A. E. J. GREGG.

ARTIFICIAL DENTURE.

APPLICATION FILED JULY 1, 1914.

1,153,486. Patented Sept. 14, 1915.

Fig. 1.

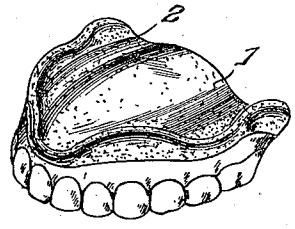


Fig. 5.

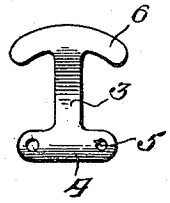


Fig. 6.



Fig. 2.

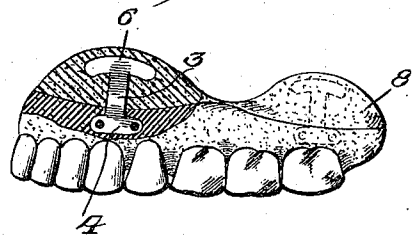


Fig. 4.

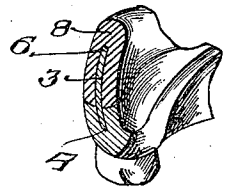


Fig. 3.

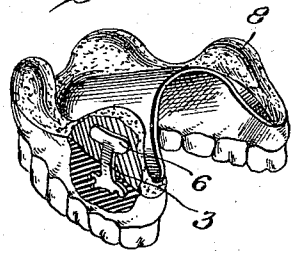
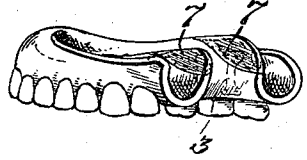


Fig. 7.



Witnesses

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ARTIFICIAL DENTURE.

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To all whom it may concern:

Be it known that I, ADOLPHUS E. J. GREGG, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Artificial Dentures, of which the following is a specification.

This invention relates to artificial dentures.

Heretofore artificial dentures or plates have been molded to more or less closely fit the roof of the mouth and the upper alveolar ridge or to fit the lower alveolar ridge, they being held in place by suction. This method of retaining the dentures in place is more or less satisfactory until the gums recede or until the palatine surface becomes moist. In either event, the dentures become loosened causing considerable inconvenience to the wearer. Furthermore, the roof of the denture plate, fitting close to the roof of the mouth, materially detracts from the sense of taste.

It is one aim of the present invention to provide means whereby an artificial denture may be securely held in place within the mouth without depending upon suction force and without likelihood of becoming loosened when the gums recede and which will permit of the roof or body portion of the denture plate being omitted so that the wearer of the denture may fully enjoy the sense of taste.

The invention resides, briefly stated, in providing an artificial denture having resilient labiate portions arranged to securely engage against the sides of the alveolar ridge, these portions being so formed that they will not cause inconvenience to the wearer of the denture and will yet securely hold the same in place and will readily conform to the gums as the gums recede.

In the accompanying drawings: Figure 1 is a perspective view of an upper artificial denture constructed in accordance with my invention. Fig. 2 is a side elevation thereof, a portion of the denture being shown in front to rear section. Fig. 3 is a perspective view of the denture with parts broken away. Fig. 4 is a vertical transverse sectional view through the rear portion of one side of the denture. Fig. 5 is a side elevation of one of the springs comprising a member of the holding means for the denture. Fig. 6 is an edge view of the spring. Fig. 7 is a perspective view of a lower denture constructed in accordance with the invention.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

As will be apparent by reference to the several figures of the drawings, the principle of the invention may be embodied either in an upper or a lower denture, substantially the only difference being in the location of the labiate holding portions of the denture.

In Figs. 1 to 4 inclusive the numeral 1 indicates the roof or body portion of an upper denture plate and 2 the sides or labiate portions of the denture plate, which are of composite structure as will now be made apparent. The lower portions of the sides 2 are of vulcanite or other suitable material and are integral with the roof or body portion 1 of the plate. At the time of molding these portions of the denture, springs, which may be of the form shown in Figs. 5 and 6 or which may be of any other suitable form, are embedded at their lower ends in the said lower portions of the sides of the denture. The spring shown in Figs. 5 and 6 comprises a shank 3 provided at its lower end with a widened portion or head 4 which preferably extends transversely with relation to the shank and which is preferably provided with openings 5. The said widened portion 4 is embedded in the lower portions of the sides 2 and the vulcanite or other material from which the said lower portions of the sides and the roof or body portion of the plate are formed, entering the openings 5 serves to securely anchor the spring, the shoulders formed by the widened portion assisting of course in securing this result. The shank 3 is provided at its upper end with a head 6 extending, generally speaking, transversely of the shank and this head may be arcuate or, as before stated, of any other suitable form. It is preferable of course that the entire spring be curved from end to end in the manner shown in Fig. 6 so as to conform as nearly as possible to the contour of the alveolar ridge and the head 6 may be curved from side to side for the same purpose if desired. In fact, it is to be understood that I am not limited to the use of a spring plate but that I may employ wire bent to any desired or suitable form and arranged in any suitable manner and that while the

plate is preferably of gold or other suitable metal, it may be of any other material suitable for the purpose and possessing the desired degree of resiliency. Also it will be understood that in the event that the denture plate is formed from metal, the springs may be secured thereto in any suitable manner or may even be integral therewith. In arranging the springs upon the denture plate, one of the springs is located at each side of the front of the plate and one at each condyle, and in arranging the springs upon a lower denture plate, as for example as indicated by the numeral 7 in Fig. 7 of the drawings, one of the springs is located at the inner side of each condyle. After the springs have been properly united to the denture, the sides of the denture are filled out or completed by suitably shaped pieces of soft rubber, indicated by the numeral 8, the rubber being vulcanized to the lower portions of the sides of the plate and the shanks 3 and heads 6 of the springs being embedded in the rubber.

From the foregoing description of the invention, it will be seen that the same contemplates providing a denture having resilient and more or less flexible labiate portions so located upon the body of the denture as to engage against the outer sides of the upper alveolar ridge, in the case of an upper denture, and against the inner sides of the lower alveolar ridge, in the case of a lower denture. It will be understood that the said labiate portions are to be so constructed and formed as to snugly fit against the alveolar ridge in either instance and thereby securely hold the denture in place and against slipping or dropping. It will furthermore be understood that in the case of the upper denture, the roof of the denture may be dispensed with. Also it will be apparent that the labiate portions are arranged to engage the gums at points where the gums do not harden and, consequently receding of the gums will not destroy the effectiveness of these elements, for which reason the dentures may be fitted sooner after extraction than is possible by the use of the ordinary dentures which depend upon suction force for holding them in place. It will furthermore be understood that inasmuch as the labiate portions are of soft rubber they will readily conform to the contour of the alveolar ridge, insuring at all times of the denture being securely held in proper position within the mouth.

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

1. An artificial denture including a body portion, a resilient relatively rigid element thereon, and a relatively soft labiate portion integral with the body portion and embedding the resilient element.

2. An artificial denture including a body portion, a resilient relatively rigid element having an end anchored to the said body portion and provided with a shank projecting beyond the body portion and terminating in a transverse head, and a relatively soft labiate portion forming a continuation of the body portion and embedding the shank and head of the said resilient element.

In testimony whereof I affix my signature in presence of two witnesses.

ADOLPHUS E. J. GREGG. [L. S.]

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."