I. P. Tice,

Wood Planing Machine.

No. 23,872. Patented May 3, 1859.

Fig. 2.

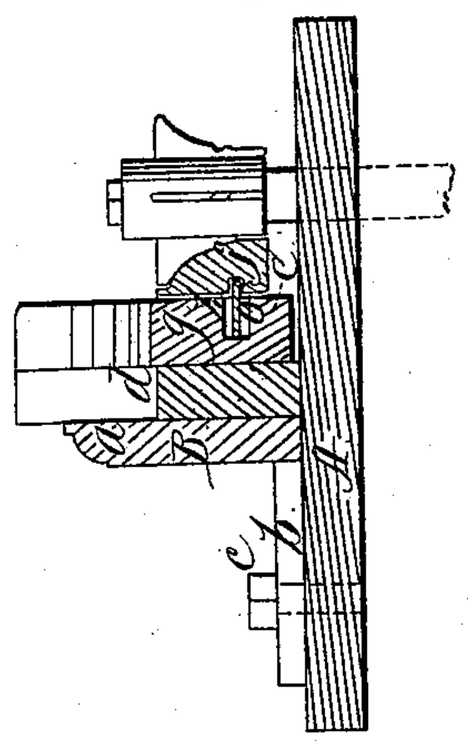


Fig. 1.

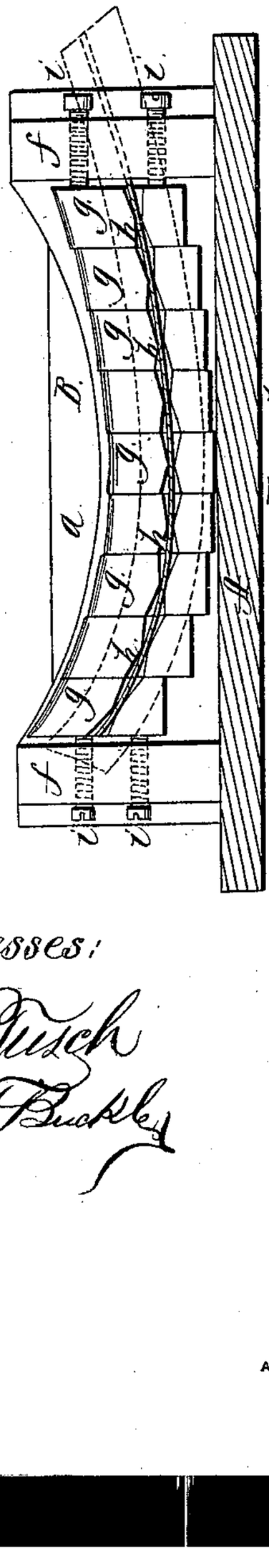
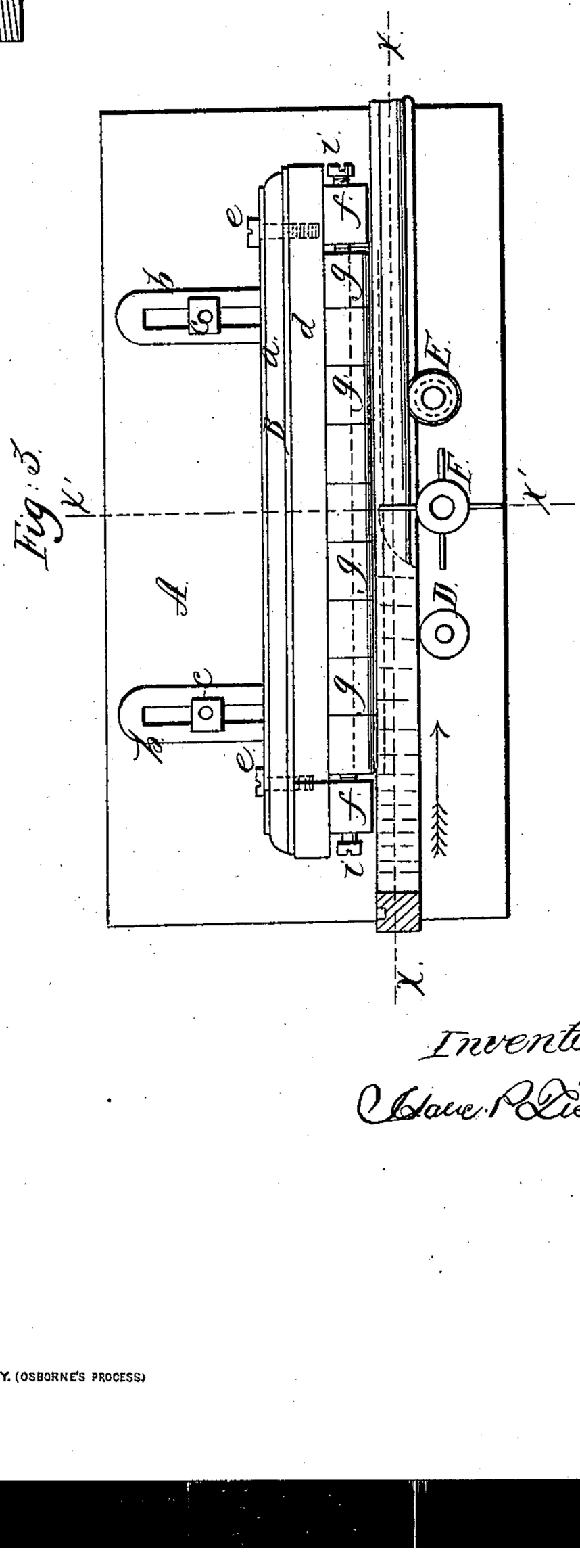


