

J. J. RAUH,
 SELF CLEANING COMB.
 APPLICATION FILED FEB. 1, 1910.

992,250.

Patented May 16, 1911.

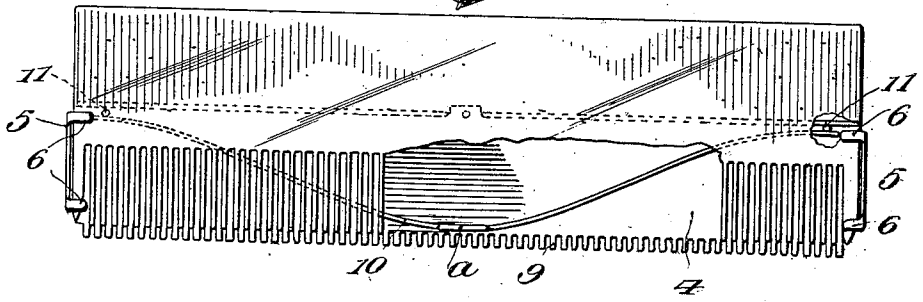
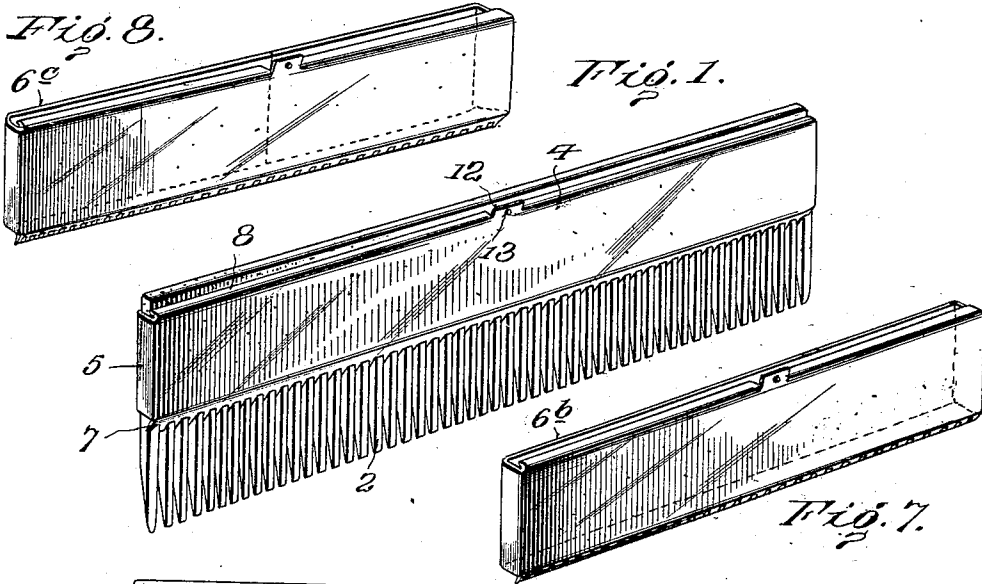


Fig. 3. Fig. 4.

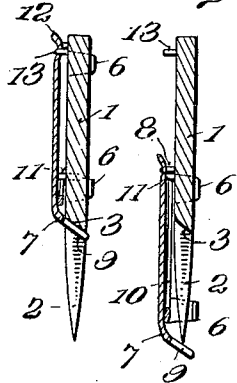
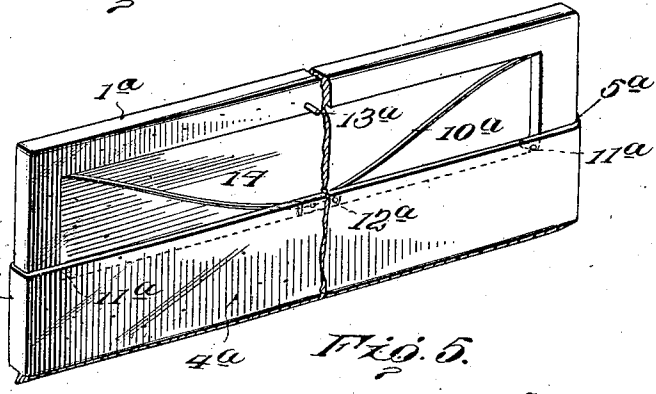


Fig. 2.



Inventor

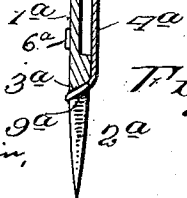
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Witnesses

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Joana M. Fallin,

Fig. 6.



By

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UNITED STATES PATENT OFFICE.

JULIUS J. RAUH, OF NEW YORK, N. Y.

SELF-CLEANING COMB.

992,250.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JULIUS J. RAUH, subject of the Emperor of Germany, residing in New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Self-Cleaning Combs, of which the following is a specification.

