(No Model.)

G. W. SIMPSON.

DENTAL ARTICULATOR.

No. 501,741. Patented July 18, 1893.

Fig. 1.

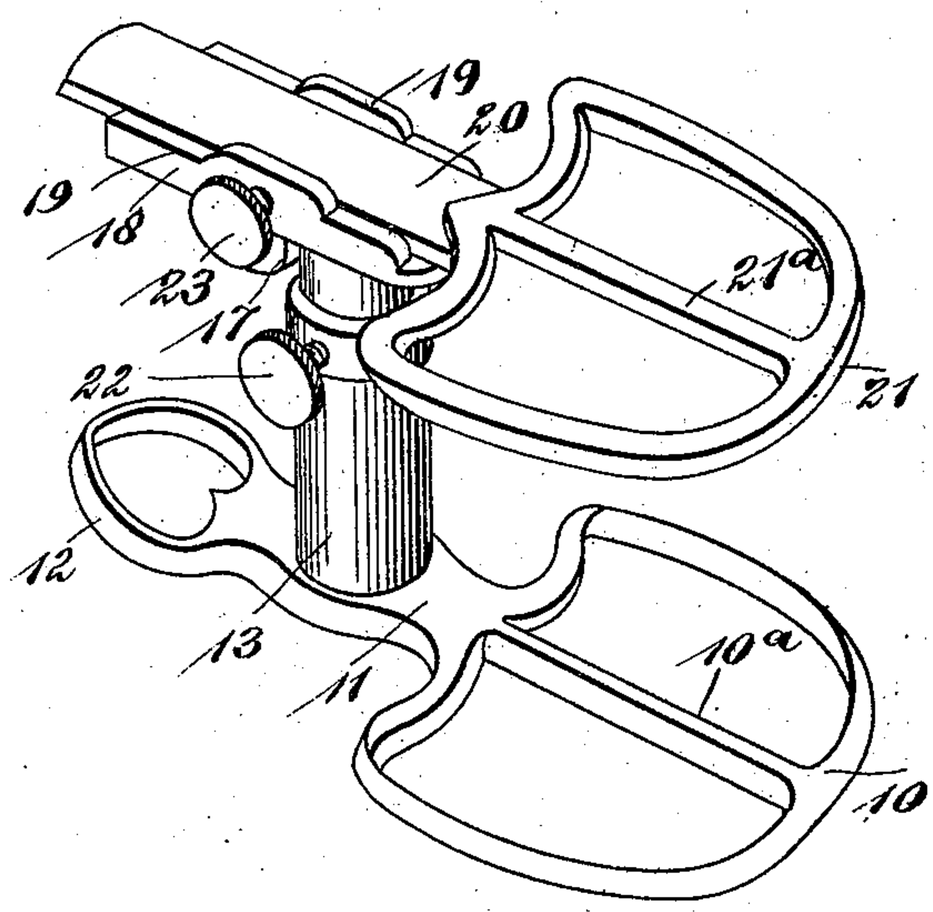


Fig. 2.

