No. 659,531. Patented Oct. 9, 1900.

G. R. JOHNSON.

DENTAL ARTICULATOR.

(Application filed May 5, 1900.)

(No Model.)

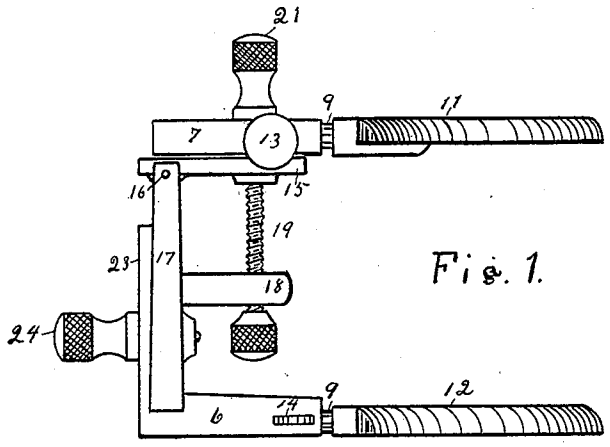


Fig. 1.

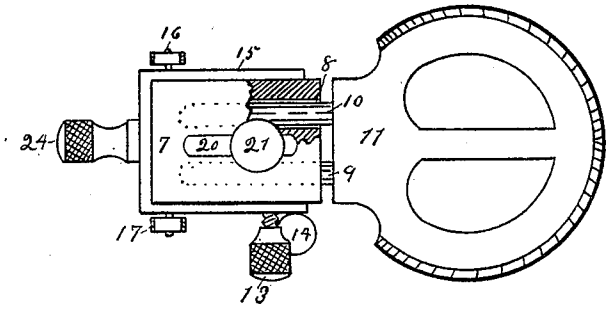


Fig. 2.

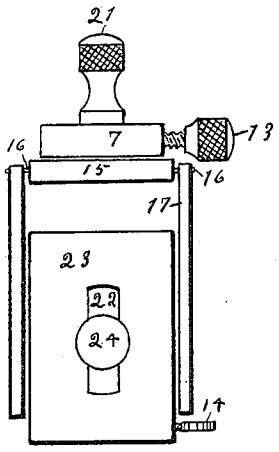


Fig. 3.

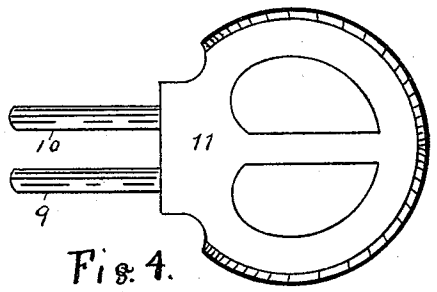


Fig. 4.

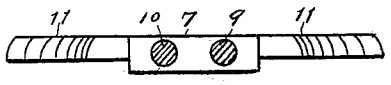


Fig. 5.

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UNITED STATES PATENT OFFICE.

GEORGE R. JOHNSON, OF HASTINGS, MICHIGAN.

DENTAL ARTICULATOR.

SPECIFICATION forming part of Letters Patent No. 659,531, dated October 9, 1900.

Application filed May 5, 1900. Serial No. 15,575. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. JOHNSON, a citizen of the United States, residing at Hastings, in the county of Barry, State of Michigan, have invented a new and useful Dental Articulator, of which the following is a specification.

The principal object of this invention is to employ detachable jaws for holding the wax trial plates in connection with an articulator-frame, whereby in case the customer does not keep his appointment and another customer comes in the detachable jaws can be removed with their impressions all in place and the articulator-frame be used with another set of detachable jaws for the last customer, and so on. In this case it will be seen that only one articulator-frame is needed, and by employing a series of duplicate jaws for the different customers much time and expense are saved, both in labor and in the cost saved by not being obliged to have a number of articulating frames or implements.

In connection with the objects stated above in general the really-important features of my improvements over what has been done in this art are the laterally-tilting capacity of the upper part of the frame, its adaptability for back and forward adjustment, as explained, and more especially providing the detachable jaws with two separated projections for detachable attachment to the upper part and also to the base of the frame to accomplish the advantages set forth below.

In the drawings forming a part of this specification, Figure 1 is a side elevation of the articulator-frame with the detachable jaws attached to said frame. Fig. 2 is a plan of Fig. 1 with a portion broken away; Fig. 3, a view of Fig. 1 in elevation looking from a point at the left. Fig. 4 is a plan of one of the detachable jaws, and Fig. 5 is a section on line *c c* in Figs. 2 and 4 looking from a point at the left.

Referring to the parts pointed out by numerals, 6 is the base of the frame, and 7 the top. Into holes 8, leading into the base 6 and into the top plate 7 on the supporting-plate 15, are inserted in a detachable manner the projections 9 and 10 of the detachable jaws 11 and 12. 11 is the top jaw or upper, and 12 the lower. It will be observed that both the upper and lower portions of the frame are adapted to receive or hold the detachable series of jaws and that these jaws have two separated projections 9 and 10 for entering and being confined in the holes 8. By such arrangement the jaws 11 and 12 are always held on an absolute level, or, in other words, at an absolute right angle to the vertical portion of the frame, and thus greater accuracy and less care needed. The upper jaw 11 is detachably held in place by a thumb-screw 13 engaging or pressing against the projection 9 of said jaw. The lower jaw 12 is detachably held in place by the thumb-screw 14 in the base 6 pressing against the projection of said jaw, also pointed out by the character 9. The top plate 7 is adjustably supported on a pivoted supporting-plate 15, pivoted at 16 to the top of a vertically-adjustable support 17 of the articulator-frame. Projecting from the support 17 is a bar 18, through which passes a thumb-screw 19 to adjustably support the vertically-tilting supporting-plate 15. By means of the thumb-screw 19 the upper jaw 11 can be raised or lowered, or rather tilted up or down, in accordance with the "bite" of the patient and the adjustment required.

The top plate 7 can be moved forward and back and tilted either way laterally, according to the position of the natural jaws of the patient and the necessary adjustment in taking the impression. This adjustment is accomplished by means of the slot 20 in the top plate 7 and the thumb-screw 21 passing through said slot and into the supporting-plate 15. The top plate 7 can be brought nearer to or farther away from the base 6 by means of the slot 22 in the upright 23 and the thumb-screw 24 in said slot, said screw passing into the support 17. This is for the purpose of adjustment according to the main general distance the jaws of the patient are apart; but this feature in the main is not new with me and not necessary to always use, as the adjustment really necessary can be effected by the tilting of the detachable jaws 11 and 12. When making any of these adjustments, of course the particular thumb-screw necessary is loosened, the proper movements made, and then tightened, as will be readily understood.

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

The combination, of the frame, the plate 15 adapted to swing vertically, a top plate 7 provided with a slot 20 and pivoted on plate 15 by a set-screw passed loosely through said slot and screwed into said plate 15, said plate 7 being adjustable back and forward and in both side directions on its set-screw pivot by loosening the same, said plate 7 being provided with two holes to detachably receive the projections of the detachable jaws, the base of the frame being provided with like holes, the holes in the top plate being for the upper jaws and those in the base for the lower jaws, and an upper and lower jaw for holding dental trial plates provided with two projections for detachably entering the upper and lower set of holes, substantially as set forth.

In testimony of the foregoing I have hereunto set my hand in the presence of two witnesses.

GEORGE R. JOHNSON.

Witnesses:
LUCIUS C. WEST,
B. E. BAUMANN.