E. D. ALLING & J. RE QUA.

Dental Bracket.

No. 218,210. Patented Aug. 5, 1879.

Fig. 1.

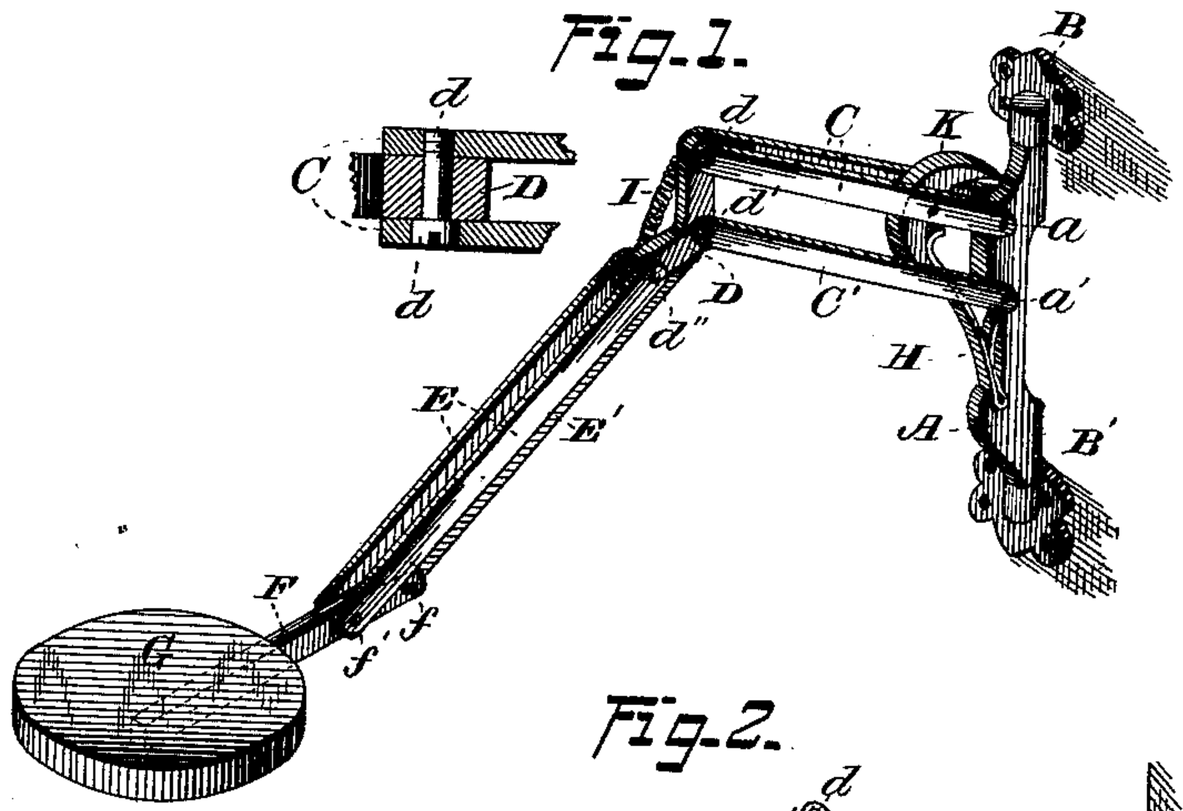


Fig. 2.

