C. S. JORGENS.

WATER DROPPER FOR DENTAL HANDPIECES.

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1,033,592.

Patented July 23, 1912.

Fig. 2

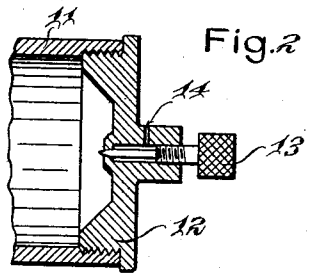


Fig. 1

Fig. 3

Fig. 4

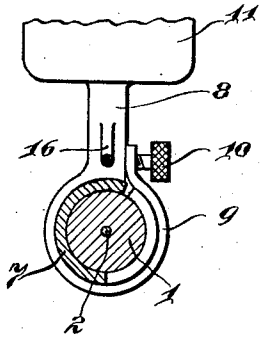
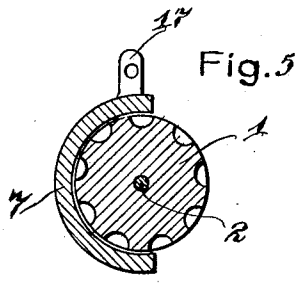


Fig. 5



Witnesses;
H. A. Hillgren
Geo. Knutson

Inventor;
Carl S. Jorgens.
By his Attorneys;
Williamson & Merchant

UNITED STATES PATENT OFFICE.

CARL S. JORGENS, OF MINNEAPOLIS, MINNESOTA.

WATER-DROPPER FOR DENTAL HANDPIECES.

1,033,592. Specification of Letters Patent. Patented July 23, 1912.

Application filed August 31, 1911. Serial No. 647,045.

To all whom it may concern:

Be it known that I, CARL S. JORGENS, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Water-Droppers for Dental Handpieces; and I do hereby 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.

My invention has for its object to provide an extremely simple and highly efficient water dropper for dental hand pieces, and to such ends, generally stated, the invention consists of the novel construction and combination of parts hereinafter described and defined in the claims.

In the accompanying drawings which illustrate the invention, like characters indicate like parts through the several views.

Referring to the drawings, Figure 1 is a view chiefly in side elevation with some parts sectioned, showing a dental hand-piece having my improved so-called water dropper applied thereto; Fig. 2 is a fragmentary section taken on the line x^2 x^2 of Fig. 1; Fig. 3 is an enlarged transverse section taken on the line x^3 x^3 of Fig. 1; Fig. 4 is an enlarged transverse section taken on the line x^4 x^4 of Fig. 1; and Fig. 5 is an enlarged transverse section taken on the line x^5 x^5 of Fig. 1.

Of the parts of the dental hand-piece, the numeral 1 indicates a tubular body or barrel, and the numeral 2 indicates the rotary spindle provided at its rear end with the customary grooved pulley 3, and to the projecting front end, an ordinary grinding stone or wheel 4 is shown as applied. Of the parts of the mechanism for driving the spindle 2, the numeral 5 indicates a bracket attached to the rear end of the barrel 1 and provided with the usual guide pulleys over which, and the pulley 3, an endless driving cable 6 is arranged to run in the usual way.

The body of the attachment is preferably in the form of an approximately semi-cylindrical metal sheath 7, which, at its outer end is contracted at 7^a so that it quite closely fits the outer end of the handle body 1. At its other end, said sheath 7 is provided with an upwardly extended lug 8 and with a semi-circular clamping band 9, which latter is connected to the said lug 8 by a clamping screw 10. When the clamping screw 10 is tightened, the sheath 7 will be securely fastened to the handle body 1. A small water tank 11 is secured at its lower end to the lug 8, and at its upper end, is provided with a detachable cap 12, formed with a central hub in which a needle valve 13 is seated. This needle valve 13 is adapted to open and close to any desired extent, a small air passage 14, which extends from the exterior of the hub into the interior of the tank 11. At its lower end, the tank 11 is provided with a small water discharge port 15, that is connected to the receiving end of a small water delivery tube 16. This water delivery tube 16, as shown, is intermediately secured to small lugs 17, on the sheath 7, and its delivery end is so positioned that it will discharge the water directly onto the adjacent face of the grinding stone or wheel 4.

When the tank 11 is filled or partly filled with water indicated at z, in Fig. 1, no water will flow through the water delivery pipe 16 as long as the needle valve 13 tightly closes the air port 14. When, however, the said port 14 is opened, water will flow through the tube 16 under the action of gravity, and will be delivered, as stated, directly against the grinding stone. This delivery of the water directly against the grinding stone is important because the water is thereby thrown from the stone in a spray, and hence, will be delivered from the stone, even onto an upper or lower tooth, and regardless of whether or not the stone is used above or below the tooth. Also, the spray of water thus thrown over the mucous membrane of the mouth tends to reduce the inflammation set up therein by the grinding action of the tooth, and hence, lessens the tendency to cause an abnormal flow of saliva. The amount of water delivered onto the stone may be regulated by adjustments of the needle valve 13.

Obviously, the entire attachment may be easily applied in working position on the body of the dental hand-piece, or removed therefrom, and is thus applicable and removable as an entirety and without separation of any of the individual parts of the said attachment. The water, in some instances, will be preferably thrown at approximately a right angle to the body of the sheath 7.

What I claim is:

1. A water dropping attachment for dental hand pieces, comprising a sheath having means for detachably securing the same to a dental hand piece, a water tank secured on top of said sheath, and a water delivery tube secured to said sheath and extending from said tank to a point beyond the end of said sheath, substantially as described.

2. The combination with a dental hand piece, of a water dropping attachment comprising a reservoir located above said hand piece having means for securing the same on said hand piece, and provided with a water delivery tube extended from its lower portion to a suitable delivery point.

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

CARL S. JORGENS.

Witnesses:

HARRY D. KILGORE,

BERNICE G. WHEELER.