No. 739,333. PATENTED SEPT. 22, 1903.

W. J. MILES, JR.

DENTAL INSTRUMENT.

APPLICATION FILED FEB. 24, 1903.

NO MODEL.

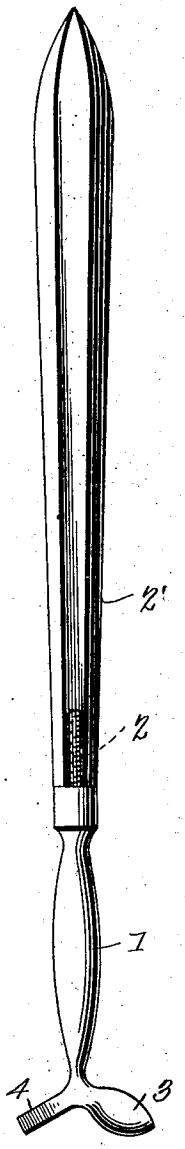


Fig. 1.

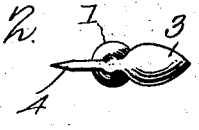


Fig. 2.

Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 739,333. Patented September 22, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM J. MILES, JR., OF MIDDLETOWN, OHIO.

DENTAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 739,333, dated September 22, 1903.

Application filed February 24, 1903. Serial No. 144,750. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. MILES, Jr., a citizen of the United States, residing at Middletown, in the county of Butler and State of Ohio, have invented a new and useful Dental Instrument, of which the following is a specification.

This invention relates to certain improvements in dental tools, and particularly to that class of instruments employed in the extraction of amalgam filling from the cavities of teeth.

In the removal of amalgam fillings as practiced at the present time it is necessary to cut the filling by drilling and break the amalgam in pieces with suitable instruments, small particles being afterward removed by means of a pointed instrument. This operation is exceedingly painful and requires considerable time, while the operation in many cases necessitates the removal of a portion of the wall of the tooth.

The principal object of the invention is to provide means for extracting the filling without pain or injury to the patient and in much less time than is required in the ordinary operation of disintegrating the filling under the present practice. The removal of the filling is generally necessitated by an ulcerated condition of the root or irritation of the nerve, making the tooth sensitive, so that the employment of chipping or drilling tools causes much pain. In carrying the present invention into effect it is proposed to remove the filling by means of a heated tool, which when applied to the filling tends to allay the pain and at the same time soften the filling to an extent sufficient to permit the ready removal of the same.

In the accompanying drawings, Figure 1 is a perspective view of a dental tool constructed in accordance with the invention. Fig. 2 is an end view of the same, drawn to an exaggerated scale.

The tool 1 has a shank portion 2, threaded or otherwise constructed for the reception of a handle member 2', which may be formed of any suitable material. The tool is formed of iron or metal of similar character which may be heated to a temperature of 350° Fahrenheit, more or less, and at its outer end is provided with two angularly-disposed points 3 and 4, the point 3 being substantially conoidal in form and its cross-sectional area from the base of the cone to the outer end of the shank proper growing gradually less in order to form a comparatively large pointed block of metal of sufficient size to absorb and retain heat. The opposite tool member 4, which is disposed at an obtuse angle to the conoid 3, is in the form of a thin blade having a comparatively sharp chisel-like point to be used as an extractor for the amalgam. The intermediate portion of the shank is enlarged in order to strengthen the tool, so that it may not readily bend when subjected to the action of heat.

In use the instrument is placed over an alcohol-lamp or some equivalent heating means and heated to a temperature of 350° Fahrenheit, more or less, and the conoidal end of the tool is placed in contact with the amalgam, softening the filling and causing the mercury to rise to the surface. In practice it is found that the filling is soon soft enough to permit the use of the chisel-shaped tool 4 and remove the amalgam filling without pain to the patient or injury to the wall of the tooth. The application of heat in this manner will to some extent allay the pain, and the operation may be accomplished in a few seconds as compared with a period of from thirty minutes to one hour consumed in the removal of a filling by mechanical disintegration of the same, the operation in the present case tending to allay the pain, while in ordinary practice the patient is subjected to severe pain for a considerable period of time.

Having thus described the invention, what is claimed is—

A dental instrument formed of a material capable of absorbing and retaining heat, said instrument having a shank portion enlarged at a point intermediate of its length and provided at its outer end with a chisel-pointed extracting-tool, and with a conoidal bulb-shaped tool for softening an amalgam filling prior to the extraction of the same.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM J. MILES, JR.

Witnesses:

PETER WEBER,

JONATHAN H. BEARD.