

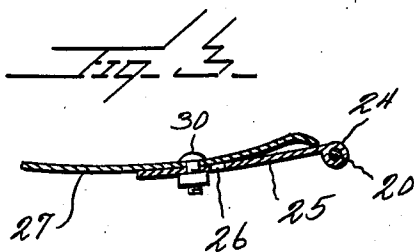
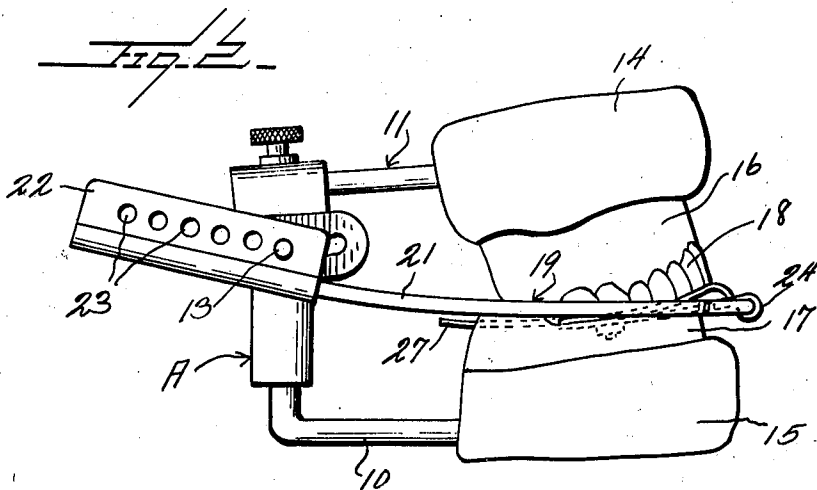
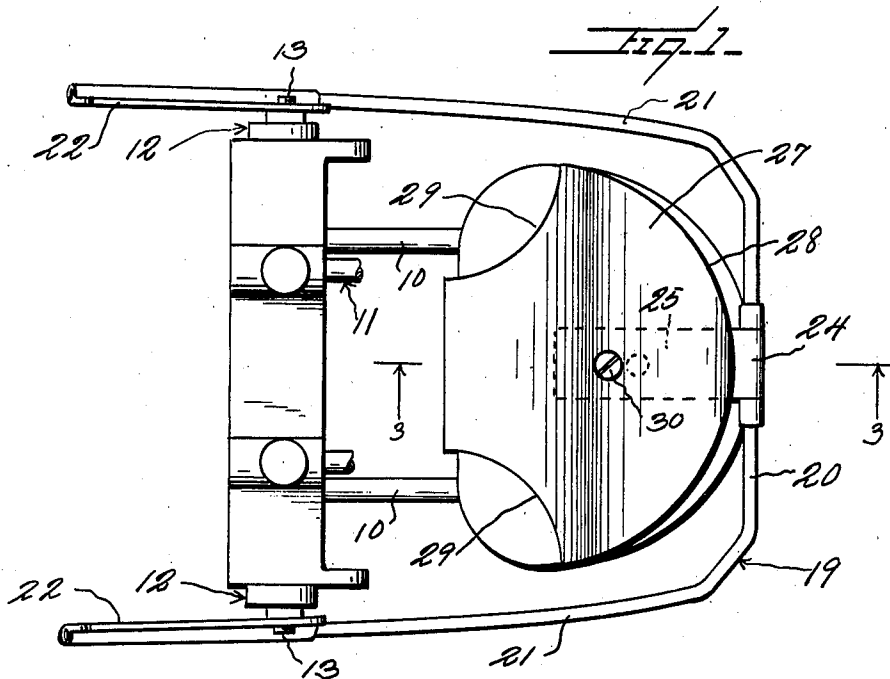
March 30, 1943.

