J. J. POKORNEY.

DETACHABLE BRUSH.

APPLICATION FILED MAR. 9, 1910.

993,617. Patented May 30, 1911.

Fig. 1.

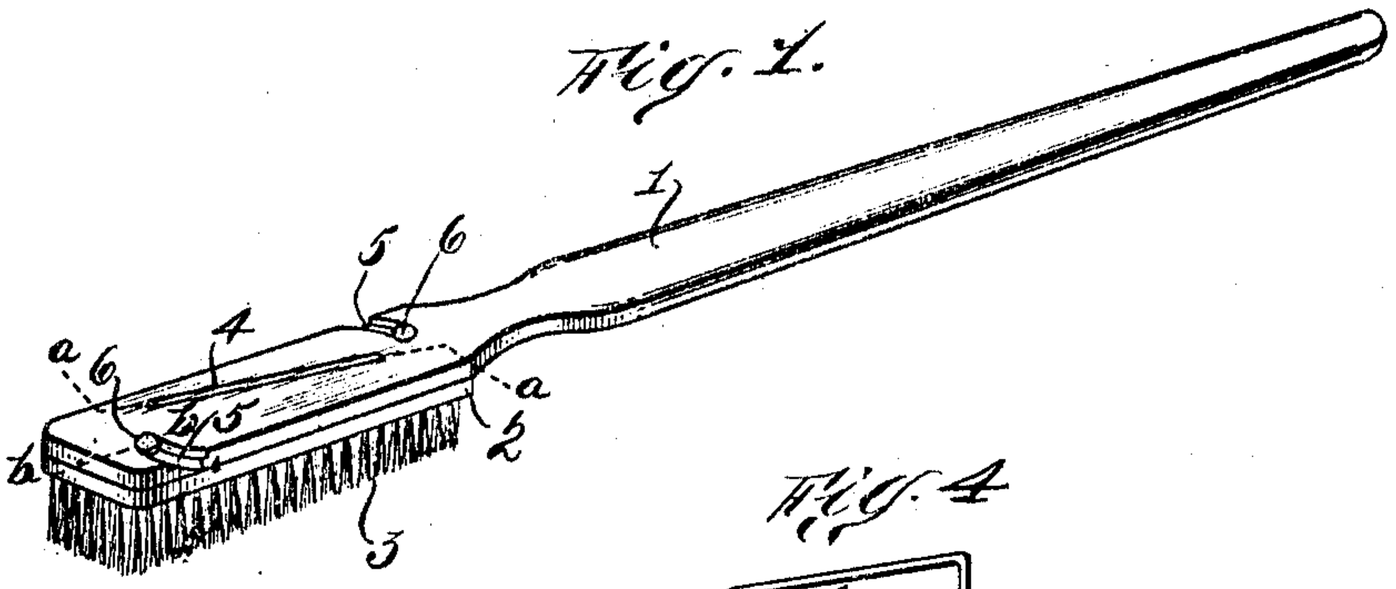
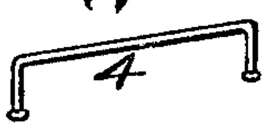


Fig. 4



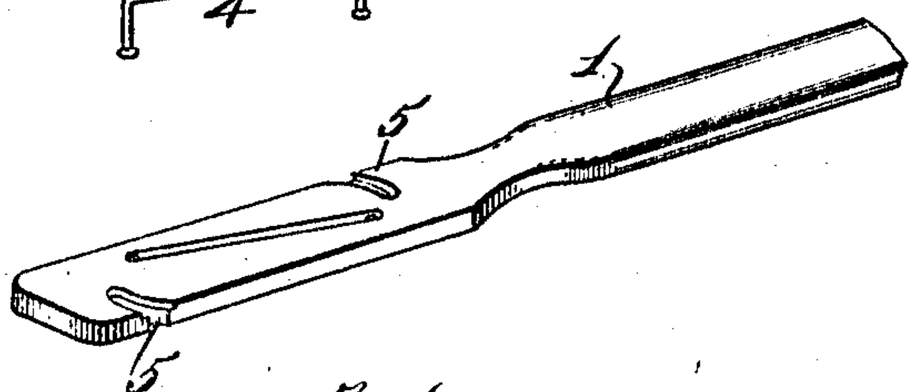


Fig. 2.

