(No Model.) 2 Sheets—Sheet 1.

B. G. LUTHER.

ADJUSTABLE GUIDE FOR BUZZ PLANERS AND OTHER WOOD WORKING MACHINES.

No. 387,428. Patented Aug. 7, 1888.

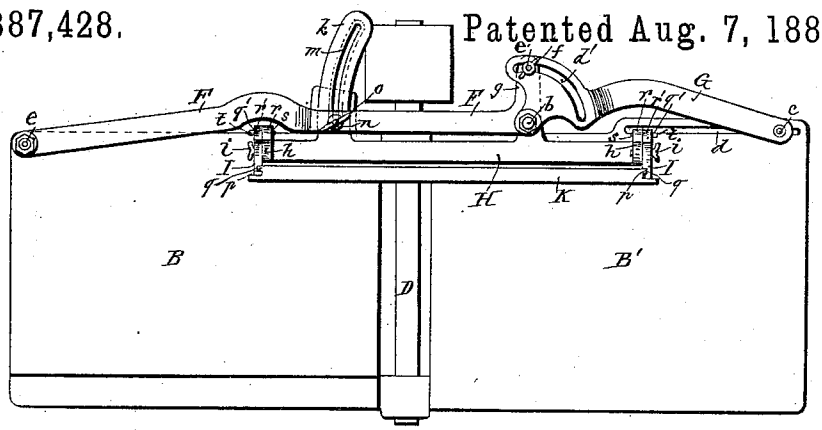


Fig. 1.

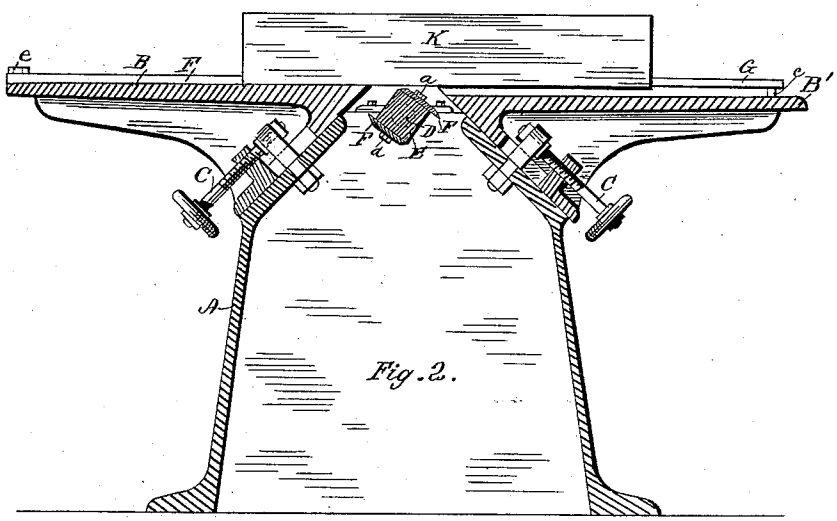


Fig. 2.

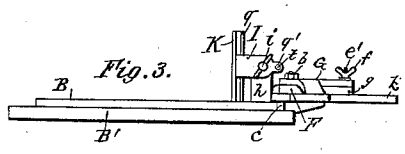


Fig. 3.

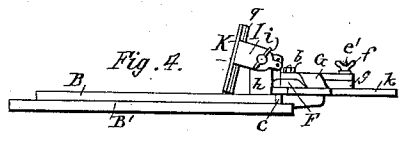


Fig. 4.

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(No Model.) 2 Sheets—Sheet 2.

B. G. LUTHER.

ADJUSTABLE GUIDE FOR BUZZ PLANERS AND OTHER WOOD WORKING MACHINES.

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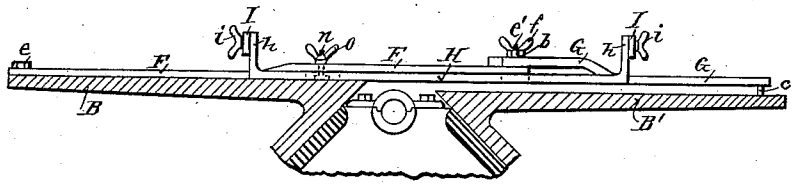


Fig. 5.

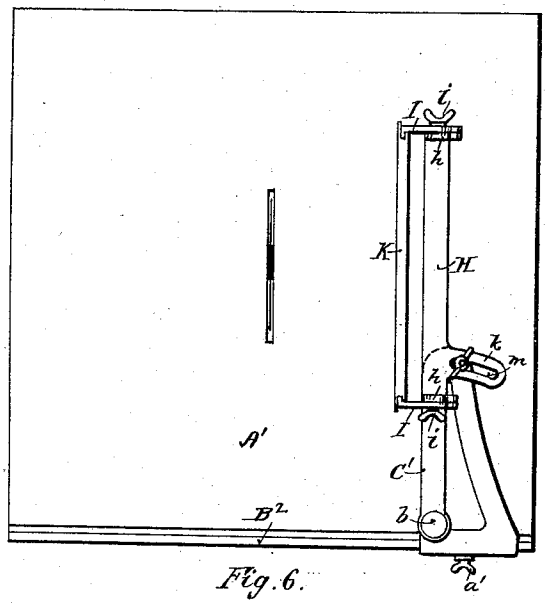


Fig. 6.

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UNITED STATES PATENT OFFICE.

BENJAMIN G. LUTHER, OF WORCESTER, MASSACHUSETTS.

ADJUSTABLE GUIDE FOR BUZZ-PLANERS AND OTHER WOOD-WORKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 387,428, dated August 7, 1888.

Application filed May 3, 1888. Serial No. 272,727. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN G. LUTHER, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Adjustable Guides for Buzz-Planers and other Wood-Working Machines, of which the following is a specification.