J. C. KING

2,315,338

TEMPLET CARRIER FOR ARTICULATORS

Filed Oct. 10, 1942



Inventor

Jesse C. King

By *Coleman & Lawson*
Attorneys

Attorneys

UNITED STATES PATENT OFFICE

2,315,338

TEMPLET CARRIER FOR ARTICULATORS

Jesse C. King, La Junta, Colo.

Application October 10, 1942, Serial No. 461,619

5 Claims. (Cl. 32—32)

This invention relates generally to the class of dentistry, and pertains particularly to improvements in devices for facilitating the operation of "setting up" dentures upon an articulator.

A particular object of the present invention is to provide a novel means of supporting or maintaining in desired position the templet ordinarily used by dentists in the making of artificial teeth to establish the curve of the line of Spee, the said means being so designed that various desired adjustments may be made of the templet with respect to the cast which is carried by the articulator.

The invention broadly contemplates the provision of a substantially U-shaped frame with means for pivotally coupling the legs thereof with the articulator whereby the yoke portion of the frame may be raised and lowered with the upper portion of the articulator, and means for mounting the templet upon the yoke portion of the frame so that it may be raised and lowered on a pivot extending transversely of the articulator in advance of the cast and turned on a vertical pivot to be placed in proper position with respect to the cast or model.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing, it being understood, however, that the invention is not to be considered as limited by the specific illustration or description but that such illustration and description constitute a preferred embodiment of the invention.

In the drawing:

Figure 1 is a view in top plan of the device embodying the present invention, showing the same applied to an articulator, the forwardly extending arms of the upper portion of the articulator being broken away, showing the templet in top plan.

Figure 2 is a view in side elevation of an articulator carrying upper and lower jaw models and showing the device of the present invention applied thereto with the templet in position beneath the upper trial plate and the teeth set therein against the templet.

Figure 3 is a sectional view taken substantially on the line 3—3 of Figure 1.

Referring now more particularly to the drawing, the reference character A generally designates an articulator of standard design such as is commonly used by dentists in the setting up of dentures. Such articulator comprises a lower jaw portion 10 and an upper jaw portion 11 and

these are pivotally joined together by means of a suitable hinge construction generally indicated at 12 and including laterally extending pivot pins or studs 13.

The numerals 14 and 15 designate the upper and lower jaw models secured to the corresponding arms of the articulator by plaster of Paris, in the customary manner and these models are shown in Figure 2 as carrying the upper and lower trial plates 16 and 17, respectively, in the upper one of which plates the teeth 18 have been set.

In accordance with the present invention there is provided the substantially U-shaped frame 19 which has the transverse forward portion 20 joined to the relatively long side legs 21. Each of these side legs, at its rear or free end, carries the elongated plate 22 which is set with its side faces vertical in the use of the device, as shown in the figures of the drawing, and this plate is provided with the longitudinally extending row of apertures 23 which are designed to receive the pivot pins of the articulator.

At the central part of the transverse portion 20 of the frame there is attached, as indicated at 24, an end of an elongated hinge strip or leaf 25 which is provided with apertures 26 arranged on a line extending longitudinally of the leaf. This hinge strip or leaf extends rearwardly or is disposed between the legs 21 of the frame when the templet adjuster is in operative position.

The templet is indicated generally by the reference character 27. This device is universally used by dentists in the making of artificial teeth to establish the curvature of the set-up. In the present invention, the templet in addition to having the arcuate forward edge formation 28 is recessed or cut out upon each side and at the rear, as indicated at 29. These recesses or cut-out portions at the rear side corners of the templet are provided to allow the templet to be placed between the ascending ramus of the model of the lower jaw.

As shown, the templet is placed upon the top of the hinge leaf 25 and it is provided with a suitable aperture, located upon its longitudinal center, by which is meant on the line running from the center of the arcuate edge 28 to the opposite edge midway between the cut-out portions 29, to receive a pivot and securing bolt or pin 30 which is passed through one of the apertures 26 of the hinge leaf and maintains the templet in operative position thereon.

