2 Sheets—Sheet 1.

P. M. ANDRIOT.

MORTISING AND TENONING MACHINE.

No. 177,449. Patented May 16, 1876.

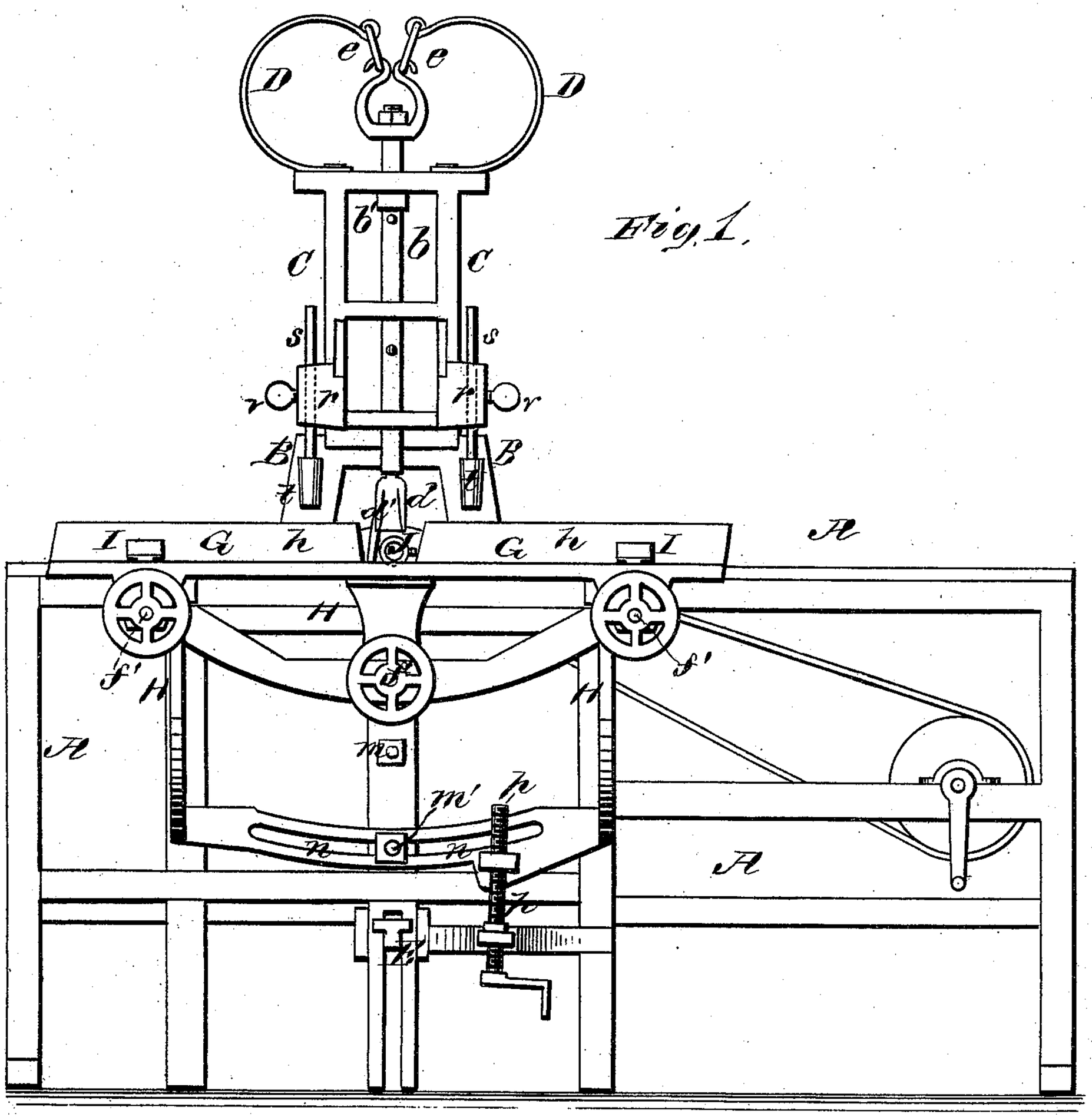

Fig. 1.

