(No Model.)

R. S. REDMAN.

ADJUSTABLE BRACKET.

No. 274,223. Patented Mar. 20, 1883.

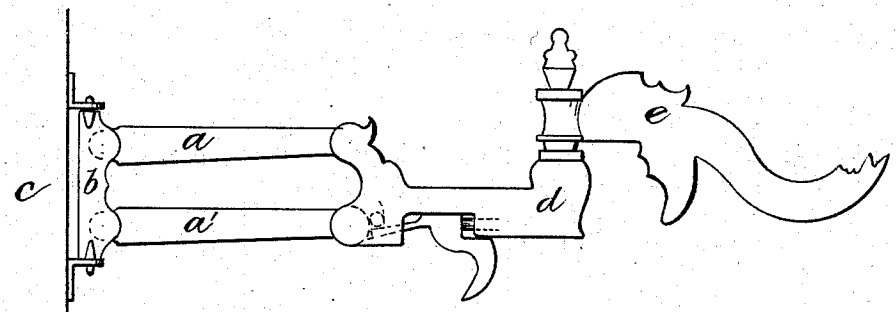


Fig. 1.

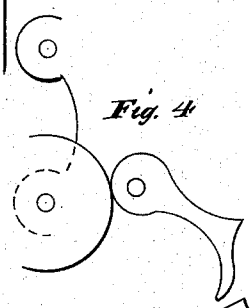


Fig. 4

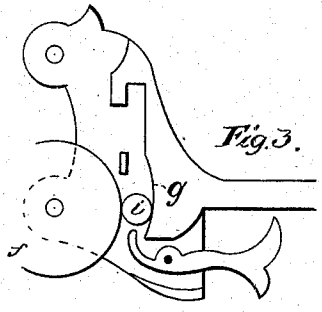


Fig. 3.

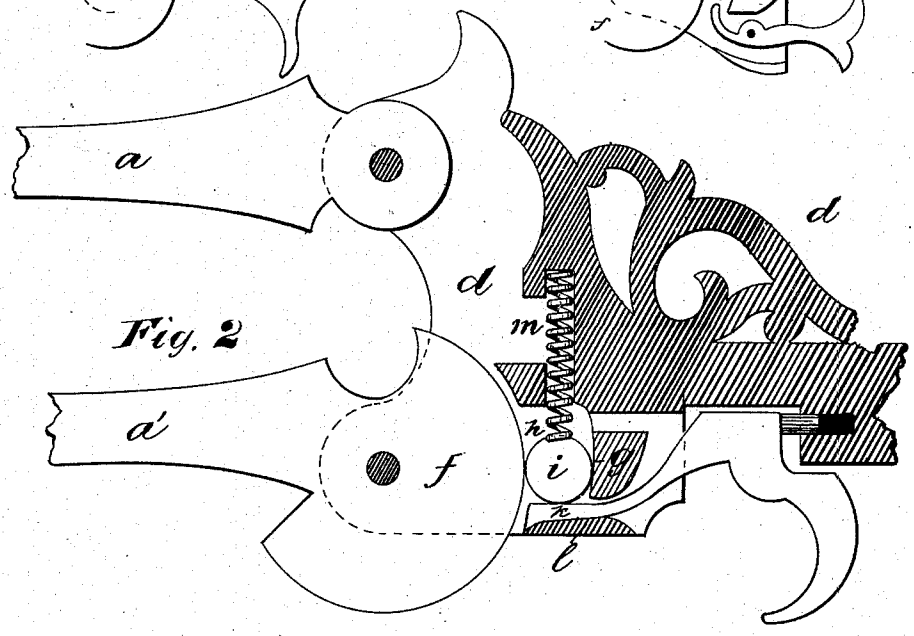


Fig. 2

Witnesses:

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UNITED STATES PATENT OFFICE.

ROBERT S. REDMAN, OF NEWARK, NEW JERSEY.

ADJUSTABLE BRACKET.

SPECIFICATION forming part of Letters Patent No. 274,223, dated March 20, 1883.

Application filed July 26, 1882. (No model.)

To all whom it may concern:

Be it known that I, ROBERT S. REDMAN, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Adjustable Brackets for Dental and other Purposes; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of brackets having parallel arms, a wall-plate, and an extension-piece, so combined as that said extension-piece can be raised or lowered without losing its horizontal position.

The invention embodies certain improvements upon a device described in United States Patent No. 213,775, granted to P. B. Conklin and myself, wherein a rod engaged with a toothed segment formed upon the end of one of the parallel arms. This device was defective, in that there was between each bite of the rod with a tooth a considerable amount of play, amounting ordinarily to about an inch and a half, at the tablet, so that oftentimes said tablet could not be placed in the exact position desired, but the same would rest a little above or below the desired point.

The object of this invention is to overcome the above objections, and at the same time to simplify and reduce the cost of construction.

