushes being ordinarily finished and handsome. For the sake of clearness I designate the face of the head or back by the reference character 2, Figures 2, 3 and 4. On the said face 2 I secure a keeper in the form of a plate 3 shown as of elliptical configuration. At intervals the said plate 3 is provided with portions 4 struck therefrom and adapted to rest solidly against the flat face 2 and be connected thereto by screws 5 or other appropriate connecting devices. In addition to the flat screw-receiving tongues or portions 4, the keeper plate 3 comprises a rim portion 6, inner flange portions 6^a, located between the tongues 4 and each disposed at an obtuse angle to the face 2, and an outer flange 6^b, the outer flange being of less width than the inner flanges 6^a in about the proportion shown in Figure 4. At the forward end of the brush and coincident with the forward tongue 4, the outer flange 6^b is provided with a notch 7 for a purpose hereinafter set forth.

Detachable from the head or back 1 equipped as described is a bristle carrying pad 8 and a fastener or fastener member 11. The pad 8 is preferably in the form of a sheet of rubber or other appropriate elastic material possessed of a tendency to assume a flat state. The said pad when applied as shown in Figure 2 assumes a concavo-convex state in all directions for a purpose hereinafter pointed out. The bristles 9 carried by the pad 8 may be of any description without involving departure from certain of my appended claims. I prefer, however, to form the bristles 9 of wires with heads at their inner ends, disposed back of the pad 8, the bristles extending through the pad. The free ends of the bristles 9 when the same are formed of metal or alloy are preferably molded at their outer ends so as to adapt them to freely slip through the hair, and not irritate the scalp. When the pad 8 is disposed in the keeper member 3 as shown in Figure 2, it will be manifest that the pad 8 will be buckled or caused to assume and remain in a concavo-convex state so that the bristles 9 will be adequately cushioned and will be permitted to freely move endwise inwardly and outwardly with the pad 8 as well as to swing laterally in all directions, from which it fol-

lows that the body of bristles in use will conform to the configuration of the head of the user and in that way will conduce to the perfect brushing of hair. It will also be noted that with the pad applied as shown in Figure 2 an air cushion is afforded between the head or back 1, and the pad 8, the pad being preferably, though not necessarily, provided with an orifice 10 in communication with the atmosphere so that atmospheric air can freely flow to and from the said chamber.

The fastener member 11 is shown in the form of an open elliptical device characterized by a marginal flange 13 and a face flange 12, the said face flange 12 being preferably pitched inwardly toward the face 2 of the head or back 1, as best shown in Figure 2. At its forward end the fastener member 11 is provided with an aperture 15, Figures 1 and 2, for a purpose hereinafter set forth.

As shown in Figures 1 and 2, the fastener member 11 has been snapped into engagement with the keeper member 3, and consequently the said member 11 will retain itself in position and will strongly hold the bristle pad 8, it being noted that the inner edge of the flange 12 bears on the pad 8 so as to strongly hold the pad between the edge of the flange 12 and the inner edges of the flanges 6^a on the keeper member 3. On the other hand the resilient or spring keeper member 11 is susceptible of being quickly and easily disassociated from the keeper member 3. This will be better appreciated when it is stated that to remove the fastener member 11 it is simply necessary to introduce a nail or a similar instrument through the opening 15 and with the nail bearing against the adjacent tongue 4 or the face 2, to pry the end of the member 11 out of engagement with the adjacent end of the keeper member 3. Subsequent to said disengagement and removal of the keeper member 11, the pad 8 may be expeditiously and easily removed from the keeper member 3 and the head or back 1, and the said pad 8 and its bristles may be subjected to a cleansing operation, and may then be replaced in engagement with the keeper member 3 or if desired a fresh bristle pad may be placed in engagement with the member 3. After the placing of a pad 8 in the keeper member 3 in the manner before described, the pad is adjusted to render it symmetrical, and the fastener member 11 is then placed over the edge portion of the pad, and is engaged with the keeper member 3. In this connection I would have it understood that the rear end of the fastener member is engaged with the corresponding end of the keeper member 3, and the sides of the member 11 are then pressed into engagement with the sides of the keeper member 3, after which the forward end of the fastener member 11 is sprung into engagement with the forward end of the keeper member 3. It

will be manifest that when the fastener member 11 is applied as stated, its flange 13 will hold it on the bight 6 of the keeper member 3 and at the same time the fastener member 11 will completely hide from view the keeper member 3 with the result that the finished appearance of the brush as a whole will be enhanced.

