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DENTAL PROSTHESIS

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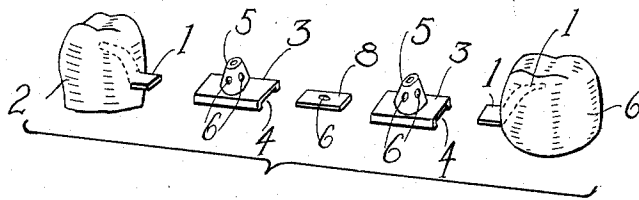


FIG. 1.

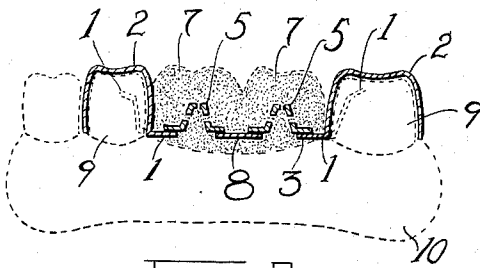


FIG. 2.

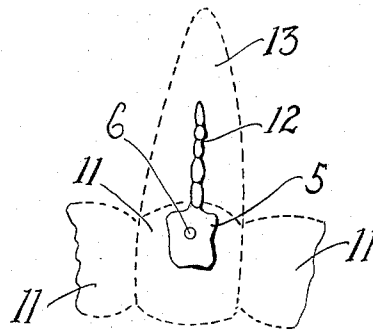


FIG. 3.

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DENTAL PROSTHESIS

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5 Claims. (Cl. 32-5)

1

The present invention relates to dental prosthesis, and essentially has for its object to provide an improved means for, making and mounting in position such prosthesis.

The drawbacks and disadvantages encountered in the usual practice of this art are well known, and the present invention has for its object to provide improved means for producing the said prosthesis in a most easy, simple and inexpensive manner, and for fixing it in position on a patient within a minimum period of time.

A dental prosthesis according to the invention may be produced by the steps of, temporarily fitting anchorage members to one or more teeth in the mouth of the patient, thereby defining the interstice to be bridged, by the prosthesis, bridging the gap between such anchorage members with the aid of one or more adjustably related core-plates for artificial teeth and filing such adjustment, then removing the whole from the mouth of the patient and placing it within a mould for the casting of artificial teeth and, thereafter, replacing the completed unit in the mouth of the patient and securing it permanently in place with the aid of said anchorage members.

A "bridge" obtained through this method, shows the following advantages:

(a) No soldering or welding operations are necessary to unite the parts of the bridge;

(b) The mounting in position of a completed bridge unit requires, at the most, a few minutes.

(c) The cost of the entire procedure is, in view of its extreme simplicity, an absolute minimum as compared with the cost of the conventional methods now in use.

In order that the present invention may be clearly understood and readily carried into practice, the same will now be described in detail having reference to the appended sheet of drawings illustrating, by way of example, one preferred embodiment of the invention.

In the drawings:

Fig. 1 is an exploded perspective view of the parts of an arrangement used in practicing the invention;

Fig. 2 is a cross-sectional view of a dental prosthesis of the "bridge" type made in accordance with the invention and mounted in place in the mouth of a patient, and

Fig. 3 is a sectional view of a single upper tooth provided with an insertion pin.

In the several figures, like or corresponding parts are denoted by similar characters of reference.

2

Referring particularly to the drawing, the embodiment illustrated comprises two cap-members 2-2, made from any suitable material, for instance, stainless steel, both of which are formed with a tongue or projecting flap 1 capable of engaging in corresponding grooves 4 of core-plates 3 each carrying a hollow core 5 having apertures 6 therein. For the connection between core-plates 3 a member 8 is provided which may be slidably inserted within the grooves 4 of the latter.

In practicing the invention, the cap members 2 are slid over the teeth of the patient defining the interstice to be bridged by the prosthesis, with core-plates 3 having their grooves 4 in sliding engagement with the laterally projecting tongues 1, respectively, or the intermediate member 8, the whole assembly being adjusted so as to exactly fill the space between the teeth serving as anchorage members the adjustment being fixed by squeezing the core plates 3 with pliers or nippers to compress the grooves 4, or in any other convenient manner. Once this adjustment has been effected, the whole is taken out from the patient's mouth interstice and is placed within a mould for the casting of artificial teeth, a cast being made according to known practice. The apertures 6 in the hollow core 5 and in the intermediate member permit the plastic to flow therethrough during the molding process and thus serve to produce a permanent and rigid completed dental prosthesis. After completion of this procedure, the unit may be reappplied to the patient's mouth as schematically illustrated in Fig. 2, by simply sliding cap members 2 onto the teeth 9, with the artificial teeth 7 firmly seated against the gum 10 and held in place by members 3-5, 8 and 1 now incorporated within the solid plastic mass of the artificial teeth 7. As will be clearly understood, the cap members 2 may easily be secured to their supporting teeth 9 using the procedure usually followed in connection with the, so-called, crown caps.

Fig. 3 shows a single artificial tooth enclosing a core member 5 provided with a pin 12 to be inserted in a tooth root 13.

As is clearly apparent from the foregoing description, the present method permits the making, and the application, of a dental prosthesis of the bridge type, within absolutely minimal periods of time, without the necessity of having recourse to soldering or welding processes or the like, thus making it possible to produce such dental prosthesis at extremely low cost.

What I claim is:

1. A dental prosthesis of the class described, comprising: an anchorage member adapted to be secured to at least a portion of a natural tooth, said anchorage member comprising a laterally projecting portion; and at least one core plate, said core plate comprising a portion adapted for sliding adjustable engagement with said laterally projecting portion of said anchorage member, said core plate further comprising a core portion having apertures therein, said core plate being adapted to be surrounded by a molded plastic artificial tooth, said apertures being filled by said plastic.

2. A prosthesis according to claim 1, wherein said core plate comprises a pin adapted to be inserted in the root portion of a natural tooth.

3. A dental prosthesis of the class described, comprising: two spaced anchorage members, each adapted to be secured to at least a portion of a natural tooth, said anchorage members each comprising a laterally projecting portion; and at least one core plate, said core plate comprising a portion adapted for sliding adjustable engagement with said laterally projecting portion of one of said anchorage members, to conform to said space therebetween; said core plate further comprising a core portion having apertures therein, said core plate being adapted to be surrounded by a molded plastic artificial tooth, said apertures being filled by said plastic.

4. A dental prosthesis of the class described, comprising two spaced anchorage members, each adapted to be secured to at least a portion of a natural tooth, said anchorage members each comprising a laterally projecting portion; and a plurality of core plates, each core plate comprising a portion adapted for sliding adjustable engagement with said laterally projecting portion of one of said anchorage members to conform to said space therebetween, said core plate further comprising a core portion having apertures therein, each core plate being adapted to be surrounded by a molded plastic artificial tooth, said apertures being filled by said plastic; and interconnecting means slidably and adjustably joining adjacent core plates.

5. A prosthesis according to claim 4, wherein said interconnecting means comprises a flat plate member having an aperture therein adapted to be filled by said plastic.

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References Cited in the file of this patent

UNITED STATES PATENTS

25	Number	Name	Date
	1,211,494	Shaw	Jan. 9, 1917
	1,414,475	Kochmit	May 2, 1922
	2,002,048	Thomas	May 21, 1935
30	2,411,001	Rothkranz	Nov. 12, 1946