Dec. 20, 1949 W. M. REICHNER 2,491,581

DENTAL BRIDGE ATTACHMENT

Filed July 13, 1948

Fig. 1.

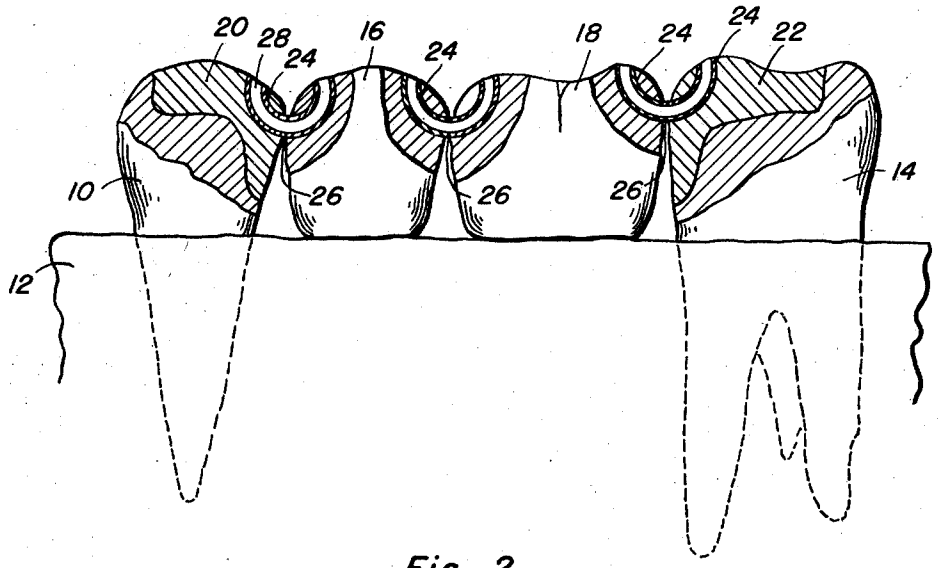


Fig. 2.

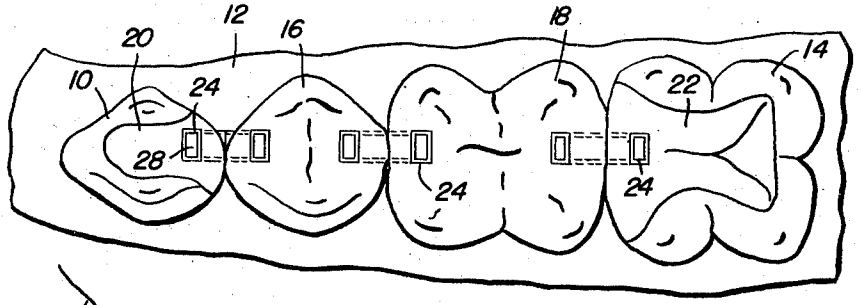


Fig. 3

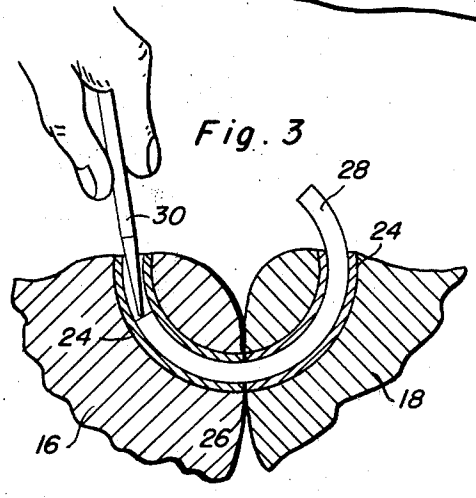
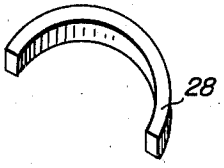


Fig. 4.



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2,491,581

DENTAL BRIDGE ATTACHMENT

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Application July 13, 1948, Serial No. 38,482

3 Claims. (Cl. 32—5)

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This invention relates to a dental bridge attachment, the primary object of which is to provide an attachment which renders the bridge fixed, removable and movable.