It will be understood from the foregoing that the fastener member 11 springs on the keeper member 3, and by reason of its resiliency retains itself securely on the keeper member 3 without being liable to casual displacement; and it will also be apparent that the confinement of the edge portion of the flexible pad 8 on the inclined flange 6^a of the keeper member 3 serves to adequately support the edge portion of the pad 8 while the pad is in the concavo-convex state illustrated.

It will be further apparent from the foregoing that the usefulness of my novel brush may be prolonged indefinitely by simply renewing the pads 8 as occasion demands.

In the modification shown in Figure 8 the back or head 1^a is equipped on its face 2^a with an elliptical keeper member 3^a of general loop form in cross-section, the said keeper member 3^a being of general elliptical configuration and being fastened to the head or back 1^a so as to receive the edge portion of a thick pad, 8^a, of rubber or equivalent material through which the bristles, 9^a, are extended as illustrated, the heads of the said bristle 9^a being confined in or against the face 2^a of the head or back 1^a. In said modified construction I also employ a fastener member 11^a, the said fastener member 11^a being of elliptical configuration and provided with flanges 12^a and 13^a for the same purposes as the corresponding flanges of the member 11 in Figures 1 and 2.

In the modification shown in Figures 9 and 10 a keeper member 3^c is secured to a head or back 1^c, the bristle carrying pad 8^c similar to pad 8 is arranged with its edge portion in the keeper member 3^c, and a fastener member 11^c is employed, the said fastener member 11^c being in the form of a split resilient loop and being adapted when sprung over the edge portion of the pad 8^c and under the flange 12^c of the member 3^c to strongly though detachably secure the bristle carrying pad, 8^c, in the working position shown in Figures 9 and 10.

I have entered into a detailed description of the construction and relative arrangement of the parts embraced in the present and preferred embodiments of my invention in order to impart a full, clear and exact understanding of the said embodiments. I do not desire, however, to be understood as confining myself to the said specific construction and relative arrangement of parts inasmuch as in the future practice of the invention various changes

and modifications may be made such as fall within the scope of my invention as defined in my appended claims.

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

1. The combination in a brush, of a pad, bristles carried by said pad and arranged in a group spaced from the edge of the pad, a back the face of which is opposed to the back of the pad, keeper means on the back and about the pad and receiving the edge of said pad, and fastening means about the group of bristles carried by the pad and detachably engaged with both the pad and the keeper means; one of the two said means being resilient.

2. The combination in a brush, of a pad, bristles carried by said pad and arranged in a group spaced from the edge of the pad, a back the face of which is opposed to the back of the pad, keeper means on the back and about the pad and receiving the edge of said pad, and fastening means about both the pad and the keeper means and detachably engaged with both of the same; one of the two said means being resilient.

3. In a brush, a back provided with a flat face, a looped keeper member having portions connected to said face and also having a lower flange disposed at an obtuse angle to the face and an outer rounded edge merging into an upper flange overlying and of less width than the lower flange, a flexible, bristle-carrying pad having its edge portion arranged in said keeper member between the upper and lower flange thereof, and a looped resilient fastener member to yieldingly retain itself in engagement with the keeper member and having an inwardly directed flange engaging the bristle-carrying pad.

4. In a brush, a back provided with a flat face, a looped keeper member having portions connected to said face and also having a lower flange disposed at an obtuse angle to the face and an outer rounded edge merging into an upper flange overlying

and of less width than the lower flange, a flexible, bristle-carrying pad having its edge portion arranged in said keeper member between the upper and lower flange thereof, and a looped resilient fastener member to yieldingly retain itself in engagement with the keeper member and having an inwardly directed flange engaging the bristle-carrying pad; the said keeper member having in one end thereof a notch in its upper flange, and the said fastener member having in one end an aperture adapted to register with the said notch for the insertion of a prying instrument.

5. In a brush, a back provided with a flat face, a looped keeper member having portions connected to said face and also having a lower flange disposed at an obtuse angle to the face and an outer rounded edge merging into an upper flange overlying and of less width than the lower flange, a flexible, bristle-carrying pad having its edge portion arranged in said keeper member between the upper and lower flange thereof, and a looped resilient fastener member to yieldingly retain itself in engagement with the keeper member and having an inwardly directed flange engaging the bristle-carrying pad; the said portions of the keeper member being struck from the lower flange thereof and apertured for the passage of connecting devices.

6. The combination in a brush, of a pad, bristles carried by said pad and arranged in a group spaced from the edge of the pad, a back, the face of which is opposed to the back of the pad, keeper means on the back and about the pad and receiving the edge of said pad, the said pad being flexible and the keeper means adjacent to the face of the back being disposed at an angle to said face, and fastening means about both the pad and the keeper means and detachably engaged with both of the same, one of the two said means being resilient.

In testimony whereof I affix my signature.

ISAAC W. P. BUCHANAN.