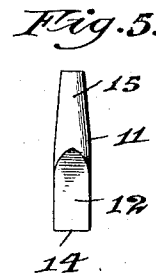
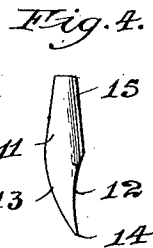
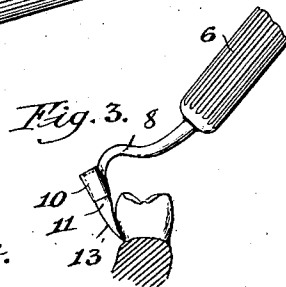
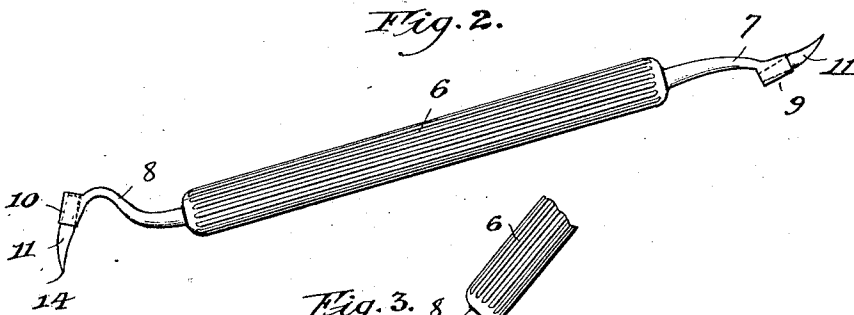
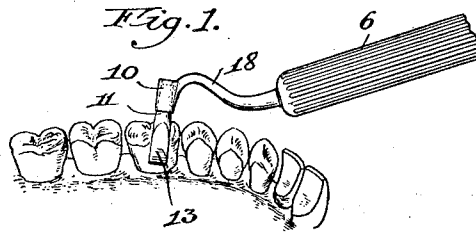


F. H. SKINNER.
DENTAL TOOL.
APPLICATION FILED MAY 5, 1911.

1,003,213.

Patented Sept. 12, 1911.



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UNITED STATES PATENT OFFICE.

FRANK H. SKINNER, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO JOHN L. KELLY, OF CHICAGO, ILLINOIS.

DENTAL TOOL.

1,003,213.

Specification of Letters Patent.

Patented Sept. 12, 1911.

Application filed May 5, 1911. Serial No. 625,362.

To all whom it may concern:

Be it known that I, FRANK H. SKINNER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dental Tools, of which the following is a specification.

My invention relates in general to dental tools, and has reference more particularly to a tool in the nature of a tooth polisher, intended to prevent decay of the teeth by removing the gelatinoid plaques or scales which rapidly form on the surfaces of the teeth and under which decay takes place, which plaques or scales are not ordinarily removed by the use of an ordinary tooth brush.

A tool of the general character to which my invention relates is shown in the patent to John L. Kelly, No. 971,382, granted September 27, 1910; and my present improvements relate to a novel form and structure of wooden polishing point adapted to be mounted in and carried by the bored heads of such a tool. These wooden points constitute the immediate tooth-engaging parts of the tool; and, in use, are commonly dipped into flour of pumice, silex, or precipitated chalk and are then vigorously rubbed over the exposed surfaces of the teeth; and the general object or purpose of the present invention is to provide such a wooden point as will, when carried by a suitable holder, reach and polish those practically inaccessible places on the tooth surfaces which are seldom or never reached with a brush.

My invention, its mode of use, and its advantages, will all be readily understood when considered in connection with the accompanying drawing, in which—

Figure 1 is a perspective elevation of a tooth polisher equipped with the device of my invention, the latter being shown in working relation to one of the lower molars of the left jaw. Fig. 2 is a perspective elevation of the complete tool. Fig. 3 is a detail view in a plane substantially at right-angles to that of Fig. 1, and more particularly illustrating the manner in which the working face and edge of the polishing point is adapted to engage the rounded or convex side and neck of a molar. Figs. 4 and 5 are, respectively, side and face elevations of the polishing point detached from the holder.

