Jan. 1, 1924 1,479,439

R. V. WILLIAMS

DENTAL CLASP

Filed Sept. 9, 1922

Fig. 1.

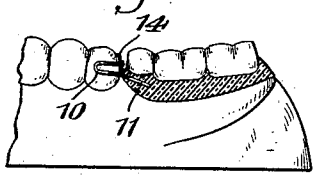


Fig. 2.

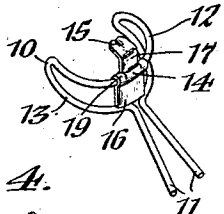


Fig. 3.

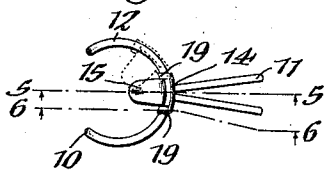


Fig. 4.

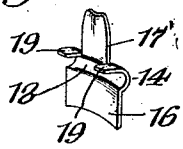


Fig. 5.

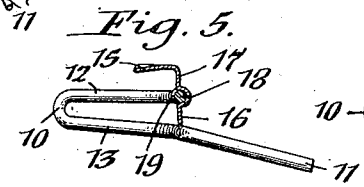


Fig. 6.

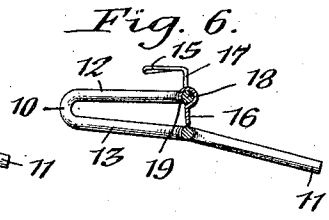


Fig. 7.

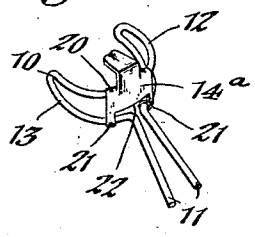
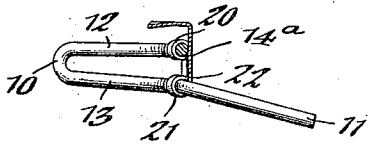


Fig. 8.



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UNITED STATES PATENT OFFICE.

REGINALD V. WILLIAMS, OF BUFFALO, NEW YORK.

DENTAL CLASP.

Application filed September 9, 1922. Serial No. 587,042.

To all whom it may concern:

Be it known that I, REGINALD V. WILLIAMS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Dental Clasps, of which the following is a specification.

This invention relates to the clasps employed for removably securing dental plates or bridgework to natural teeth, and particularly to clasps having occlusal rests.

Its chief object is the provision of a dental clasp in which the occlusal rest is adjustable to adapt it to the indentations of occlusal surfaces which vary more or less in different cases.

A further object is to provide an adjustable and interchangeable rest of this character which is simple and inexpensive in construction, which can be conveniently set to any desired position on the clasp, and which forms a smooth joint with the latter, so as to avoid spaces or interstices for the lodgment of foreign matter, thereby rendering the clasp sanitary.

In the accompanying drawings: Figure 1 is a sectional elevation of a dental plate or saddle embodying the improvement. Figure 2 is an enlarged perspective view of the clasp. Figure 3 is a top plan view thereof. Figure 4 is a perspective view of the occlusal rest detached from the clasp, showing its form before being bent to its ultimate shape. Figures 5 and 6 are enlarged vertical longitudinal sections on the correspondingly numbered lines in Fig. 3. Figure 7 is a perspective view of a modified form of the improvement. Figure 8 is an enlarged vertical longitudinal section thereof.

Similar characters of reference indicate corresponding parts throughout the several views.

In the preferred embodiment of the invention illustrated in Figs. 1–4, inclusive, the improvement is shown in connection with a cradle or loop clasp commonly made of wire bent to form the customary double band 10 which embraces the natural tooth, and the rearwardly projecting bars or anchor-spurs 11 which are embedded in the dental plate or soldered to the bridgework. The upper wire 12 of the band will be referred to as the "occlusal" wire while the lower wire 13 from which the spurs extend will be referred to as the "gingival" wire.

14 indicates the occlusal rest which in its original condition is laterally or horizontally adjustable on the clasp-band to permit its customary teat 15 to be brought into accurate register with the indentation of the tooth to which the clasp is applied. This rest may be stamped from a flat sheet metal blank and in its preferred form includes a body portion 16 and a head portion 17 somewhat narrower than said body portion. At its upper end the body portion is provided with a substantially horizontal guide groove 18 of approximately semi-circular form which is adapted to fit over the rear or outer side of the upper or occlusal wire 12, as shown in Fig. 5. Projecting from the body portion above the guide-groove and on either side of the head portion are lips 19 which are adapted to be bent around the inner side of the occlusal wire, thus forming eyes which sufficiently embrace said wire to hold the rest on the clasp-band, as shown in Fig. 6. The body portion 16 preferably terminates at or near the lower or gingival wire 13, as shown.

After adjusting the rest on the clasp band to fit a particular case, it is permanently secured in place, preferably by soldering it to the upper and lower clasp wires. Any surplus solder, together with the portions of the lips 19 projecting beyond the inner surfaces of the wires, is filed or ground off flush therewith to render the clasp band perfectly smooth on its inner side and permit it to closely embrace the tooth, thus avoiding the formation of intervening spaces or interstices in which food or other foreign matter is liable to lodge.

By mounting the occlusal rest in this manner, the same has a maximum range of adjustment on the clasp-band without interference with the spurs 11, and but a small amount of time is required on the part of the dentist to adjust and permanently set the rest in position on the clasp to fit a particular case.

In the modification of the invention illustrated in Figs. 7 and 8, the same is shown as applied to a loop clasp in which the occlusal rest 14^a is adjustably attached to both the upper and lower wires thereof. For this purpose, the rest is provided at its ends with upper and lower attaching lips or eyes 20, 21, which encircle the corresponding wires of the clasp-band, the lower eyes 21 being originally disposed on opposite sides of the anchoring spurs 11. The lower portion of the rest between the corresponding

eyes is recessed or cut out, as shown at 22, to permit the desired adjustment of the rest on the clasp-band. As in the previously described construction, the rest, after being properly adjusted, is permanently fastened to the clasp-band by soldering or otherwise. In this case, the solder may fill the cavity formed between the upper and lower sets of attaching eyes and then ground off flush with the inner surfaces of the wires 12, 13 to permit the clasp-band to fit closely about the tooth to which it is applied.

These improved rests are interchangeable as well as adjustable, inasmuch as the same rest may be applied to different sized clasps.

While the improvement is herein shown and described in connection with a cradle or wire clasp, it is obviously applicable to band-clasps as well.

I claim as my invention:

1. A dental clasp, comprising a band, and an occlusal rest laterally adjustable on said band and having means for slidably connecting the same with the band.

2. A dental clasp, having a band, an anchoring spur, and an occlusal rest laterally-adjustable on said band, said rest being clear of the part of the band which carries said anchoring spur.

3. A dental clasp having a band, an anchoring spur, and an occlusal rest adjustably mounted on said band, said rest having an attaching eye engaging the upper portion of said band and the lower part of the rest terminating short of said spur.

4. A laterally-adjustable rest for a dental clasp, including a body portion, a head portion, and a guiding member formed on said body portion and arranged to engage said clasp.

5. A laterally-adjustable rest for a dental clasp, including a body portion having a substantially horizontal guide-groove arranged to receive a part of said clasp.

6. An occlusal rest for a dental clasp, including a body portion having a substantially horizontal guide-groove arranged to receive a part of said clasp, a head portion extending above said groove, and a retaining lip projecting from said body portion and adapted to engage said clasp.

REGINALD V. WILLIAMS.