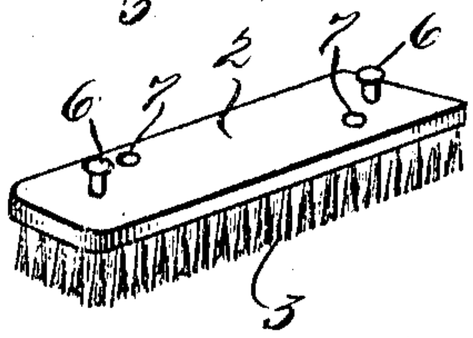


Fig. 3.

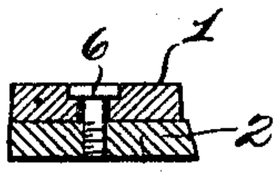


Fig. 7.

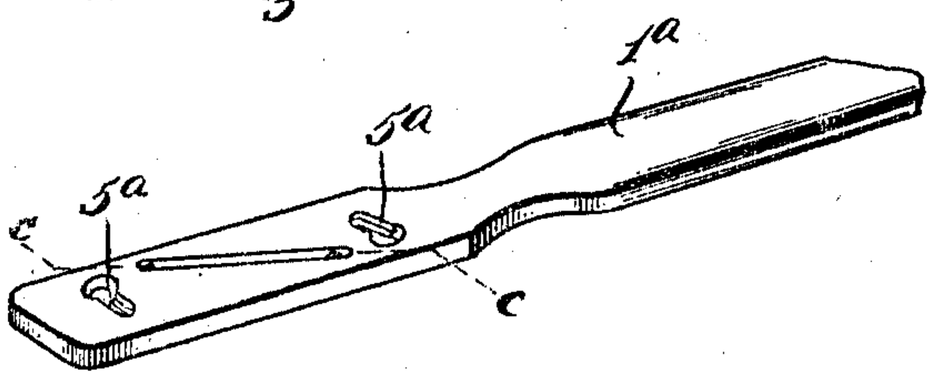


Fig. 5.

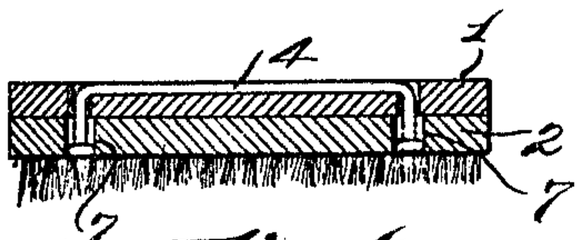


Fig. 6.

Fig. 8.

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UNITED STATES PATENT OFFICE.

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DETACHABLE BRUSH.

993,617. Specification of Letters Patent. Patented May 30, 1911.

Application filed March 9, 1910. Serial No. 548,306.

To all whom it may concern:

Be it known that I, JOHN J. POKORNEY, a citizen of the United States, residing at No. 429 East One hundred and sixty-first street, New York city, State of New York, have invented certain new and useful Improvements in Detachable Brushes, of which the following is a clear, full, and exact description.

This invention relates to an improved form of a detachable brush and although the detachable features of this improvement may be used with any kind of hand brush, such as tooth brush, clothes brush, hair brush, etc., yet I have preferably shown and described my improvement in connection with a tooth brush.

In very expensive toilet sets the articles are often made with handles of gold, silver and other ornamental material, which for sentimental and other reasons, are very desirable to keep long after the brush portion or wearing portion is worn out and ready to be thrown away. By having the brush portion detachable as provided for in the present improvement, this may be renewed at slight cost when worn out and the owner may be able to keep the expensive handle portion a great number of years.

Other advantages, such as the possibility of using brushes of different degrees of stiffness make a detachable brush portion very desirable in tooth brushes.

Further advantages will appear in the following specification which show the preferred embodiment of my invention, the scope of which will be more particularly pointed out in the appended claims.

In the drawings, Figure 1 shows a perspective view of the entire brush and handle assembled. Fig. 2 is a perspective view of the handle member detached. Fig. 3 is a perspective view of the bristle member detached. Fig. 4 is a view of the locking member detached. Fig. 5 is a view of a modified form of handle. Fig. 6 is a section along *a*—*a* of Fig. 1, showing arrangement of locking member. Fig. 7 is a fragmentary section through *b*—*b* Fig. 1 and showing retaining pins. Fig. 8 is a section along *c*—*c* of Fig. 5 showing the locking member in the modification.

