No. 661,282. Patented Nov. 6, 1900.

C. C. BACHMAN.

DENTAL POLISHING AND FINISHING TOOL.

(Application filed Dec. 30, 1899.)

(No Model.)

Fig. 1.

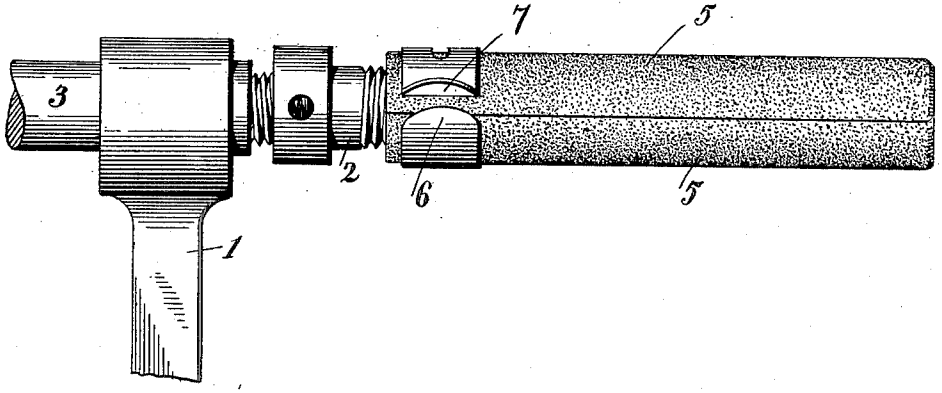


Fig. 2.

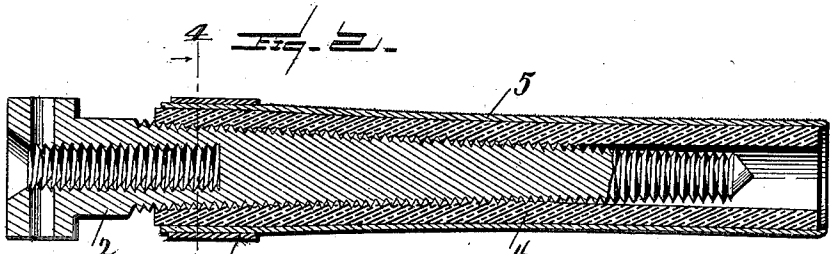


Fig. 3.

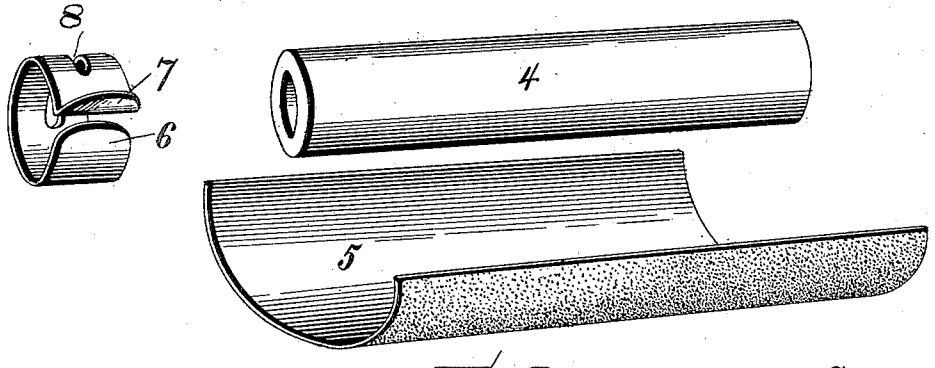
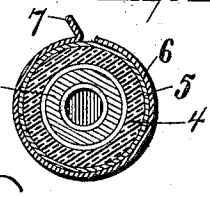


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

CHAUNCEY C. BACHMAN, OF WATERLOO, NEW YORK.

DENTAL POLISHING AND FINISHING TOOL.

SPECIFICATION forming part of Letters Patent No. 661,282, dated November 6, 1900.

Application filed December 30, 1899. Serial No. 742,023. (No model.)

