

C. W. GILLESPIE.
 APPLIANCE FOR RETAINING ARTIFICIAL DENTURES OR ARTIFICIAL TEETH IN PLACE.
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1,408,582.

Patented Mar. 7, 1922.

Fig. 1.

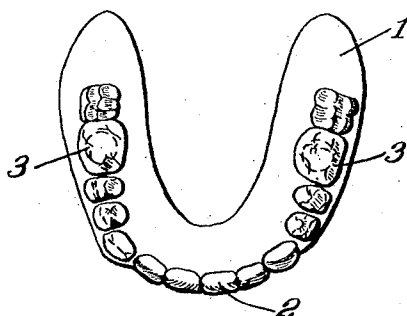


Fig. 2.

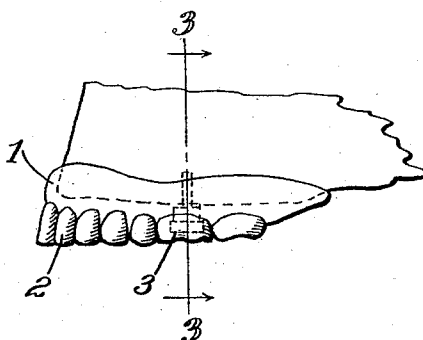


Fig. 3.

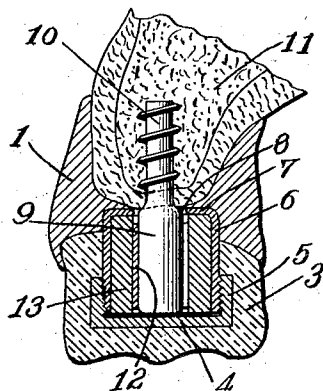


Fig. 5.

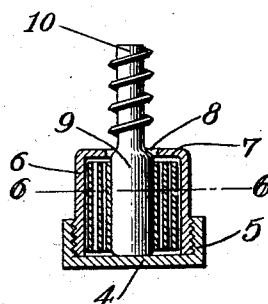


Fig. 4.

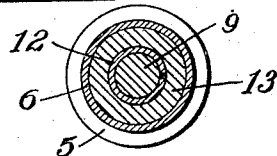
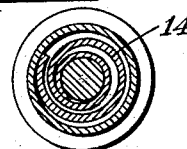


Fig. 6.



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APPLIANCE FOR RETAINING ARTIFICIAL DENTURES OR ARTIFICIAL TEETH IN PLACE.

1,408,582.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES W. GILLESPIE, a citizen of the United States, residing at Marion, in the county of Grant and State of Indiana, have invented certain new and useful Improvements in an Appliance for Retaining Artificial Dentures or Artificial Teeth in Place; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to artificial denture and has special reference to a plate and means for releasably holding the plate in the proper position in the mouth and preventing the plate from having a tendency to work loose.

It is further desired to provide a structure in which the plate may be provided with retaining sockets for engaging posts screwed into or otherwise anchored to the jaw bone and thus the plate engaged with solid supporting means. By this construction, the plate will be securely held in place but may be removed when desired and after being cleaned or repaired if necessary, easily put back in place. When installing removable bridgework, it is customary at the present time to provide a pivot tooth upon an old root and provide this pivot tooth with a side pin for fitting into a snap-socket carried by the saddle of the bridge but in this improved construction, the anchoring pins are screwed into sockets drilled in the jaw-bone itself and fit into sockets carried by certain of the teeth of the plate, the sockets of the plate having means for frictionally engaging the posts and thus permitting the plate to be securely but releasably held in place.

This invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a plan view of the improved plate.

Figure 2 is a view in side elevation showing the plate mounted in the mouth.

Figure 3 is an enlarged sectional view taken along the line 3—3 of Fig. 2.

Figure 4 is a transverse sectional view taken along the line 4—4 of Fig. 3.

Figure 5 is a vertical sectional view through a modified form of socket with the post shown in elevation.

Figure 6 is a transverse sectional view taken along the line 6—6 of Fig. 5.

