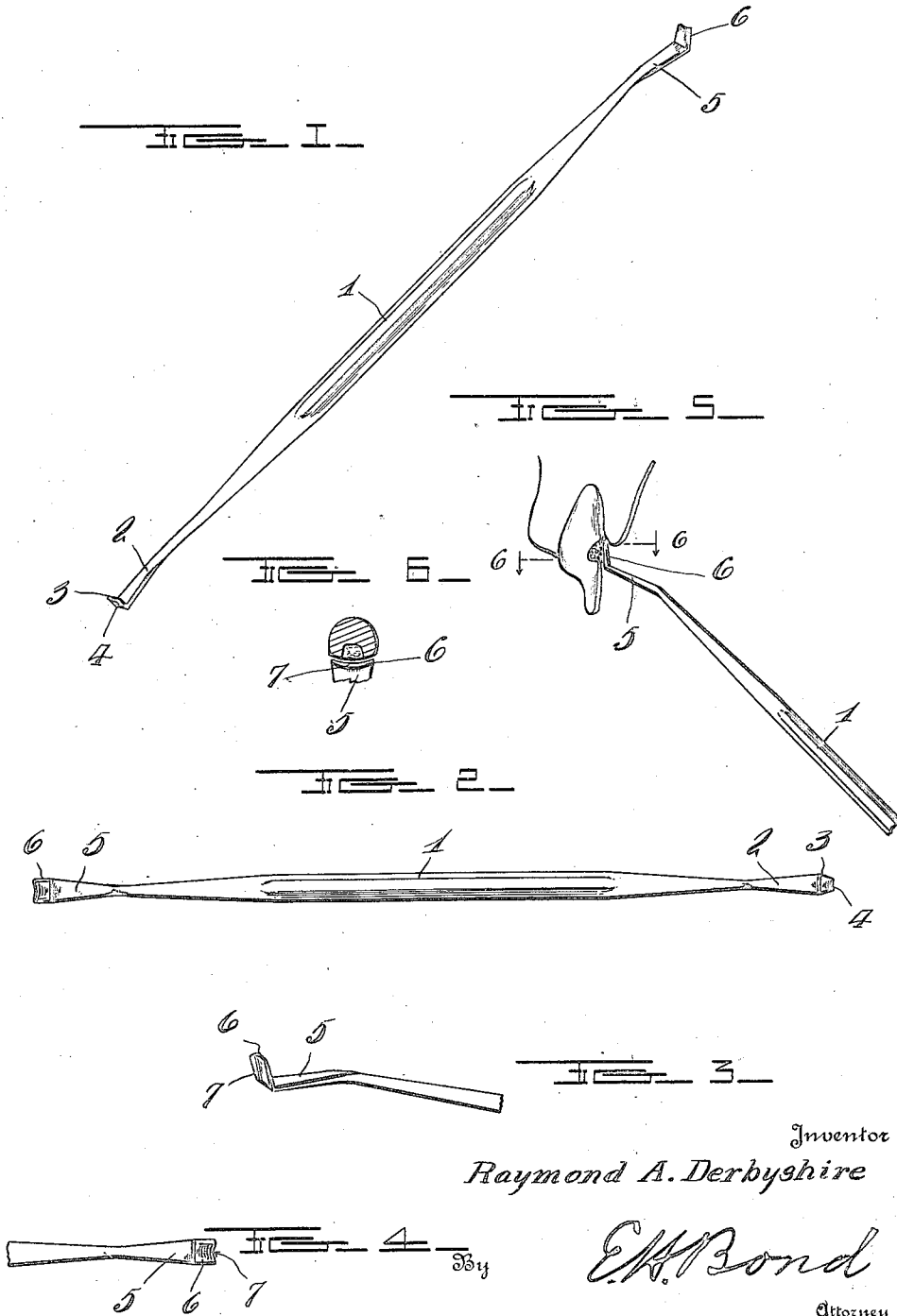


R. A. DERBYSHIRE.
DENTAL INSTRUMENT.

APPLICATION FILED NOV. 28, 1921. RENEWED OCT. 10, 1922.

