R. B. DONALDSON.

Manufacture of Dentist's Tool for Cleaning Nerve Cavity.

No. 202,006. Patented April 2, 1878.

Figure 1.

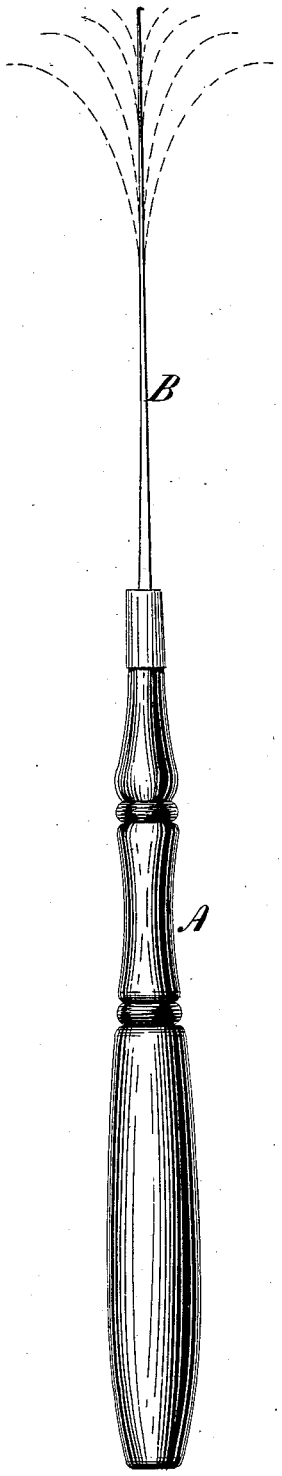

Figure 3.

Figure 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

ROBERT B. DONALDSON, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN THE MANUFACTURE OF DENTISTS' TOOLS FOR CLEANING NERVE-CAVITIES.

Specification forming part of Letters Patent No. **202,006**, dated April 2, 1878; application filed March 9, 1878.

To all whom it may concern:

Be it known that I, ROBERT B. DONALDSON, of Washington, District of Columbia, have invented a certain Improvement in the Manufacture of Dentists' Tools for Cleaning Nerve-Cavities, of which the following is a specification:

My improvement relates to the class of instruments known as "dental bristles," which, as heretofore made, have consisted of a fine wire of soft steel, about two inches long, thickened at one end, and attached to a handle, and pointed, hooked, or barbed at the other end.

The usefulness of such instruments has been limited, owing to their deficiency in stiffness, their want of elasticity, and liability to break off in the tooth when in use.

My invention, the object of which is to correct these defects, consists in cutting or shearing from a thin strip of suitably-tempered steel wedged-shaped blanks about one-twenty-fourth of an inch wide at the base, and, say, two inches, more or less, in length, and in then rounding their corners by slow filing or grinding, with such moderate pressure as will avoid heating the blanks and drawing their temper.

The blanks are finished into dental bristles by being provided with the usual points, hooks, or barbs at their thinner ends, and being fastened by their thicker ends into suitable handles. The result produced is a dental bristle having a spring-temper, which greatly improves the instrument for employment in removing nerves, and cleaning deep and crooked nerve-cavities, and renders it unlikely to break in ordinary use.

The accompanying drawings represent my improved dental bristle.

Figure 1 is an elevation of a bristle provided with a hook at the end and affixed to a handle, and Fig. 2 is a view of the end portion of a barbed bristle. Fig. 3 is a view of a pointed bristle.

On reference to the drawings, it will be seen that the instrument is provided with a handle, A, which may be of any convenient shape, and to which is affixed the bristle B.

The dotted lines are intended to indicate in a general way the character of the oscillation of which the bristle is susceptible, and to illustrate its elasticity.

I have found that an ordinary clock-spring is of about the right thickness, and is of suitable temper for my purposes. In manufacturing it into bristles, as I have described, the clock-spring should be first straightened, and the blanks may then be sheared from it by ordinary shears for cutting metal, or by suitable dies, such as are in use for shearing metal.

It is desirable that the motions, both in straightening the spring and in shearing the blanks therefrom, should be slow and careful, so that the material may not be heated thereby.

The characteristic qualities of my improved bristle, by which it is readily distinguishable, are its stiffness and its elasticity.

I claim as my invention—

1. The improvement in the manufacture of dental bristles herein described, which consists in shearing or cutting from a thin strip of suitably-tempered steel wedge-shaped blanks of the desired size, and in then rounding the corners of the blanks by filing or grinding them with moderate pressure, and, finally, in forming the thinner ends of the blanks into the usual points, hooks, or barbs, and attaching them by the thicker ends to suitable handles, in the usual manner, substantially as described.

2. As a new article of manufacture, a dental bristle having a spring-temper, substantially as described.

R. B. DONALDSON.

Witnesses:

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