

Claims :

1- a device which contacts a plurality of teeth, wherein the distance between corresponding points on opposing top and bottom surfaces that contact the teeth is equal to the distance between the corresponding points on the surfaces of the teeth with which they contact when the coordinates of cephalometric landmarks on the skull and the mandible satisfy a plurality of geometric relationships comprising: the value of the angle K is less than the value of K measured in the initial image; the value of the angle J is less than the value of J measured in the initial image; the distance between the midpoint of GorGol and the point P is less than said distance measured in the initial image.

2- the device in claim 1, wherein said device further comprises an occlusal splint.

3- the device in claim 2, wherein said device further comprises a plurality of protrusions on the surfaces of the device which do not contact the surface of the teeth.

4- the device in claim 3, wherein the surfaces of said protrusions represent the endpoints or surfaces of a plurality of geometric objects.

5- the device in claim 4, wherein the pairs of corresponding endpoints of said geometric objects on opposing sides of the constructed plane form the endpoints of line segments wherein said line segments are substantially perpendicular to the constructed plane.

6- the device in claim 2, wherein said device further comprises a substantially rigid material.

7- the device in claim 6, wherein said rigid material contains a plurality of cavities.

8- the device in claim 6, wherein said rigid material contains a plurality of protrusions.

9- the device in claim 8, wherein a plurality of said protrusions extend outside of the mouth.

18- the device in claim 9, wherein said protrusions are detachable.

10- the device in claim 1, wherein said device further comprises a plurality of protrusions on the surfaces of the device which do not contact the surface of the teeth.

11- the device in claim 10, wherein the surfaces of said protrusions represent the endpoints or surfaces of a plurality of geometric objects.

12- the device in claim 11, wherein the pairs of corresponding endpoints of said geometric objects on opposing sides of the constructed plane form the endpoints of line segments wherein said line segments are substantially perpendicular to the constructed plane.

13- the device in claim 1, wherein said device further comprises a substantially rigid material.

14- the device in claim 13, wherein said rigid material contains a plurality of cavities.

15- the device in claim 13, wherein said rigid material contains a plurality of protrusions.

16- the device in claim 15, wherein a plurality of said protrusions extend outside of the mouth. 19- the device in claim 16, wherein said protrusions are detachable.

17- a device comprising a plurality of objects, wherein each object comprises a plurality of surfaces which form an interface with corresponding surfaces on other objects, and optionally a plurality of surfaces which each contact a subset of the surface of the teeth, wherein the dimensions of each object are such that when all of the objects are combined at their interfaces they contact a plurality of teeth, wherein the distance between corresponding points on opposing top and bottom surfaces that contact the teeth is equal to the distance between the corresponding points on the surfaces of the teeth with which they contact when the coordinates of cephalometric landmarks on the skull and the mandible satisfy a plurality of geometric relationships comprising: the value of the angle K is less than the value of K measured in the initial image; the value of the angle J is less than the value of J measured in the initial image; the distance between the midpoint of GorGol and the point P is less than said distance measured in the initial image.