D. RAIT & G. S. PRINDLE.

PLANING-MACHINE GUIDE.

No. 183,418. Patented Oct. 17, 1876.

Fig. 1.

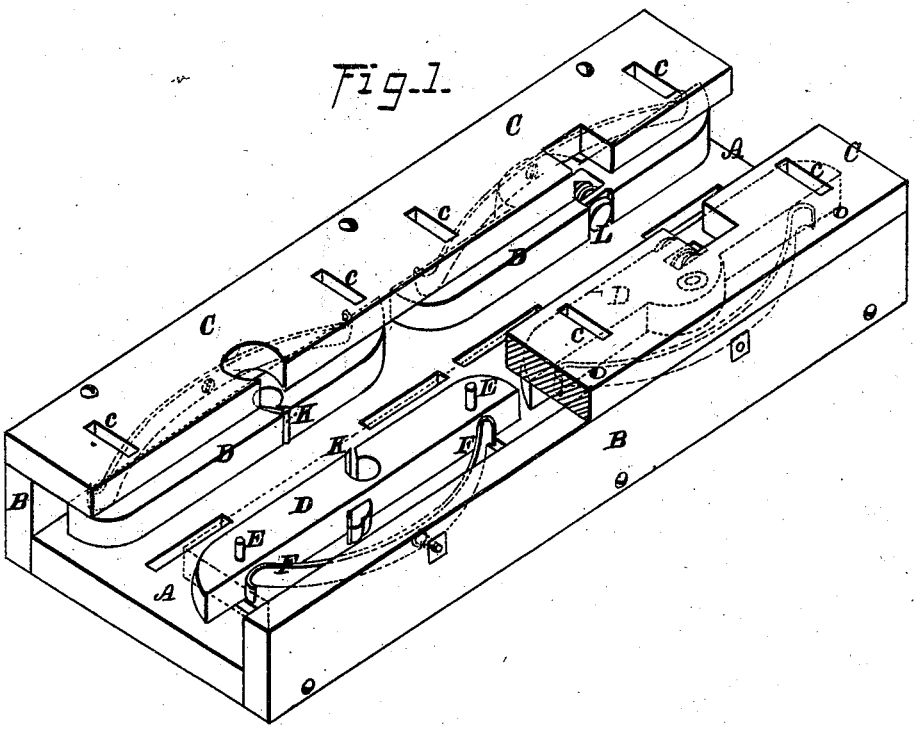
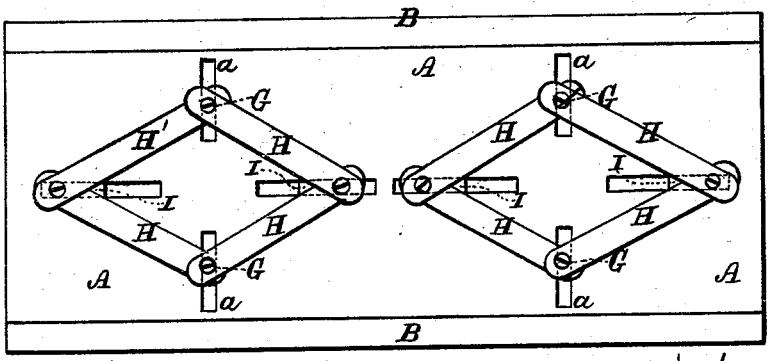


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

DAVID RAIT, OF BROOKLYN, N. Y., AND GEORGE S. PRINDLE, OF WASHINGTON, D. C., ASSIGNORS TO HENRY T. RICHARDSON.

IMPROVEMENT IN PLANING-MACHINE GUIDES.

Specification forming part of Letters Patent No. **183,418**, dated October 17, 1876; application filed August 10, 1876.

To all whom it may concern:

Be it known that we, DAVID RAIT, of Brooklyn, in the county of Kings and State of New York, and GEORGE S. PRINDLE, of Washington, in the county of Washington, and in the District of Columbia, have invented certain new and useful Improvements in Attachments for Planers; anddo hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a perspective view of our improved device, a portion of its upper side being removed to show the construction of its interior; and Fig. 2 is a plan view of the lower side of the same.

