

Oct. 9, 1923.

1,469,992

L. O. CARD

DENTAL ROOT CANAL POINT

Filed Aug. 7, 1922

Fig. 1.

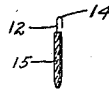


Fig. 2.

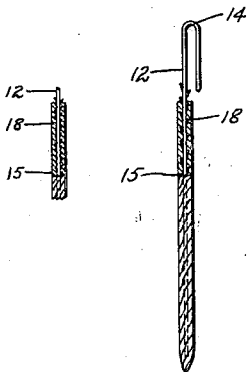


Fig. 3.

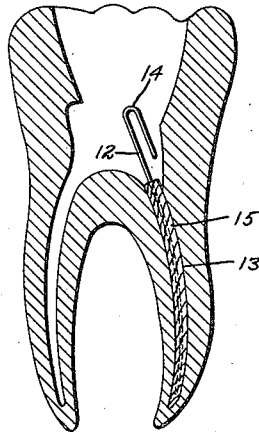
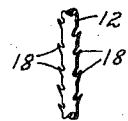


Fig. 4.



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UNITED STATES PATENT OFFICE.

LEWIS O. CARD, OF SOMERVILLE, MASSACHUSETTS.

DENTAL ROOT-CANAL POINT.

Application filed August 7, 1922. Serial No. 580,024.

To all whom it may concern:

Be it known that I, LEWIS O. CARD, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Dental Root-Canal Points, of which the following is a specification.

This invention relates to a device known as a root point used by dentists in applying an antiseptic to the walls of a canal in a tooth root, after the canal has been opened up and cleaned by a tool adapted for that purpose, preparatory to filling, the point being usually left in the tooth for a considerable period, while the antiseptic is acting.

It is the common practice to employ as a root point, a slender wisp or plug of absorbent fibrous material, such as absorbent cotton, the plug being formed for insertion in a canal. Owing, however, to the fact that such plug is limp, or has no inherent stiffness, it is a difficult matter to insert it to the closed end of the canal, and cause the application of the antiseptic to the inner end and the entire wall of the canal.

My invention is embodied in a root point which overcomes the above-mentioned and other objections to the ordinary root point.

Of the accompanying drawings forming a part of this specification,—

Figure 1 is a side view of a root point embodying the invention, of approximately the actual size.

Figure 2 is a side view considerably enlarged, a portion of the absorbent plug being shown in section.

Figure 3 is a sectional view of a tooth, and a side view of my improved root point inserted in a canal thereof.

Figure 4 shows a portion of the wire member of my improved root point, on a larger scale than in Figures 2 and 3.

The same reference characters indicate the same parts in all of the figures.

The root point shown by the drawings comprises a compressible plug 15, of fibrous absorbent material, such as absorbent cotton, and a core of attenuated flexible wire 12, within and adhering to the plug, the point being adapted to be inserted in and conform to the curvature of a root canal 13. The outer end of the wire core is bent to form a hook-engaging portion 14, adapted to be engaged by the usual exploring hook used by dentists.

The gage of the wire and the diameter of the plug are such that when the point is inserted in the canal, the plug is slightly compressed by, and contacts with, the entire wall, and with the closed end of the canal, so that a liquid antiseptic carried by the plug is applied to all portions of said wall and to said inner end.

The core so stiffens the core that the latter reaches the closed end of the canal when the point is fully inserted. The fibrous material may be applied by twisting it around the wire core to form a plug of suitable diameter, slip-preventing means being provided for preventing the plug from being longitudinally displaced on the core when the point is being inserted and removed. To this end the major portion of the wire core may be roughened or corrugated, as by forming thereon minute teeth or barbs 18, shown much enlarged by Figure 4, the fibrous material being wound with sufficient closeness to cause it to engage the corrugated portion.

The length of the core is such that its hook-engaging portion 14 is adapted to occupy a cavity in the body of the tooth, without projecting therefrom, as shown by Figure 3, so that the point may remain indefinitely in the tooth while the antiseptic is acting, without interference with the function of the tooth, the portion 14 being covered by a temporary filling.

My improved point is not adapted to perform the usual operation of opening up and cleaning the canal, this operation being usually performed by a broach which, while sufficiently flexible to conform to the curvature of the canal, has sufficiently inherent stiffness to enable it to perform its function, and is necessarily elongated to project from the tooth in which it is inserted.

It will be seen, therefore, that the point embodying my invention is intended and adapted only to follow a tool such as a broach, and apply an antiseptic to all portions of a canal which has been opened up and cleaned.

In inserting the canal point, the end portion 14 is firmly grasped by a pair of dental cotton pliers and pushed into the canal of the tooth. In removing the canal point a hooked dental explorer is used, by engaging the hook of the explorer with the portion 14 of the canal point. When the fibrous material 15 swells, as it will when wet, the

removal of the point would be difficult, if the portion 14 were not provided.

I claim:

5 A device for treating the walls of a canal of a tooth root composed of a compressible plug of absorbent material, formed to extend throughout the length of a root canal in a tooth, and a core of attenuated flexible wire, within and adhering to the plug,
10 whereby the plug is adapted to be readily

pushed into and withdrawn from the canal, said core having a hook-engaging portion at its outer end adapted to occupy a cavity in the body of the tooth, without projecting therefrom, so that the device will not interfere with the use of the tooth while a root canal thereof is being treated by it. 15

In testimony whereof I have affixed my signature.

LEWIS O. CARD.