Dec. 26, 1967 P. KOBLER 3,359,588

MASSAGE DEVICE

Filed Dec. 14, 1964

Fig. 1

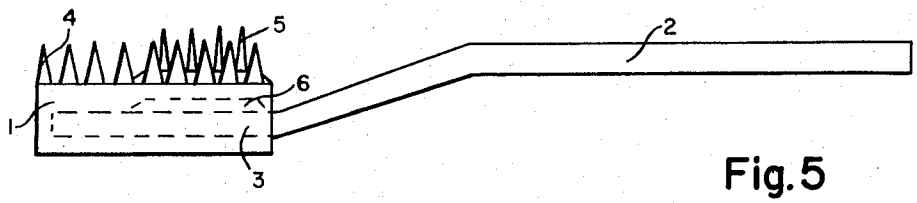


Fig. 2

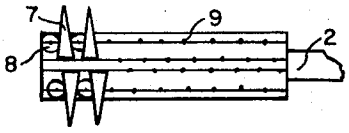


Fig. 3



Fig. 4



Fig. 5

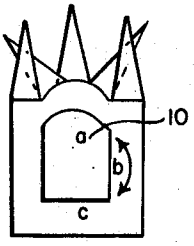


Fig. 6

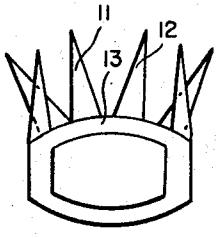


Fig. 7

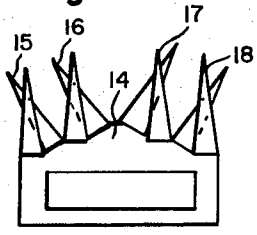
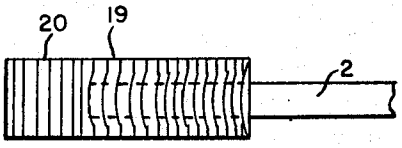


Fig. 8



Paul Kobler

INVENTOR.

United States Patent Office 3,359,588 Patented Dec. 26, 1967

3,359,588

MASSAGE DEVICE

Paul Kobler, 81 Fenimore St., Lynbrook, N.Y. 11563

Filed Dec. 14, 1964, Ser. No. 417,964
6 Claims. (Cl. 15—110)

The invention described here relates to massage heads used on hand, electrical or mechanical tooth brushes. The principal object of the invention is, to make the massage head more effective, especially when it comes to clean and massage the area between two teeth.

Another object of the invention is to make the teeth of the massage head base protruding, in order that they overlap the side of the massage head base, thereby making them more flexible, as they are not fenced in by neighboring massage teeth.

When all teeth stand vertical in a row, the next effective tooth point may be at a very short distance in the second row. While if every other tooth of the massage head base is slantingly protruding crosswise to the length of the massage head base, and overlapping its side, the distance and flexibility of two effective tooth points is greater.

Therefore the possibility that such a tooth point goes or bends effectively into the space of two adjoining human teeth is much greater. This is an important unexpected result, because first, other teeth do not interfere with its flexibility and secondly because the row of the side overlapping teeth gets first in contact with the human teeth, when said massage brush is used in its down massage motion from the gums to the teeth.

A further object of the invention is that the massage head may have a tapered base whereby its beginning may be more narrow than its end. Because to massage the last teeth in the mouth of a person a narrow base is better than a wider one.

In the accompanying drawing:

FIG. 1 shows a side view of a massage head slipped into the end of a toothbrush handle.

FIG. 2 is a top view of such a massage head.

FIG. 3 is a cross section of one end of the massage head while

FIG. 4 is a cross section of the other end of the same massage head.

FIG. 5 is an enlargement of a slightly different embodiment of such a massage head.

FIG. 6 is a cross section of another embodiment.

FIG. 7 is a cross section of another embodiment.

FIG. 8 is a top view of a massage head.

By referring to the drawings and FIG. 1 it will be observed that part **1** is the massage head attached to the brush handle **2**. Part **1** is preferably made out of slightly resilient material. Part **1** consists of a base part with an opening **3** in it, which opening is the means to hold the brush handle **2**.