Referring to the accompanying drawings, in which similar letters of reference indicate like parts in each of the several figures, Figure 1 is a side elevation of a bracket embodying my improvements, and Fig. 2 is an enlarged sectional view of the same, clearly illustrating the internal arrangements of the several parts. Figs. 3 and 4 illustrate modified forms of the invention, involving the same principles, but varying in detail construction.

In said drawings, *a a'* are parallel arms, hinged or pivoted at one end to a swinging plate, *b*, adapted to be secured to the wall or other surface, *c*, by suitable means. The other ends are similarly hinged or pivoted to an extension-piece, *d*, which may carry or be constructed to carry a lamp, druggists' bottles, dentist's tablet, or a second extension-piece, *e*, pivoted thereon, adapted to swing laterally. The extension-piece is preferably cored out to receive the ends of the arms *a a'*, as shown. The arm *a'* is provided with a segmental extremity, *f*, and the extension-piece is constructed in such a manner as that a portion thereof will form a bearing-surface, between which and the extremity of the arm the jamb-piece lies. Said jamb-piece is lettered *i* in the drawings. The portion furnishing the bearing-surface may be cast integral with the extension-piece and be independent of the finger-piece, as in Figs. 1 and 3, or it may form a pivotal center for the finger-piece, as well as a bearing-surface for the jambing portion thereof, as shown in Fig. 4. In the latter case the jamb-piece and finger-piece are in intimate combination, the same independent results being performed as when the parts are separated, all as will be obvious. Between the peripheral edge of the segment and bearing-surface is formed a recess or aperture adapted to receive a roller, *i*, or jamb-piece, into which said jamb-piece is placed, substantially as shown in Figs. 1, 2, 3, and 4, its periphery engaging with the segment and eccentric. Downward pressure brought to bear on the extension-piece *d* causes the segment to throw, roll, or jam the roller or jamb-piece into intimate and holding engagement with the parts *f g*, so that further motion is prevented, the power of friction overcoming the weight of the extension-piece *d* and its burden.

The extension-piece may be elevated by simply raising the same by the hand; but should I desire to lower the same, it becomes necessary to provide suitable means for holding the jamb-piece out of engagement with the segment. This may be accomplished in several ways, some of which are illustrated—as, for example, the jamb-piece may be raised by means of a wedge, K, as shown in Figs. 1 and 2, or by a pivotal finger-piece, as shown in Fig. 3, or the said means may be integral with the jamb-piece.

The jamb-piece may fall between the eccentric and segment by its own weight, or may be forced therebetween by a spring, *m*, arranged in suitable bearings, the latter method being preferable, as it produces a more certain result.

It is evident that I do not wish to limit myself to a roll in forming the jamb-piece, a pivoted eccentric, as shown in Fig. 4, being applicable.

If I desire, I may mill or otherwise roughen the segment, the jamb-piece, and the eccentric, or either of them, to increase friction, by which, however, I do not wish to be understood as forming a ratchet or cogged periphery, by which friction would be prevented.

I am aware that jamb-pieces have heretofore been used in connection with hinges for school-furniture, and therefore this feature I do not wish to be understood as claiming broadly.

I am also aware that in United States Patent No. 127,798 parallel arms are shown, which are held into either adjustable or fixed relation by a thumb-screw. By partially screwing the said arms together necessary friction is given to support a considerable weight, in which condition the parts may be adjusted so that the extension-piece may be brought to any exact position; but in this case, should the screw be adjusted to bring the parts so that they shall bear a certain weight, any additional weight placed thereon by the dentist would cause the tablet to fall. Should the parts be rigidly screwed together, the bracket would then be rendered no longer automatic. By means of my improved device, the bracket can be adjusted with great exactness, and additional burdens only tend to cause the jamb-piece to bind with greater force; and, further, the act of raising the tablet or extension-piece is not hampered or obstructed, as is the case where the set-screw is employed.

What I claim, and desire to have secured by Letters Patent, is—

1. In combination, in an adjustable bracket, arms *a a'*, wall-plate *b*, extension-piece *d*, bearing-surface *g*, segment *f*, jamb-piece *i*, spring *m*, and a finger-piece, all arranged and operating substantially as and for the purposes herein set forth and shown.

2. In combination, in an adjustable bracket, arms *a a'*, plate *b*, extension-piece *d*, provided with spring-socket and bearing surface, segmental portion *f*, jamb-piece *i*, spring *m*, and finger-piece adapted to raise said jamb-piece, all arranged and combined substantially as herein set forth, for the purposes specified.

3. As an improved article of manufacture, an adjustable bracket combining therein a wall-plate, *b*, parallel arms *a a'*, the latter of which is provided with a segmental portion, an extension-piece having said arms *a a'* pivoted therein, and having a bearing-surface, *g*, therein, and a jamb-piece, *i*, lying in a chamber in said extension-piece, said jamb-piece, bearing-surface, and arms being arranged in relation to the extension-piece and adapted to cause said extension-piece to automatically resist downward pressure, and to allow an unobstructed elevation of the same, all as herein set forth and shown.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of July, 1882.

ROBERT S. REDMAN.

Witnesses:
CHARLES H. PELL,
J. A. HENRICH.