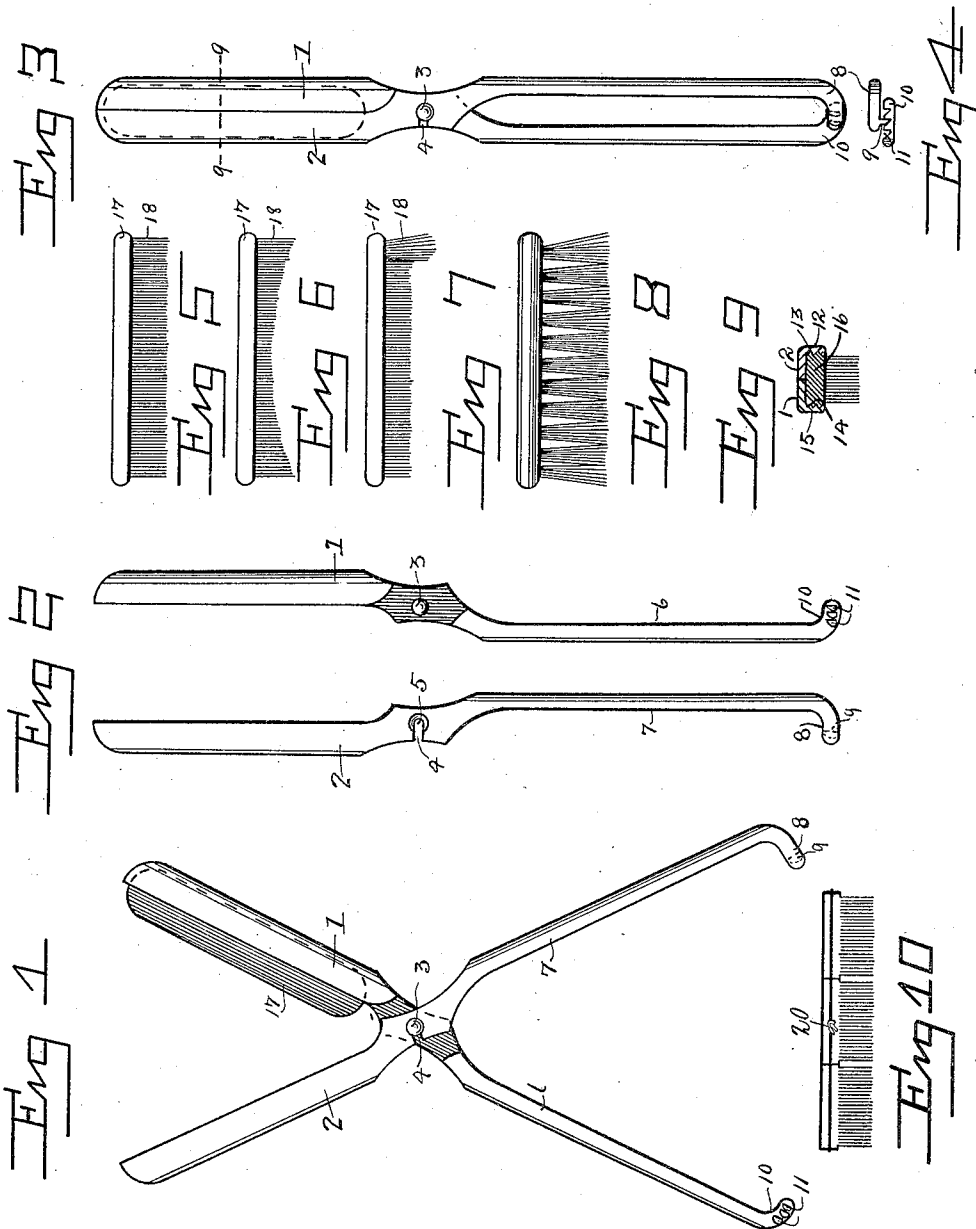


Y. OKAMIYA.
 SANITARY BRUSH.
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1,057,450.

Patented Apr. 1, 1913.



WITNESSES
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YOSHIKAZU OKAMIYA, OF NEW YORK, N. Y.

SANITARY BRUSH.

1,057,450.

Specification of Letters Patent.

Patented Apr. 1, 1913.

Application filed November 20, 1911. Serial No. 661,244.

To all whom it may concern:

Be it known that I, YOSHIKAZU OKAMIYA, a subject of the Emperor of Japan, and resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Sanitary Brushes, of which the following is a specification.

