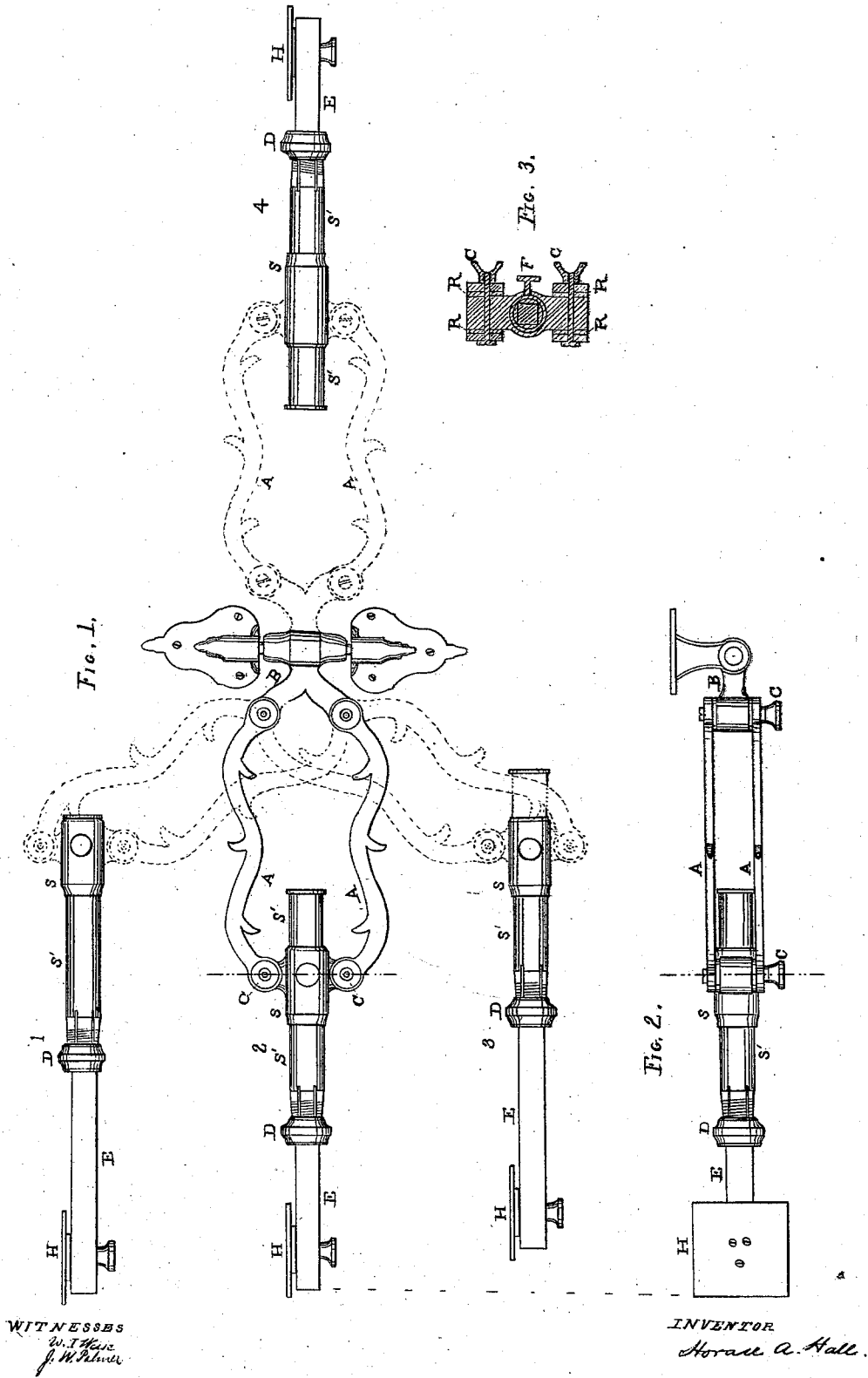


H. A. HALL.
ADJUSTABLE DENTAL-BRACKET.

No. 173,623.

