(No Model.)

C. A. WILLIAMS.

BENCH FOR JOINTING LUMBER.

No. 306,888. Patented Oct. 21, 1884.

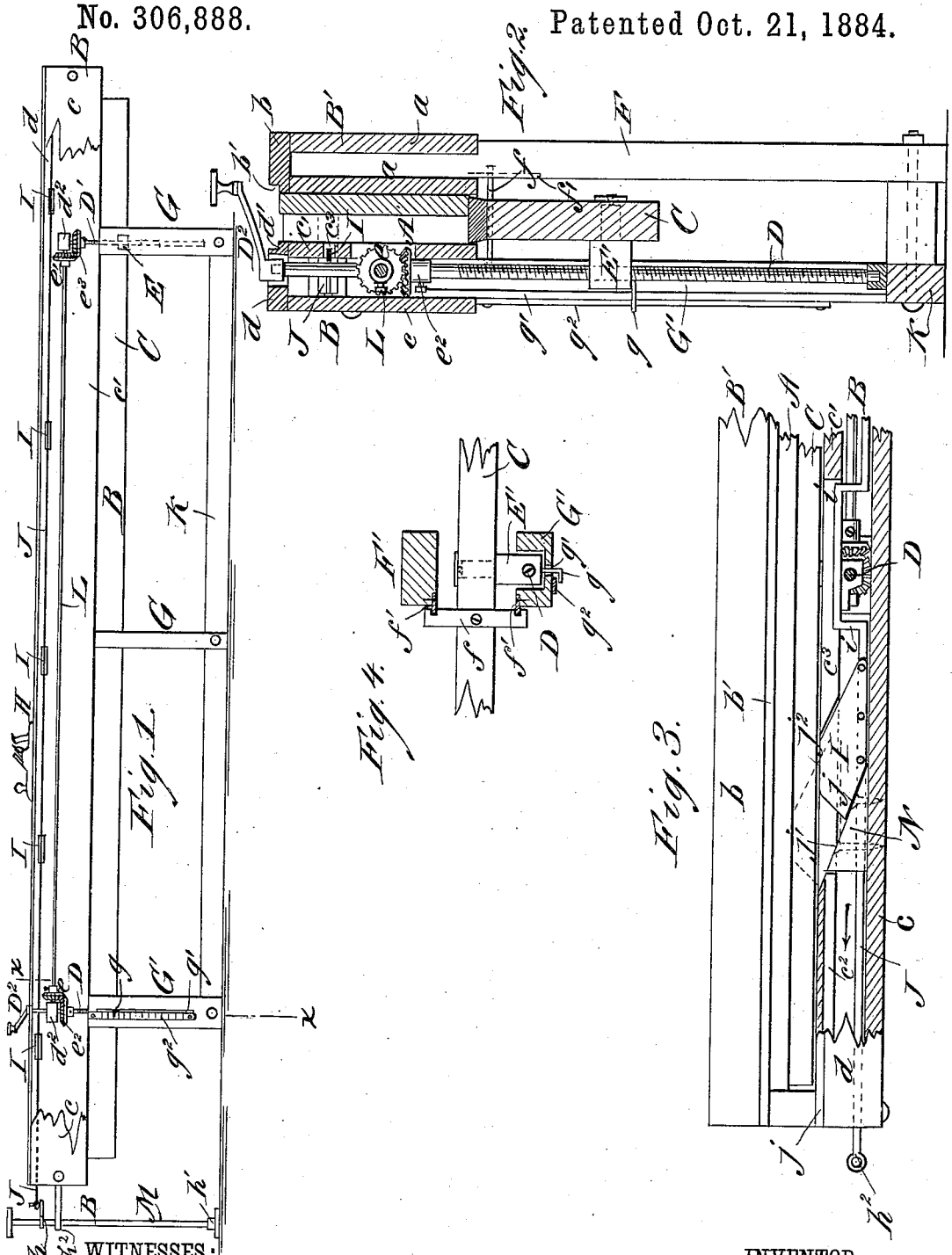


Fig. 1.

Fig. 4.

Fig. 3.

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BENCH FOR JOINTING LUMBER.

SPECIFICATION forming part of Letters Patent No. 306,888, dated October 21, 1884.

Application filed July 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE ADELBERT WILLIAMS, of Webster City, in the county of Hamilton and State of Iowa, have invented a new and Improved Bench for Jointing Lumber, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in Letters Patent No. 300,178 and the Letters Patent mentioned therein; and the present invention consists of the construction arrangement, and combinations of parts, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a broken side elevation of my new and improved bench for jointing lumber. Fig. 2 is a transverse sectional elevation of the same, taken on the line *x x* of Fig. 1; and Figs. 3 and 4 are detailed sectional plan views of different parts of the bench.