This invention comprehends certain new and useful improvements in that class of toilet combs that are provided with cleaning attachments forming part of the comb as an article of manufacture and not distinct or separate therefrom, and the invention has for its primary object a self-cleaning comb of this character which will be simple and durable in construction, attractive in appearance, composed of comparatively few parts that may be easily made and readily assembled and which will be efficient in operation to strip the inner side of the teeth of the comb of dandruff, hair or the like which may otherwise cling thereto after the use of the comb.

With this and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of one form or embodiment of my invention; Fig. 2 is a rear elevation thereof, part of the comb being broken out in order to better show some of the other parts, the cleaning member being shown in extended position relative to the teeth of the comb; Figs. 3 and 4 are transverse sectional views of the device showing the parts in different positions; Fig. 5 is a perspective view of another form in which the invention may be embodied; Fig. 6 is a transverse sectional view thereof; and, Figs. 7 and 8 are perspective views of other forms of cleaning plates which may be employed.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawing, and now particularly to Figs. 1 to 4 inclusive, the numeral 1 designates the body portion of the

comb which may be formed of any desired substance or material, preferably rubber, as the same is not liable to warp or expand and contract, and being of any desired length, width and thickness and formed with any desired number of teeth and of any desired size, the teeth being designated 2. Thus it will be understood that so far as the body portion of the comb is concerned, it may be of any desired construction and size, but it will be particularly noted that the teeth 2 terminate in a beveled edge 3 with which the body portion 1 is formed, for a purpose to be hereinafter described.

4 designates one embodiment of the teeth cleaning member of the device. This member 4 is arranged for a relatively sliding connection with the body portion 1, said connection being of any desired design or arrangement and in the present instance consisting of side flanges 5 formed on the ends of the plate 4 and terminating in retaining lugs or members 6 which engage the rear face of the comb. Obviously, by this specific arrangement of parts the plate 4 may be easily secured to the comb and securely held thereon and also easily detached, should it become necessary to adjust or reassemble the parts. The plate 4, in this embodiment of the device, occupies a slightly elevated position relative to the front face of the comb, as best illustrated in Fig. 3. That is to say, a space is left between the main portion of the plate and the adjacent face of the comb, and the plate is formed at its front or lower edge with a preferably beveled flange 7 designed to engage the adjacent face of the comb and is formed at its upper or rear edge with a corresponding, and preferably right angularly disposed flange 8, also engaging the face of the comb as the plate 4 is slid over the same. The first-named flange 7 terminates in a series of cleaning fingers 9 that are angularly disposed relative to the comb 2 and that are snugly fitted in between the several teeth, as illustrated. Preferably, although I do not intend my invention to be limited in this respect, the fingers 9 are obliquely disposed or beveled, relative to the main portion of the plate 4 just as the edge 3 is angularly disposed or beveled, relative to the main body portion 1 of the comb, this precise construction and arrangement of the parts, together with the snug fit of the fingers between the comb teeth, serving to effect the desired frictional engagement be-

tween the fingers and teeth to effectively strip or wipe the teeth free from all dandruff, hair or the like that would otherwise cling thereto, when the plate 4 is slipped forwardly or downwardly to the position illustrated in Figs. 2 and 4. This action is also promoted by the forwardly inclined position of the fingers 9 as well as the correspondingly inclined flange 7 in which the fingers terminate, while at the same time making the edge 3 beveled correspondingly to the inclination of the fingers 9, admits of the fingers properly engaging the beveled edge 3 throughout the extent of the latter in the retracted position of the plate 4, and thereby prevents any dandruff or the like from being caught between the fingers and such edge, while at the same time all of the arrangements and constructions of the parts just described relative to the said edge and fingers and flange 7 prevent the hair from being caught by the fingers and flange when the comb is being used.

In order to move the plate 4 in an operation to clean the teeth of the comb, I may provide a spring of any desired character, preferably concealed between the plate 4 and the adjacent face of the comb, so as to not only enhance the appearance of the device, but to avoid any tampering with the parts whereby they might become disconnected or otherwise unfit for use. In the present instance, this spring, designated 10, is secured at an intermediate point, by solder or in any other desired way, as indicated at *a*, to the inner face of the plate 4, the spring extending in opposite directions and preferably curved, as shown, from its point of connection *a* and bearing upon pins 11 which are embedded in and which project forwardly from the main face of the comb 1, the spring thereby exerting a tension upon the plate 4 to move it forwardly or downwardly, as is manifest. These pins also serve as stop elements, as they are designed to engage with the flange 8 of the plate 4 so as to limit the forward movement of the plate in the cleaning operation.

