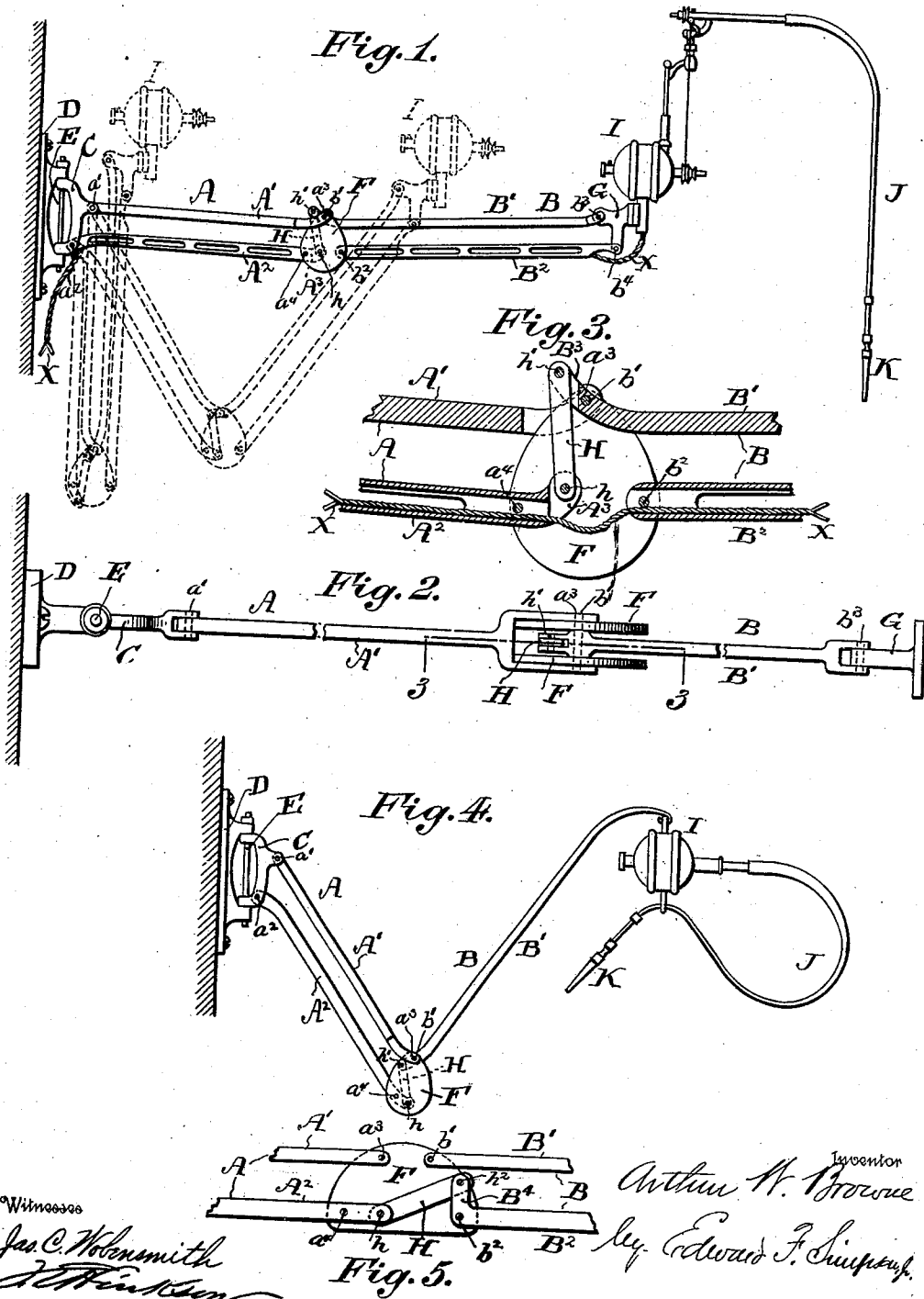


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ADJUSTABLE WALL BRACKET.
APPLICATION FILED JULY 11, 1908.