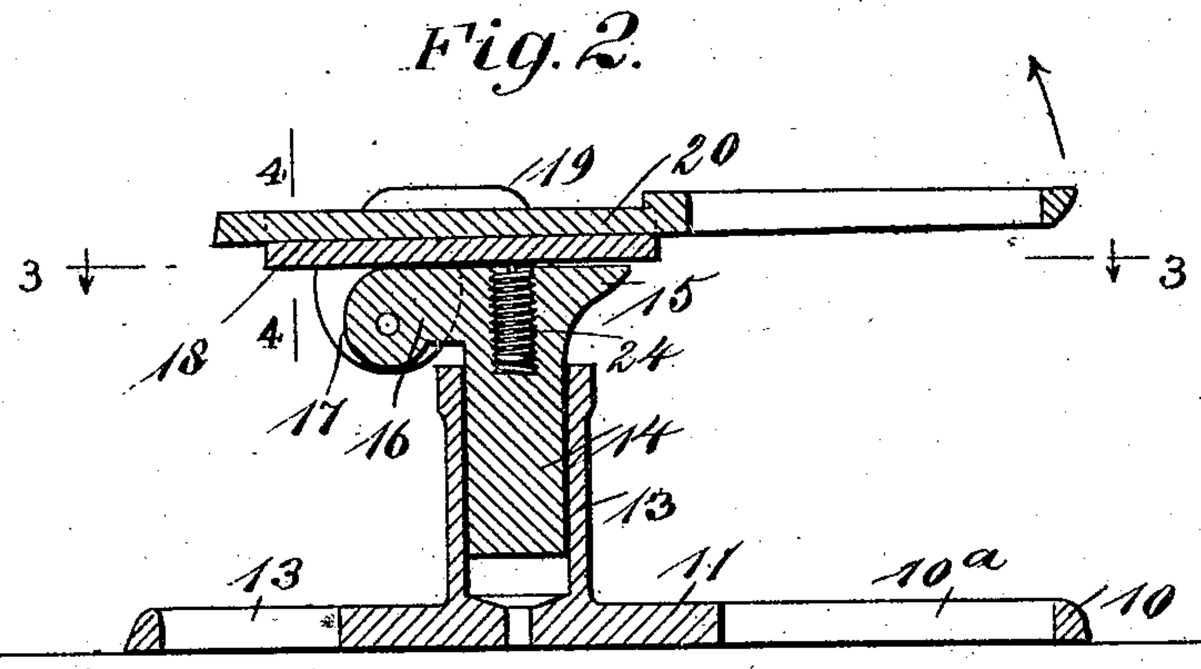
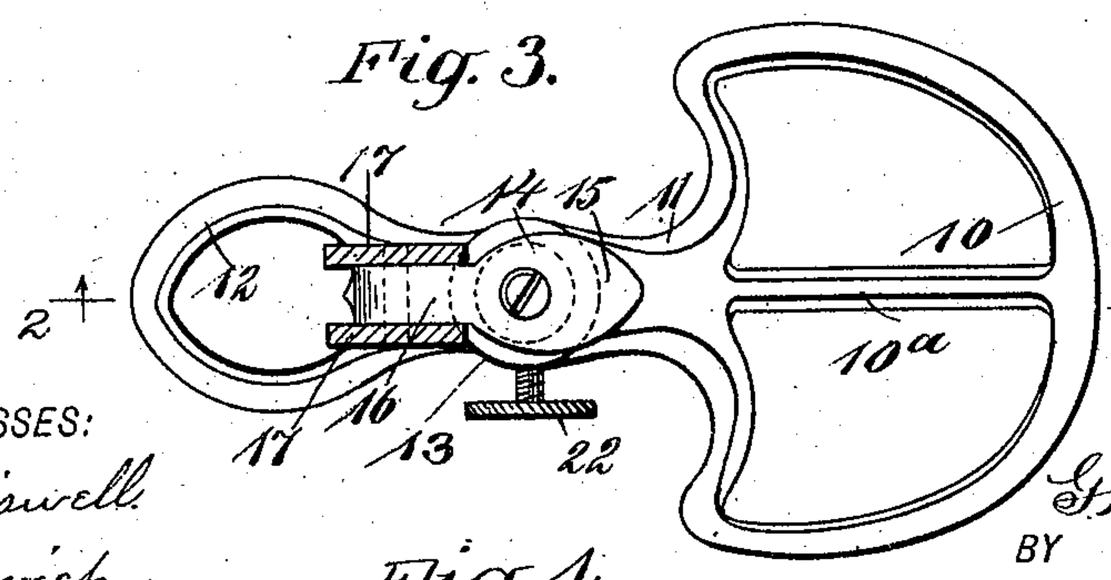


Fig. 3.



WITNESSES:

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Fig. 4.

INVENTOR

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UNITED STATES PATENT OFFICE.

GEORGE W. SIMPSON, OF SANTA BARBARA, CALIFORNIA.

DENTAL ARTICULATOR.

SPECIFICATION forming part of Letters Patent No. 501,741, dated July 18, 1893.