This improved plate is provided with a saddle 1 which may be formed of rubber, gold, aluminum or any other suitable material. The saddle carries the usual teeth which are indicated in general by the numeral 2. The two jaw teeth 3 are in the form of gold crowns, and are hollow as shown in Fig. 3 of the drawing. Sockets are mounted in the hollow crowns or teeth 3 and as shown clearly in Fig. 3 will extend through the saddle 1. Each of these sockets is provided with a base 4 having an internally threaded flange 5 into which will be screwed the sleeve 6. This sleeve 6 is provided with an inwardly extending flange 7 thus providing a retaining flange and further providing the socket with an entrance opening 8 through which the post 9 will pass when entering the socket. This post 9 has its end portion 10 reduced and threaded and as shown in Fig. 3, this threaded end portion is to be screwed into a socket drilled in the jaw-bone 11. The posts are to be frictionally gripped so that the sockets will be prevented from slipping off the posts and in order to do so, the sockets may be provided with the structure shown in Figs. 3 and 4 or with the structure shown in Figs. 5 and 6. In the structure shown in Figs. 3 and 4 there has been provided a split sleeve 12 which is positioned in the cup 6 and surrounded by a jacket 13 formed of rubber which will tend to retain the split sleeve in a closed position. When the post is positioned within the split sleeve, this sleeve will be expanded as shown in Fig. 4, the tendency of the rubber jacket to compress the sleeve and return it to its original size will create a frictional binding between the sleeve 12 and post 9. In the form shown in Figs. 5 and 6, the split sleeve 12 and rubber jacket have been done away with and in place of the same, there has been provided a coiled strip 14 formed of spring metal. This coiled strip 14 is positioned within the sockets as shown in Figs. 5 and 6 and when the post enters the sockets, the inner convolution of the spring strip will be expanded and in attempting to return to its original size will provide the frictional grip upon the post. It will thus be seen that in both constructions, the post will be frictionally gripped and the false teeth will be se-

curely but releasably held in place. When in use, the plate will be cast with the teeth 2 and 3 in place. After the natural teeth have all been extracted from the jaw-bone and the gums have sufficiently healed to permit of installing the set of false teeth, the nerves will be deadened so that no pain will be felt and sockets 15 will be drilled in the jaw-bone at their proper places. After the sockets have been formed, the posts 9 will be put in place and the threaded end portions will be screwed up into sockets 15. The posts will thus be securely anchored to the jaw-bone and cannot work loose. It should be further noted that due to this construction, a relatively heavy post can be put in place and will not be liable to be broken off. With the posts in place, the plate can be put in place and the posts will fit into the sockets and as previously explained will be frictionally gripped so that the plate will be securely held in the proper position.

I claim:

1. In a dental plate, a tooth carrier, a post adapted to be anchored in the jaw with its outer end portion extending beyond the gum line and forming a pin, and a socket carried by the plate and having a cup and a coiled spring in the cup for fitting about the post and frictionally gripping the post to releasably hold the socket upon the post.

2. In a dental plate, a tooth carrier, a post adapted to be anchored in the jaw with its outer end portion extending beyond the gum line and forming a pin, and a socket carried by the plate and having a cup, abutment

means extending inwardly from the walls of the cup and a coiled spring strip in the cup for fitting about the post and frictionally gripping the post to releasably hold the socket upon the post, said abutment means retaining the spring in the cup.

3. In a dental plate, a tooth carrier, a post adapted to be anchored in the jaw with its outer end portion extending beyond the gum line and forming a pin, and a socket carried by the plate and having a cup including inwardly extending abutment means adjacent its outer end, and post gripping means in said cup held therein by said abutment means.

4. In a dental plate, a tooth carrier, a socket carried by said plate, and a post adapted to be anchored in the jaw with its outer end portion extending beyond the gum line for fitting into the socket and holding the plate in place, said socket comprising a base, a sleeve removably carried by said base and provided with inwardly extending abutment means, and post gripping means in said socket held therein by said abutment means.

5. The structure of claim 2 having the sockets each provided with a base, a sleeve carried by said base and provided with an internal flange at its outer end, and a coiled spring strip in said socket for fitting about a post and frictionally gripping the post to releasably hold the socket upon the post.

In testimony whereof I have hereunto set my hand.

CHARLES W. GILLESPIE.