Referring to the drawings, 6 designates the handle portion of the holder, to the opposite ends of which are connected by shanks or stems 7 and 8, heads 9 and 10, which latter are formed with tapered axial bores adapted to receive the correspondingly tapered shanks or stems of the wooden polishing points, substantially as shown and described in the Letters Patent to John L. Kelly, No. 971,382, above referred to. It is here noted that the shanks or stems 7 and 8 of the holder extend at different angles from the handle portion 6, while the axes of the bored heads 9 and 10 are likewise at different angles to the handle portion 6, for the purpose of enabling the operator more readily to reach different portions of the mouth and likewise different surfaces of the same tooth.

Referring now to that part of the complete tool in which the novelty of my present invention resides, 11 designates as a whole my improved polishing point, which is preferably made of some hard, tough wood, such as orange wood. The chief distinguishing structural features of this point consist in a broad concave surface 12, constituting the working face of the point, a rounded or convex back surface 13 which affords a sufficient body of wood to reinforce the concave or polishing side 12, a straight and comparatively thin edge 14 at the extreme working end of the point, and a smooth tapered stem or shank 15 adapted to snugly fit the tapered bore of either of the heads 9 and 10 with a sufficient degree of friction to prevent turning of the point in the head when the tool is at work. Describing with a little more particularity the uses and functions of the several structural features just pointed out, and, first, with reference to the functions of the opposite concave and convex sides 12 and 13, it is well known that the surfaces of all teeth are more or less convex, especially the lingual surfaces of lower molars and bicuspsids which usually tip in as well as the upper second and third molars, which have a considerable rounding contour or bell-shape and frequently tip out and backward, so that it is difficult and practically impossible to reach all of these surfaces with a polishing point that has merely a flat tapered surface on both sides. Figs. 1 and 3 of the drawings illustrate how, by means of the concave

polishing surface, in combination with the
 contra-angle bends presented by the shanks
 7 and 8 and heads 9 and 10, it is possible to
 reach and polish all of the surfaces of the
 5 teeth except the surfaces near the contact
 points which, of course, are ordinarily
 reached only with a ribbon or dental floss.
 Not only does the concave surface of the
 point facilitate the rubbing and polishing
 10 of the convex surfaces of the teeth, and par-
 ticularly the disto-buccal regions of the
 first, second, and third molars, but the con-
 cave formation greatly facilitates the access
 of the lower edge 14 of the point to the cer-
 15 vical or neck region of the tooth, which is
 so sensitive and painful to fill, so that the
 latter, as well as the more open and exposed
 surfaces of the teeth can, by frequent use of
 the tool, be kept free from the formation
 20 of plaques and scales, and the resulting de-
 cay prevented. It should further be noted
 that the use of the smooth tapered shank 15
 on the polishing point in combination with
 a correspondingly shaped socket or bore in
 25 the head of the handle makes it possible for
 the operator to readily turn the point in the
 socket so as to bring the working surface

12 and working lower edge 14 at any de-
 sired angle to the handle. At the same time,
 the pressure applied to the point in the use 30
 of the tool creates a sufficiently tight fit of
 the shank of the point in the head of the
 handle to prevent the point from becoming
 loose or falling out.

From the foregoing it will be evident that 35
 the device described finds its principal
 utility in prophylaxis treatments which
 may, of course, be given either by the dentist
 or by the patient, who, with a little instruc-
 tion soon learns the use of the tool. 40

I claim—

A tooth polisher of the character de-
 scribed, consisting of a piece of wood
 formed with a concave working surface on
 one side, a convex back on the opposite side, 45
 a polishing edge at its lower end, and a
 smooth tapered shank portion adapted to
 engage the socketed end of a suitable holder,
 substantially as described.

FRANK H. SKINNER.

Witnesses:

SAMUEL N. POND,
 DAISY C. THORSEN.

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