(No Model.)

L. M. MATHEWS.

SUSPENSION DENTAL BRACKET.

No. 364,531. Patented June 7, 1887.

Fig. 1.

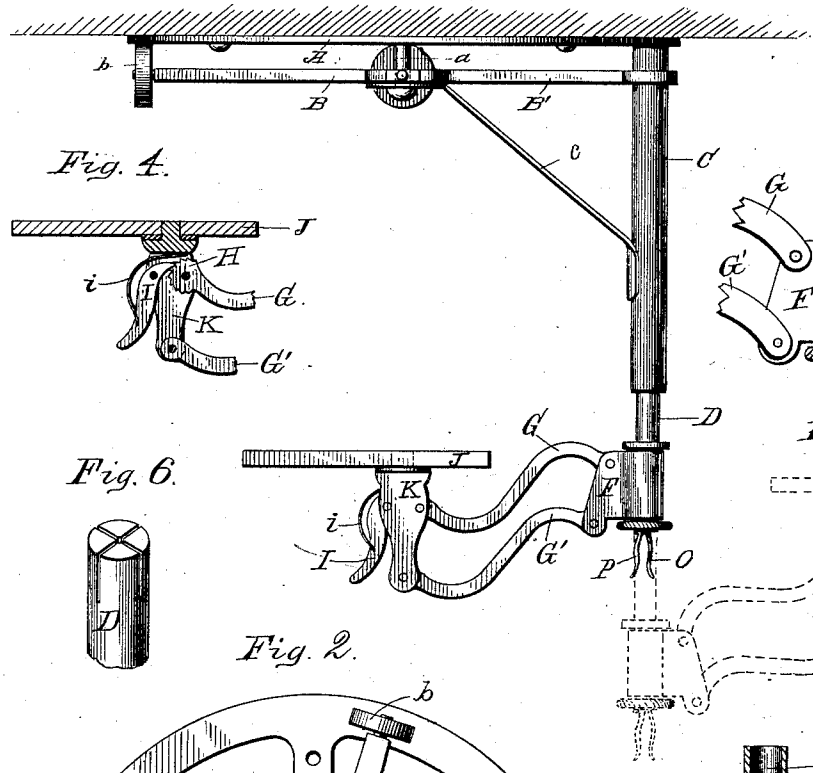


Fig. 3.

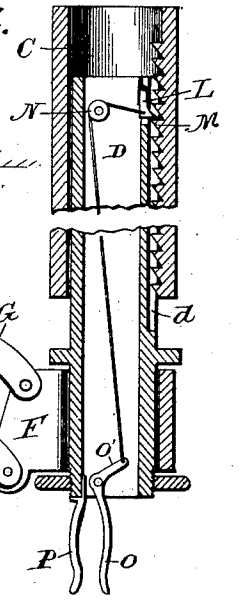


Fig. 4.

Fig. 6.

Fig. 2.

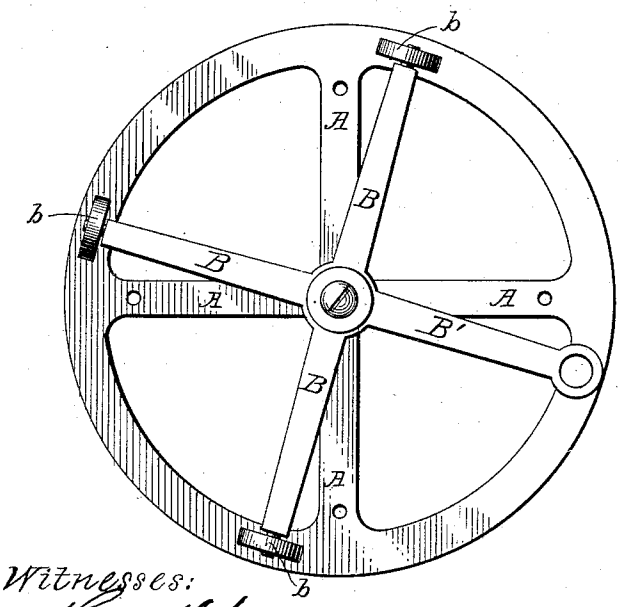
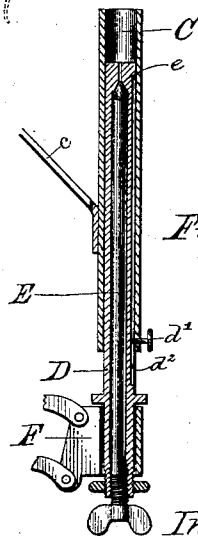


Fig. 5.



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UNITED STATES PATENT OFFICE.

LEROY M. MATHEWS, OF LAWRENCE, KANSAS, ASSIGNOR OF TWO-THIRDS TO CHARLES V. MATTRAM AND LEVI HORNOR, BOTH OF SAME PLACE.

