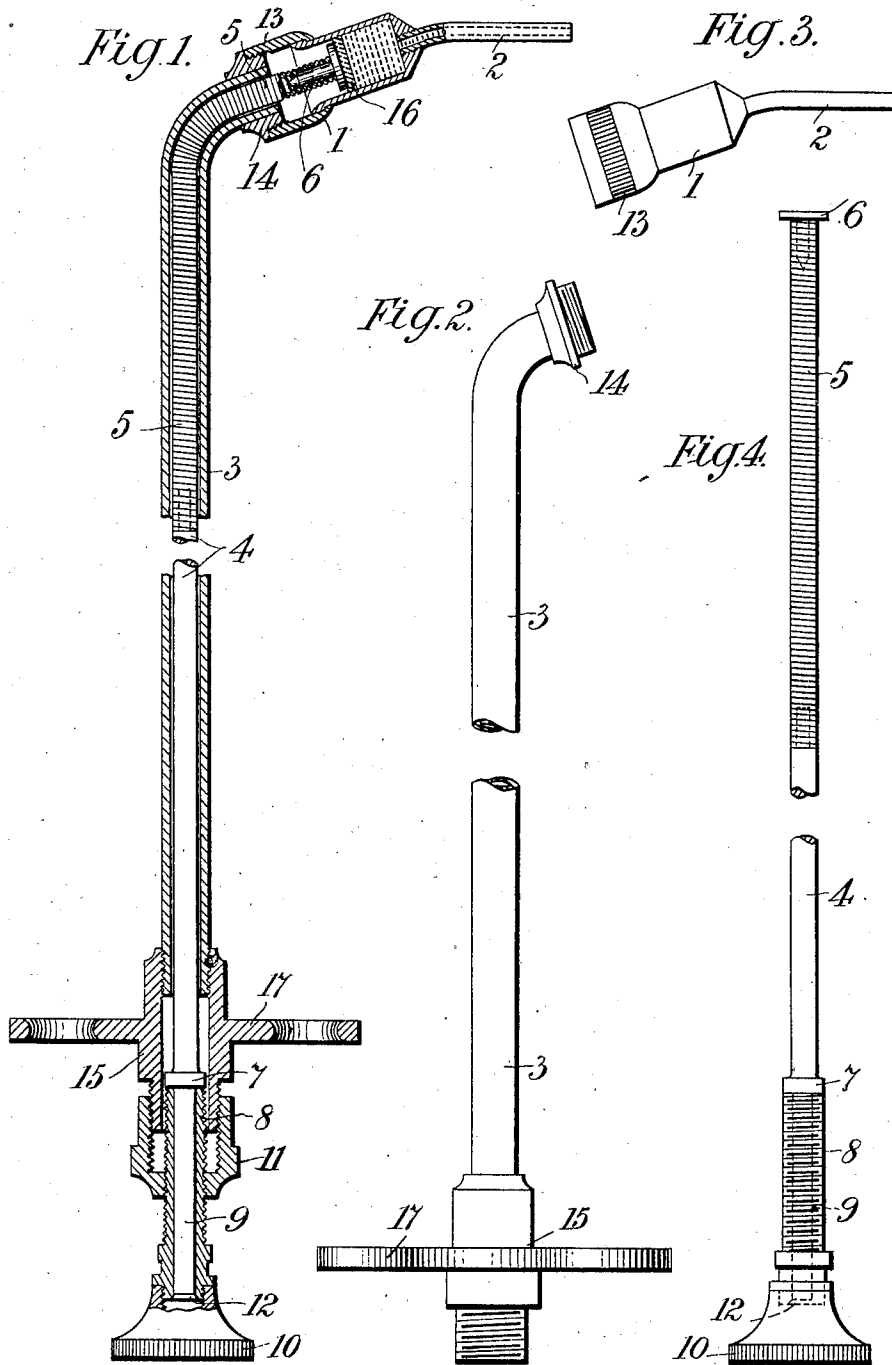


No. 833,044.

PATENTED OCT. 9, 1906.

T. GOODHUGH.
DENTAL INSTRUMENT.
APPLICATION FILED MAR. 13, 1906.



WITNESSES.

Charles Spurr
Harold Serrell

INVENTOR.

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per Harold Serrell
his atty.

UNITED STATES PATENT OFFICE.

THOMAS GOODHUGH, OF SUTTON, ENGLAND, ASSIGNOR TO CLAUDIUS
ASH SONS & COMPANY 1905 LIMITED, OF LONDON, ENGLAND.

DENTAL INSTRUMENT.

No. 833,044.

Specification of Letters Patent.

Patented Oct. 9, 1906.

Application filed March 13, 1906. Serial No. 305,742.

To all whom it may concern:

Be it known that I, THOMAS GOODHUGH, a subject of His Majesty the King of Great Britain, and a resident of Sutton, in the county of Surrey, England, have invented a certain new and useful Improved Dental Instrument, of which the following is a specification.

The invention relates to an improved dental instrument for filling the roots or fangs of teeth with "stopping" or cement after the extraction or killing of the nerve.

The present invention is designed with a view to effecting certain improvements in such instruments as have been hitherto constructed with a view to enable the filling operation to be carried out with greater facility and more expeditiously than heretofore, and to this end the means for introducing the stopping medium comprises a species of syringe having a rotatable nozzle through the end of which the cement or the like is ejected and which rotatable nozzle enables the instrument to be used in any position, whereby cavities however awkwardly situated may be reached with facility and despatch.