In operating with a buzz-planer or other wood-working machine upon various classes of work, it is very desirable to be able to effect the ready adjustment of the table-guide to the various angles required, whether horizontal or vertical; and my invention consists in the improved construction and arrangement of the table-guide, whereby the said horizontal and vertical angular adjustment of the guide can be readily and conveniently effected.

Figure 1 represents a top view of a buzz-planer provided with my improved table-guide. Fig. 2 represents a vertical section of the buzz-planer, showing a front view of the table-guide. Fig. 3 represents an end view of the guide as taken from the feeding end of the machine, and showing the face-plate of the guide in a vertical position. Fig. 4 is a similar view showing the face-plate set at an obtuse vertical angle with the table of the planing-machine. Fig. 5 is a detail section of the table, showing an elevation of the lever mechanism of the guide, the face-plate being removed. Fig. 6 represents a plan view of a saw-table provided with my improved adjustable guide.

In the accompanying drawings, A is the standard-frame of the buzz-planer.

B B′ are the tables, which are made adjustable in height by means of hand-screws C C.

D is the shaft, E is the cutter-head, and F F the cutters, which are attached to the head by means of the screws *a a*.

To the table B is pivoted the lever F by means of a screw-stud, *e*, and to the free end of the lever F are pivoted the levers G and H by means of the stud *b*. The lever G is provided at its outer end with a guiding stud, *c*, which loosely enters the slot-guide *d* made in the table B′, and at or near the pivoting-stud *b* and concentric therewith is made a circular slot, *d′*, which loosely receives an upwardly-projecting stud, *e′*, which is provided at its upper end with the clamping-nut *f*, the said stud being fixed to the outer end of a short arm, *g*, of the lever F, the said arm being shown by the broken lines in Fig. 1. The lever H is provided at its opposite ends with the upright ears *h h*, to which are secured the clamping hooks I I by means of the thumb-screws *i i*, the said clamping-hooks being pivotally held upon the screws. The lever H is also provided with the arm *k*, having a circular slot, *m*, which is concentric with the pivot-stud *b*, the said slot being adapted to loosely receive the shank and head of the bolt *n*, which also passes through the lever F, and is provided with a clamping nut, *o*. The face-plate K is provided at its ends with the holding-ribs *p p*, which are adapted to enter the groove *q* of the hooks I I; and when the face-plate K is set in its required vertical or angular position the clamping of the hooks I I upon the ribs *p p* will securely hold the said face-plate in its set position. The clamping-hooks I I are pivotally held upon the screws *i i*, and, in order to provide a ready means for setting the face-plate K in its ordinary position perpendicular to the face of the table B, I provide a lateral extension, *r*, upon the ears *h h*, having a perforation, *s*, the clamping-hooks I I being also provided with a corresponding extension, *r′*, having a perforation, *q′*, which is so arranged that when the face-plate is in its proper position at right angles to the surface of the table B, a pin, *t*, may be inserted into both openings, thus firmly locking the hooks in that position; but for a position other than at a right angle with the face of the table the face-plate K will be held by means of the clamping-screws. Whenever it is desired to adjust the face-plate K horizontally upon the table B, the clamping-nuts *f* and *o* are to be loosened and the levers F, G, and H moved either backward or forward, as desired, over the surface of the table and again clamped in the set position by tightening the said clamping-nuts. The face-plate K can therefore be set and clamped at any required angle in both the horizontal and vertical planes.

The application of my improved adjustable guide to a saw-table is shown in Fig. 6, in which A′ is the table; B^2, the guiding-rib at the edge of the table. C′ is an arm, which is provided with a groove which embraces the guiding-rib

B^2 and is provided with a tightening-screw, a'. The lever H is pivoted to the arm C' at the point b, and is provided with the arm h, having the circular slot m, which is concentric with the pivot-stud b. The face-plate K is secured to the upright ears h h of the lever H by means of the clamping-hooks I I and the thumb-screws i i, as before described; and in order to set the face-plate K at a required angle in a horizontal plane the proper adjustment can be made by means of the pivotal movement of the lever H, and the proper angular adjustment can be made in a vertical plane by means of the pivotal movement of the clamping-hooks I I, as before described.

I claim as my invention—

1. The combination, with the lever F, pivoted to the table of a wood-working machine, of the lever G, pivoted to the lever F and having the lateral position of its outer end controlled in a guide, d, means for clamping the lever G to the lever F, the lever H, pivoted to the lever F and provided with the face-plate K, and means for clamping the lever H to the lever F, substantially as described.

2. The combination, with the lever F, pivoted to the table of a wood-working machine, of the lever G, pivoted to the lever F and having the lateral position of its outer end controlled by means of a guide, d, means for clamping the lever G to the lever F, the lever H, pivoted to the lever F, the opposite clamping-hooks I I, and the face-plate K, provided with locking-ribs, and means for tightening the hooks upon the locking-ribs to clamp the face-plate in various positions, substantially as described.

3. The combination, with the lever F, pivoted to the table of a wood-working machine, of the lever G, pivoted to the lever F and having the lateral position of its outer end controlled by means of a guide, d, means for clamping the lever G to the lever F, the lever H, pivoted to the lever F and provided with the perforated ears h, means for clamping the lever H to the lever F, the opposite clamping-hooks I I, provided with the perforations s, the face-plate K, and the pin t, for holding the face-plate K in a position at right angles to the surface of the table of the machine, substantially as described.

4. The combination, with the pivoted adjustable lever H, of the opposite clamping-hooks I I, the face-plate K, provided with locking-ribs, and means for tightening the clamp hooks upon the locking-ribs to clamp the face-plate in various positions, substantially as described.

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Witnesses:
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