

(No Model.)

C. R. SABIN.
DENTAL ARTICULATOR.

No. 457,937.

Patented Aug. 18, 1891.

Fig. 1.

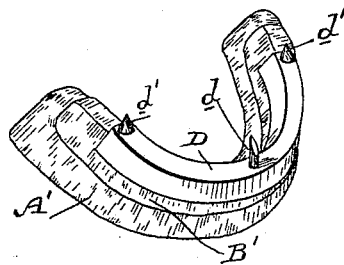
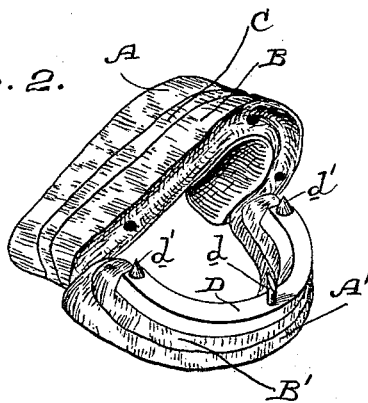


Fig. 2.



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UNITED STATES PATENT OFFICE.

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DENTAL ARTICULATOR.

SPECIFICATION forming part of Letters Patent No. 457,937, dated August 18, 1891.

Application filed June 3, 1891. Serial No. 394,972. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. SABIN, a citizen of the United States, residing at St. Helena, Napa county, State of California, have invented an Improvement in Dental Articulating-Plates; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of dental appliances, and particularly to devices used in the manufacture of plates of artificial teeth.

My invention consists in a plate hereinafter fully described, and its features of novelty specifically pointed out in the claims.

In the process of preparing dental plates the usual steps are to take an impression of the mouth in suitable plastic material, generally plaster-of-paris, to make from said impression the models, usually of plaster, to take another impression of the mouth in wax in order to make the bite or articulation, to fit the wax impressions to the plaster models, and to place the whole model of the mouth in an articulator. There is always a difficulty in getting the bite or articulation, and unless this be done successfully the resulting work will be imperfect. The chief difficulty arises from the inability of the patient to control the movement of his lower jaw with sufficient accuracy to make a perfect and natural articulation. It is the object of my invention to avoid this difficulty by the provision of means which will insure this accuracy and give a proper bite or articulation.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my articulating-plate. Fig. 2 is a view of the models of the mouth, showing the upper and lower parts open to exhibit the application of my plate.

A and A' are the upper and lower plaster models, respectively.

B and B' are the wax impressions fitted thereto.

C is a gutta-percha trial-plate, and D is my articulating-plate. This plate D is made of sufficient weight to answer the purpose which I shall presently describe, and to this end I make it of metal. It is grooved out on its under side to fit upon the lower wax, and its general contour is the same as said wax.

The purpose of this plate is to control by reason of its weight the movement of the lower jaw. When the wax is placed in the mouth and the patient is told to close his jaws, the lower jaw may not and frequently does not accurately come up to place to make the natural or proper articulation; but I have found that a weight placed upon the lower jaw will control its movement and cause it to close accurately. The plate D, by reason of its weight, has this effect, and consequently when the wax is in place and the plate is on the wax the lower jaw will close up to make a proper bite or articulation. Therefore, as far as this result is concerned, the plate D may be of any character to be placed upon or otherwise fitted to the lower wax, and its upper surface may be perfectly smooth or otherwise; but in order to accurately determine the proper bite or articulation and to hold the parts together and closed during their removal from the mouth I provide the plate D with suitable points, projections, or pins, which, upon touching the upper wax, will indicate the position, and then under pressure will penetrate the upper wax and hold the parts together. These pins, projections, or points may be of any suitable character to effect the purpose and attached to or formed with the plate in any suitable manner. The best forms I have here indicated, and in them lie my further improvements. The center one *d* is a pin, preferably of metal, especially gold. It is seated in the plate in the front center, and its upper end is beveled with a single inclined cut extending upwardly from the front. The pin, being of comparatively small diameter and furnished with such an upper end, readily penetrates the upper wax, and without disturbing by deflection or resistance the perfect closing of the jaw. The beveled end, being outward showing, can be easily seen and the exact point of contact of its rear edge with the upper wax accurately observed. Therefore when the patient is told to gently raise his lower jaw several times the operator can tell by the slight indications on the upper wax the true and proper point of contact, and when this is found he can direct a more forcible closing, observing with accuracy the entrance into the upper wax of the bevel-ended

pin at the point desired. Thereupon the parts are held together and can be bodily removed from the mouth without disturbance. Similar pins might be provided for the ends 5 of the plate, but the blunter projections *d'* are preferable as not being liable to injure the gums. These projections are preferably made conical, and they are lower than pin *d*, to insure accuracy in its operation in the beginning of its penetration. These side pro- 10 jections insure steadiness and, further, serve to hold the parts together.

Having thus described my invention, what I claim as new, and desire to secure by Letters 15 Patent, is—

1. In dental models for the mouth, a weight-plate upon the lower impression-wax to control the lower jaw in making the bite or articulation, substantially as herein described.
- 20 2. A dental articulating-plate, consisting of a weight-plate to be placed upon the lower

impression-wax to control the lower jaw in making the bite or articulation, said plate having a pin, point, or projection adapted to penetrate the upper wax and hold the parts 25 together, substantially as herein described.

3. A dental articulating-plate, consisting of a weight-plate to be placed upon the lower impression-wax to control the lower jaw in making the bite or articulation, said plate 30 having a pin *d* at its front center extending upwardly from it formed with an outwardly-showing beveled upper end and projections *d'* at its ends, substantially as herein described.

In witness whereof I have hereunto set my 35 hand.

CHARLES R. SABIN.

Witnesses:

JEFF. MONTGOMERY,
W. A. MACKINDER.