(No Model.)

R. BARTON.

DENTAL GRINDING TOOL.

No. 261,198. Patented July 18, 1882.

Fig. 1.

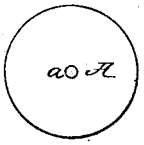

Fig. 2.

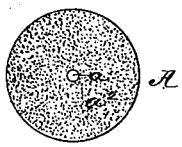

Fig. 4.

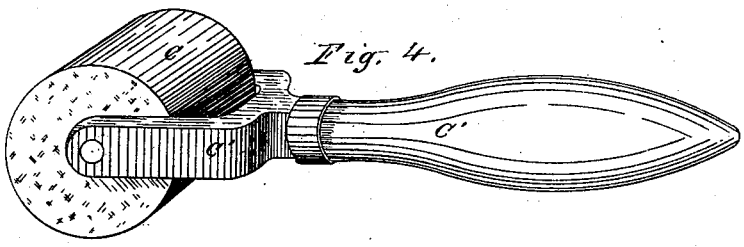

Fig. 3.

WITNESSES—

Fred. C. Adams

Frank. D. Thomason

INVENTOR—

Richard Barton

per W. E. Dawson

Attorney

UNITED STATES PATENT OFFICE.

RICHARD BARTON, OF ROCKFORD, ILLINOIS.

DENTAL GRINDING-TOOL.

SPECIFICATION forming part of Letters Patent No. 261,198, dated July 18, 1882.

Application filed July 12, 1881. (No model.)

To all whom it may concern:

Be it known that I, RICHARD BARTON, of Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Dental Grinding-Tools; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention consists in the improved method of charging the disks of dental tools with hard granular substances, as hereinafter described.

In the drawings, Figure 1 is an elevation of a plain disk of copper or similar soft metal. Fig. 2 shows the same disk having my improvement applied thereto. Fig. 3 is a perspective view of a flat copper strip having emery fragments embedded in its surface. Fig. 4 is a perspective view of a roller for applying the emery to the metal.

A is a thin disk, made of sheet-copper or other soft metal, adapted to be connected in a dental lathe by a central aperture, *a*, fitted to the lathe-arbor. The surface of the disk after the emery is applied, as herein described, is indicated at a^2.

B is a strip of copper of any desired length and thickness, having emery particles impressed therein, as indicated at a^3.

C is a metal roller for the application of the emery to the disk or plate, provided with the bifurcated handle C′. It is of length preferably equal to the diameter of the disk upon which it is to be used; but it may be shorter, if desired.

In the construction of my improved tool, when the same is of disk form, the disk is secured against a faced chuck of a lathe, and against the opposite or exposed surface of the disk the roller C, supported by the stout handle C′ and bearing a body of oil and emery on its cylindric face, is pressed while the disk is rapidly revolved. By this means the different parts of the disk-surface are repeatedly brought beneath the roller and all portions thereof become densely covered to a uniform elevation with the emery particles securely embedded therein. Moreover, by my improved method of embedding the granular substance in the disk much time and labor are saved, as the disks can be charged very rapidly as well as much more evenly than by hand. One surface of the disk having been covered in the manner described, the disk is removed from the chuck and reversed, and the newly-exposed surface is in like manner covered. In this operation the disk is retained in its original flat form.

To give a grinding-surface to the edge of the disk, the latter may be mounted on an arbor and rotated against the roller C, or fastened to a faced chuck smaller than the disk, whereby the edge is exposed squarely to the surface of the roller.

The emery is applied to the strip form of tool B by placing the same on a plane surface and passing the roller C, charged with emery as described, back and forth over the same under pressure.

Other soft metal may obviously be used as the base instead of copper, and any granular substance other than emery may be used, if desired.

I claim as my invention—

The method of embedding hard granular substances in the surfaces of a disk—namely, by rotating the disk in a lathe and pressing against the same with a roller the surface of which is charged with the granular material, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

RICHARD BARTON.

Witnesses:

M. E. DAYTON,

JESSE COX, Jr.