Dec. 19, 1939. S. L. STEINER 2,184,105

DENTAL INSTRUMENT

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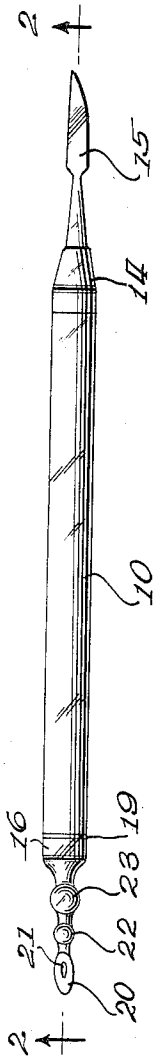

Fig. 1.

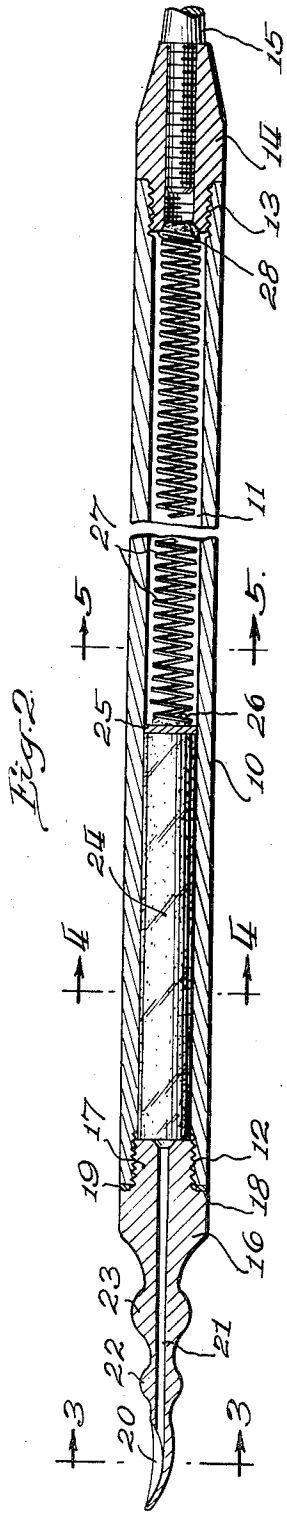

Fig. 2.

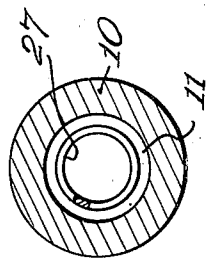

Fig. 5.

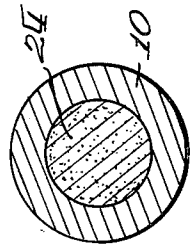

Fig. 4

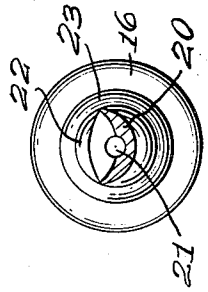

Fig. 3.

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UNITED STATES PATENT OFFICE

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DENTAL INSTRUMENT

Stanley L. Steiner, Chicago, Ill.

Application December 22, 1937, Serial No. 181,070

1 Claim. (Cl. 32—70)

This invention relates generally to dental instruments and more particularly to a wax spatula of the type having a longitudinal bore extending therethrough within which is adapted to be disposed a stick of wax or the like whereby upon the application of heat to one end of said instrument a substantially continuous flow of wax may be secured.

It is an object of this invention to provide an improved instrument of the character described which will contain only a few parts which may be readily assembled and disassembled, and when in an assembled position will contain a stick of wax mounted within a hollow bore of the instrument, said wax being disposed adjacent one end thereof and there being means provided within the hollow bore of the instrument for normally urging the said wax towards one end of the instrument to which the heat is to be applied, said means including a coil spring having one end secured to a carving member or the like, which may be threaded in the opposite end of the instrument and the other end of said spring having a washer secured thereto and acting against one end of said wax stick, whereby the assembling and disassembling of the instrument will be facilitated as the danger of losing the spring is eliminated.

Another object of this invention is to provide an improved tool of the character described having a novel and improved form of spatula connected therewith, said spatula being detachably secured in operative position within one end of a hollow handle and having a bore extending therethrough for establishing communication between the free spoon-shaped end of the said spatula and the interior of the hollow handle for the flow of wax to said spoon-shaped portion upon the application of heat to said end of the instrument and means formed intermediate the ends of said spatula in the form of ball-shaped portions for retaining the heat along the bore, thereby assuring a more continuous flow of wax.