1,435,902.

Patented Nov. 14, 1922.



Inventor
Raymond A. Derbyshire

E. H. Bond

Attorney

UNITED STATES PATENT OFFICE.

RAYMOND A. DERBYSHIRE, OF SKOWHEGAN, MAINE.

DENTAL INSTRUMENT.

Application filed November 28, 1921, Serial No. 518,241. Renewed October 10, 1922. Serial No. 593,657.

To all whom it may concern:

Be it known that I, RAYMOND A. DERBYSHIRE, a citizen of the United States, residing at Skowhegan, in the county of Somerset and State of Maine, have invented certain new and useful Improvements in Dental Instruments, of which the following is a specification.

This invention relates to certain new and useful improvements in dental instruments designed to be used more particularly in the handling and working of synthetic porcelain. I make it of stellite, tantalum or any other metal suitable for use with porcelain. The present invention has for its objects among others to provide an instrument of this character for handling porcelain in cervical cavities, getting under the gum at the gingival line and enabling one to finish the filling at such line, which, under ordinary methods, can seldom be done, as it is difficult not only to properly fill the cavity, but to leave it smooth.

It has for a further object to provide an instrument of this general character that is double-ended, having one end larger than the other, and the two ends so shaped as to adapt it for use on laterals and cuspids as well as bicuspid.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawing, which, with the numerals of reference marked thereon, form a part of this specification, and in which

Figure 1 is a perspective view of my improved dental instrument.

Figure 2 is a face view.

Figure 3 is a detail, in elevation, of one end of the instrument.

Figure 4 is a plan of the other end.

Figure 5 shows the mode of use in filling a cavity at the gum line.

Figure 6 is a cross section on the line 6—6 of Figure 5.

Like numerals of reference indicate like parts throughout the different views.

I construct my implement of some material peculiarly adapted for the purpose of handling synthetic porcelain, such as stellite, tantalum or the like. It comprises a

handle portion 1 of any desired form and cross section, the same being double-ended, the formation at one end being such as to take in a large cavity in the central incisors, and the other end adapted for laterals, cuspids and bicuspid.

At one end the handle portion is formed with the angular portion 2 which terminates in a substantially right-angled member 3 the outer face of which is slightly concave, as seen at 4.

The other end of the handle portion is formed with an angular portion 5 which terminates in a member 6 which extends at substantially a right-angle to the said portion 5 and its outer face is concave, as seen at 7, see Figures 2 and 3. This is larger than the member 3 at the other end.

In use, when a dentist has a cervical cavity to fill, he places an excess amount of porcelain into the prepared cavity and with the end portion of the instrument, using whichever end is best adapted for the particular character and position of the cavity, places the fine, thin curved edge under the gum, as seen in Figures 5 and 6, and presses it up against the tooth, holding it there for a short time, say three or four minutes, and when the instrument is removed it will leave a filling that is finished, especially under the gum. Should there be an excess amount of porcelain down toward the cutting edge, it can be removed by a disk or other means. By this means I am enabled to obtain a finished and completely filled cavity under the gum, a place where it has always been difficult to fill and very hard to get good and smooth.

The concavity of the acting faces of the instrument at the ends is essential as it avoids the necessity of grinding the porcelain after the cavity is filled to make it conform to the curvature of the tooth being filled, the curvature to the filling being given it as the instrument is pressed against the porcelain, as will be evident from Figure 6.

What is claimed as new is:—

1. A dental instrument comprising a handle portion and a porcelain-handling member at one end at an angle to said handle portion and provided with concave outer face.

2. A dental instrument comprising a handle portion and a porcelain-handling member at each end at an angle to said handle portion, the acting faces thereof being concave. 5
3. A dental instrument comprising a handle portion and a porcelain-handling member at each end extended at an angle to the handle portion and each portion having a concave acting face, the portion at one end being larger than that at the other end. 10

In testimony whereof I affix my signature.

RAYMOND A. DERBYSHIRE.