To all whom it may concern:

Be it known that I, CHAUNCEY C. BACHMAN, a citizen of the United States, residing at Waterloo, in the county of Seneca and State of New York, have invented certain new and useful Improvements in Dental Polishing and Finishing Tools; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to a device for shaping, polishing, and finishing dental plates; and it has for its object to provide a construction in which the emery-paper or other abrading-surface may be easily and quickly applied to an elastic cushion or base and be firmly clamped thereto and speedily removed when desired.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in the construction and in the combination of parts hereinafter particularly described and then sought to be specifically defined by the claims, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a portion of a dental lathe having applied to its mandrel the elastic cushion or base, the abrading-surface, and the spring-clasp by which the abrading material is held to the mandrel. Fig. 2 is a longitudinal vertical section of the mandrel, elastic cushion or base, abrading material, and spring-clasp. Fig. 3 is a perspective of the elastic cushion or base, the abrading material, and the spring-clasp separated from each other; and Fig. 4 is a cross-section on line 4 4 of Fig. 2.

In the drawings the numeral 1 designates the head-block of a lathe of any ordinary and approved construction, and 2 designates a mandrel, with which most lathes are provided and which is adapted for attachment to the part 3 of the lathe, the mandrel 2 being of conical or tapering form, as illustrated.

The numeral 4 designates a piece of rubber tubing, which may be and usually is of uniform diameter inside of its bore and which is adapted to be screwed onto the threaded conical or tapering mandrel 2, this rubber tubing forming a yielding or elastic cushion for the abrading material, which may be a sheet 5 of emery-paper or other suitable material for the purpose. This abrading material is cut into the desired shape and size, as, for instance, illustrated in Fig. 3 of the drawings, and is wrapped around the rubber tubing 4, and a spring-clasp 6 is then placed around the tubing and emery-paper and the tubing then screwed onto the tapering threaded mandrel 2. With the parts thus combined and applied to the mandrel the elastic tubing will be expanded as it is screwed onto the mandrel, and when so expanded the emery-paper is firmly clamped by the spring-clasp 6, so that it will be tightly held between said clasp and the rubber tubing, and thus cause the emery-paper to be held firmly in place. The farther the tubing is screwed onto the mandrel the tighter will the paper be clamped between the tubing and clasp, so that the paper cannot slip or change its position.

It is preferred to make the spring-clasp 6 in the form of a split ring or band, as illustrated in Figs. 1, 3, and 4 of the drawings, and to provide said split band or ring with an outturned lip 7, which will form a bearing for the thumb or finger in the operation of screwing the rubber tubing onto the tapering mandrel, thus facilitating putting the rubber tubing, together with its encircling emery-paper, in position on the mandrel.

While I prefer to form the spring-clasp in the manner described, still I do not confine myself to that particular form of clasp, although it possesses advantages, as other forms of clasps may be used and certain features of my invention still be retained. I also prefer to form the spring-clasp 6 with a slot 8, extending circumferentially of the clasp, so that when the rubber tubing is expanded a portion thereof to a greater or less extent will enter said slot, and thus tend to prevent the possibility of any endwise movement of the emery-paper or material lengthwise of the rubber tubing or cushion.

The polishing and finishing device formed as described is very simple in its formation, is easily applied and removed, any part when

worn out can be readily replaced by another at a trifling expense, and the device has been found to be very efficient in use.

I have illustrated and described what I consider to be the best form and arrangement of the several parts; but changes may be made therein and essential features of my invention still be retained.

Having described my invention and set forth its merits, what I claim is—

1. In a dental polishing and finishing tool, the combination of a tubular elastic cushion adapted to receive a sheet of abrading material, an annular elastic clasp to encircle the cushion and abrading material, and a tapering mandrel fitted within the cushion for the purpose of expanding the cushion and increasing the tension of the clasp to bind the abrading material between the clasp and cushion, substantially as described.

2. In a dental polishing and finishing tool, the combination of a tubular elastic cushion, an abrading material encircling said cushion, an annular split expansible clasp encircling the cushion and abrading material, and formed with a finger-lip, and an expanding-mandrel fitted within the tubular cushion for the purpose of expanding the cushion and binding the abrading material between the clasp and cushion, substantially as described.

3. In a dental polishing and finishing tool, the combination of a tubular elastic cushion, an abrading material encircling said cushion, a split clasp encircling the cushion and abrading material, and a tapering threaded mandrel fitting within the tubular cushion for the purpose of expanding the cushion so as to clamp the abrading material between it and the split clasp, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHAUNCEY C. BACHMAN.

Witnesses:
CLARENCE TEN EYCK,
J. B. MALONEY.