

Halbrook & Butler,

Book Support.

No. 109,213.

Patented Nov. 15, 1870.

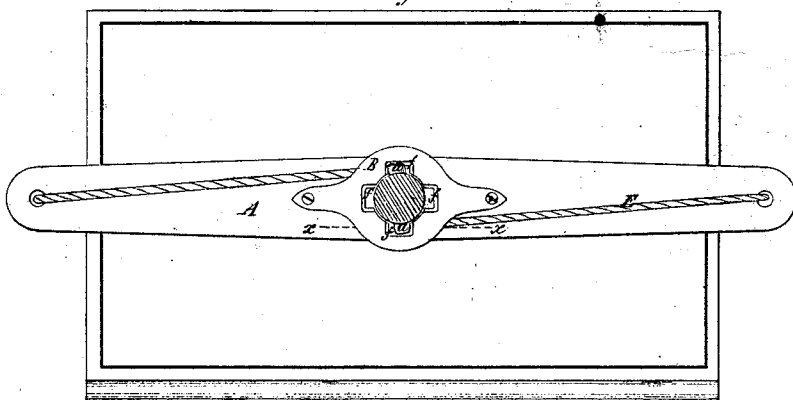
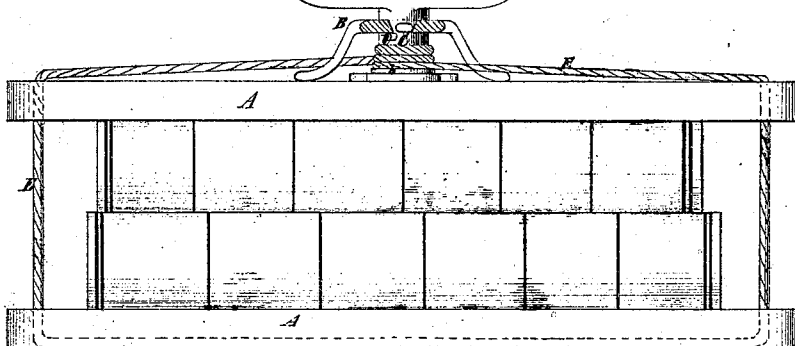
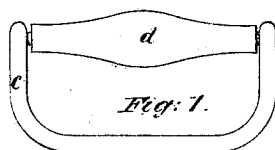
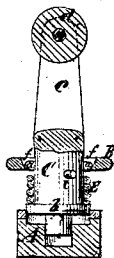


Fig. 3.



Witnesses:
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United States Patent Office.

CHARLES W. HOLBROOK, AND E. FREDERICK BUTLER, OF WINDSOR
LOCKS, CONNECTICUT.

Letters Patent No. 109,213, dated November 15, 1870.

IMPROVEMENT IN PORTABLE BOOK-CLAMPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, CHARLES W. HOLBROOK and E. FREDERICK BUTLER, both of Windsor Locks, in the county of Hartford and State of Connecticut, have invented a new and Improved Book-Clamp, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing forming part of this specification.

This invention relates to that class of book-clamps more especially intended for school-books, in which the books are clamped between two bars, which are drawn toward each other and tightened to hold the books by a cord or cords operated by a windlass attached to one of the bars.

Its object is to provide for the locking of the windlass and securing of the tension of the cord in a simple and effective manner.

It consists in lugs or projections on the windlass operating in conjunction with a series of tapering recesses formed in a stationary bridge-piece, which forms one of the bearings for the windlass, and is attached to one of the bars.

In the accompanying drawing which illustrates our invention—

Figure 1 is a side view of a book-clamp, partly in section;

Figure 2 is a plan of the same; and

Figure 3 is a transverse section of the same, taken through the bridge-piece.

Similar letters of reference indicate corresponding parts in the several figures.

A A are the bars, which are provided near their ends with holes, through which passes the cord E, the ends of which are attached to the windlass C.

This windlass, which is supported in bearings, the one in the bridge-piece B and the other in the bar to which it is attached, is made of cast metal.

It has formed on its upper part an upwardly-bent bow, c, pivoted between the ends of which is a roller, d, the whole forming a handle by which the windlass is operated, and a convenient device whereby the clamp and books contained therein may be carried in the hand.

Below the bow c, there are formed on the windlass the series of lugs or projections a a, before referred to as acting in conjunction with a series of recesses in the bridge-piece to lock the clamp in any position. These projections have their ends of rounded form.

Below the said projections a pin, i, is inserted through the windlass, to serve as a stop to limit its upward motion and prevent it from being drawn out from the bearings.

The cord is attached to and wound on the windlass between this pin i and a collar, b, on the lower part of it.

The recesses f f in the bridge-piece, in which the lugs a a operate to lock the windlass, and secure the tension of the cords, radiate from the interior of upper bearing of the windlass, as shown in fig. 3.

They are so arranged as to allow the lugs to pass upward into them from below the bridge-piece. They are of taper form, smaller at the bottom, as shown in fig. 1, which exhibits a section of the bridge-piece in the plane indicated by the line x x, in fig. 2.

To separate the bars A A for the insertion of the books between them, the handle is pushed toward the bridge-piece B to liberate the projections a a, and is then turned in a direction to unwind the cord.

After the books have been inserted, the bars A A are drawn toward each other to clamp the books, by turning the windlass in a direction to wind up the cord and draw it tight, after which the handle is pulled upward and turned till the lugs a a come opposite to and slip into the recesses f f.

Owing to the tapering form of the recesses, the pressure of the lugs against them, produced by the tension of the cord, will tend to make the projections slide upward within them and keep the projections firmly locked, thereby preventing the unwinding of the cord.

To permit the removal of the books from the clamp, the handle is pressed down toward the bridge till the lugs are disengaged from the recesses, and the cord is thereby permitted to be unwound and to fall or be drawn apart.

What we claim as our invention, and desire to secure by Letters Patent, is—

The taper recesses in the stationary bridge-piece B, in combination with the lugs formed on the windlass and with the bars and cord, substantially as herein described.

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