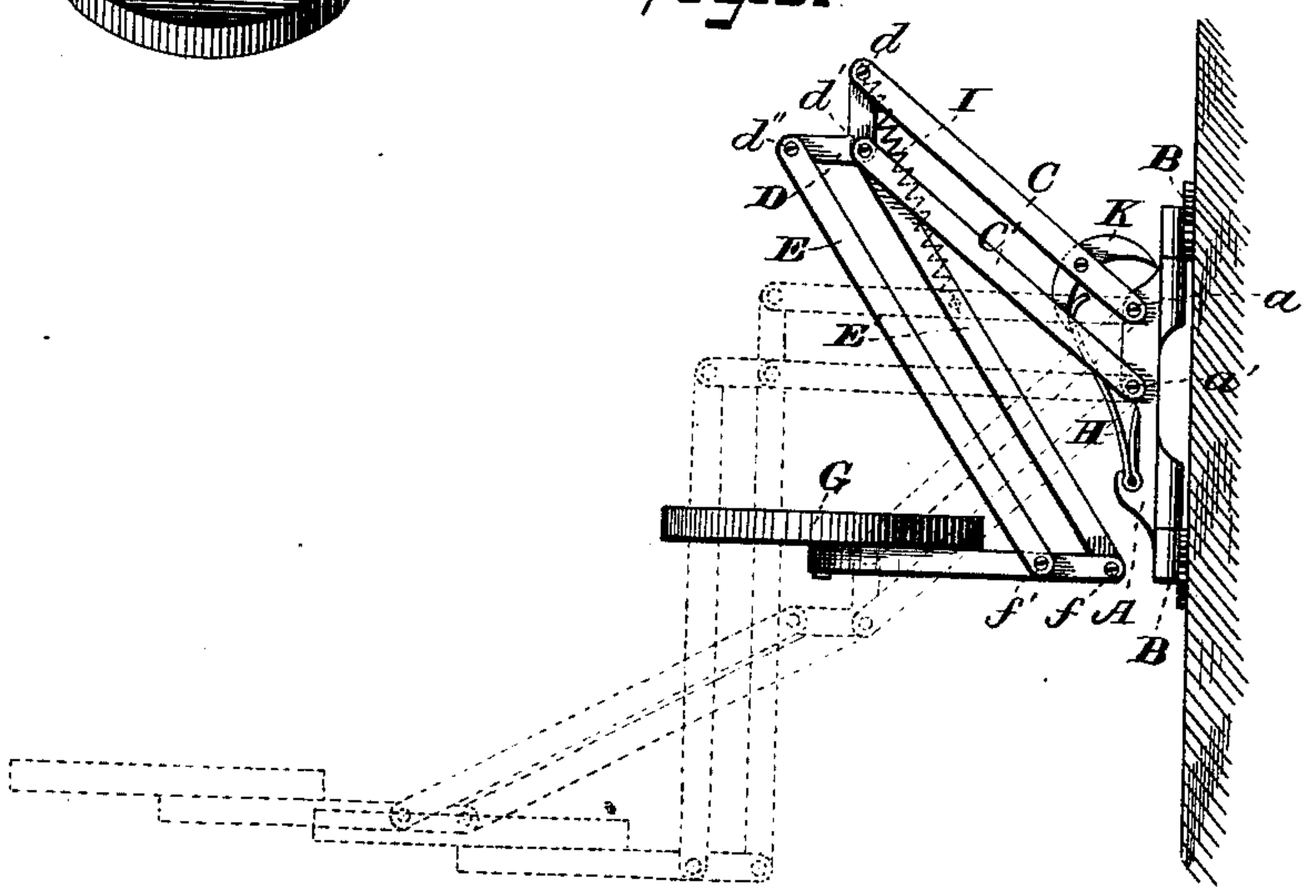
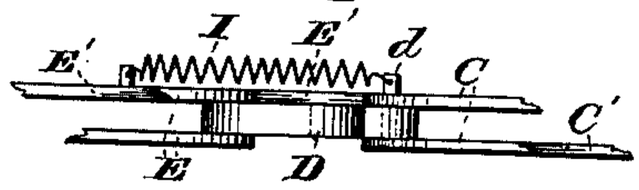


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD D. ALLING AND JOSEPHUS RE QUA, OF ROCHESTER, ASSIGNORS TO THE BUFFALO DENTAL MANUFACTURING COMPANY, OF BUFFALO, NEW YORK.

IMPROVEMENT IN DENTAL BRACKETS.