Another object of this invention is to provide a novel dental bridge attachment whereby false teeth may be attached to a pair of natural or abutment teeth which consists essentially of a plurality of arcuate tubes or female portions secured to the teeth adjacent the top surfaces thereof and split at the interproximal faces of the teeth and a plurality of metallic wires or male portions slidable or insertable in the tubes serving as links interconnecting the false teeth and the false teeth with the natural or abutment teeth. When the bridge is attached to the natural teeth with the connecting links of the instant invention, the bridge is rendered fixed in the sense that the patient will be unable to remove the bridge by himself. The bridge is rendered removable in the sense that the dentist can readily retract the arcuate wires or male portions for the purposes of prophylaxis, more complete examination of the abutment teeth, and also for adding additional teeth to the bridge in the case of loss of abutment tooth or teeth. The bridge is rendered movable in the sense that the attachment of the instant invention allows a very slight and desired individual movement of the teeth.

These, together with various ancillary objects and features of the invention which will later become apparent as the following description proceeds, are attained by the device, a preferred embodiment of which has been illustrated by way of example only in the accompanying drawings, wherein:

Figure 1 is a sectional view of the attachment of the instant invention as applied to a bridge, the false and natural teeth being shown partly in section and partly broken away;

Figure 2 is a top plan view of the device shown in Figure 1;

Figure 3 is a fragmentary sectional view of a single connecting link between a pair of teeth; and

Figure 4 is a perspective view of the metallic wire or male portion of the link.

Specific reference is now made to the drawings. In the several views in the accompanying drawings and in the following specification reference characters indicate corresponding elements throughout.

Indicated generally at 10 is a first natural or abutment tooth embedded in the natural gum 12 and separated from another natural abutment

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tooth 14. A pair of false teeth 16 and 18 are provided which are positioned in the space between the abutment teeth 10 and 14 and are removably interconnected to each other and to the abutment teeth by means of the attachment of the instant invention. The abutment teeth 10 and 14 are provided at their top surface with the usual gold inlays 20 and 22.

The device of the instant invention consists essentially of a plurality of arcuate metallic tubes or female portions 24 which are secured to a corner portion of the top surface of both the false teeth and the abutment teeth as shown clearly in the drawings. The tubes 24 are not continuous but rather split as at 26 at the interproximal faces of all of the teeth. It will readily be understood, of course, that those tubes 24 which are attached to the abutment teeth 10 and 14 are either soldered thereto or are attached by means of casting the gold of the inlays or crowns directly around the tube itself.

Slidably retained in each of the tubes 24, which are preferably semi-circular, is a metallic wire 28 which is arcuated to conform to the shape of the tubes 24 and is therefore also preferably semi-circular as shown more particularly in Figures 3 and 4.

When the wires 28 are inserted in all of the tubes 24 the bridge of false teeth 16 and 18 is more or less fixedly secured to the abutment teeth 10 and 14. When the wire 28 is slid out of or retracted from the tubes 24 by means of a prong 30 inserted in one end of the tubes 24, the false teeth become separable from themselves and from the natural or abutment teeth.

It should be understood that any metal adapted to or suitable for all cavity conditions in the mouth which can withstand a minimum amount of shearing strain or stress and at the same time have all the necessary physical properties of a metal alloy for dental bridge work may be employed in the fabrication of the device of the instant invention.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. Means for removably attaching a bridge of false teeth to a pair of natural teeth comprising arcuate metallic tubes adapted to be embedded in the false and natural teeth adjacent the top surfaces thereof and to be split at the interproximal faces of the teeth, and means retractably positioned within the tubes for holding the false and natural teeth together.

2. The combination of claim 1 wherein said means includes metallic wires arcuated to conform to the shape of said tubes.

3. Means for removably attaching a pair of teeth to each other comprising a pair of complemental arcuate metallic tubes one each adapted to be embedded in a tooth with one end terminating at the top surface and the other end terminating at the proximal surface of the tooth, and an arcuate wire removably slidable in said tubes.

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REFERENCES CITED

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

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