The massage head base carries on top massage teeth **4** and **5** in a few rows. The teeth **5** are shown on a somewhat higher level than the teeth **4** of the first row. This is possible through the greater width **6** of the tooth brush handle **2**. It also may be seen that this greater width **6** goes only part way into the opening **3** of the massage head base. Therefore the first row of teeth **4** and the rows in back of it are at the same lower level, at one end of the massage head base.

FIG. 2 shows a top view of such a massage head. **2** is part of the brush handle. **7** and **8** are teeth on the massage head. Only 4 vertical upright and 4 teeth slanting outwardly are shown. Dots **9** indicate where the other teeth have their bases on the massage head. If all teeth would be upright, as seen in FIG. 3 the distance between two teeth tops would be the distance of 2 teeth. That is, the teeth of the second row could prevent the teeth of the

first row to go sufficiently between the openings of two adjoining teeth in the mouth of a person. However in FIG. 2 as well as in FIGS. 4, 5, 6, and 7 we see that the first row of teeth is overlapped by the second row of teeth, thereby making the distance of two teeth tops twice as large. As seen in FIG. 2 the distance of the teeth tops from the teeth of the first row to the teeth of the second row is not anymore the distance from 1 tooth to the other, as for instance from **7** to **8** in FIG. 2 it is now a double distance, because the second row teeth overlap the first row teeth. In the distance of the overlapping teeth we see the double distance. In FIG. 4 we have a somewhat different embodiment as there, in the first row of teeth, every second tooth is bent outwardly, which gives the same effect by teeth overlapping as the teeth positions in FIG. 2.

FIG. 5 shows an embodiment where the base of the teeth is partly horizontal and partly round. The overlapping of the second and 4th row teeth with the first and last row teeth is caused by the different shape of the teeth base. In this embodiment we have another new feature. The core of this massage head in FIG. 5 is seen as an opening **10**. This opening **10** is made to hold a massage brush handle end. As the material of the massage head is flexible, this brush handle end may be twisted into another position. The different positions being given as (*a*), (*b*), and (*c*). Accordingly the teeth base would change its shape and the teeth would go from an overlapping position into a straight upward position.

In FIG. 6 we see the teeth base evenly rounded whereby also the two middle rows of teeth stand somewhat slanting while the two outside rows are overlapping each other. It can also be seen that the teeth of the two middle rows **11** and **12** stand a little higher on the rounded base **13**, than the two outside rows of teeth.

In FIG. 7 the base of the teeth **14** has again an entirely different shape, whereby always 2 rows of teeth out of the eight rows of teeth, overlap each other. We have now overlapping teeth in positions **15**, **16**, **17** and **18**. And besides the teeth of positions **16** and **17** stand higher up than those of positions **15** and **18**. It has to be understood that the effect of the teeth on a massage brush on the teeth in a human mouth depends on the height and position of the teeth on said massage brush. Accordingly the tips of the teeth on the massage brush may give a stronger or softer massage on the gums of the human teeth and may clean the space between the human teeth more effectively. As mentioned before, the distance between two teeth tops on the massage brush is very important, otherwise one tooth tip will prevent the next tooth tip from entering sufficiently into the space between two human teeth.

In FIG. 8 we see the top view of a massage head **19** with a brush handle **2**. The brush handle **2** however goes only about two thirds into the massage head. As far as the brush handle **2** goes into the massage head **19**, the surface of that massage head **19** is partly rounded. However the surface of the last third of said massage head, where the brush handle end **2** does not change its shape, the top surface, indicated by **20**, remains horizontal. The effect on the teeth on said massage head surface seen as **19** and **20**, would be teeth straight up and teeth partly slanting and overlapping. The overlapping being illustrated in the FIGS. 2, 4, 5, 6 and 7.

In operation the massage head handle is held by one hand and preferably dipped first into some water or some water poured over the teeth of the massage head base. The bases of the massage teeth being sufficiently near together in order that by capillary action some water drops remain between the teeth, which makes the massaging of the teeth and gums very agreeable. The massage brush in its motions is used like a tooth brush and does not

only polish the teeth to such a degree, that toothpowder is actually unnecessary, but also massages the gums, whereby the blood circulation in the gums is increased and the result are stronger and healthier teeth.

