

(No Model.)

E. L. CHAFFIN.
ARTIFICIAL DENTURE.

No. 601,703.

Patented Apr. 5, 1898.

Fig. 1.

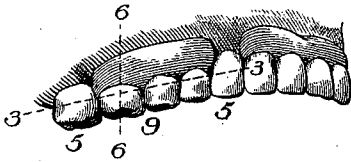


Fig. 2.

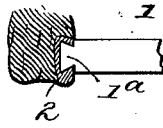


Fig. 3.

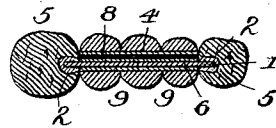


Fig. 4.

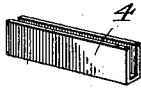


Fig. 5.

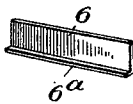


Fig. 6.

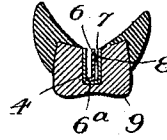


Fig. 7.

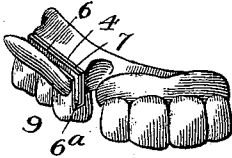
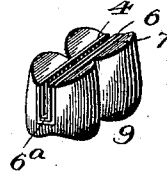


Fig. 8.



Fig. 9.



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ARTIFICIAL DENTURE.

SPECIFICATION forming part of Letters Patent No. 601,703, dated April 5, 1898.

Application filed June 26, 1897. Serial No. 642,484. (No model.)

To all whom it may concern:

Be it known that I, EDWARD L. CHAFFIN, residing at Helena, in the county of Phillips and State of Arkansas, have invented a new and Improved Artificial Denture, of which the following is a specification.

My invention relates to improvements in that branch of dentistry known as "removable" bridgework; and it consists of an improved artificial denture embodying the peculiar and novel construction and combination of parts such as will be first described in detail and then be specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a view illustrating my invention as in use. Fig. 2 is a view illustrating the manner of fixedly connecting the anchor-bar to the natural teeth. Fig. 3 is a horizontal section taken on the line 3 3 of Fig. 1. Fig. 4 is a detail view of the clasp or yoke member. Fig. 5 is a view of the supplemental piece which forms a part of the clasp. Fig. 6 is a transverse section taken on the line 6 6 of Fig. 1. Fig. 7 is a view of a denture-section constructed in accordance with my invention removed from the anchor-plate. Fig. 8 illustrates a crown-piece or tooth form before it is secured to the clasp. Fig. 9 illustrates the same secured to the clasp before the vulcanized base is secured thereto.

In the practical construction of my improved bridgework an anchor-bar 1, preferable of iridio-platinum, of suitable width and thickness, is secured to and between a pair of natural teeth, which have sockets drilled therein to receive the ends of the bar, which ends are preferably dovetailed; as at 1^a, whereby to be firmly held in place by the fillings which are forced into the tooth-sockets.

When it is desirable to use an artificial crown for an abutment, the bar 1 may be soldered to such crown.

The anchor sockets or cavities 2 in the natural teeth are formed in the palato-aproximal portion of the teeth contiguous to the space to be bridged and are cut down flush with the gingival margin and have direct access to at least one of the cavities through the crown or palatal wall of the tooth.

After the bar 1 is properly adjusted in the cavities of the natural teeth such cavities

are filled with gold or amalgam, such bar being then fixedly held in place with its inner edge in close contact with the contiguous alveolar surface, which provides, as it were, a cushiony bearing for the bar, and in consequence relieves the natural teeth of the entire force of mastication, as the same is thereby disseminated over the entire surface of the denture as well as the natural teeth, as will hereinafter more fully appear.

4 indicates a heavy piece of metal bent U-shaped to form a clasp, which in practice is preferably of a length equal the length of the anchor-bar between the anchor-teeth 5. Within the clasp 4 is a thin metal piece 6, having a base 6^a, which is soldered to the bottom of clasp 4 and has its body held free from one side of the clasp, whereby an intervening space 7 is provided to receive an elastic 8, as shown, it being manifest, however, that instead of an elastic 8 being employed the piece 6 may be of spring metal, or a plate-metal spring may be interposed between the piece 6 and the side of the clasp, the purpose of the piece 6 being to act as a spring to hold the clasp tightly on the anchor-bar 1.

After a clasp 4 of proper size is made ordinary or porcelain-faced shells 9 are suitably slotted and fitted over the clasp, which forms a saddle therefor. The clasp-saddle, with the shells, is then placed over the bar 1 and adjusted until the proper articulation is secured, after which the same is removed and the crowns or shells soldered to the saddle, and when thus secured the base of the crown may be moved up to fit the gums and to restore the contour of the soft tissues above the bridge. The case is then flaked up and a vulcanite base added.

So far as described it will be readily seen that a small bridge of this type will carry any number of teeth and that teeth can be added at any time without inconvenience or injury to the original bridge.

By providing a fixed anchor-bar held between the natural teeth and in relation to the alveolar surface, as described and shown, the denture can be quickly placed in position or removed securely, held immovable by the peculiar claspings of the bar, and so that the force of mastication is distributed over the denture and does not fall entirely on the natural

teeth. Furthermore, by connecting the anchor-bar to the natural teeth, as shown, the same can be easily cleaned at its point of connection with such teeth and the accumulation
5 of food at such point prevented.

The advantage of a movable bridgework over an immovable one will be readily appreciated by those skilled in the dental art.

10 In the immovable bridgework if an extension-bridge is made of gold it is impossible to keep it perfectly clean, as the metal will gradually tarnish in parts out of reach of the brush and will gather offensive matter on its surface and interstices.

15 In my type of bridgework the crown or shells with the holding means are removable, and in consequence can be thoroughly cleaned before reinsertion in the mouth.

20 From the foregoing, taken in connection with the drawings, the complete advantages of my invention will readily be understood by those skilled in the art to which it appertains. The same can be easily constructed, can be inserted and removed with facility, and
25 when in position has a natural appearance and is held from accidental displacement and without the slightest inconvenience to the wearer.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is— 30

1. An improved artificial denture, comprising an anchor-bar fixedly joined to the natural teeth and an artificial tooth-carrying saddle, detachably secured to the said bar, as set
35 forth.

2. The combination with the anchor, teeth having cavities formed in the palato-approximal portion thereof, cut flush with the gum margin, and the anchor-bar having its ends
40 fixedly secured in such cavities, of an artificial tooth-holding body having a clasp portion to fit the said bar as specified.

3. As an improvement in artificial denture, the combination with the anchor-bar fixedly
45 held to a pair of the natural teeth, of a saddle member adapted to slip over the bar, said saddle having a spring-clasp portion whereby to tightly engage the anchor-bar, and the artificial tooth or shells secured to such saddle as
50 set forth.

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Witnesses:

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