The board A, to be jointed, is held between the two side pieces or frames B B′, upon the upper edge of the board C, which is held between the side frames B B′, and which is adapted to be vertically adjusted for raising or lowering the board A by the vertically-journaled screw-rods D D′, and the traveling nuts or heads E E′, placed upon the screws, and attached to the said board C by arms or projections passing through said board, as shown in Fig. 2. The side frame B′ is composed of the two boards *a a*, secured to the upper ends of the legs or standards F F′, and the upper board, *b*, which latter is grooved or rabbeted at its upper inner corner, as shown at *b′*. The side frame B is composed of the outer board, *c*, and the inner board, *c′*, secured to the upper ends of the legs or supports G G′, and the upper board, *d*, which latter is rabbeted at its upper inner corner, as shown at *d′*, to correspond with the rabbet *b′* of the board *b*, so that these two rabbets form a straight support and guide for the plane H to run it after the board being jointed has been planed down to the proper line and level. The board *c′* is grooved as shown at c^2, and slotted as shown at c^3, for permitting the movement or operation of the grip-plates I I, which are secured to the longitudinally-movable bar J, for holding the board A to be worked, as hereinafter described. The screw-threaded rods D D′ are journaled at their lower ends in suitable boxes resting upon or fitted in the sill K, and at their upper ends in the block d^2 d^2, held between the side boards, *c c′*, of the side frame B, as shown clearly in Fig. 1, and in these blocks d^2 d^2 are journaled the ends of the horizontal shaft L, which has secured upon it the beveled cog-wheels *e e′*, which mesh, respectively, with the cog-wheels e^2 e^2, secured, respectively, upon the screw-rods D D′, so that when the screw-rod D is revolved by the crank D^2 the rods D′ will also be revolved, and at the same speed for causing the nuts or heads E E′ to raise or lower the board C for raising or lowering the board being worked as circumstances require. The movement of the board C up or down is guided by the notched plate *f*, secured across the edge of the board C, the notches of which plate engage with the edges of the vertical plates *f′ f′*, secured to the legs or supports F′ G′, as shown clearly in Fig. 4, and the nut or screw-head E′ is provided with the pointer *g*, which reaches out through a slot, *g′*, in the legs G′, to act in connection with the graduations g^2, for indicating the position of the upper edge of the board C, with reference to the rabbeted edges of the boards *b d*, so that the proper adjustment of the board C may be easily effected. The bar J is attached at its outer end to the crank *h* of the vertical shaft M, journaled in the step *h′* and arm h^2, so that by turning the shaft M the crank *h* will act to move the bar J longitudinally, and the bar J is bent, as shown at *i*, Fig. 3, to clear the upper end of the screw-rod D, and it has riveted or otherwise secured to it the above-mentioned plates I I, so that the edges *j* thereof come against the inclined edges *j′* of the wedge-plates N, secured to the inner surface of the outer board, *c*, of the side frame B, as shown clearly in Fig. 3, so that when the bar J is drawn in the direction of the arrow in Fig. 3 the plates I I, acting against the inclined surface of the plates N, will be forced inward to bring the edges j^2 thereof firmly against the board A, being worked as shown in dotted lines in Fig. 3, to hold the board firmly in place between the

side frames B B′. The backward movement of the bar J will cause it and the plates I to assume their original position —that shown in full lines in Fig. 3—thus releasing the board A.

Constructed in the manner described, the jointer is very practical, and enables the lumber to be perfectly and easily jointed, and it is strong, cheap, durable, and easy to handle.

The plates *f f*, besides serving to guide the board C in its up and down movement, serve also to prevent the side bars B B′ from springing outward from the pressure of the holding-plates I I, and the bar J, instead of being operated by the rod M and arm *h*, may be operated by a plain lever or moved out and in by hand.

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

1. In a jointing-bench having the screw-rods D D′, shaft L, and gearing for adjusting the board C, the gear-wheels and shaft L, placed at or near the top of the rods D D′, and adapted to be inclosed by the side frame B, substantially as shown and described.

2. The vertically-adjustable board C, provided with the notched plate *f*, in combination with the plates *f′*, secured in vertical position for guiding the board C, substantially as shown and described.

3. The longitudinally-movable bar J, provided with the plates I, in combination with the wedges N, for imparting a lateral movement to the bar J and plates N when the bar is moved longitudinally, substantially as and for the purposes set forth.

4. The combination, with the nut or screw head for adjusting the board C, of a pointer and index, substantially as and for the purposes set forth.

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