One of the objects of the invention is to double the distance between two teeth points. It has to be explained therefore how this produces an unexpected result. If we take the first row of teeth, all very near together and then the second row of teeth, also very near together and preferably each tooth of the second row situated between the opening of two teeth of the front row, it is obvious that none of all the teeth of the first and second row can actually go between the opening of two adjoining human teeth. That means there, where cleaning is most necessary it does not take place at all, as each tooth of the first and second row of teeth on the massage brush prevents any tooth point to protrude further than the adjoining teeth points.

Thus, in operation, all the teeth points of the massage brush touch all the teeth in the human mouth evenly, and none of the teeth points of the massage brush has a chance to go further between the space of two human adjoining teeth. However as seen in FIG. 2, the teeth of the second row are inclined outwardly and protrude between the opening of two teeth in the front row, all these protruding and outwardly slanting teeth go deep into the space of two adjoining human teeth and polish and clean the teeth surfaces. While formerly the distance of a tooth point of the first row and a tooth point of the second row was the normal distance of adjoining massage teeth, thus forming like a solid wall against the human teeth, now with the outwardly slanting massage teeth of the second row, the distance between one slanting tooth point and the next slanting tooth point is about twice the distance which we had formerly from one tooth point of the first row to the adjoining tooth point of the second row. With the bigger distance between the massage teeth points, these teeth go deeper between the human adjoining teeth. We have with it an important unexpected result.

What I claim is:

1. In a massaging device the combination of a resilient body having a lengthwise opening therein, a thin wall on the underside of the opening, a plurality of teeth with pointed ends projecting from the upper side, opposite said thin wall, said teeth arranged in a plurality of rows, whereby at least one row having teeth crossed by the teeth of the adjoining row of teeth, said teeth of the overlapping adjoining row inclined outwardly and crosswise over the side edge of the resilient body and inclined in the direction away from a middle line of said resilient body with at least the teeth of the adjoining inner row.

2. In a massaging device the combination of a resilient body having a lengthwise opening therein, a thin wall on

the underside of the opening, a plurality of teeth with pointed ends projecting from the upper side, opposite said thin wall, said teeth arranged in a plurality of rows, whereby at least one row having its teeth crossed by the teeth of the adjoining teeth, said teeth of the adjoining teeth inclined outwardly over the side edge of the resilient body-base and inclined crosswise in the direction away from a middle line of said resilient base body.

3. In a tooth and gum massaging device the combination of a resilient base body having a lengthwise opening therein, a thin wall on the underside of the opening, a plurality of teeth with pointed ends projecting from the upperside opposite said thin wall, said teeth arranged in a plurality of rows, whereby at least one row having its teeth crossed below the pointed teeth ends by the teeth of the adjoining row of teeth, said teeth of the overlapping adjoining row inclined outwardly and crosswise over the side edge of the base body, in a direction away from an imaginary middle line, the rows of teeth being displaced relatively to each other in order that the teeth of the second row will go between the opening of two teeth in the front row, with each overlapping tooth end sufficiently spaced from the next overlapping tooth end, their pointed projected ends not prevented by neighboring teeth to enter for cleaning purposes into the space between two human teeth.

4. The device described in claim **3** wherein, the surface of the massage head base holding the massage teeth includes a beginning area of a flat top surface and a continuing top area of a rounded surface.

5. The device described in claim **2**, wherein, the beginning of the flat top surface area of the massage head base is preferably more narrow in its width than the remaining top surface area.

6. The device described in claim **2**, wherein the teeth carrying top surface of said massage head base consists in cross section of several horizontal and adjoining slanting top surfaces, causing the massage teeth to stand overlapping each other in a few adjoining teeth rows.

References Cited

UNITED STATES PATENTS

1,764,130	6/1930	Vardeman	15—188 X
1,892,068	12/1932	Metzler	15—110
2,079,728	5/1937	Arnold.	
2,139,245	12/1938	Ogden	15—110 X
2,155,473	4/1939	Coleman	15—167 X
2,176,309	10/1939	Love et al.	
2,219,753	10/1940	Seguin	15—188

CHARLES A. WILLMUTH, *Primary Examiner.*

P. FELDMAN, *Assistant Examiner.*