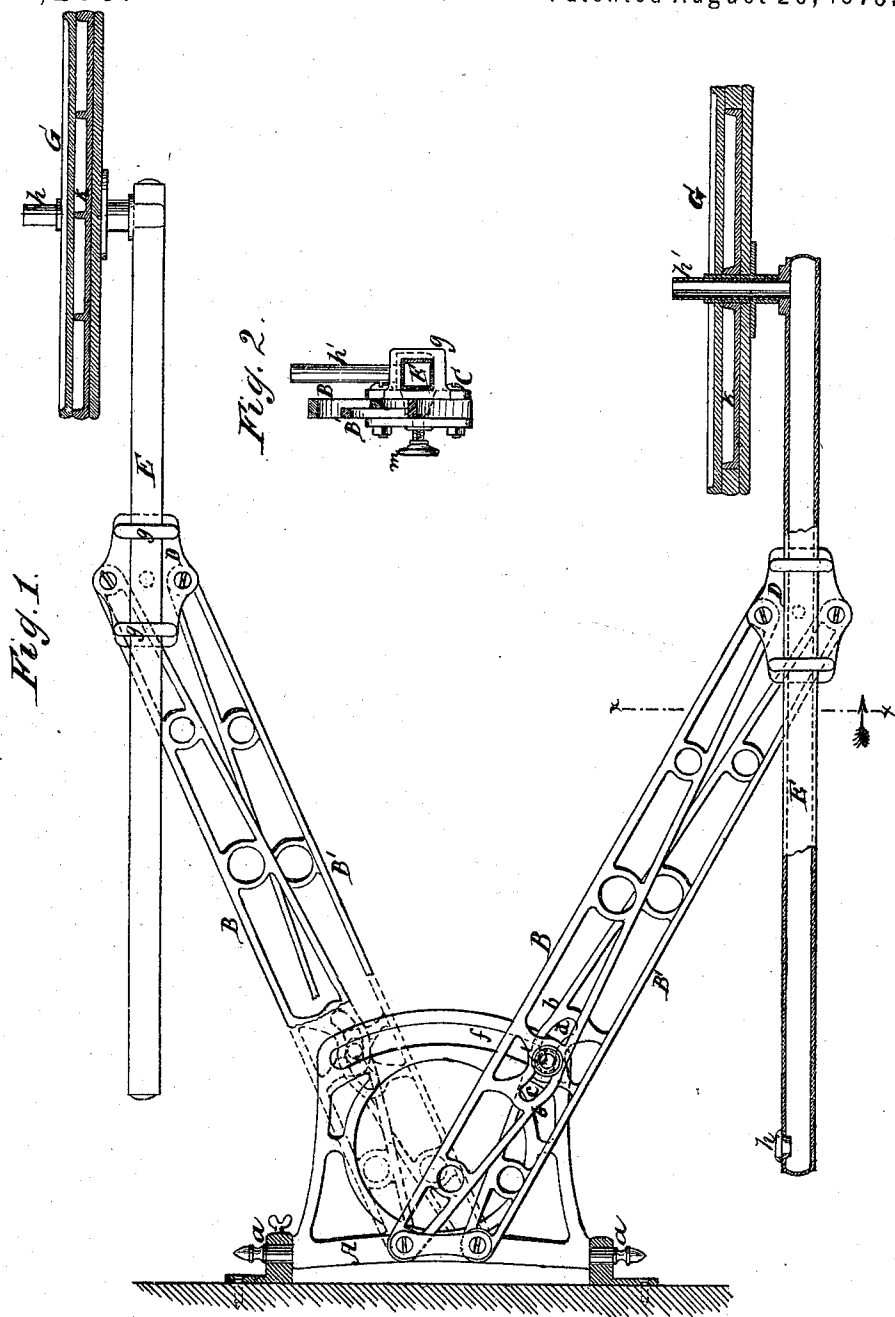


J. B. MORRISON.
Adjustable Brackets.

No. 142,263.

Patented August 26, 1873.