Letters of like name and kind refer to like parts in each of the figures.

In dressing staves, moldings, &c., which have curved or molded surfaces, it is necessary that the guides through which the material is passed should be adjusted with reference to a certain width of the same, and if material having a different width is to be dressed, a readjustment of said guides is required, in order that the position of the cutters with relation to the transverse center of said material may be maintained.

This is more especially true with regard to staves which are formed, transversely, upon the line of a circle that corresponds to the circumference of the finished barrel, and whether said staves are wide or narrow, the same curve must be maintained; if the stave is guided by one edge only, a wider or narrower stave would have its opposite edge cut away or left too thick.

To remedy these objections is the main design of our invention, which consists, principally, in combining with spring presser-bars, which are arranged to bear against opposite edges of material being operated upon, mechanism, substantially as described, whereby said presser-bars are caused to maintain the same relative distances from a central line, substantially as is hereinafter specified.

It consists, finally, in the peculiar construction and combination of parts of the device, substantially as and for the purpose hereinafter set forth.

In the annexed drawing, A represents the base of our device, which has a rectangular form in plan view, and at each edge is provided with vertical sides B, that extend upward sufficiently to furnish space for the operative mechanism, and at their upper edges are each provided with a plate, C, which extends horizontally inward until only a sufficient space is left between its inner edge and the corresponding edge of the opposite plate C to permit the cutters to operate freely within the same. Within the space between the base A and each plate C are loosely fitted two or more presser-bars, D, each of which is held in longitudinal position, while permitted to move freely laterally, by means of two studs, E, that are placed near its ends, and project upward into corresponding transverse slots *c*, that are provided in said plate C. A spring, F, placed in rear of each bar D, holds the same inward with a yielding pressure. If, now, the springs F exactly correspond in strength, and exert a uniform pressure upon the bars D at all points between the inner and outer limits of the motion of the latter, a piece of board or a stave passed longitudinally between the opposite presser-bars will be held at the exact transverse center of the device, regardless of its width; but, should one of said springs be weaker or more flexible at some point than at others, the stronger spring at the opposite side will press the article being held out of the center. To obviate this difficulty a stud, G, projects from the lower side at the longitudinal center of each bar D, downward through a transverse slot, *a*, which is provided in the base-plate A, and has such width as to just permit said stud to move without unnecessary friction. To the lower end of each stud G is pivoted one end each of two bars, H, which, from thence, extend outward in opposite directions, and toward the center of the plate A, and at such point have their opposite ends pivoted to or upon a block, I, that fits nicely to, and slides within, a central longitudinal slot or groove, *a'*, which is formed in said plate A.

If, now, one presser-bar D moves outward, its bars H will draw the sliding blocks I toward each other, and, by means of the bars H of the opposite presser-bar, will force the latter outward, the degree of motion of one presser-bar being thus caused to correspond exactly to that of the other bar.

In order that the device may be utilized for the purpose of dressing the edges of the material being operated upon, a plane-iron, K, may be fitted within each presser-bar D, and arranged to cut a shaving from the edge of said material as the latter is moved along; or a rotary cutter, L, may be journaled within said presser-bar, and driven by a belt or other suitable means.

The device thus constructed is intended for use upon the bed of a planer by being fastened thereto, and so that any ordinary feed and planing mechanism can be employed for moving the staves or boards, and for dressing their sides.

Having thus fully set forth the nature and merits of our invention, what we claim as new is—

1. In combination with the bars D, arranged to bear with a yielding pressure against the edges of material being operated upon, the bars H, pivoted together and to said bars D, in the manner and for the purpose substantially as specified.

2. The frame composed of the plate A, sides B, and top plate C, the presser-bars D, the guide-studs E and G, the springs F, the pivotal bars H, and the guide-blocks I, all constructed and combined to operate in the manner and for the purpose substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands.

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