918,276.

Patented Apr. 13, 1909.



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ADJUSTABLE WALL-BRACKET.

No. 918,276.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ARTHUR W. BROWNE, a citizen of the United States, residing at Prince Bay, in the county of Richmond and State of New York, have invented certain new and useful Improvements in Adjustable Wall-Brackets; 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.

My invention relates to folding or adjustable wall-brackets for so supporting objects that they may be moved in a substantially horizontal plane into various positions nearer to or farther away from the wall and also be moved into an inoperative position close to or against the wall where they will be out of the way.

The object of my invention is to simplify and improve the bracket forming the subject matter of Letters Patent No. 717,121 granted December 30, 1902, to the assignee of Charles H. Richardson. This bracket consists of a main section having vertical rocking connection with a wall, a forearm section adapted to support an object or load at its outer extremity, connections between the two sections which enable the forearm section to rock vertically toward and away from the main section, and means for causing said sections, when the object or load is moved or placed in different positions, to move in unison toward and away from each other and maintain corresponding angular relations with respect to a vertical line drawn centrally between said sections. By this construction the weight of the object or load serves to poise the bracket as well as the object itself, by virtue of which the object may be freely moved toward and away from the wall and remain inert in what ever position it is placed, thus securing a practically perfect equipoise of the bracket and its load without the use of springs or weights other than the load itself. In the patented bracket the means for causing the bracket sections to move in unison is shown as consisting of gearing.

My improvement consists in substituting a link connection for said gearing.

The invention as applied to a dental bracket is illustrated in the accompanying drawings, in which similar reference characters refer to corresponding parts through-

out the several views; is fully described in the following specification, and claimed at the conclusion thereof.

In said drawings:—Figure 1 is a view in side elevation showing the bracket extended in full lines and folded and partly folded in dotted lines. Fig. 2 is a top or plan view on an enlarged scale as compared with Fig. 1. Fig. 3 is a central vertical sectional view on the line 3—3 of Fig. 2. Fig. 4 is a view in side elevation of a modified form of bracket. Fig. 5 is a view corresponding to Fig. 3 of a modified link connection.

The bracket indicated in Figs. 1, 2 and 3 consists of a main section A and a forearm section B, each section being composed in this particular embodiment of two parallel members A¹ and A² and B¹ and B² respectively. At their inner ends the members A¹ and A² are connected by pivots a¹ and a² to a bracket plate C, having horizontal turning connection with a stationary wall-plate D, a pintle E connecting the bracket and wall plates. At their outer ends said members A¹ and A² are pivoted at a³ and a⁴ to a connecting-plate or plates F, corresponding to the so-called link-plates E of the before-mentioned Richardson Patent No. 717,121. The members B¹ and B² of the forearm section are pivoted at their inner ends at b¹ and b² to said connecting plate F, and at their outer ends are pivoted at b³ and b⁴ to an end piece or attaching plate G, to which the object supported by the bracket may be attached. In order to preserve the horizontality or verticality of the object supported by the bracket the distance between the pivots a¹ and a² must be the same as that between the pivots a³ and a⁴ and the distance between the pivots b¹ and b² must be the same as that between the pivots b³ and b⁴.

For the purpose of causing the bracket sections to move in the manner herein specified and thus accomplish the object of my invention without the use of gearing, one member of the main section is connected by a link H to one member of the forearm section. In Figs. 1, 2 and 3 this link is shown as connecting the lower member A² of the main section with the upper member B¹ of the forearm section. In Fig. 5 the link is shown as connecting the lower members of both sections of the bracket. Obviously the same results may be accomplished by linking the upper member of the main section and the lower member of the forearm section, and also by

linking the upper members of both sections. Those members which are linked together are extended beyond their pivotal connections with the connecting plate and the link
 5 pivoted to these extensions. Thus, in Figs. 1, 2 and 3 the member A^2 is extended at A^3 beyond its pivot A^4 and the member B^1 is extended at B^3 beyond its pivot b^1 the link H being pivoted to these extensions at h and h^1
 10 respectively. In the bracket indicated in Fig. 5 the member A^2 is extended as before, while the member B^2 is extended at B^4 beyond its pivot b^2 , and the link H pivoted to this extension at h^2 and the extension A^3 at h .

