

(No Model.)

J. R. WATSON.
DENTAL PLATE.

No. 493,800.

Patented Mar. 21, 1893.

Fig. 1.

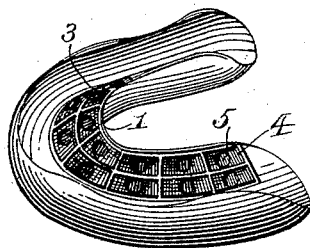


Fig. 2.



Witnesses

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DENTAL PLATE.

SPECIFICATION forming part of Letters Patent No. 493,800, dated March 21, 1893.

Application filed October 7, 1890. Serial No. 367,465. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. WATSON, a citizen of the United States, residing at Smithfield, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in the Mechanism Used to Secure Artificial Teeth in the Mouth; 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in plates for artificial teeth, the objects in view being to provide a plate adapted to tenaciously and securely hold in position upon the ridge of the mouth of the wearer and to be so constructed as to be especially adapted for mouths wherein the gums are soft and not adapted for retaining plates of ordinary construction in position.

I am aware that it has been heretofore common to employ plates adapted to be secured wholly upon the ridge of the gum by cohesion and capillary attraction but such plates were found useless in many instances, especially where the gums were soft. By my invention I propose to overcome this objection or disadvantage and construct a plate adapted as above described.

With the above objects in view, the invention consists in a plate so formed as to fit snugly the ridge of the gum from heel to heel thereof which plate is provided upon its inner inclined wall or gum side with a series of regularly arranged superficial gum engaging ribs crossing each other at regular intervals and producing intermediate cavities of rectangular shape, which ribs are designed to engage the soft mucous membrane or take into the same while the cavities receive such membrane; and furthermore, forming shallow indentations in the bottoms of the cavities whereby capillary attraction is employed in addition to the cohesive force and other means employed.

Referring to the drawings: Figure 1 is a perspective view of a plate constructed in

accordance with my invention. Fig. 2 is a transverse section of the same.

Like numerals indicate like parts.

My plate may be constructed of any suitable material such as is now ordinarily used for this purpose and its general shape is secured by the ordinary process whereby it is fitted to the ridge of the gums of the proposed wearer. The inner gum side of the plate which I have designated as 1 has its inner surface provided with a series of in this instance, three, parallel superficial shallow ribs, 2, the upper one of which extends along the upper ridge of the aforesaid gum side of the plate and the lower one of which is near the middle of the plate as a whole, the third rib being located intermediate the two. More ribs may be employed if desired, but these I have found ample for the purpose. The inner surface of the gum side of the plate is further provided with a series of radial or transverse superficial ribs 3 which intersect the ribs 2 at intervals and combine with them to form a series of substantially rectangular cavities 4. The bottoms of these cavities preferably are provided with shallow semi-spherical indentations or suction-chambers, 5. This completes the construction of the plate, the teeth of which are secured thereto in any suitable manner, and as commonly practiced.

It will be apparent that when the plate is applied to the ridge of the gums, the superficial ribs 2 and 3 will take into the soft mucous membrane of the gum which latter will also take into the cavities 4 so that an interlocking of the ribs with the soft mucous membrane is accomplished and lateral movement or rocking of the plate is avoided. At the same time, it will be apparent that the same cavities will serve to form a series of suction-chambers for aiding in the retention of the plate and prevent its withdrawal downwardly from the gum. A plate thus constructed, aside from being secure, avoids the necessity of filling up the roof of the mouth with metal or rubber, relieves the wearer from any of the inconveniences such as nausea or gagging, never comes in contact with the hard palate and does not produce sore mouth or interfere with enunciation, articulation or deglutition.

Having described my invention, what I claim is—

The herein-described improved plate for artificial teeth, the same having a general
5 contour adapting it to fit the alveolar ridge and having the inner surface of its gum side provided with a series of longitudinally and transversely disposed shallow intersecting superficial ribs for engaging the soft mucous
10 membrane of the ridge of the gum and producing intermediate cavities for receiving the

intermediate portions of the soft mucous membrane, the bottoms of the cavities being provided with shallow semi-spherical suction indentations or chambers, substantially as 15 specified.

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

JOHN R. WATSON.

Witnesses:

JNO. B. MILLER,

PAULI S. MORROW.