(No Model.)

A. PREMO.

ANTIVIBRATORY PRESSURE BAR FOR WOODWORKING MACHINERY.

No. 521,346. Patented June 12, 1894.

Fig. 1.

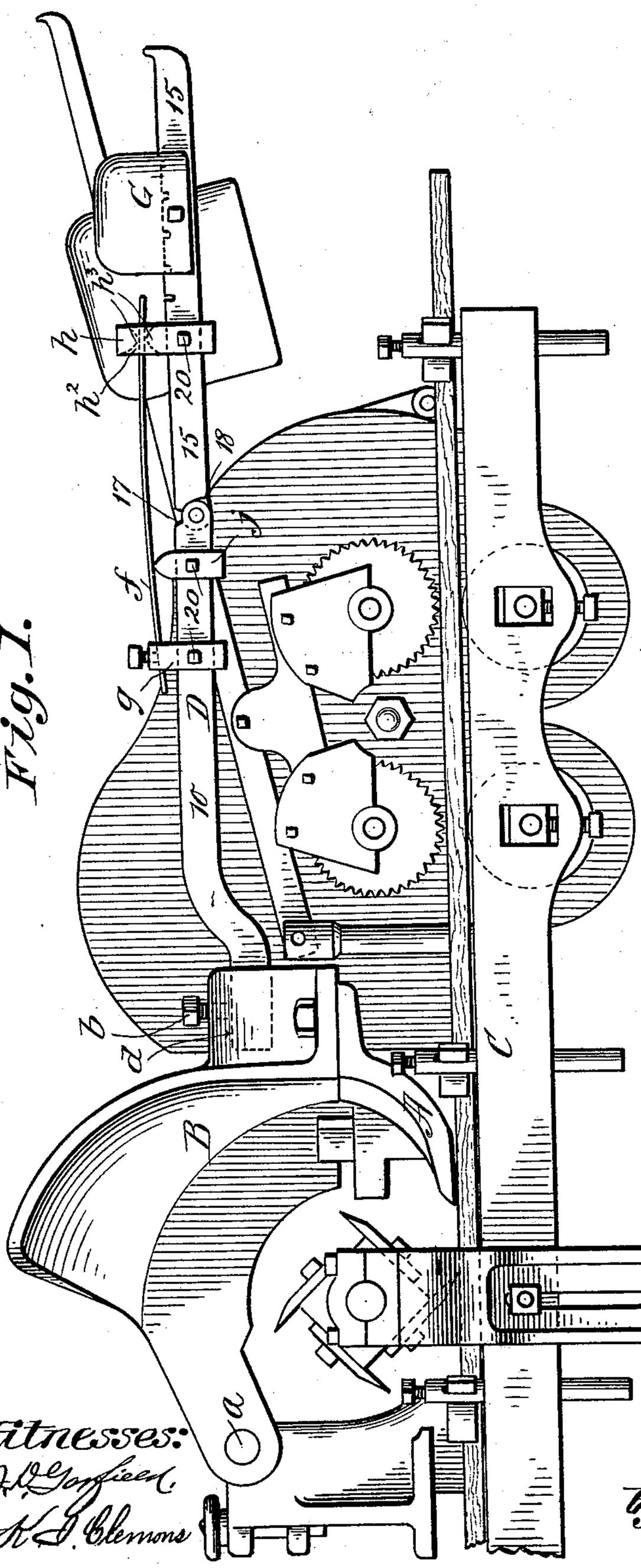
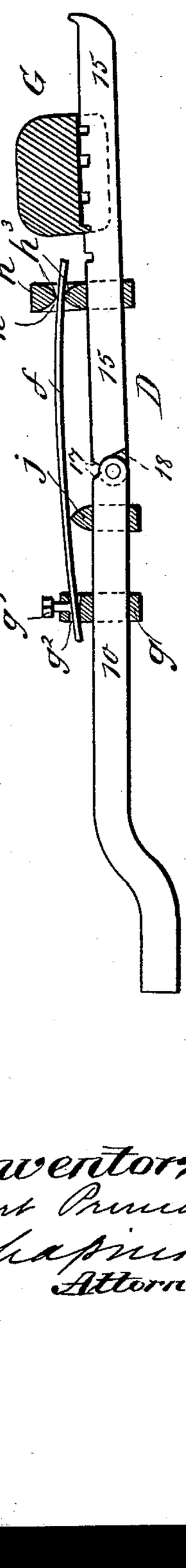


Fig. 2.



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ALBERT PREMO, OF SPRINGFIELD, MASSACHUSETTS.

ANTI-VIBRATORY PRESSURE-BAR FOR WOODWORKING MACHINERY.

