March 13, 1951 A. J. SON 2,545,115

DENTAL SYRINGE

Filed March 9, 1950

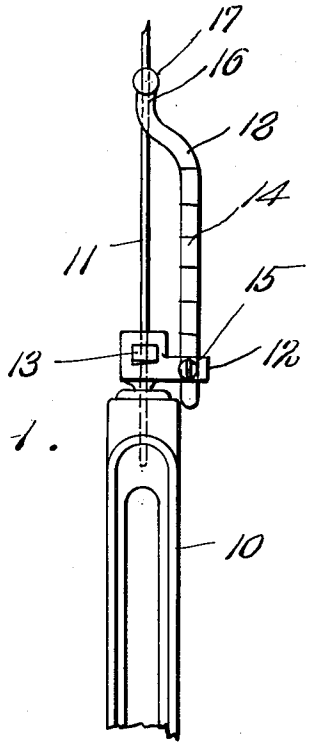

Fig. 1.

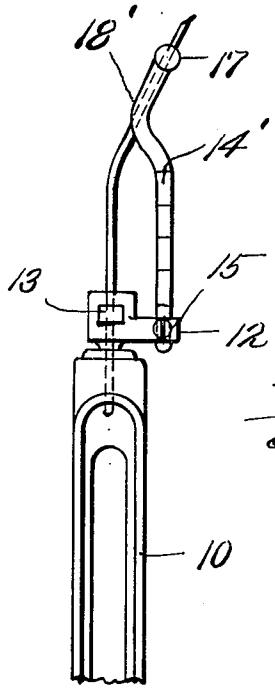

Fig. 2.

INVENTOR.
Anthony J. Son
BY Geo. H. Woodworth
Atty.

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DENTAL SYRINGE

Anthony J. Son, Boston, Mass., assignor to Sonco, Inc., Mattapan, Mass., a corporation of Massachusetts

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3 Claims. (Cl. 128—215)

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This invention relates to subcutaneous injection instruments and more especially to those of the type commonly known as dental syringes.

One object of the invention is to provide means near the forward end of the needle for pushing the cheek or the tongue of the patient away from the needle when an injection is to be made in the outer or the inner surface of the gum, respectively, in order that the dentist may better locate the exact point at which the injection is to be made.

Another object is the provision of means for bending the forward portion of the needle with respect to the axis of the syringe when the injection is to be made on the inner surface of the gum.

With these and other objects in view, my invention consists of the novel features, parts, and combination of parts, which are particularly described in connection with the accompanying drawings illustrating a dental needle that has given good results in practice.

To attain these objects, I provide a needle guard rod member adjustably secured to an adapter which locks the needle to the syringe, the rearward portion of said rod member being parallel to the axis of the needle and spaced away therefrom and the forward portion thereof being curved with respect to said axis to provide a curved shoulder which affords a tongue or cheek pushing member off-set from the needle point. The rod member preferably terminates in a needle-stiffening sleeve having a penetration-governing button on its forward end.

In the drawings accompanying and forming a part of this specification,

Figure 1 is a side elevation of a dental syringe embodying my invention, and

Fig. 2 is a side elevation of a modification.

In the particular drawings selected for more fully disclosing my invention and the principles of the same, said drawings to be considered as illustrative, merely, and not restrictive, 10 is a syringe body of the usual type which holds the ampule (not shown) which the inner end of the needle 11 penetrates. The adapter 12 is a locking member whereby the hub 13 is secured to the syringe body as described in detail in my Patent No. 2,484,657, dated October 11, 1949. While such adapter is preferred it is to be understood that any other suitable locking means may be employed. The rod member 14 is adjustably secured to the locking member, passing through an aperture in the same and held in adjusted position by the screw 15.

In Fig. 1, the rearward portion of the rod

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member is parallel to the axis of the needle and is spaced away therefrom, the axis of the needle being coaxial with the axis of the syringe body. The forward end portion of said rod member has a bore 16 coaxial with the needle for receiving the latter and terminating in a button 17 which governs the penetration of the needle. The forward end portion of the rod member is curved with respect to the axis of the needle to provide a curved shoulder 18 which affords a tongue or cheek pushing member offset from the needle point. The curved portion 18 in Figure 1 is designed to push the cheek of the patient away from the needle when the injection is to be made in the outer surface of the gum.

In Fig. 2 the rearward portion of the rod 14' is parallel to the axis of the syringe body and to the axis of the lower portion of the needle, and is spaced therefrom. The forward portion of the rod has a compound curvature, the outer part 18' thereof being curved with respect to the axis of the lower portion of the needle to deflect the forward portion of the needle away from its axis and to provide a curved shoulder which affords a tongue or cheek pushing member offset from the needle point. This is particularly useful when the injection is to be made in the inner surface of the gum. It will be understood, of course, that the syringe shown in Figure 2 may be used to make an injection in the outer surface of the gum, if desired, and that the syringe shown in Fig. 1, may be used to make an injection in the inner surface of the gum.

Having thus described illustrative embodiments of my invention without, however, limiting the same thereto, various modifications within the purview of the appended claims being permissible, what I claim and desire to secure by Letters Patent is:

1. A dental syringe comprising in combination, a syringe body, an injection needle, a locking member interposed between said needle and said syringe body, and a rod member adjustably secured to said locking member, the rearward portion of said rod member being parallel to the axis of said needle and spaced away therefrom, the forward end portion of said rod member having a bore coaxial with the needle for receiving the forward end portion of said needle and terminating in a penetration-governing button, and the portion of said rod member intermediate the ends thereof being curved with respect to the axis of the needle to provide a curved shoulder convex with said axis which affords a tongue or cheek pushing member offset from the needle point.

2. A dental syringe comprising in combination, a syringe body, an injection needle, a locking member interposed between said needle and said syringe body, and a rod member adjustably secured to said locking member, the rearward portion of said rod member being parallel to the axis of said needle and spaced away therefrom, the forward end portion of said rod member being curved with respect to the axis of the rearward portion of the needle, said forward portion of said rod member having a bore for receiving the forward end portion of said needle and deflecting the same away from the axis of the rearward portion thereof, said curved portion of said rod member providing a curved shoulder which affords a tongue or cheek-pushing member offset from the needle point, said forward end portion of said rod member terminating in a penetration-governing button.

3. A dental syringe comprising in combination, a syringe body, an injection needle, a locking member interposed between said needle and said

syringe body, and a rod member adjustably secured to said locking member, the rearward portion of said rod member being parallel to the axis of said needle and spaced away therefrom, the forward end portion of said rod member having a bore for receiving the forward end portion of said needle and a portion of said rod member being curved with respect to the axis of the needle to provide a curved shoulder which affords a tongue or cheek pushing member offset from the needle point.

ANTHONY J. SON.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
780,146	Wilcox et al.	Jan. 17, 1905
780,147	Wilcox et al.	Jan. 17, 1905
982,931	Bridger	Jan. 31, 1911