In order to hold the plate in retracted position, as illustrated in Fig. 1, and further in Fig. 3, the plate 4 is formed, preferably at its upper edge with a spring catch 12, designed to engage with a pin or keeper 13 secured to the comb 1. In the preferred construction of the parts, this catch 12 is formed by bending outwardly a portion of the metal of which the flange 8 is produced and forming in such outwardly bent portion an opening by which it may be snapped over the pin 13.

From as much of the description as has preceded, together with Figs. 1, 2, 3 and 4 of the accompanying drawing, the operation of this embodiment of my invention will be apparent. In the practical use of the device,

the plate 4 is normally retracted, as illustrated in Figs. 1 and 3, but after the device has been used for a combing operation and it is desired to clean the same, it is only necessary to release the catch 12 from the pin 13 whereupon the spring 10 will be permitted to act to slide the plate 4 forwardly or downwardly, and the forwardly inclined fingers 9, together with the forwardly inclined flange 7, will effectively engage the front and side face of the comb teeth 2 with sufficient friction to wipe the same clean. It is, of course, to be understood that the fingers 9, in their inoperative or retracted position, terminate preferably exactly flush with the rear faces of the teeth 2 and that said fingers, at the limit of the forward movement of the cleaning plate or member 4, occupy a position just beyond the pointed or tapered ends of the teeth 2, so as to insure that the teeth will be wiped clean.

In that embodiment of the invention illustrated in Figs. 5 and 6, 1^a designates the comb, 2^a the teeth terminating in the beveled wall 3^a, and 4^a designates the cleaning member, provided at its ends with flanges 5^a, formed with retaining lugs or members 6^a, the member 4^a being in the form of a flat plate in contradistinction to the plate 4 before described and being provided at one edge with cleaning fingers 9^a substantially like the cleaning fingers 9, above mentioned. This plate 4^a lies flat upon the face of the comb 1^a, and to provide for the required space between the adjacent face of the plate and comb for the accommodation of the spring or springs, and stop pin or pins, the front face of the comb is provided with a recess or cavity 14. In this recess the spring 10^a is received, said spring being secured at about a middle point, and by solder or in any other way to the plate 4^a and having its ends bearing upon one wall of the recess. In this form 11^a designates stop pins which are secured to the plate 4^a and which are designed to engage the lower wall of the recess 14 to limit the cleaning movement of the plate 4^a, and 12^a designates the catch which is designed for engagement with a pin or keeper 13^a projected from the front face of the comb 1^a near the upper edge thereof. The operation of this form is substantially like the embodiment first described, and no further description of the operation is deemed necessary.

It is to be understood that the retaining members may be extended to practically cover the rear side of the comb. Fig. 7 illustrates one modification of this feature, wherein it will be seen that the retaining members, designated 6^b, meet at one end of the comb, Fig. 8 illustrating that form where the retaining members designated 6^c are of equal length and meet at the middle of the rear face of the comb. These modifications would, of course, be obvious to

those skilled in the art to which this invention appertains.

Having thus described the invention, what is claimed as new is:

5 1. As a new article of manufacture, the herein described self-cleaning comb provided with teeth, a plate on one face of the comb and movably connected thereto to move in a plane parallel to the plane of said
10 face, the plate being formed with a plurality of laterally spaced cleaning fingers disposed angularly relative to the plate and projecting in between the teeth, the parts being spaced from each other for a portion
15 of their adjacent faces, a spring mounted in said space and connected to one of said parts and reacting against the other, whereby to move the plate in a direction to carry the cleaning fingers from the inner ends of the
20 teeth to the extremities thereof, said spring being concealed in the space between the plate and the comb in the normal inoperative position of the plate, and means for holding said plate in such position against
25 the tension of said spring.

2. The combination with a comb provided with teeth, of a plate connected thereto and mounted on one face thereof and formed on one edge with cleaning fingers projecting in
30 between the teeth of the comb, the plate being movable in a plane parallel with the face

of the comb, the opposing faces of the plate and comb being spaced from each other, a spring concealed in said space and tending to move the plate in a direction to carry the
35 fingers from the inner ends of the teeth to the extremities thereof, pins mounted in said space and arranged to limit the said movement of the plate, and means for holding the plate in an inoperative position. 40

3. As a new article of manufacture, the herein described self-cleaning comb, comprising a body portion provided with teeth, a plate having a movable connection with
45 said body portion and provided at its upper edge with a spring catch, a pin projected forwardly from the body portion and designed for engagement by said catch, said plate being formed at its lower edge with
50 cleaning fingers projecting in between the teeth, and a spring interposed between said plate and body portion and exerting a tension thereon to move the plate in a direction to carry the fingers from the inner ends of
55 the teeth to the extremities thereof.

In testimony whereof I affix my signature in presence of two witnesses.

JULIUS J. RAUH. [L. S.]

Witnesses:

GEO. M. BROEMLER,
OSCAR E. GAULIET.