SPECIFICATION forming part of Letters Patent No. 521,346, dated June 12, 1894.

Application filed February 16, 1894. Serial No. 500,433. (No model.)

To all whom it may concern:

Be it known that I, ALBERT PREMO, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Anti-Vibratory Pressure-Bars for Woodworking Machinery, of which the following is a specification.

This invention relates to improvements in the pressure device of a planing, molding, or other analogous wood working machine.

The object of the invention is to insure an avoidance of the objectionable vibration, or chattering, of the shoe or pressure foot which bears upon the traveling stock to be worked upon by the rotary knife. And to this end the portion of the machine which is pivotally mounted for a lever action and which comprises a shoe for pressing yieldingly upon the work which is to be run through the machine, has, as an extension thereof, the weight-carrying-bar which is in substance composed of two pivotally jointed members so that one member may swing relative to another, the one member being supported from the other, between the limits of its vibration, by a spring or cushion, whereby the vibration, generated in the greatest degree at the free extremity of the lever will be taken up in and by the spring and will not be communicated by the shoe.

In the accompanying drawings an exemplification of the invention is given, Figure 1 being a side elevation of a molding machine showing the application of the non-vibratory weight-bar thereto. Fig. 2 is a side view of the improved bar, detached from the machine, with some of the equipments thereof in vertical section.

In the drawings, A represents the pressure shoe of the planing or molding machine, it being, as usual, comprised as a part of, or a rigid attachment to, the casting, B, which is pivoted at *a*, for the usual lever action so that the shoe may bear with a vertically yielding pressure upon the work, whatever its thickness, which is passed and guided thereunder, upon the vertically adjustable bed, C.

D represents the weight-bar, the inner end of which is fitted, and by the set-screw, *b*, confined, within a socket, *d*, of the part, A. The bar is formed in the two sections, or members, 10 and 15, these being pivotally united by being halved together, as in rule joints,—although, while the members are designed to be maintained practically in the same longitudinal line, the movement limiting shoulders, 17, 18, at the joint, permit deflections both upward and downward, of the outer member beyond the longitudinal line. The outer member carries the weight, G, as usual. The flat spring, *f*, is applied so as to support the outer member, 15, in the longitudinal relation to the other, 10, and, as shown, is combined with equipment as follows:—Fitted on the member, 10, is the sliding block, *g*, with the slot, or recess, g^2, through which an end portion of the flat spring, *f*, is entered,—the set-screw, g^3, holding it in its adjustment. Fitted on the outer member, 15, is another slide-block, *h*, having the recess, h^2, through it, the upper and lower boundaries of which are formed to converge, the one toward the other, as seen at h^3, h^3, so that the outer extremity of the spring may be in rocking contact with the apexes of triangular internal portions of said block, *h*. And there is furthermore fitted on the member, 10, of the bar between the two slide-blocks, *g*, *h*, another slide-block, *j*, with an angular upper extremity which is of such an extent beyond the upper edge of the bar as to be in pressure bearing against the under side of the flat spring to deflect it more or less, as necessary, so that it may have, relative to the outer bar member, the proper degree of supporting reaction. Each of the said slide-blocks, *g*, *h*, *j*, has a set-screw, 20 whereby it is, after adjustment, held firmly in its place upon its bar member, 10 or 15.

By setting the blocks, *g* and *h*, nearer to or farther from each other, more or less of the length of the spring is effectively utilized for the support of the outer bar-member, 15, whereby the latter may have a lessened or increased sensitiveness in its vibratory movement.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a wood working machine, the pivotally hung lever-like part carrying the pressure shoe which has a jointed extension member at its free end which is adapted to carry

the weight, and a spring mounted on the lever-like part for supporting the vibratory extension member, substantially as and for the purpose described.

2. In a wood working machine, the pivotally hung part, B, having the shoe, A, and the bar, D, composed of the members 10 and 15, the blocks, *g* and *h*, on said members having the recesses through which portions of the flat spring are passed, and the block, *j*, on one of the said members between the blocks, *g* and *h*, which is extended to a deflecting bearing against said spring, substantially as described.

3. In a wood working machine, the pivotally hung part, B, having the shoe, A, and provided with the bar, D, composed of the members, 10 and 15, the slide blocks, *g* and and *h*, fitted to slide longitudinally on said members and having the recesses, g^2 and h^2, the flat spring having portions thereof embraced by said recessed blocks, and the set-screw, g^3, for confining the spring within the one *g*, and the block, *j*, on one of said members between the blocks *g* and *h*, which is extended to a deflecting bearing against the face of said spring, and set-screws for confining the slide-blocks against movement, substantially as described.

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