Patented Feb. 15, 1876.



UNITED STATES PATENT OFFICE.

HORACE A. HALL, OF TROY, NEW YORK.

IMPROVEMENT IN ADJUSTABLE DENTAL BRACKETS.

Specification forming part of Letters Patent No. **173,623**, dated February 15, 1876; application filed June 1, 1875.

To all to whom it may concern:

Be it known that I, HORACE A. HALL, of the city of Troy, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in Adjustable Dental Brackets, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is, by means of double parallel arms, with numerous friction-bearing surfaces, in combination with the sliding tubular and solid extension-supports, to furnish a bracket for a table, which is compact in form, readily adjusted, and securely held, for the purpose set forth.

In the drawing, Figure 1 represents an elevation of my device, with the extension-arm at positions indicated by Figs. 1, 2, 3, and a reversed or swinging position is shown at point 4. Fig. 2 represents a plan of the same, showing a view of the table support. Fig. 3 is a transverse section, showing the friction bearing-joints of the arms to the same.

My device is cast or constructed of metal of any desired quality or finish, and with such proportions as to size and form as may suit the manufacturer.

The hinged or pivoted support B swings in position from right to left, or vice versa, between bearings, which are firmly attached to the wall or vertical surface of the room.

I also construct the swivel or pointed arms A of such length as will give the desired range of an arc upward and downward; and I have found that such a range as will give a vertical chord of an arc from twenty-four to thirty inches, will best subserve the requisite conditions for effective work in dental operations, whenever the seat of the patient is required to be lowered or elevated.

The arms A may be of any desired shape, although a curvilinear form affords a more graceful appearance.

The pivoted support B has a shoulder extending therefrom, (seen in Fig. 1,) with two arms having tubular ends, through which screw-rods (seen in Fig. 3) are passed, and held by thumb-screws C, having right and left hand screw-threads for increasing friction.

A friction bearing-joint at each extremity of the arms A is produced by placing a leather packing, R, or its equivalent, upon the screw-rods, between the shoulders of the cross-arms and the inner surfaces of the extremities of the swinging arms A, and by means of the screw-thread and thumb-screw C any necessary friction may be produced, so as to hold up the bearing-arms and extension-arms and table at any required height automatically, as one hand placed upon the table may depress or elevate it to any desired rest.

A horizontal sleeve, S, with tubular cross-sections thereto, affords the means of uniting the outer extremities of the swivel-jointed arms A in a similar manner to that of the inner extremities of the same.

The distance of the table-support H from the operator is increased or diminished by means of the lateral movements of the tubular sliding arm S', and the telescopic extension-arm E.

The sleeve S being fully extended and the extension-arm E fully drawn out, in the first position, marked 1, Fig. 1, and partially extended in the other views, a rigid position of the arm E is caused by screwing down the clamp D at the outer end of the tubular arm S', while the arm S' is held by the thumb-screw F, although both extension-arms will work effectively, if left free to be moved laterally.

The table-support H may be firmly fastened on the extremity of the arm E, or revolve around a central pivot in the usual manner.

In adjustable dental brackets heretofore used, or in the operation of movable brackets which may have been deemed sufficient by the inventor for table-supports, there is much inconvenience in actual use, or a lack of the necessary friction on the bearing surfaces or joints, which difficulties I think I have overcome in my movable bracket.

All the changes of the location of the table with my device may be made with one hand, and by means of the friction bearing-joints the table and bracket-connections are held at the desired rest and position automatically, and at the same time the extension-table is uniformly held in its horizontal position, at

any required height, to hold the tools, as adapted to the work, or the raising or lowering of the dental chair in manipulations in the mouth of the patient.

I claim—

The combination of the double parallel friction bearing-arms A, sliding tubular arms

S', and telescopic extension-table-supporting rod E, constructed substantially as and for the purpose set forth.

HORACE A. HALL.

Witnesses:

A. J. WEISE,
J. W. PALMER.