The principle that I have employed is in this instance utilized to produce a sanitary tooth brush, but it is my intention to construct brushes of many kinds and for many uses on the same general plan, so that a single holder which may be of steel and exceedingly plain in design, or of rarer metals more or less ornate, may serve with brush parts of almost any description. In the development of the tooth brush I have employed wood as the brush member though it will appear in the description that I may use a hard backed bristle brush if such is found desirable.

The following is what I consider the best means of carrying out this invention.

The accompanying drawings form a part of this specification, in which:

Figure 1 shows in elevation the holder opened with a brush member in position. Fig. 2 shows the holder disjointed for cleaning. Fig. 3 shows the holder closed and secured, the dotted lines indicate the position of the brush member. Fig. 4 is an end elevation of the holder as shown in Fig. 3. This elevation shows the locking means. Figs. 5, 6, and 7 show brushes constructed of wood. Fig. 8 shows a bristle brush and, Fig. 9 is a section on the line 9-9 in Fig. 3, showing the holder and one of the wooden brushes in position. Fig. 10 shows one of the wooden brushes made of sections.

Similar reference numerals indicate like parts in all the figures where they appear.

This device consists of two permanent parts pivotally connected together and a series of interchangeable or exchangeable members adapted to be clampingly engaged with the pivotally connected parts and to be used therewith. The permanent parts are the tongs 1 and 2, held together by means of the pivot 3, which pivot is secured within the part 1, engaging the part 2 by passing into the notch 4 and rotating in the perforation 5. Each of the members 1 and 2 are provided with an extension or handle as indicated at 6 and 7. The lower

end of the handle 7 is turned inward at a right angle as indicated at 8 and a downwardly projecting spur 9, formed integral with or secured to the inward projection 8 is for a purpose that will appear later. A right angled inward projection 10 is formed at the lower extremity of the handle 6 and is provided with a plurality of notches 11 adapted to lockingly engage with the spur 9. The upper end of each of the members 1 and 2 is hollowed to form a trough. A series of corrugations 12 is produced in the lip or projection 13 of the part 2 and a similar series of teeth 14 is produced in the projection 15 of the part 1. When the device is closed together the stiff back of one of the brush members is held by means of the teeth or corrugations 12 and 14. A back so engaged is shown at 16 in Fig. 9. To retain the brush within the holder the handles are closed together until the projection 8 passes over the projection 10, and the spur 9 engages in one of the notches 11.

The brush which I intend to use with the holder that I have described is made from a short long fibered wood and the back and "bristle" portion are formed integral, the bristles being produced by beating the wood and combing out the beaten pulp. Such a brush is shown in different shapes in Figs. 5, 6 and 7, in which 17 indicates the rigid or back portion, and 18 the beaten portion. A brush of this character has many advantages, as for instance its cheapness allows it to be used but once and then discarded, and its soft pliability insures that it will not injure the gums, or teeth. Many different woods may be used in the production of these brushes, but I have used willow of many varieties, with satisfactory results. I have found that it is not always possible to obtain the wood of a width sufficient to allow the production of the whole brush of but a single piece so I have used smaller blocks of wood as shown in Fig. 10 and I have secured the separate blocks together by means of a thread of copper or silk 20.

I have found that there would result certain advantages from the use of my holder with the ordinary bristle brushes, such as is shown in Fig. 8 as it will allow the brush to be removed for cleaning and the substitution of another even during the useful operation.

Modifications may be made within the

scope of the appended claims without departing from the principle or sacrificing the advantages of this invention.

I have described this invention as applied to a tooth brush but as before stated the idea may be applied to other devices, and brushes other than those described, may be used in conjunction with the holder.

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

1. A tooth brush having a handle and on the same plane therewith a brush holding part formed integral with said handle, said brush holding part being formed as an ob-long box having one open side and having its ends rounded so as to produce no sharp corners or return bends in the interior of said brush holding part.

2. A sanitary tooth brush comprising a

metallic holder in two parts pivotally connected having their upper ends of box-section with but one open side and a handle formed integral therewith, said parts adapted to be readily disengaged one from the other, and each said part being provided with one half of a locking means arranged at one end, in combination with an independent fibrous member of simple construction secured in said holder and operable therein all arranged for joint operation for the purpose set forth.

Signed at New York city N. Y. this 17 day of Nov. 1911 in the presence of two witnesses.

YOSHIKAZU OKAMIYA.

Witnesses:

G. E. STERRITE,
ARTHUR PHELPS MARR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."