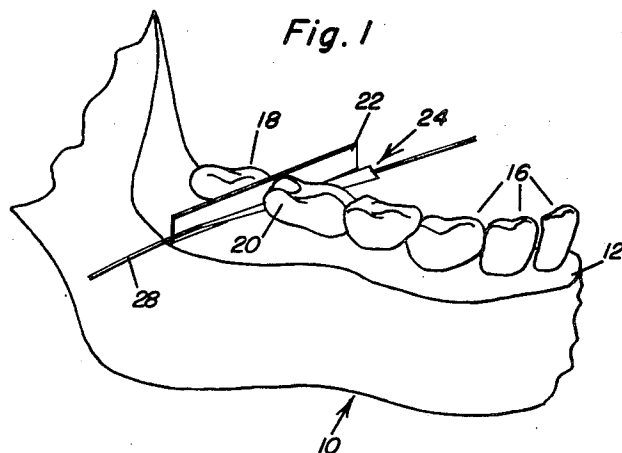
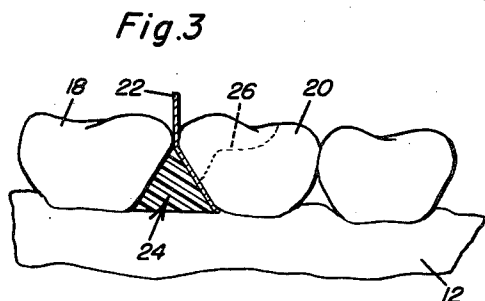
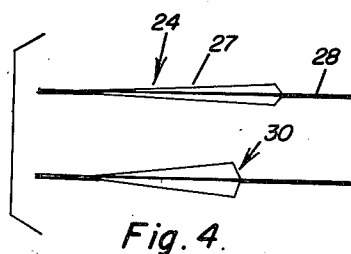
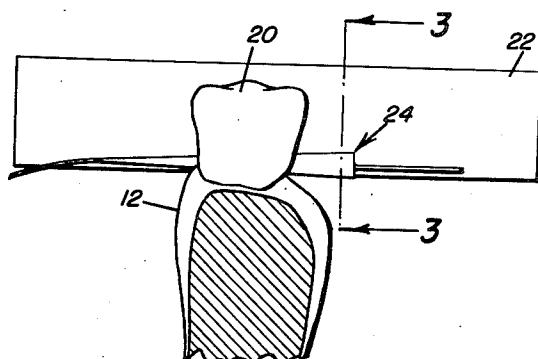


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L. F. THOMPSON
INTERPROXIMAL STOPS FOR PREVENTING FILLING
OVERHANG INTO THE INTERPROXIMAL
SPACE BETWEEN TEETH
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Lyman F. Thompson
INVENTOR.

BY *Charles A. Olson*
and *Harvey B. Jackson*
Attorneys

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INTERPROXIMAL STOPS FOR PREVENTING FILLING OVERHANG INTO THE INTERPROXIMAL SPACE BETWEEN TEETH

Lyman F. Thompson, Fayetteville, Ark.

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4 Claims. (Cl. 32—63)

The present invention relates to dentistry, and more particularly relates to means for facilitating the molding of the outer surface of the filling in a tooth to the curvature of the side wall of the tooth.

When filling cavities in the side of teeth, and more particularly in the proximal surface of a tooth, it becomes very difficult to shape the outer surface of the molded filling to the contour of the tooth. This condition frequently results in filling overhang into the interproximal space between the teeth where the overhanging filling forms a shelf which leads to an accumulation of tartar, frequently causes gum irritation, and is a prime source of food impaction.

The primary object of the present invention is to provide a means for contouring the customary matrix band to the shape of the proximal surface of the tooth, particularly at the gingival margin of the cavity in the tooth to prevent filling overhang into the interproximal space.

Matrices are conventionally used to separate the space between teeth when filling the proximal surface of one tooth to prevent the bridging of the filling to the next adjacent tooth. However, the matrix band by itself will not readily conform to the contour of the proximal surface of the tooth and will remain spaced from the tooth being filled at the gingival margin of the tooth. The present invention is directed specifically to an auxiliary member to be used with a matrix band which will force the lower portion of the matrix band into engagement with the proximal wall of the tooth to be filled, which will readily be formed to the contour of the tooth and which will be harmless and non-irritating to the gingival margin.

A still further object of the invention is to provide a member of the above described character that will be easily inserted and removed, which is extremely inexpensive to manufacture and which may be stocked in a variety of sizes to be utilized in varying interproximal spaces and which may be conveniently identified according to their size by different colorings.

