

D. T. HUBER.
DENTAL BITE TAKER.
APPLICATION FILED JULY 21, 1902.

NO MODEL.

Fig. 1.

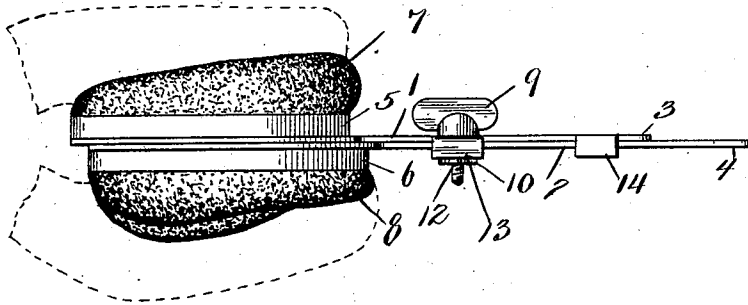


Fig. 2.

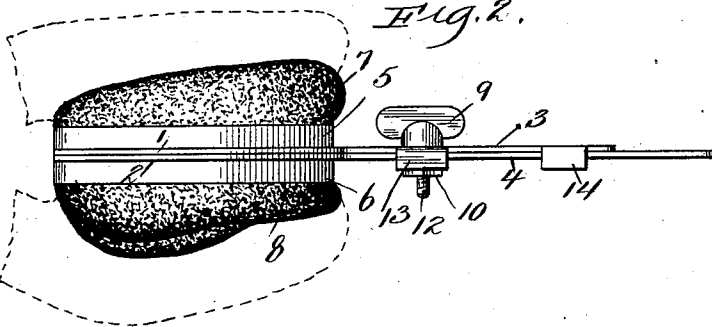


Fig. 3.

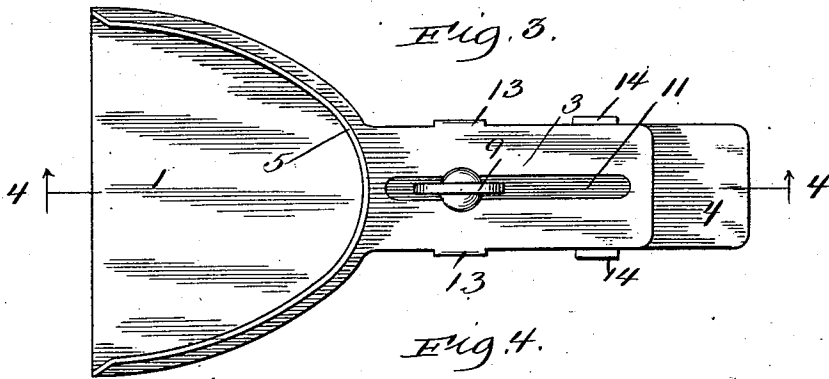
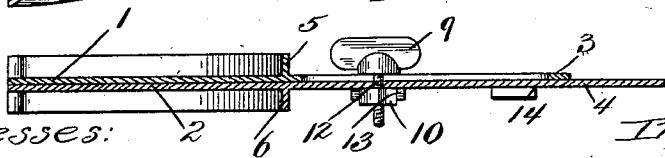


Fig. 4.



Witnesses:
Ray White
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UNITED STATES PATENT OFFICE.

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DENTAL BITE-TAKER.

SPECIFICATION forming part of Letters Patent No. 730,658, dated June 9, 1903.

Application filed July 21, 1902. Serial No. 116,311. (No model.)

To all whom it may concern:

Be it known that I, DAVID T. HUBER, of Des Moines, in the county of Polk and State of Iowa, have invented certain new and useful Improvements in Dental Bite-Takers; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to dental bite-takers employed by dentists to secure impressions of the teeth and gums of patients.

The object of my invention is to provide a device of the character described which will enable the operator to obtain a perfectly clean and distinct impression of the tooth and gum structure of the patient's mouth, with the impressions of the upper and lower jaws related to show the relative positions normally occupied by the jaws.

