

No. 733,321.

PATENTED JULY 7, 1903.

W. E. GRISWOLD.
DENTAL JIG.

APPLICATION FILED SEPT. 29, 1902.

NO MODEL.

Fig. 1.

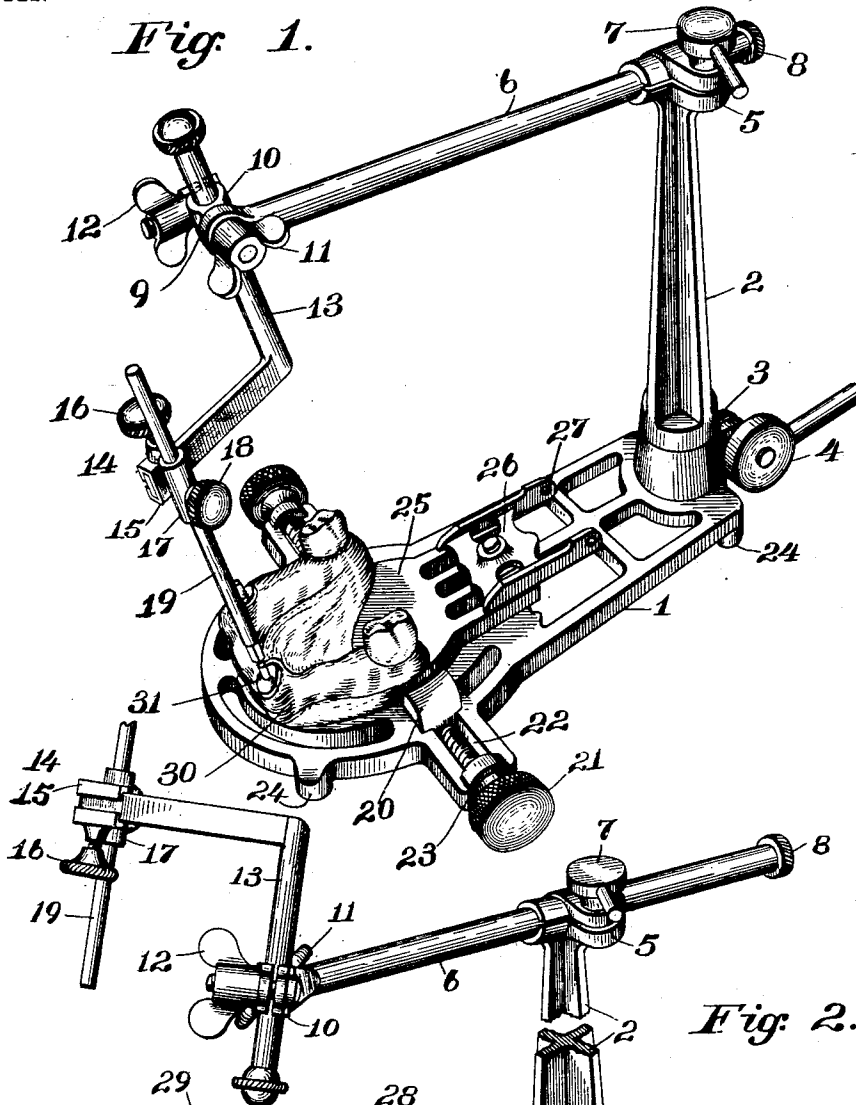
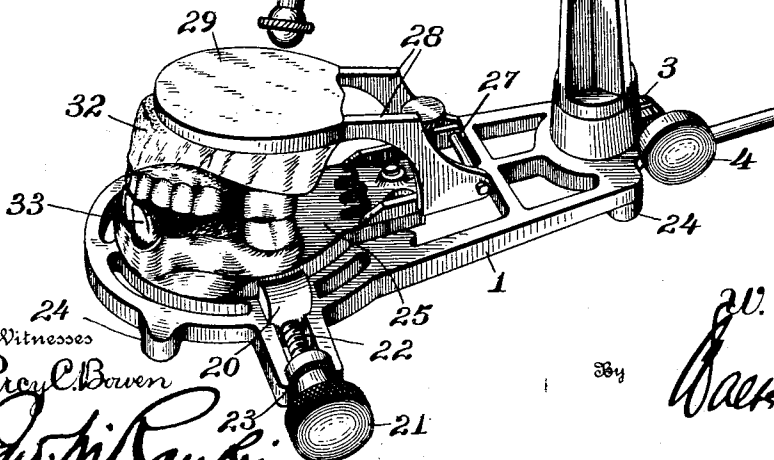


Fig. 2.



Inventor

W. E. Griswold.

By

Walter F. Rogers.
Attorney

Witnesses

Reginald Bowen

John M. Rankin.

UNITED STATES PATENT OFFICE.

WILLIAM EVERETT GRISWOLD, OF NEW YORK, N. Y.

DENTAL JIG.

SPECIFICATION forming part of Letters Patent No. 733,321, dated July 7, 1903.

Application filed September 29, 1902. Serial No. 125,267. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM EVERETT GRISWOLD, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Dental Jigs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to dentistry. Its object is to provide a jig of universal adjustment and one which also may be used in combination with an articulator.