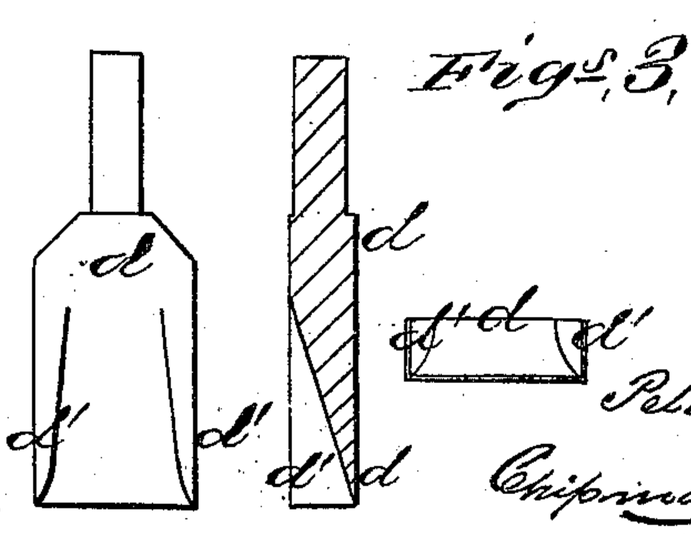

Fig. 3.

WITNESSES

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John F. Acker

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Peter M. Andriot.

Chipman, Hosmer & Co.

by Gilmore, Smith & Co.

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2 Sheets—Sheet 2.

P. M. ANDRIOT.

MORTISING AND TENONING MACHINE.

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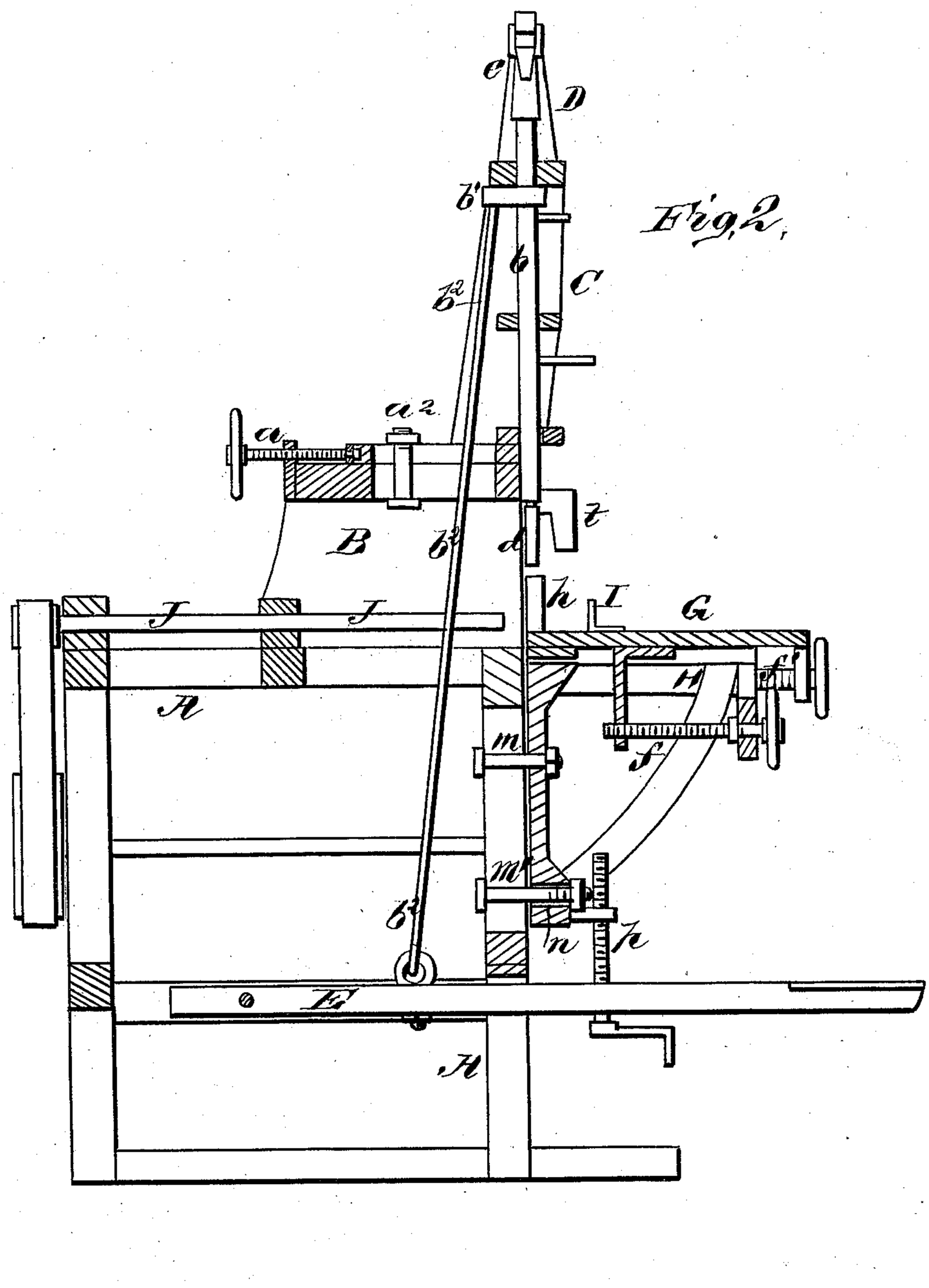