Referring to the drawings, the handle of the brush is indicated at 1 and as shown is of the usual form and provided with slots 5 near one end, preferably located at opposite sides thereof. It is obvious that these slots may be at any other location than that shown, but for the purposes of strength they are preferably located at opposite sides. These slots also need not necessarily be open at one end, but as shown in Fig. 5 at 5^a may be constructed with a larger entrance communicating with a narrower neck portion.

The bristle member indicated at 2 is of the usual form, carrying bristles 3 and is provided with upwardly projecting retaining pins 6 which have an enlarged head portion, whereby when the pins are made to engage the narrow portion of the slots 5 or 5^a, these enlarged heads act to hold the bristle member 2 and the handle member 1 together. The upper sides of these slots are preferably countersunk so that the upper ends of the retaining pins will be below the surface of the brush handle. While held together in this way, the members may slide away from each other as is clear, and to prevent this, the preferred form of locking means shown in the drawings is provided.

Both the bristle member 2 and the handle member 1 are provided with a plurality of holes, usually two such as indicated at 7 in Fig. 3. It is understood that the holes in the handle member 1 register with the holes in the bristle member 2 when these parts are fitted together, in which case a locking member such as a spring wire 4, with downwardly bent ends may be inserted in these holes and thus prevent the bristle member and handle from sliding apart. The spring of the wire retains the ends of the same down in the holes. To prevent this locking member 4 from becoming separated from the handle, I preferably upset the ends slightly as shown after they have been inserted through the holes in the handle. The holes in the bristle member 2 are therefore correspondingly enlarged to receive these upset ends as shown in Fig. 6. Thus it is seen that the pins 6 prevent the separation of the members in one direction, while the locking member 4 prevents their sliding apart in the other direction, thus forming a complete locking means.

In the modification shown in Figs. 5 and 8 the slots 5^a do not extend to the edge of the brush handle 1^a, but have an enlarged opening for entrance communicating with a narrow neck retaining portion. The retaining portion of the slot is countersunk in the same manner as slots 5 to receive the pins 6.

The perforations in handle 1^a to receive the locking member 4^a are also countersunk at their under side to allow the upset ends of the locking member to be flush with the under surface of the handle member 1^a.

Since it is almost essential in tooth brushes to present always a smooth exterior surface and any projection therefrom would therefore be a serious defect, I preferably form a groove in the back of the handle, to receive the longitudinal portion of the wire 4 and as before stated countersink the slots, 5^a which receive the pins 6.

What I claim is:—

1. In a brush, the combination of a handle member, a brush member, means at two points of each of said members for securing them together, said means comprising two headed pins on one member and two laterally extending transverse countersunk slots in the other member, said means permitting separation in a direction laterally of said two members, and locking means movable relatively to but inseparable from one of said members, and arranged between the two points of location of said securing means for locking said members together at two points against any movement tending to separate said two members in said lateral direction.

2. In a brush, the combination of a handle member, a brush member, means for removably securing them together and to oppose separation of said members in one direction, and locking means for securing said members together to oppose movement in another direction, said locking means comprising registrable holes located toward the ends of both members, and a locking member having ends for conjoint insertion in the registrable holes, said locking member comprising a transverse bar and said ends, having headed extremities whereby it is made inseparable from one of said members.

3. As an article of manufacture a brush comprising a handle member and a brush member, said members having means for detachably securing them together, comprising pins having enlarged heads on one of said members, the other member having countersunk slots to receive said pins, whereby the heads of said pins may be below the surface of said slotted member, both of said members having a plurality of holes adapted to be in registration and a locking member having bent ends extending through and retained in one member, said ends adapted to be inserted in the second member for locking said members together, said pins and locking member all being within the surface of said handle and brush member when the parts of the brush are in position for use.

4. In a brush, the combination of a handle member, a brush member, means at two points of each of said members for securing them together, said means comprising pins on one member and laterally extending transverse slots in the other member, said means permitting separation in a direction laterally of said two members, and locking means movable relatively to but inseparable from one of said members, and arranged between the points of location of said securing means for locking said members together against any movement tending to separate said two members in said lateral direction.

5. In a brush, the combination of a handle member, a brush member, means for removably securing them together and to oppose separation of said members in one direction, and locking means for securing said members together to oppose movement in another direction, said locking means comprising registrable holes located toward the ends of both members, and a locking member having ends for conjoint insertion in the registrable holes whereby it is made inseparable from one of said members.

Signed at New York city, N. Y. this 26th day of February 1910.

JOHN J. POKORNEY.

Witnesses:
BEATRICE MIRVIS,
NATHAN EPSTEIN.