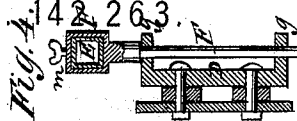


Witnesses:
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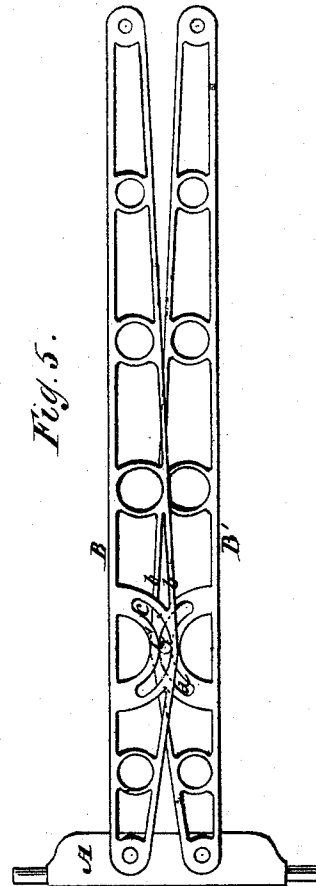
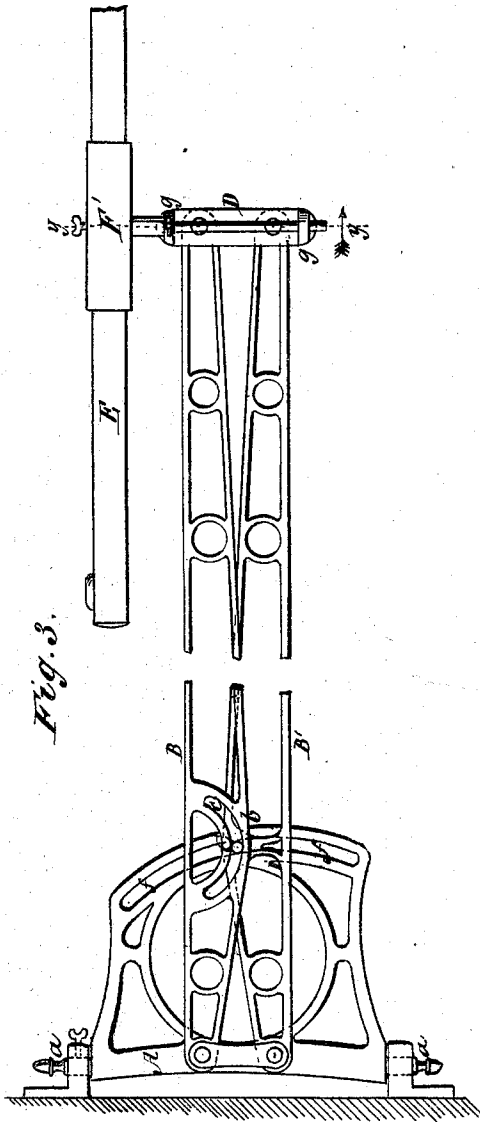
Inventor:
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Adjustable Brackets.

No. 142,263.
Fig. 4.



Patented August 26, 1873.



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UNITED STATES PATENT OFFICE.

JAMES B. MORRISON, OF BROOKLYN, E. D., NEW YORK.

IMPROVEMENT IN ADJUSTABLE BRACKETS.

Specification forming part of Letters Patent No. 142,263, dated August 26, 1873; application filed August 20, 1873.