Fig. 2.

WITNESSES

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by Gilmore, Smith & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

PETER M. ANDRIOT, OF OXFORD, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES NUTT, OF SAME PLACE.

IMPROVEMENT IN MORTISING AND TENONING MACHINES.

Specification forming part of Letters Patent No. **177,449**, dated May 16, 1876; application filed March 18, 1876.

To all whom it may concern:

Be it known that I, PETER M. ANDRIOT, of Oxford, in the county of Butler and State of Ohio, have invented a new and valuable Improvement in Mortising and Tenoning Machine; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front elevation of my mortising and tenoning machine. Fig. 2 is a vertical transverse sectional view. Fig. 3 is a detail view of a part of my mortising and tenoning machine.

My invention relates to an improvement in mortising, tenoning, and boring machines; and it consists in the construction and arrangement of devices, by which a cheap machine is produced, and which is adapted for use in all wood-working shops, as will be hereinafter more fully set forth.

In the annexed drawings, A represents the frame-work of my machine, constructed in any suitable manner to contain the various working parts. On the front side of the machine, at or near the center, is an arched standard, B, upon which slides a head or vertical frame, C, backward and forward, it being moved from the rear side by means of a screw-shaft, *a*, and when properly adjusted fastened by a bolt and nut, a^2. On top of the frame C are two springs, D D, of desired strength, one being used for light work, and both together for heavy work. They are connected to the shaft *b*, which raises the chisel *d* by means of long links *e*, and they may be attached and detached at will. The tenoning-chisel *d* is constructed with double square corners d^1 of sufficient width to cut the shoulder at the same time as the flat or main part of the chisel cuts the tenon without the use of a saw. This chisel is attached to the lower end of the shaft *b;* and the tenon may be cut from either side of the chisel. The shaft *b* has an arm, b^1, from which a rod, b^2, connects with a treadle, E, for operating the chisel. G is the table moved out and in on a frame, H, by means of a screw-shaft, *f*, and provided with a ledge or flange, *h*, along its inner edge, said flange being, however, cut away at the point where the chisel operates.

In transverse slots on the table G are placed two vises, I I, operated by screw-shafts *f' f'* for holding the work firmly against the flange *h* on the table. The table-frame H is held to the main frame A by two bolts, *m m'*, passing through a slot in a vertical bar on said main frame; and the lower bolt *m'* passes through a curved slot, *n*, in the table-frame H, thus admitting of the table being adjusted at any angle desired, as well as raised or lowered, as required, which adjustments are effected by means of the screw-shaft *p*, as shown.

It will thus be seen that the machine can be used for mitering as well as for straight work.

The change from tenoning to mortising is effected by simply changing chisel. On each side of the frame or head C is a socket, *r*, through which is passed a shaft, *s*, carrying at its lower end a dog, *t*, which may be let down to aid in holding the work, and is then fastened by a set-screw, *v*, in the socket. Through the standard B is passed a horizontal shaft, J, operated by crank or treadle, as desired, and carrying a bit at its front end for boring purposes.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the chisel *d*, shaft *b*, links *e e*, and springs D D, all arranged upon the adjustable head or frame, C, as shown and described.

2. The combination of the adjustable table G, having adjustable vises I I, and the frame H, adjustable up and down, and at any angle, substantially as and for the purpose set forth.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

PETER MAURICE ANDRIOT.

Witnesses:
P. H. CONE,
F. J. CONE.