Specification forming part of Letters Patent No. **218,210**, dated August 5, 1879; application filed May 3, 1879.

To all whom it may concern:

Be it known that we, EDWARD D. ALLING and JOSEPHUS RE QUA, both of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Dental Brackets, of which the following is a specification.

This invention relates to an improved adjustable bracket, and it is particularly designed for the use of dentists, although it may be employed wherever an adjustable bracket is required; and it has for its object to provide a bracket that may be readily adjusted to any desired position, and which will be self-sustaining when so adjusted; and it consists, first, in the combination, in a dental bracket, of a compound lever consisting of two sets of parallel arms, connected together and to a swiveled support, and the supporting-table, whereby the table is adapted to be moved in a horizontal as well as a vertical plane, as will be fully hereinafter described; second, in the combination, with the compound lever, of an abutment secured to one of the bars of the upper set composing the compound lever, and a spring secured to the supporting-plate, whereby the lever and supporting-plate are held in position, substantially as hereinafter described.

In the drawings, Figure 1 represents a perspective view of our improved bracket and a cross-section through the point at the angle-lever. Fig. 2 represents a side elevation of our invention, illustrating in dotted lines different movements of the bracket; and Fig. 3, a detached view of the joint at the angle-bar.

The letter A indicates the upright supporting-piece, to which the compound levers are attached, pivoted in socket-pieces B, adapted to be attached to a wall or other support in the usual manner. The letters C C′ indicate a set of parallel bars, pivoted to the support A at *a a′*, which are capable of a movement in the arc of a circle thereon. Said bars are pivoted also to an angle-lever, D, at *d d′*. The letters E E′ indicate a second set of parallel bars, pivoted to the angle-piece at *d″*, and to the horizontal supporting-bar F of the table G at *f f*. The bars C and E, being the upper ones of either set, are double, embracing between their two halves the swivel-pieces A, the right-angle piece D, and the bar F. The lower bars, C′ and E′, are single, and are attached to the right-angle piece D upon opposite sides, as shown.

The set of parallel bars E E′ is capable of a compound movement in the arc of a circle and in a vertical plane, by means of which the supporting-table is capable of a motion in a horizontal and also in a vertical plane, whereby it can be advanced and elevated to the desired position in a vertical plane.

The swiveled support permits the bracket to be shifted radially in a horizontal plane, thereby enabling the table or shelf to be adjusted to any desired position.

The letter K indicates a crescent-shaped abutment secured to the bar C, and H a spring which bears against the same, the two serving to hold the compound lever in any position. The letter I indicates a spiral spring, connected to the bars C and E′, serving to assist in supporting the table G, and for keeping the bars in position.

It will be observed that the action of the spring I will be to raise the bar E′ whenever it is thrown out of a perpendicular position.

The springs H and I may have considerably more tension than what is sufficient to support the weight of the bracket itself, as the screws forming the joints *a a′ d d′ d″* can be set up tightly enough to resist their action and hold the table G and its load in the required position.

It will be seen that the table G may be moved into any position within the range of the motion of the sustaining parts, as it will move laterally by means of the swivel-joints, vertically by means of the arms C C′, and can be extended in a horizontal plane by means of the arms E E′.

What we claim is—

1. The combination, in a dental bracket, of a compound lever consisting of two sets of parallel arms, connected together and to a swiveled support, and the supporting-table, whereby the table is adapted to be moved in a horizontal as well as a vertical plane, substantially as specified.

2. In combination with the compound lever, the abutment secured to one of the bars of the upper set composing the compound lever, and the spring secured to the supporting-plate, whereby the lever and supporting-plate are held in position, substantially as specified.

In testimony that we claim the foregoing we have hereunto set our hands in the presence of the subscribing witnesses.

EDWARD D. ALLING.
JOSEPHUS RE QUA.

Witnesses:
EMORY D. BARTON,
STEPHEN BLOSS.