To all whom it may concern:

Be it known that I, JAMES B. MORRISON, of the city of Brooklyn, E. D., in the county of Kings and State of New York, have invented certain new and useful Improvements in Adjustable Brackets; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

The object of my present invention is to produce a simple, strong, and ornamental bracket, which shall possess the capability of being swung to the right or left, of being adjusted to any required altitude, and of being extended or lengthened. This invention has reference more particularly to a bracket most suitable for a dentist's use for holding his tools and articles in the most convenient position for him while he is operating upon the teeth of a person; but it is also useful for supporting writing and reading desks, work-tables, drawing-boards, and for performing the various other duties required of movable brackets in general. This invention consists in the combination, with a swinging or stationary back plate, of two supporting-arms, one or both of which is provided with a curved slot, through which passes a pin for locking the said arms together, so as to cause them to remain at the required altitude. It also consists in providing such back plate with an outwardly-extended portion, having a curved or arc-like slot in it for receiving the same pin which locks the arms together, whereby much additional strength is given to the device. It also consists in the combination, with such back plate and arms, of a sliding bar, whereby the length of the bracket may be increased or decreased, provision being made for constructing said sliding bar in such manner that it may be caused to serve as a reservoir for containing liquid for supplying an attached wick-tube, or as a duct for conveying gas to an attached burner. It also consists in so connecting the said sliding bar to the said supporting-arms that the bar may have, in addition to its extensible feature, the capability of being revolved or swung round to the right or left, in which case the back plate of the bracket could be stationary, if so desired.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of my improved bracket, showing the supporting-arms in two positions. Fig. 2 is a transverse vertical section taken on the plane of the line *x x*, Fig. 1. Fig. 3 is a side elevation of a modification of my said invention. Fig. 4 is a transverse vertical section of the same taken on the plane of the line *y y*, Fig. 3. Fig. 5 is also a side elevation of a modification of my said invention.

A designates the back plate of the device, and it is provided with trunnions *a a*, which enter eyes or bearing-boxes affixed to the wall or other vertical object to which the device is to be attached; and hence the bracket is allowed to be swung around to the right or left, in a well-known manner. B B' designate the supporting-arms. These arms are pivoted at their rear ends to the back plate A, and are so constructed and arranged as to overlap each other for a suitable distance of their length; and to accomplish this overlapping I preferably increase the width of the arms, as shown at *b b* in the several figures. Each arm is provided with an arc-shaped slot, *c d*, (see Figs. 1 and 5,) cut through the said arms where they overlap each other, the curve of the slot *c* of the one arm running in a reverse direction from that of the slot *d* of the other arm. A binding screw or pin, C, is passed through these slots for holding the arms together. In the present instance the head of such pin is larger across than the width of the slot, so that it will overlap and bear upon the outside of the arm, and its other end is provided with a screw-thread, upon which screws a thumb-nut, in a well-known manner. In Figs. 1 and 3 the back plates are broader than the back plate shown in Fig. 5, and they are provided, near their forward edges, with a slot, *f*, running on the line of the arc of a circle. In Fig. 1 the point or center from which the arc is described lies midway between the two points at which the arms B B' are respectively pivoted to the back plate; but in Fig. 3 the arc is described from a point or center occupied by the rivet which holds the arm B' to the back plate A; and in Fig. 3 I have shown a modification, which consists in providing only one of the arms (that lettered B) with a slot, *c*, the pin

being stationary or passing through a simple hole in the arm B'. In both Figs. 1 and 3 the pin C passes through the slot *f* of the back plate, and, while this feature in no respect interferes with the up-and-down or vertical motion of the arms B B', by employing it I am enabled to produce a much stronger device, because I thus have an additional support, acting, in fact, as a brace projecting at some distance beyond the points where the arms are pivoted to the back plate; and in such cases it will be seen that by tightening the pin or screw C—that is, by screwing its nut up against the opposite side of the slot *f*—the friction of the parts will be sufficient to cause the arms to remain in either of the two positions shown in Fig. 1, or in any intermediate position, as desired.

Fig. 5 is introduced to show the arrangement of parts when this increased width of back plate, which carries the slot *f*, is not used. Here the arms B B' are caused to remain in any given position by the friction caused by drawing the arms close together by the pin C passing through the slots *c d* in said arms.

I will here remark that either one of the arms B or B', shown in the several figures, may be pivoted on the opposite side of the back plate, so that one arm—say B—shall be located on the one side and the arm B' on the opposite side of the back plate; in other respects the relative position of the parts need not be changed. And I will further remark that where most strength is required two back plates—one on each side of the rear ends of the arms—may be employed, as is obvious.