A still further object of this invention is to provide a dental instrument of the character described which may be constructed and assembled along lines convenient for low cost manufacture, which will at the same time be durable and also highly efficient for carrying out the purposes for which it is designed.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists in certain novel features of construction, arrangement and combination of parts hereinafter more fully described, illustrated in the accompanying drawing, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

For the purpose of facilitating an understanding of my invention, I have illustrated in the accompanying drawing a preferred embodiment thereof, from an inspection of which, when considered in connection with the following description, my invention, its mode of construction, assembly and operation, and many of its advantages should be readily understood and appreciated.

Referring to the drawing in which the same characters of reference are employed to indicate corresponding or similar parts throughout the several figures of the drawing:

Fig. 1 is a view in plan of a dental instrument embodying my invention.

Fig. 2 is a longitudinal sectional view taken substantially on line 2—2 of Fig. 1.

Fig. 3 is a transverse sectional view taken substantially on line 3—3 of Fig. 2.

Fig. 4 is a transverse sectional view taken substantially on the line 4—4 of Fig. 2.

Fig. 5 is a transverse sectional view taken on the line 5—5 of Fig. 2.

Referring to the drawing more specifically by characters of reference, the numeral 10 designates generally a hollow tubular member formed of suitable material and having the longitudinal bore 11 extending therethrough. Each of the ends of said tubular member 10 is internally threaded as shown at 12 and 13, whereby within the end 13 may be detachably secured a member 14, within which is fixed a suitable carving instrument 15. To the other end of the member 10 is detachably secured the spatula generally designated by the reference character 16, said spatula being provided with the threaded portion 17, which is of somewhat reduced diameter and is adapted for threaded engagement within the threaded socket 12. By reason of the reduced diameter of the extension 17 there is formed a shoulder 18 on the spatula, between which shoulder and the end of the tubular member 10 may be disposed a suitable gasket 19 for preventing the escape of wax at this point as will be hereinafter more fully described.

The member 16 is formed at its free end with a spoon-shaped portion 20, said portion being in communication with the hollow tubular member 10 by means of a longitudinal bore 21 extending through the member 16. In order to more

efficiently retain the heat so as to maintain the wax in the bore 21 in a practically flowing condition, I have provided the member 16 with a plurality of spherical portions 22 and 23 spaced from each other, said portions being effective and retaining the heat in the spatula.

Disposed within the hollow bore 11 of the member 10 is a stick of wax 24 which in the embodiment illustrated will occupy substantially one-half of the length of said bore and said stick having one end thereof in engagement with the portion 17 of the spatula and the other end thereof will bear against a washer 25 which is secured in any suitable manner such as by soldering and the like as shown at 26 to one end of a coil spring 27, the other end of said coil spring being secured as shown at 28 to the inner end of the member 14. The effect of this spring will be to gradually feed the wax stick toward the spatula and of the instrument as the same is being melted away in operation.

From the above it will be apparent that I have provided a device of the character described which will comprise only a few parts, which parts are constructed along lines convenient for economical manufacture and which are capable of ready assembly and disassembly in the operation of the device. It will also be noted that by reason of my novel construction of spatula, there will be a practically continuous flow of wax to the spoon-shaped end theref, thus resulting in a better and more rapid operation. It will also be noted that the device is so assembled that the parts thereof such as, for example, the coil spring and washer, 25, may not be readily lost or misplaced when it is required to renew the wax stick within the instrument.

It is believed that my invention, its mode of construction and assembly, and many of its advantages should be readily understood from the foregoing without further description, and it should also be manifest that while a preferred embodiment of the invention has been shown and described for illustrative purposes, the structural details are nevertheless capable of wide variation within the purview of my invention as defined in the appended claim.

What I claim and desire to secure by Letters Patent of the United States is:

A device of the character described, comprising a hollow cylindrical handle having a spatula detachably secured in one end thereof, said spatula having a spoon-shaped portion provided at the free end thereof and a longitudinal bore for establishing communication between said spoon-shaped portion and said hollow cylindrical handle, a member detachably secured to the other end of said cylindrical handle, a wax stick disposed within said handle, and a coil spring also arranged within said handle for normally urging said wax stick toward said spatula end, said coil spring having a washer at one end thereof fixed thereto for engagement with one end of said wax stick and the other end of said coil spring being secured to the member disposed within the end of the cylindrical handle remote from the spatula end.

STANLEY L. STEINER.