In the preparation of plates for teeth and other dental work requiring impressions of the patient's mouth to be taken it is usual to obtain such impression upon a prepared block or "bite-taker" of wax or similar material, so as to get the impression of both jaws on the block. These impressions, however, do not accurately represent the normal position of the jaws, and the plates made therefrom are apt to be more or less ill-fitting and uncomfortable on that account. This is due to the fact well known to dentists that the tendency in biting is to bring the incisors together, and the lower jaw is accordingly projected forward during the biting operation, with an attendant distortion of the mouth. It is to overcome this difficulty that my invention is primarily designed; and with this and other ends, which will be apparent to those skilled in the art, in view it consists in the features of construction and arrangement hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of my improved bite-taker in one position, showing in dotted lines the position assumed by the patient's jaw in biting. Fig. 2 is a similar view illustrating another position of my device with the relaxed or normal position of the jaw shown in dotted lines. Fig. 3 is a plan view of the bite-taker with the

matrix material removed. Fig. 4 is a central longitudinal section taken on lines 4 4 of Fig. 3.

In the drawings, 1 and 2 represent upper and lower plates, preferably of metal of stirrup shape and having each a projecting tongue (indicated, respectively, by 3 and 4) extending outward from the crown of the curve thereof. Each plate is also provided with a vertical lip or flange (indicated at 5 and 6) substantially parallel to and coextensive with the curved edge of said plate.

7 and 8 represent masses of prepared wax or other plastic material carried by the plates and retained in position by the curved flanges thereof. These masses of matrix material are usually roughly shaped to approximate an intaglio reproduction of the outlines of the human gums and teeth.

The plates 1 and 2 are placed back to back and adjustably secured by a thumb-screw 9 and nut 10 thereon, the screw passing through an elongated slot 11 in the tongue 3 of the upper plate and a registering screw-hole 12 in the lower tongue 4. The plates are thus arranged to slide longitudinally upon each other when the nut is loosened and to be firmly screwed together when the nut is tightened.

13 13 and 14 14 are small depending lugs or flanges formed in the edge of the plate 1 and serving as guides to prevent lateral play between the plates or tongues and confine their relative movement to a single direction.

The operation of my device is as follows: The bite-taker is placed between the patient's teeth, the thumb-screw is loosened, and he is told to bite hard. In his endeavor to make a strong firm impression the patient's lower jaw is usually projected forward, as indicated in Fig. 1, the plates sliding on each other to permit of a corresponding movement of the masses of matrix material and so prevent a blurring of the impression. The patient is then asked to relax the muscles, and on doing so the lower jaw naturally returns to normal position, as indicated in Fig. 2, the plates sliding freely to permit of such movement without damage to the impression. The thumb-nut is then tightened and the bite-taker removed from the mouth.

It is evident that the impressions of the upper and lower jaws when the bite-taker is removed occupy positions exactly reproducing the relation of the patient's jaws when
5 in normal position.

While I have described and shown for purposes of illustration one operative embodiment of my invention, it is apparent that alterations might be made in the construction
10 without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

15 1. A dental bite-taker comprising two plates, each adapted to hold matrix material on its front face, arranged back to back in sliding contact throughout their length, and devices associated with said plates disposed to
20 direct the relative sliding movement of said plates in a longitudinal direction, and adapted to secure said plates in various positions of longitudinal adjustment.

25 2. A dental bite-taker comprising two plates, each adapted to receive matrix material on its front face, arranged back to back, one of said plates being longitudinally slotted, and an adjusting thumb-screw carried by the
30 other plate and projecting through the longitudinal slot in the first said plate.

3. In a dental bite-taker two flanged plates, each adapted to receive a mass of matrix material, tongues projecting longitudinally from said plates and arranged in sliding contact with each other, one of said tongues being
35 longitudinally slotted, and a thumb-screw carried by the other tongue arranged to project through said slot and adapted to secure said tongues in any position of longitudinal
40 adjustment.

4. A dental bite-taker comprising, a pair of plates arranged in sliding engagement throughout their length, guides 13 for directing the movement of one of said plates relative to the other in a longitudinal direction,
45 and holding devices for retaining the plates in adjusted positions.

5. In a dental bite-taker, the adjustable plates 1 and 2 provided with tongues 3 and 4, the curved flanges 5 and 6, thumb-screw 9,
50 nut 10, and guides 13 and 14, combined substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

DAVID T. HUBER.

In presence of—
FORÉE BAIN,
GEO. L. CHINDAHL.