Fig. 3.



Witnesses:

Wm. Tusch

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UNITED STATES PATENT OFFICE.

ISAAC P. TICE, OF BALTIMORE, MARYLAND.

MACHINE FOR CUTTING WOODEN CURVED MOLDINGS.

Specification of Letters Patent No. 23,872, dated May 3, 1859.

To all whom it may concern:

Be it known that I, ISAAC P. TICE, of Baltimore, in the county of Baltimore, and State of Maryland, have invented a new and Improved Machine for Cutting Wooden Moldings and Similar Work in the Form of Circles and Parts of Circles for Architectural and other Purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a longitudinal vertical section of my invention taken in the line *x*, *x*, Fig. 3. Fig. 2, is a transverse vertical section of ditto, taken in the line *x'*, *x'*, Fig. 3. Fig. 3, is a plan or top view of ditto.

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

This invention consists in the employment or use of an adjustable bed and a flexible metal guide plate, arranged substantially as hereinafter fully shown and described, and used in connection with a rotary cutter, pressure and feed rollers, whereby work forming circles and parts of circles of varying diameter may be cut and beaded for architectural and other purposes very expeditiously and in a far more perfect manner than can be done by hand or by any device that has passed under my observation.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a horizontal bed or table to which an adjustable gage B, is attached. This gage is constructed and arranged in the same way as those that are commonly used on sawing and planing machines, and is formed of a fence or vertical board or plate *a*, having horizontal bars *b*, *b*, attached to its lower part, which bars rest on the bed or plate A, are slotted and have set screws *c*, passing through them into the bed or table, see Fig. 3.

To the inner or face side of the board or plate *a*, a board or plate *d*, is attached by screws *e*. The board or plate *d*, may be equal in length and breadth to the board or plate *a*, and to the face side of the board or plate *d*, and near each end a vertical bar *f*, is attached, both of which are shown in Figs. 1 and 3. Between the two bars *f*, *f*, a series of blocks *g*, are placed side by side. These blocks need not be as long as the bars *f*, *f*, but they may be about equal to them in breadth and thickness. The blocks *g*, have each a recess or groove *h*, made in them of double V-form as shown clearly in Fig. 1, the grooves being narrower at their centers and gradually expanding toward each edge of the block. In these grooves *h*, of the blocks a metal bar or plate C, is fitted. This bar or plate C, is sufficiently thin that it may yield or bend, and it is wide enough to project outward a suitable distance beyond the face sides of the blocks *g*. Through each bar *f*, two set screws *i*, *i*, pass.

The operation is as follows: The stuff or work to be cut or beaded in the form of moldings and shown in red, is previously sawed out in pieces forming parts of perfect circles of greater or less diameter as may be required. These pieces then have a concentric groove *j*, cut in one side by means of a proper tool attached to a radius bar. The groove is shown clearly in Fig. 2. The groove piece is then adjusted to the bars *g*, by loosening the set screws *i*, *i*, and fitting the outer edge of the bar or plate C, in said groove *j*. The blocks *g*, being then secured by tightening the screws *i*, *i*, said screws binding the blocks together. The work or stuff is then, by adjusting the gage B, pressed snugly against the feed and pressure rollers D, E, the former by having a rotary motion given it, feeding the stuff past the rotary cutter head F, which is placed between the two rollers. The roller E, retains the stuff against the blocks *g*, and on the guide plate C, at the opposite side of the cutter head from feed roller D.

The cutters of the head F, are of course made of a form corresponding to that designed to be given the work, and the stuff is fed past the cutter head in the arc of a circle corresponding to that of which the stuff forms a part. It will be seen that the bar or guide plate C, may be bent to form a portion of a larger or smaller circle as desired, and in small work a perfectly circular piece of stuff may be cut. For large work the stuff is operated on in sections, and united. By this means work forming perfect circles or portions of circles of large diameter may be cut.

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

The adjustable bed formed of the blocks *g*, in connection with the flexible guide plate C, rotary cutter head F, and the feed and pressure rollers D, E, or their equivalents, substantially as and for the purpose set forth.

ISAAC P. TICE.

Witnesses:
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