The forward ends of the supporting-arms B B' are pivoted to a head-block, D. This head-block is designed to receive a sliding extension-bar, E; and in Fig. 1 this bar passes through loops *g g* projecting from the head-block in lines horizontally with each other; but in Figs. 3 and 4 the loops *g g* project from the head-block in lines vertically with each other; and in this latter case a pin, F, carrying a sleeve, F', through which the sliding bar E passes, is inserted through the said loops *g g*; and I will remark that when this latter form is adopted, if the pin be round, short arms B B' may be employed and the back plate be stationary, when, as is obvious, the sliding bar E, instead of the bracket, would have the function of being swung around horizontally to the right or left; and, besides this, whenever occasion should require it, the said sliding bar E could be set angularly with respect to the arms B B', which is a very desirable additional function given to the bracket as a whole. Of course a thumb-screw, *m*, (see Figs. 2 and 4,) or other suitable means, may be employed for holding or locking the sliding bar E after it has been moved backward or forward the required distance.

I have shown the said sliding bar so constructed as to answer a double purpose. It is made tubular to serve as a reservoir, which may be filled, at *h*, with oil or spirits for sup-

plying a wick, which may be passed down through a tube, *h'*, at its outer end, or as a means for conveying gas to a burner at *h'*, and the tube *h'* would, in addition to its being a wick or gas tube, serve as a pivot for steadying a revolving tray or platform, G, for dentists' use, as will be understood by reference to Fig. 1, where such platform is illustrated by two sectional views taken at right angles to each other. The top of the platform affords a place upon which the dentist can lay the tools with which he may be operating, and the drawers *k k* provide a convenient place for keeping the tools and articles which a dentist must necessarily have close at hand. The drawers *k k* are preferably arranged so that they can be pushed out from either one of two of the edges of the platform, as will be clearly understood by examining the two sectional views of the platform in Fig. 1.

If it be not desired to construct the sliding bar E so that it may be caused to serve as a reservoir for an illuminating liquid, it may be a simple tube or a solid bar made of any material possessing the required strength, and in such case a plain pin in place of the tube *h'* would serve as a journal around which to turn the platform G, or as a ready means for the attachment of a lamp or various other devices.

My invention, hereinabove described, produces a bracket in which great strength coupled with lightness is combined; a bracket which is ornamental and attractive, cheap to manufacture; one that is easily adjusted to any required elevation and held securely; one that can be swung to any required position to the right or left; and one which is rendered extensible by the employment of the sliding bar. It will also be seen that these brackets are useful for a great variety of purposes other than for dentists' use—for instance, as supports for writing-desks, instrument-cases, work-tables, drawing-boards, for displaying textile fabrics and other articles in store windows, &c.

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

1. The combination, with a swinging or stationary back plate, A, of the supporting-arms B B', having one or both of said arms provided with a curved slot, through which is inserted a locking-pin, C, whereby the altitude of the device carried by the outer ends of the said arms may be regulated as desired, substantially as herein specified.

2. The combination, with the said arms B B', of a stationary or swinging back plate, A, provided with the curved slot *f*, substantially as and for the purposes herein specified.

3. The combination, with the said arms B B', of the sliding bar E, whether tubular or solid, substantially as and for the purpose herein set forth.

4. The combination of a wick or gas tube, *h'*, with the sliding bar E and supporting-arms B B', substantially as and for the purpose herein specified.

5. The combination of the platform G, having sliding drawers *k*, with the sliding bar E, arms B B', and back plate A, substantially as herein specified.

6. The combination of the following elements: The back plate A, either with or without the slot *f*, the arms B B', one or both of which is provided with a curved slot, *c* or *d*, a locking-pin, C, and a sliding bar, E, arranged and operating substantially as herein specified.

7. The combination, with the arms B B', of the head-block D and pin F, whereby the bar E, or the device supported by the pin F, may be revolved or swung around, substantially as herein specified.

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Witnesses:

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