In the accompanying drawings, Figure 1 is a longitudinal section, to an enlarged scale, through a syringe constructed in accordance with this invention; and Figs. 2, 3, and 4 are detailed views of the separated parts in elevation.

In its main features the device comprises a receptacle 1 for the cement or the like and a rotatable nozzle 2, through which it is ejected. A shaft or spindle 4, which passes through a tubular stem 3, is provided with a flexible part 5, carrying a piston 6, the other end of the shaft 4 being provided with means whereby it is afforded an endwise movement without rotation to cause the piston 6 to eject the cement or the like from the receptacle 1 into the nerve-cavity of the tooth to be stopped.

A convenient means for imparting an endwise movement only to the shaft 4 consists in forming a shoulder or collar 7 near one end to form an abutment for an exteriorly-threaded sleeve 8, which loosely surrounds the extremity 9 of said shaft and terminates in a milled nut 10 or the like. The screw-thread on the sleeve 8 engages an internal thread in one end of a cap 11, which in turn is adapted to be

screwed at its other end onto either the butt-end of the tubular stem 3 of the device or, as shown, to a part 15, screwed to said stem and having a winged finger-piece 17 for convenience in handling. The extremity 9 of the shaft 4 is confined in the sleeve 8 by having its end burred over, as shown at 12, or by a collar or shoulder sweated thereon or by any other convenient means.

The piston 6 is removably carried in the end of the flexible part 5 of the shaft and approximately fits the receptacle 1 for the cement. It is preferred, however, before using the syringe to insert a loose washer 16 between the piston and the cement, whereby the escape of the latter back into the receptacle when pressure is exerted is prevented.

The receptacle 1 is conveniently attached to one end of the tubular stem 3 (which is curved, as shown, for convenience in using the device) by being movably carried by an internally-threaded connector 13, which is adapted to be screwed up against a shoulder 14 of an externally-screwed tubular piece or collar attached to stem 3. The end of the receptacle 1 is confined within the connector by its end and also the end of the part 13 being burred or turned over, so that it may rotate freely, but cannot become detached therefrom, and the nozzle 2, which may be bent to an angle, as shown, is attached, preferably removably, as by screwing, to the lower extremity of the receptacle, so that it can rotate or turn with it.

In operation the receptacle 1 is filled with the cement or stopping medium by unscrewing its connected part 13 from shoulder 14 and securing it again in position. The nozzle is then inserted into the cavity in the root of the tooth and the milled head 10 at the butt-end of the syringe turned, whereby through the engagement of the threaded sleeve 8, to which it is attached, with the cap 11 an endwise or longitudinal movement of the shaft in an outward direction is effected, whereby the piston is caused to press the cement out through the nozzle into the cavity of the tooth to be stopped until same is filled, when the nozzle can be withdrawn without fear of loosening the cement or the like or disturbing it in any way.

The above-described construction enables

the parts of which the device is composed to be readily disconnected for purposes of repair, cleansing, and sterilization.

What I claim is—

5 1. In an instrument for filling teeth with stopping medium and in combination a receptacle for the stopping medium, a rotatable nozzle in connection therewith, a piston adapted to force the contents of the receptacle out
10 through the nozzle, a shaft having a flexible end carrying said piston, and means for imparting endwise movement to said shaft to operate the piston.

15 2. In an instrument for filling teeth with stopping medium and in combination, a receptacle for the stopping medium, a rotatable nozzle in connection therewith, a piston adapted to force the contents of the receptacle out through the nozzle, a shaft having a
20 flexible end carrying said piston, a tubular stem containing said shaft and to which stem said receptacle is movably attached, and means for imparting endwise movement to said shaft to operate the piston.

25 3. In an instrument for filling teeth with stopping medium and in combination, a receptacle for the stopping medium, a rotatable nozzle connected therewith, a piston adapted to force the contents of the receptacle out
30 through the nozzle, a shaft having a flexible end to which said piston is connected, and rotative means connected with said shaft to impart endwise movement to the latter.

35 4. In an instrument for filling teeth with stopping medium, and in combination, a receptacle for the stopping medium, a rotatable nozzle connected therewith, a piston adapted to force the contents of the receptacle out

through the nozzle, a movable shaft connected with said piston, a threaded sleeve 40 in which said shaft is journaled, and means for rotating said sleeve to impart endwise movement to the shaft and the piston.

5 5. In an instrument for filling teeth with stopping medium, and in combination, a receptacle for the stopping medium, a nozzle 45 in connection therewith, a piston adapted to force the contents of the receptacle out through the nozzle, a movable shaft to which said piston is connected, a tubular stem containing said shaft and to which stem the receptacle is movably attached, a threaded part carried by the tubular stem, a threaded cap engaging said part, a threaded sleeve loosely 55 connected with said shaft and engaging said threaded cap, and a finger-piece for rotating the sleeve to impart endwise movement to the shaft and the piston.

6 6. In an instrument for filling teeth with stopping medium, and in combination, a receptacle for the stopping medium, a rotatable 60 nozzle in connection therewith, a piston adapted to force the contents of the receptacle out through the nozzle, a movable shaft to which said piston is attached, a projection 65 on said shaft and means engaging said projection to impart endwise movement thereto and to the piston.

In testimony whereof I have hereunto set my hand in the presence of two subscribing 70 witnesses.

THOMAS GOODHUGH.

Witnesses:

H. D. JAMESON,
A. NUTTING.