Application filed September 22, 1892. Serial No. 446,564. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. SIMPSON, of Santa Barbara, in the county of Santa Barbara and State of California, have invented a new and Improved Dental Articulator, of which the following is a full, clear, and exact description.

My invention relates to improvements in dental articulators such as are used for holding casts of artificial teeth in position to have the teeth perfectly articulated.

The object of my invention is to produce a simple and convenient articulator which has no small parts to be detached and lost amid the débris of a laboratory; which has substantially the movement of a human jaw, to the end that the upper and lower teeth may be brought into their exact relative positions; which may be quickly and easily adjusted so as to bring the cast-holding jaws the correct distance apart and so as to permit the movable jaw to be arranged to correspond with a jaw or mouth of any peculiar shape; which may be conveniently used for either single or double sets of teeth, and which in general, is adapted to facilitate the precise articulation of the teeth.

To these ends, my invention consists in a dental articulator, the construction of which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the articulator embodying my invention. Fig. 2 is a vertical section of the same, on the line 2—2 in Fig. 3. Fig. 3 is a sectional plan on the line 3—3 in Fig. 2; and Fig. 4 is a cross section through the slideway and slide of the upper jaw, taken on the line 4—4 in Fig. 2.

The articulator has a fixed jaw 10, which is of substantially the usual kind and shape to correspond with the shape of a normal human jaw, this jaw 10 being formed integral with the base plate 11, which at one end terminates in a handle 12. The jaw 10 is strengthened by a central rib 10^a. Arranged vertically on the plate 11, and near the center thereof, is a sleeve 13, in which is held a post 14, this post being widened at its upper end, as shown at 15, to form a suitable bearing for the slideway of the upper jaw, and on the upper portion of the post at the back side, is a lateral extension 16 to which is hinged the depending ear 17 of a plate 18, this plate being adapted to rest upon the top of the post 14, and having parallel side flanges 19 at its upper side, these flanges forming a slideway in which the shank 20 of the upper jaw 21 is held to slide. The jaw 21 is substantially like the jaw 10, having a strengthening rib 21^a, except that it is movable backward and forward so as to permit it to be adjusted to variations in the jaws of different people, and the shank 20 of the jaw is dovetailed into the slideway formed by the plate 18 and flanges 19, as best shown in Fig. 4. The post 14 is held in the desired position by a set screw 22, which projects through the sleeve 13 and impinges on the post, and the shank 20 and upper jaw 21 are held in position in a similar way by a set screw 23, which projects through one of the flanges 19 and impinges on the shank 20. In the top of the post 14 is a vertically adjustable screw 24, upon which the plate 18 of the slideway strikes, and by adjusting this screw the pitch of the upper jaw in relation to the lower jaw may be regulated.

The arrangement of the screw 24 is not new and forms no part of my invention, and the fixed jaw is also arranged in the usual way. The other features of the device I claim as new and as of my invention.

The casts of the teeth are held between the upper and lower jaws in the usual way, and it will be seen that by adjusting the post 14 vertically, the jaws may be held just the desired distance apart. By adjusting the screw 24 the pitch of the movable jaw may be fixed, and by adjusting the shank 20 backward or forward, the movable jaw may be brought into the correct position in relation to the fixed jaw.

It will be seen from the foregoing description that the device may be adjusted in any necessary direction with great quickness, that the parts may be held securely in position, that there is nothing to become detached and lost, and consequently the articulator may be very conveniently used.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

A dental articulator consisting in the base plate 11 formed with a stationary jaw 10 and a vertical tubular socket 13 provided with a transverse set screw 22, the post 14 adjustable vertically in said socket, formed with a rearwardly extending ear 16 and provided in its upper end with a vertical screw 24, the plate 18 having depending ears 17 hinged to ear 16 and formed along its upper side with longitudinally extending guiding flanges 19, 19, one of which is provided with a transverse set screw 23, and the jaw 21 having a shank 20 extending along the upper side of the plate 18 between its flanges 19 and engaged by its screw 23, substantially as set forth.

GEORGE W. SIMPSON.

Witnesses:
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W. W. BURTON.