No. 687,031. Patented Nov. 19, 1901.

L. B. JEFFCOTT.

FOLDING BRACE.

(Application filed May 8, 1901.)

(No Model.)

Fig. 1.

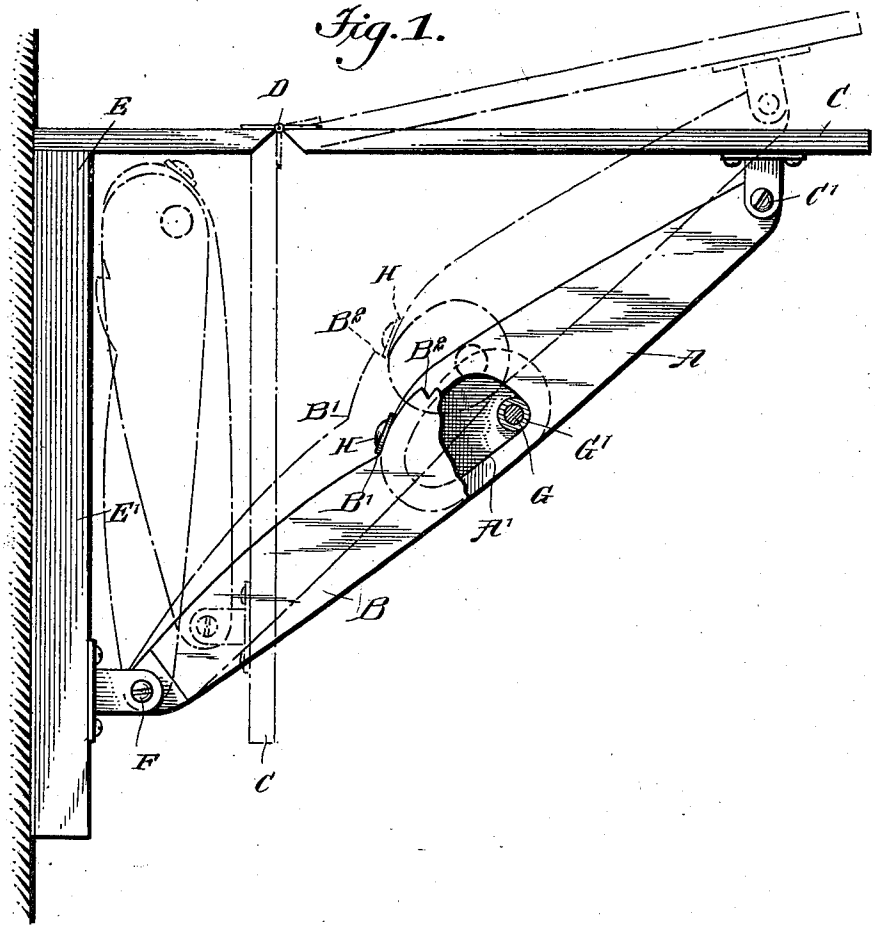
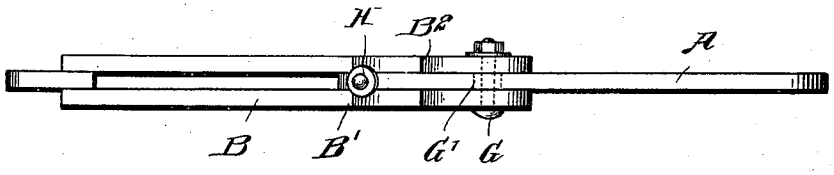


Fig. 2.



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FOLDING BRACE.

SPECIFICATION forming part of Letters Patent No. 687,031, dated November 19, 1901.

Application filed May 8, 1901. Serial No. 59,240. (No model.)

To all whom it may concern:

Be it known that I, LEWIS B. JEFFCOTT, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Folding Brace, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved folding brace for use on brackets, shelves, beds, and other articles and arranged to readily lock itself in an extended position when the article is swung into an active position and to automatically unlock itself and fold up by the operator swinging the article a little farther up and then releasing it to allow the brace to fold and the article to swing into a folded position.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claim.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the views.

Figure 1 is a side elevation of the improvement as applied to a shelf, parts being broken out; and Fig. 2 is a plan view of the brace.

The folding brace consists, essentially, of an upper section A and a lower section B, of which the upper end of the section A is pivotally connected at C′ to the free end of a shelf C, connected by a hinge D with the top E of a post E′, on which is fulcrumed at F the lower end of the lower section B, as is plainly illustrated in the drawings. The section B is preferably forked at its free end to receive the lower end of the upper section A, and the free end of the section B is provided with a pivot G, carrying a friction-roller G′, engaging the wall of a cam-opening A′, extending into the lower end of the section A, as is plainly illustrated in Fig. 1.

On the top edge of the section A, near the lower end thereof, is secured a catch H, adapted to engage shoulders B′ B^2, formed on the top edge of the section B near the upper end thereof, said catch H operating in conjunction with the pivot G and its friction-roller G′, so as to permit of automatically locking the brace in an extended position, as shown in Fig. 1, or to allow the brace to fold and the shelf C to swing down into a folded position, as indicated in dotted lines in Fig. 1.

When the brace is extended, as shown in full lines in Fig. 1, then the pivot G with its friction-roller G′ has its center below a straight line passing through the fulcrums F and C′, the catch H then abutting against the shoulder B′ to hold the sections A and B in a locked extended position, and thereby support the shelf C in a horizontal position.

When it is desired to fold the shelf C, the operator takes hold of the free end of the shelf and swings the shelf upward to the position shown in dotted lines in Fig. 1, whereby the catch H is caused to travel over the edge of the section B from the shoulder B′ to the shoulder B^2 to finally drop upon the shoulder B^2, as indicated in dotted lines in Fig. 1. When this takes place, the operator releases the shelf C, so that the shelf swings downward by its own weight and in doing so causes the section A by the catch H to press on the shoulder B^2 and swing the section B inward. During this inward swinging of the section B and the upward swinging of the section A the catch H finally drops off the shoulder B^2, and at this time the friction-roller G′ is in contact with the upper portion of the wall of the cam-opening A′, so that further downward swinging of the shelf C causes the section A to push, by the friction-roller G′, the section B into a final vertical folded position, as indicated in dotted lines in Fig. 1. The shelf C then hangs vertically, as indicated in Fig. 1.

When it is desired to extend the shelf C, the operator takes hold of the free end of the shelf and swings the same upward, and thereby causes the section A to move along, and the lower end of the wall of the opening A′ now acts on the friction-roller G′ to impart an outward swinging motion to the section B, the friction-roller during this movement traveling from the lower end of the wall toward the upper end, and when the friction-roller finally reaches the upper end of the wall then the catch H is held clear of the shoulder B^2, so that a full opening of the sections A and B in position, the friction-roller G′ being below the line extending through the fulcrums F and C′.

From the foregoing it is evident that the operator does not touch the brace during the opening or folding thereof, it being understood that the brace automatically locks and unlocks itself upon the operator manipulating the shelf C, as above explained.

The device is very simple and durable in construction and is not liable to get out of order.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

A folding brace, comprising an upper section pivoted to a swinging shelf and a lower section pivoted to a fixed part, the inner end of the upper section having a cam-opening and a fixed catch, and the free end of the lower section having a pivot engaging the wall of the cam-opening, and shoulders engaged by said fixed catch, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEWIS B. JEFFCOTT.

Witnesses:
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