These, together with other objects and advantages which will become subsequently apparent, reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of the right lower jaw showing the interproximal stop of the present invention in use with a matrix;

Figure 2 is a side view of the interproximal stop inserted with a matrix band in the interproximal space between two teeth with the jaw bone being shown in cross-section;

Figure 3 is an enlarged cross-sectional view taken substantially along the plane of section line 3—3 of Figure 2 disclosing the manner in which the interproximal stop forces the lower portion of the matrix to conform

to the proximal wall surface of a tooth having a cavity opening into such surface; and

Figure 4 is a top view of a pair of the interproximal stops of the present invention in varying sizes.

Referring to the drawings, the right lower jaw is illustrated in its entirety by the numeral 10 and the gingiva or gum is designated by the numeral 12 from which project upwardly a plurality of teeth including a second molar 18 and first molar 20.

In the interproximal space between the teeth 18 and 20 is disposed a matrix 22 of suitable variety which may be conveniently of Celluloid and an interproximal stop 24 which constitutes the present invention.

As shown most clearly in Figure 3, the first molar 20 has a cavity 26 therein which opens into the proximal wall of the tooth and extends downwardly quite near the gingival margin of the tooth. Such a cavity is a common one, and, conventionally, to avoid the formation of a filling bridge between tooth 20 and tooth 18, a matrix band 22 is used to separate the teeth from one another and to form a dam for the molding of the filling within the cavity 26.

Ordinarily, of course, the matrix 22 would serve to prevent such bridging between the teeth 18 and 20. However, filling overhang would develop on the gingival margin of the side wall or proximal surface of the tooth 20 if the matrix 22 were used alone since ordinarily this method, for the very practical reasons of sturdiness against deformation during the impaction of the filling, is not a readily flexible or deformable member, being generally of a high tension, resilient construction.

Accordingly, the interproximal stop 24 of the present invention is wedged into the interproximal space between the teeth 18 and 20 to force the lower margin of the matrix 22 into conformance with the contour of the proximal wall of the tooth 20 so that the filling which is impacted into the cavity 26 will mold itself generally into the shape of the proximal surface of the tooth 20.

The interproximal stop 24 is formed of an elongated wedge 26 of a soft, deformable plastic material which is molded around a strip of dental floss 28. The wedge-shaped member 27, as clearly shown in Figure 3, is triangular in cross-section with one wall thereof resting on the gum 12 and the other two walls thereof joining one another at an apex toward the cutting edges of the teeth 18 and 20.

As will be noted, the wedge 27 forming the interproximal stop 24 is molded on the dental floss 28 so that the point of the wedge blends into a longitudinal extension of the dental floss. With this arrangement, the simplicity of inserting the stop 24 after the matrix 22 has been inserted is obvious. The dental floss 28 is simply worked between the teeth to the required side of the matrix 22 and the point of the wedge 27 is pulled into the interproximal space. By virtue of its deformable nature and the utility of a relatively soft pliable plastic in its construction, the stop will not injure the gingiva or form continuing irritations. By pulling the point of the wedge 27 on into the interproximal space between the teeth, the wedge becomes drawn into the interproximal space so that it completely fills the same and forces the lower portion of the matrix 22 to abut the proximal wall of the tooth having the cavity therein at the gingival margin thereof to provide a dam for the filling to be impacted into the cavity that will produce no overhang into the interproximal space between the teeth.

From the foregoing description, the construction and utility of the interproximal stop in the dental arts will be readily apparent. By noting Figure 4, it will be seen that these stops may be made in different sizes such as the short wedge illustrated by the numeral 30 as con-

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trasted to the long wedge 27 described previously. For ease of identification, these varying sizes may be made in different colors.

From the foregoing, a further description is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art after a perusal of the foregoing specification taken in conjunction with the accompanying drawings, it is not desired to limit the invention to the exact construction shown and described, but all suitable modifications may be resorted to which fall within the scope of the appended claims.

What is claimed as new is:

1. A dental aid for preventing the packing of fillings into the interproximal space between teeth comprising an elongated, deformable, wedge-shaped strip tapering to a point at one end and being triangular in cross-section for insertion between the teeth for pressing a matrix band into conformance with the wall of a tooth at the gingival area of the tooth, said strip being mounted on a strip of dental floss.

2. A dental aid for preventing the packing of fillings into the interproximal space between teeth comprising an elongated, deformable, wedge-shaped strip for insertion between the teeth for pressing a matrix band into con-

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formance with the wall of a tooth at the gingival area of the tooth, said strip being mounted on a strip of dental floss, said strip being triangular in cross-section.

3. A dental aid to prevent filling overhang into the interproximal space between teeth comprising a strip of dental floss, a wedge of deformable, soft plastic material formed around a portion of said strip, said wedge tapering to a point at one end and being triangular in cross-section.

4. A dental aid to prevent filling overhang into the interproximal space between teeth comprising a strip of dental floss, a wedge of deformable, soft plastic material formed around a portion of said strip, said wedge being triangular in cross-section for insertion into the interproximal space between teeth for pressing a matrix band into conformity with the wall of a tooth at the gingival area of the tooth.

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