15 In cases where it is not necessary or desirable to maintain the horizontality or verticality of the object supported by the bracket, one of the members of the forearm section may be omitted as indicated in Fig. 4. The
 20 omission of one of these members in nowise affects the action of the bracket except that the horizontality or verticality of the object supported by the bracket is not maintained. When the forearm consists of only one member
 25 the attaching plate or end piece G is not required.

The several embodiments of my invention herein shown and described are so constructed that the bracket folds downwardly when the
 30 object is moved toward the wall. It is possible by reversing some of the parts to cause the bracket to fold upwardly when the object is moved toward the wall.

When the object supported by the bracket, which for example is herein indicated as consisting of an electric dental engine motor I , flexible shaft J and handpiece K , is moved
 35 from its extreme outer position (see full lines Fig. 1) to a position near to or against the wall (see dotted lines, Fig. 1) and vice versa, it moves in a practically horizontal plane; the bracket folding downwardly or upwardly
 40 as above indicated, when the object is moved inwardly and straightening out when the object is moved outwardly. The weight of the object or load nicely poises itself and the bracket, and the main and forearm sections move in unison toward or away from each
 45 other, whereby each section at any given point always bears the same angular relation to a vertical line drawn centrally between the sections as does the other section. Therefore the object is always equipoised and may be freely moved back and forth
 50 within the limits of the bracket and remain in whatever position it may be placed until positively moved therefrom. In other words the object will remain inert when placed in
 55 either of its extreme inner or outer positions and also when placed in any intermediate position.

It should be explained that as a matter of fact the object does not move in an absolutely horizontal plane, because in order to secure perfect equipoise of said object, the
 65 forearm section of the bracket is made longer than the main section. The difference in length between the two sections varies according to the weight of the object supported. This difference in length causes the object to
 70 move in a slightly inclined plane, but for all practical purposes it may be said to move in a substantially horizontal plane.

By means of the pivotal connection between the bracket plate C and the wall plate
 75 D the bracket and object supported thereby may be swung horizontally. Also, by locating the pivots of the upper member of the main section in advance of the pivots of the lower member of said section, the sections of
 80 the bracket may assume a vertical position close together when folded. When thus folded the bracket may be swung horizontally to lie flat against the wall, whereby the bracket is compactly folded and occupies a
 85 minimum amount of space.

The lower member of each section is shown as hollow in order that the motor conductor
 X may pass through said members.

I claim as my invention:—

1. In a folding or adjustable wall bracket, the combination of a wall plate, a main section composed of parallel members pivoted
 90 to said wall plate so as to move vertically, a forearm-section adapted to support an object at its outer extremity, a connecting plate or plates to which said sections are pivoted, one member of the main section and the forearm-section being extended beyond their pivotal connections with the connecting
 95 plate, and a link pivotally connecting said extensions.

2. In a folding or adjustable wall bracket, the combination of a wall plate, a main section composed of parallel members pivoted
 100 to said wall plate so as to move vertically, a forearm-section also composed of parallel members, an attaching plate to which the outer ends of the members of the forearm section are pivoted, a connecting plate or
 105 plates to which the members of both of said sections are pivoted, one member of each section being extended beyond its pivotal connection with the connecting plate, and a link pivotally connecting said extensions.

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

ARTHUR W. BROWNE.

Witnesses:

SEYMOUR CASE,
 MARY F. BOGERT.