This templet adjuster provides for three adjustments of the templet, the first by means of

the apertured plate 22 and the connection between the templet and the hinge leaf 25 for securing the exact longitudinal position of the templet with respect to the trial plate. The second adjustment is obtained through the medium of the hinge leaf 25 which allows the templet to be raised or lowered to the exact position required. The third adjustment is obtained through the medium of the securing screw 30, whereby the templet may be turned or oscillated either way to its proper position on the model.

In the use of the present device, when the upper and lower wax models are removed from the mouth, the upper and lower rims are attached or stuck together. The model is then set up in the articulator in the usual way and the stop of the articulator is set before the bite rims are separated.

After setting the stop on the articulator, the bite rims are opened or separated and the upper bite rim is trimmed all of the way back from the cuspid area, leaving wax in the incisal bite area of the rim.

The lower bite rim is then cut entirely away to give free space for the adjustment of the templet in the templet holder or frame 19. The templet is then attached to the holder and adjusted to the upper bite rim, as to length, by the use of the holes 23 and the pivots 13, and also by the two holes in the leaf 25.

Soft wax is then placed on the front or incisal area of the lower bite rim. The templet is then held against the upper bite rim in the upper incisal area, and the articulator is then closed, pressing the lower bite, containing the soft wax, against the templet. After the soft wax hardens, the articulator is opened and the templet is attached to the base plate by means of the hardened wax.

The back portion of the templet is then raised or lowered by means of the hinge 24, to the line of Spee, which is the contour of the templet extended to the hinge of the articulator. The cut-out portions of the templet are then waxed with soft wax and trimmed down to the contour of the templet. This wax holds the templet in exactly the proper position. The teeth are then set up in the upper trial plate against the top of the templet and when the setting up of the upper teeth is complete, the lower teeth are set against the upper teeth and proper articulation is established.

From the foregoing it will be readily apparent that by the use of this articulator attachment the templet can be quickly and accurately positioned with respect to the model of the lower jaw and firmly secured in place so that the teeth may be set in position in the trial plate for the upper

jaw and when set so that the occlusal surfaces of all of the teeth contact the curved top surface of the templet, will be positioned properly in the line of Spee. The lower teeth may then be quickly set up and when in proper articulating relation with the teeth of the upper jaw will be located properly in the said line.

I claim:

1. A device for facilitating the setting up of dentures upon an articulator comprising a templet, a carrier for the templet in the form of a substantially U-shaped frame having a transverse central portion and spaced side legs, means for pivotally attaching said legs to the two sides of an articulator whereby the frame may be vertically oscillated on the axis of oscillation for the upper jaw model carrying arm of the articulator, and an operative coupling between the templet and the central portion of the frame by which the templet may be oscillated vertically and rotated upon a substantially vertical axis.

2. A device as set forth in claim 2, in which the stated means for pivotally attaching the frame to the articulator comprises an elongated plate carried by each frame leg and having a longitudinally extending series of apertures for selective pivotal connection with fixed elements of the articulator.

3. A device for facilitating the setting up of dentures upon an articulator, comprising a substantially U-shaped frame having a transverse central portion and spaced leg portions, means for pivotally coupling said leg portions with opposite sides of an articulator whereby the frame may be vertically oscillated on the pivot axis for the upper jaw model carrying arm of the articulator, an elongated hinge leaf oscillatably connected at one end with the central portion of the said transverse portion of the frame, a templet, and a pivotal coupling between the templet and the hinge leaf and maintaining the templet upon the top of the hinge leaf for oscillation on a substantially vertical axis.

4. A device as set forth in claim 4, in which the stated means for pivotally coupling the legs of the frame with the articulator comprises an elongated plate secured to each leg and having a series of apertures for selective engagement with a fixed element of the articulator whereby longitudinal adjustment of the frame on the articulator may be accomplished.

5. A device as set forth in claim 4, in which said templet has a forward substantially arcuate edge and a recess in each side at the rear edge thereof for receiving the ascending ramus of the model of the lower jaw.

JESSE C. KING.