July 28, 1964 E. L. H. COSBY 3,142,305

FLEXIBLE COMB

Filed Oct. 3, 1961

Fig. 1.

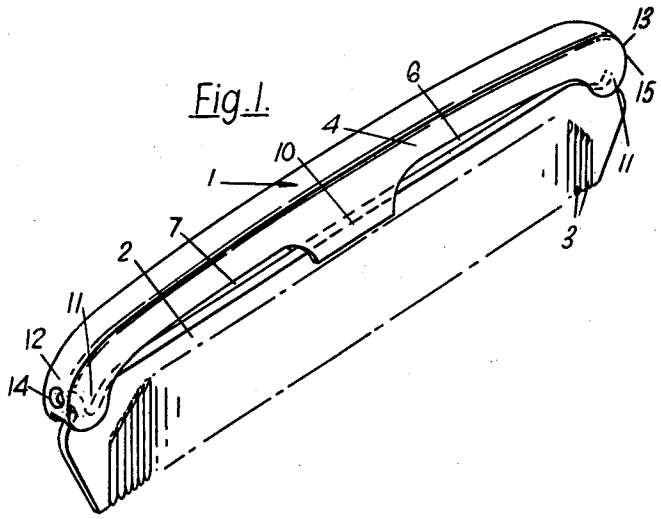
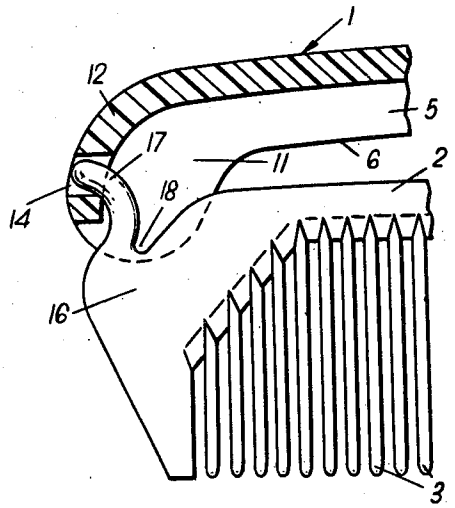


Fig. 2.



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United States Patent Office

3,142,305
Patented July 28, 1964

3,142,305

FLEXIBLE COMB

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Filed Oct. 3, 1961, Ser. No. 142,609
1 Claim. (Cl. 132—155)

The present invention is concerned with toilet combs of the kind comprising a substantially rigid back to which are connected the ends of a resiliently flexible strip carrying the teeth of the comb, the said strip and the row of teeth of the comb being capable of resiliently flexing transversely of the length of the said strip and in the plane of said teeth.

It is an object of the invention to provide an improved toilet comb of this kind which is hygienic and easy to clean.

According to the present invention there is provided a comb comprising a back on which is detachably supported at its ends a comb element comprising a strip bearing teeth along one edge and flexible in the plane containing the strip and teeth, said back member being so configurated as to provide anchorages at its ends for parts provided on the ends of said comb element and to furnish at least one pair of dependent guides embracing the said strip to constrain the latter to flex only in the said plane, whilst leaving the said strip uncovered and visible throughout the greater part of its length.

Thus the back of the comb may be of inverted channel section having its flanges so configurated as to provide portions thereof which constitute guides for said strip centrally and at the ends thereof. The comb element may then carry an upwardly and outwardly directed prong at each end and the back may have closed curved ends provided with holes for engagement with the said prongs.

In order that the invention may be more fully understood one embodiment of the same will now be described by way of example and with reference to the accompanying drawings, wherein:

FIGURE 1 is a perspective view of a comb constructed in accordance with the invention, and

FIGURE 2 is an enlarged side view, partly in section, of one end of the comb shown in FIGURE 1.

Referring to FIGURE 1 of the drawings, it will be seen that the comb there illustrated comprises a rigid back **1** and a comb element comprising a resiliently flexible strip **2** carrying an array of dependent teeth **3**. The back **1** is formed by moulding or any other suitable means of a relatively rigid material such as, for example, a polystyrene resin and is of a closed ended inverted channel section of which the dependent flanges **4** and **5** are formed or cut away along regions **6** and **7** to leave dependent central guide parts **10** and end parts **11**. The cut away regions **6** and **7** are of equal length and are spaced symmetrically with respect to central parts **10** of the flanges **4** and **5**. The closed ends **12** and **13** of the back **1** are of downwardly curved convex configuration and are respectively provided with holes **14** and **15** for anchoring parts on the ends of the strip **2** as will subsequently be described.

The strip **2** and its teeth **3** are formed integrally, for instance, by moulding or by any other suitable means, for example by saw cutting from a resiliently flexible material, for example, a polyamide resin and (as will be seen from FIGURES 1 and 2 of the drawings) the four teeth **3** towards the ends of the strip **1** are of progressively decreasing lengths and the end portions **16** of the strip each have a comparatively large area of plain or unslotted material to afford additional rigidity and strength at such parts.

At each end of the strip **2** the comb element has projecting from its upper part an upstanding and slightly outwardly directed arcuate or concavo-convex shape prong **17** adapted for snap-in engagement with the corresponding hole **14** or **15**. Moreover, a recess **18** is formed adjacent each prong **17** to enhance the resiliency of the prong. It will thus be seen that the prongs **17** engage against the inner lower corner edges respectively of the holes **14** and **15** in the back **1** of the comb and that as the strip **2** bows upwardly between its ends the outer concave edge surfaces of the prong are free to ride over the said corner edges.

When the comb is in use, the strip **2** with the teeth **3** will flex up and down in their own planes relative to the back **1** and the strip **2** will tend to enter the channel section back **1**. The strip **2** will, however, be prevented from flexing forwardly or rearwardly with respect to the back **1** by the central parts **10** and end portions **11** of the back **1**, the parts **10** and **11** constituting guides between which the strip **2** is located and which restrain the strip and teeth from bowing or twisting out of their normal planes of operation.

The cut away regions **6** and **7** enable the greater part of the strip **2** to be clear of the back **1** at all times and thus reduce the risk of build up and trapping of dirt and loose hair in the channel of the back **1** so that the comb is rendered hygienic, easy to clean and the danger of the strip **2** sticking or wedging in the back **1** is virtually eliminated.

Making the strip **2** flexible in the plane of the comb teeth enables the tips of the latter to conform more closely to the shape of the head during a combing operation than is possible with an ordinary rigid comb and is believed to impart a massaging function to the combing operation as well as the normal combing action.

In order to detach the comb element comprising the strip **2** and its teeth **3** from the back **1**, for instance for cleaning purposes, one end of the strip **2** is inwardly compressed so as to cause the strip **2** to bow upwards into the back until the prong at the corresponding end of the element is disengaged from the hole **14** or **15** in the back **1** and then the prong at the other end of the element is withdrawn from the hole in which it is engaged. To reassemble the comb, the reverse of these operations are performed.

I claim:

A comb comprising: a closed ended back member having a top and side walls forming an inverted channel section, the ends of said back member being formed to define holes, a comb element comprising a strip bearing teeth along one edge and flexible in the plane containing the strip and the teeth, an upwardly and outwardly directed prong at each end of said element engaging with play in the holes of the back member, said strip being provided with a recess adjacent each prong to enhance the resiliency thereof, and a pair of centrally

positioned guides extending from the side walls of said back member and embracing the strip to constrain the latter to flex only in said plane, the strip being uncovered and visible throughout the greater part of its length, each prong extending in an upwardly and outwardly curved direction and of circular cross section and the holes in the back member also being circular, and each prong being of concavo-convex configuration as viewed in side elevation.

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