SUSPENSION DENTAL BRACKET.

SPECIFICATION forming part of Letters Patent No. 364,531, dated June 7, 1887.

Application filed March 28, 1887. Serial No. 232,700. (No model.)

To all whom it may concern:

Be it known that I, LEROY M. MATHEWS, a citizen of the United States of America, residing at Lawrence, in the county of Douglas and State of Kansas, have invented certain new and useful Improvements in Suspension Dental Brackets, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in suspension dental brackets or tables for holding dental instruments; and its advantages are, that it is adjustable to any desired position or height; it may be pushed up above the head of the operator and out of the way when not in use; it can be moved from one side of the operating-chair to the other; it is steady and has no attachment to either the wall or operating-chair, and no arms to interfere with the operating in changing sides.

In the accompanying drawings, Figure 1 is a perspective view of the machine; Fig. 2, a sectional view showing the frame A, by which the machine is suspended, and the hanger with radial arms B B′; Fig. 3, a vertical section showing the main tube and sliding tube and the pawl-and-ratchet mechanism for holding the sliding tube in position; Fig. 4, a vertical section showing the pawl-and-ratchet mechanism for holding the table in position; and Figs. 5 and 6 are modifications.

Similar letters refer to similar parts throughout the several views.

The machine is supported by means of the frame A, which is attached to the ceiling of a room and forms a circular track for the rollers *b*. From the center of the frame A is suspended the hanger with radial arms B B′, rotating on the pivot *a*. One arm, B′, supports the main tube C, which is further supported by a brace, *c*. To the extremity of each of the other arms, B, is pivoted a roller, *b*, running on the circular track formed by the frame A. If desired, a roller may also be pivoted to the arm B′.

Upon the inner surface of the main tube C is a longitudinal ratchet-rack, M, projecting into a corresponding slot, *d*, in the sliding tube D, and at the upper end of the sliding tube D is a pawl, L, which is made to engage with the ratchet M by means of a suitable spring. Attached to the pawl L is a cord passing over the pulley N and attached to the lever O′, pivoted at the lower end of the sliding tube. By moving the lever-handle O toward the stationary handle P the pawl L is disengaged from the ratchet M and the sliding tube D may be moved freely up or down to any desired elevation, and upon releasing the handle O the pawl L engages with the ratchet M and holds the tube in position.

Upon the lower end of the sliding tube D is a revolving collar, F, to which are pivoted two arms, G G′. These arms are also pivoted to the plates K, which support the table J. One arm, G, is provided with a ratchet-segment, H, with which the pawl I is made to engage by the spring *i*, as shown in Fig. 4, operating to hold the table J in a horizontal position at any elevation required.

In the modification shown in Figs. 5 and 6 the pawl-and-ratchet mechanism for securing the sliding tube D in position is omitted and the following means substituted: The upper end of the sliding tube D is provided with a cone-socket, *e*, and is split, as shown in Fig. 6. Inside of the sliding tube is a rod, E, the upper end of which is cone-shaped, and the lower end threaded to engage with corresponding threads in the lower end of the sliding tube. By turning the rod E and forcing its upper or cone-shaped end into the cone-socket *e* the split segments of the sliding tube D are forced against the tube C, thus holding the sliding tube securely in position. By unscrewing the rod E the pressure upon the cone-socket *e* is removed and the sliding tube can be moved up or down to any desired position in the main tube. To prevent the sliding tube D from turning or dropping entirely out of the main tube C, a set-screw, *d′*, passes through the main tube into a longitudinal slot, d^2, in the side of the sliding tube, the slot being closed at its upper end, as shown in Fig. 5.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a dental suspension-bracket, the combination, with means for suspending the same, of the hanger with radial arms B B′, main tube C, and sliding tube D, with means for securing

the sliding tube at any desired elevation, substantially as and for the purposes specified.

2. In a dental suspension-bracket, the combination of the main tube C, sliding tube D, ratchet M, pawl L, pulley N, lever O′, and handles O P, substantially as and for the purposes specified.

3. In a dental suspension-bracket, the combination of the main tube C, sliding tube D, ratchet-rack M, pawl L, collar F, arm G′, pawl I, and arm G, having ratchet-segment H, substantially as and for the purposes specified.

4. In a dental suspension-bracket, the combination of the frame A, hanger with radial arms B B′, rollers *b*, main tube C, sliding tube D, having a slot, *d*, ratchet-rack M, pawl L, lever O′, collar F, arms G G′, ratchet-segment H, and pawl I, substantially as and for the purposes specified.

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

LEROY M. MATHEWS.

Witnesses:
J. H. BLYTHE,
MAUDE BRYAN.