In the accompanying drawings, Figure 1 is a perspective view showing the jig in use to take the angle of securing devices, and Fig. 2 is a broken perspective showing the device used as an articulator with the angle-gaging device thrown back into one of the many positions which it may take.

1 represents a base, which is of a skeleton pattern to adapt it to receive readily either the base of an articulator or a model or to firmly hold the plaster used in modeling.

2 represents an upright or standard resting in a split sleeve 3, controlled by a hand-screw 4. The standard bears at its top a split sleeve or joint 5, through which passes an extension-arm 6, which may be secured by the manipulation of a hand-screw 7 in an ear of the sleeve 5. One end of the arm 6 is preferably headed, as at 8, to prevent it from drawing entirely out of the grip of the joint or sleeve 5. At the opposite end the extension-arm is shown as reduced at 9 to receive the screw of a split joint 10, against which it is held by a thumb-screw 11. In the split ear of the joint is a thumb-screw 12. A chuck-carrying arm 13, preferably substantially L-shaped, is held by the joint 10. Its lower arm is preferably rectangular in cross-section and receives a chuck-holder 14, which has a sliding open clamp 15 with a set-screw 16 and a tubular arm 17 with a set-screw 18. A chuck 19 is shown in place.

20 represents a jaw, and 21 a set-screw of a clamp, which plays in a channel 22 of the bed and whose set-screw plays through a side arm 23.

24 represents supporting-feet.

25 represents the base of an articulator,

and 26 a clamp, having arms 27, to which are adjustably pivoted the arms 28 of the upper part 29 of an articulator.

30 represents a model in place with root cap-pins 31, the adjustment of which are to be taken.

32 and 33 respectively represent upper and lower dentures.

The standard 2 may be turned or rotated in its bearing in the sleeve 3 and then secured by the manipulation of the hand-screw 4. The extension-arm 6 may be moved back and forth in the joint 5 and then secured by the hand-screw 7. The chuck-carrying arm 13 may be swung up and down by loosening the thumb-screw 11 and may be adjusted vertically or swung around, so that the chucks revolve about the axis of the arm by loosening the thumb-nut 12. The chuck-holder 14 may be slid in and out upon the lower arm of the chuck-carrier and the chuck may be adjusted vertically in the sleeve 17. It will thus be observed that the rotatable standard and adjustable extension-arm permit me either by simply adjusting the extension-arm to fix the general relation of the parts to the work, or by adjusting the hand-screw to swing the tools or chucks away from the work or to more completely take the chucks or tools out of the way by resorting to both of these adjustments. The chuck-carrying arm is in itself capable of universal adjustment to arrange for any angle of work, while the adjustment of the chuck supplements the vertical adjustment of which the chuck-carrying arm is capable.

In Fig. 2 I have shown one of the many modes of adjusting the device to remove it from interference while the articulator is being used.

I have herein described, broadly, some of the manifold adjustments of the jig and have also indicated some of the many uses of the device. It is peculiarly useful in soldering or similar work, and especially where parts are to be soldered in parallelism.

In use a model may be placed on the base of the jig directly and then secured by the sliding jaws 20, or it may be placed on the base of the articulator previously secured by the sliding jaws, as shown in Fig. 1. Then the chuck-carrying arm 14 may be brought

to center over the model by sliding the arm 6 in the sleeve 5, having previously loosened the hand-screw 7, and, if necessary, the precise lateral adjustment may be secured by turning the standard 2 after loosening the sleeve 3 by the hand-screw 4. As previously described, any desired angle anterior or posterior can be secured by adjusting the screws on the head of the chuck-carrying arm. It will also be observed that any angle once obtained can be retained, swinging the standard 2 or raising or lowering the chuck-carrier or swinging it, as previously described, enabling me to carry the parts to be soldered to crowns or other dental appliances to any desired point, while preserving the angle of adjustment and maintaining the necessary parallelism. This is possible, because any movement of the carrying-arm from any position to the succeeding position is in a plane parallel with the original plane.

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

1. In a jig, a standard and an extension-arm capable of horizontal and rotatable adjustment, and a chuck-carrying arm on the extension-arm capable of independent universal adjustment.
2. A combined jig and articulator comprising a bed, an articulator adjustably secured

to the bed, an adjustable standard, and an extension-arm carrying adjustable chuck-holding devices.

3. A combined jig and articulator comprising a bed, means for securing the base of the articulator to the bed, and a swinging and adjustable extension-arm carrying the chuck-holding or similar devices and adapted to be swung clear of the articulator.

4. A jig comprising a bed, a rotatable standard, an extension-arm adjustable back and forth with relation to the standard, and a pivotally and vertically adjustable chuck-carrying arm carried by the extension-arm.

5. A jig, comprising a bed, an adjustable upright or standard, an extension-arm adjustable in the standard, and an adjustable chuck-carrying arm bearing an adjustable chuck-holder.

6. A jig comprising a chuck-carrying arm capable of adjustment to various angles, and adjustable carrying devices permitting the movement of the chuck-carrying arm from point to point in the same or a parallel plane.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM EVERETT GRISWOLD.

Witnesses:

P. M. HAMMOND,
A. C. BUCHANAN.