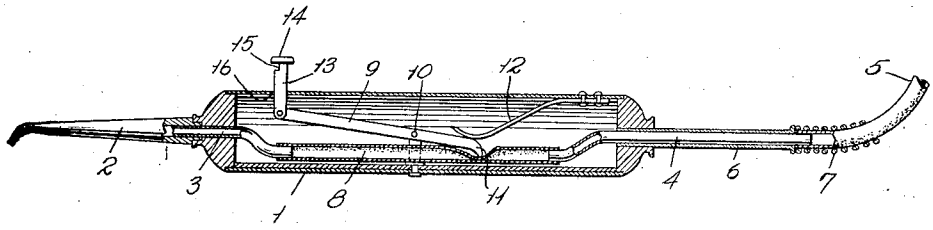
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C. TYREE

WATER FEED FOR DENTAL INSTRUMENTS

Filed Dec. 18, 1924



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UNITED STATES PATENT OFFICE.

CHESTER TYREE, OF LONDON, KENTUCKY.

WATER FEED FOR DENTAL INSTRUMENTS.

Application filed December 18, 1924. Serial No. 756,749.

To all whom it may concern:

Be it known that I, CHESTER TYREE, a citizen of the United States, residing at London, in the county of Laurel and State of Kentucky, have invented certain new and useful Improvements in Water Feeds for Dental Instruments, of which the following is a specification.

In the use of various dental hand instruments it is necessary, at times, to feed water to the operating tool, or to syringe a cavity in a tooth, also syringe the teeth while the teeth are being cleaned. The custom now in use by dentists is to have a rubber syringe convenient for use, but each time the syringe is used the dental instruments must be removed from the mouth and laid aside, all of which consumes a great deal of time.

The object of my invention is to provide a water feed to be carried by the instrument and under control of the operator, thereby eliminating the necessity of removing the hand instrument from the mouth for the purposes of supplying water to the tool, or the tooth being operated upon, whereby about fifty per cent of the time of the dentist is saved, and whereby about seventy-five per cent of the pain, which is caused by friction, is eliminated.

My invention consists in attaching to the instrument a water feed pipe leading to the operating end of the instrument and connected direct with any suitable water supply, including the city water system or a reservoir; my invention consists of the parts and combination of the parts as will be hereinafter more fully set forth.

In the drawings the figure is a longitudinal vertical section of a dental syringe embodying my invention.

The reference numeral 1 designates a dental hand piece to which is secured a nozzle 2 from which nozzle 2 a metal tube 3 extends into the body of the hand piece 1. At the opposite end of the hand piece a metal tube 3 extends into the tubing of the hand piece and is adapted to be connected to a flexible tubing 5 which may be secured to any suitable source of water supply. 6 is a shell around the tube 4 to the end of which is connected a coil spring 7, which spring extends around the tube 5 to prevent the rubber tubing from being abruptly bent in the handle of the hand piece. Within the body of the hand piece 1 metal tubes 3 and 4 are connected by a collapsible tube 8 which may be made of rubber, or other suitable material. 9 is a lever pivoted at 10 within the body of the hand piece 1 and provided with a downwardly reflected end 11 which is adapted to engage and compress, or collapse the rubber tube 8 thereby preventing water from flowing through the tube to the nozzle 2. The levers are maintained in the position of collapsing the tube 8 normally by means of a spring 12 which engages said lever as shown. An arm 13 is pivotally mounted on one end of the lever 9 and is provided with a thumb piece 14 whereby the lever may be depressed and its point 11 elevated permitting the rubber tube 8 to expand whereby water may flow freely through the tube 8 to the nozzle 2. When the instrument is not in use it is preferable to disengage the lever 9 from the tube 8 so that the tube 8 may expand to its normal diameter, and in order to do this I provide the arm 13 with a notch 15 adapted to be thrown into engagement with the casing of the tool as at 16 thereby locking the lever 9 in its inoperative position.

What I claim is:

1. In a dental syringe, a hand piece, a nozzle, metal tubing extending from said nozzle into said hand piece, a metal tube extending into and at the opposite end of said piece, a collapsible pipe within the hand piece and connecting the said metal tubes, a lever in the hand piece, a spring engaging the lever and normally holding it against the pipe to collapse it, and a manually operated arm to move the lever from contact with said pipe.

2. In a dental syringe, a hand piece, a nozzle, metal tubing extending from said nozzle into said hand piece, a metal tube extending into and at the opposite end of said piece, a collapsible pipe within the hand piece and connecting the said metal tubes, a lever in the hand piece, a spring engaging the lever and normally holding it against the pipe to collapse it, and a manually operated arm to move the lever from contact with said pipe, and means to lock the lever in its inoperative position.

In testimony whereof I affix my signature.

CHESTER TYREE.