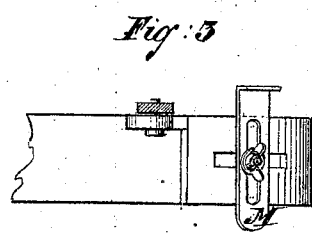
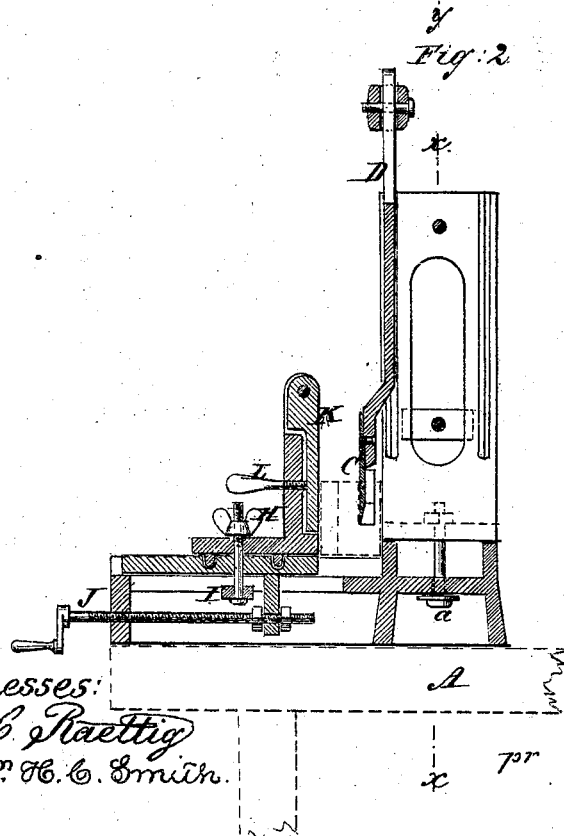
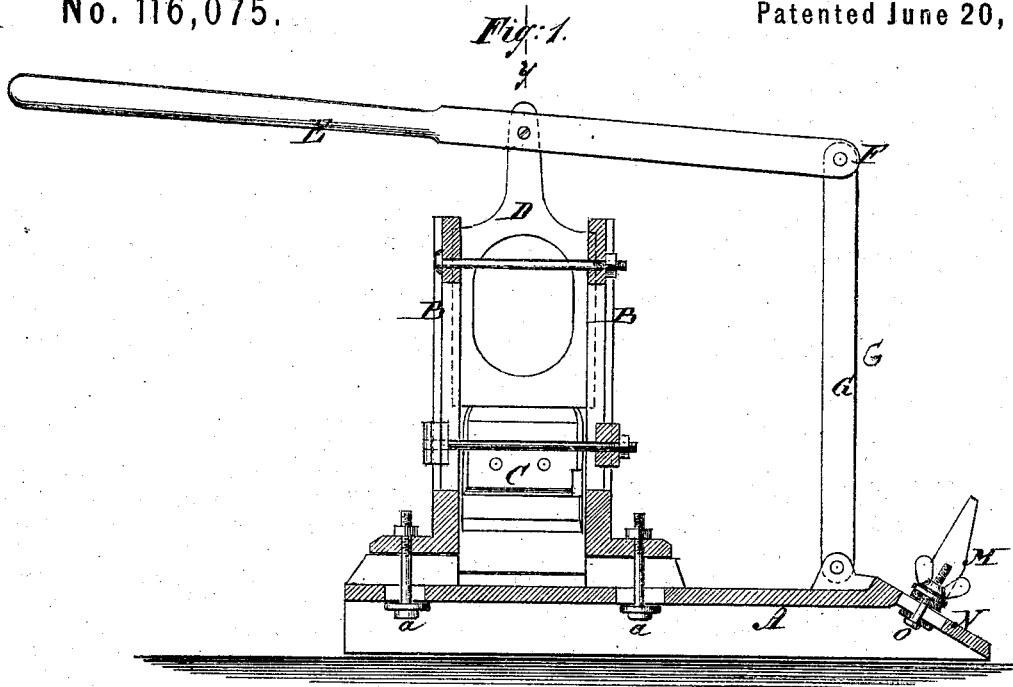


A. C. McQUAID.

Improvement in Tenoning Machines.

No. 116,075.

Patented June 20, 1871.



Witnesses:
C. Staettig
Wm. H. C. Smith.

Inventor:
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Attorneys.

UNITED STATES PATENT OFFICE.

ANDREW C. McQUAID, OF WENONA, ILLINOIS, ASSIGNOR TO EDWARD L. MOUSER, OF SAME PLACE.

IMPROVEMENT IN TENONING-MACHINES.

Specification forming part of Letters Patent No. 116,075, dated June 20, 1871.

To all whom it may concern:

Be it known that I, ANDREW C. McQUAID, of Wenona, in the county of Marshall and State of Illinois, have invented a new and useful Improvement in Tenon-Trimmer; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to a new and useful improvement in machines for trimming tenons of wood, whereby much time is saved and the work is more accurately performed than it has hitherto been; and it consists in a knife and adjustable guides in combination with a properly-constructed frame, the whole arranged to operate as hereinafter more fully described and specified.

In the accompanying drawing, Figure 1 represents a vertical section of the machine taken on the line *x x* of Fig. 2. Fig. 2 is a vertical section taken on the line *y y* of Fig. 1. Fig. 3 is a detail of the adjustable end guide.

Similar letters of reference indicate corresponding parts.

A represents the bed of the machine. B B are stands, adjustably connected with the bed A by the bolts *a*, and which stands serve as "ways" or guides for the knife-frame. C is the knife, and D the knife-frame.

The knife is worked vertically by means of the lever E, the fulcrum of which lever is at the point F at the end of the bar G, the lower end of which is pivoted or hinged to the bed. This arrangement is for the purpose of adapting the machine to hand use, but the knife may be operated by any other motive power.

H represents the main gauge, which is made to slide on the bed A back and forth in front of the knife. This gauge is held in any desired position by the bolt I. It is adjusted to any desired position by means of the crank-screw J. K is a flap, hinged to the upright portion of the guide H, as seen in Fig. 2. In its normal

position it hangs vertical and flush with the front of the guide. This flap or apron is adjusted to any desired inclined position by means of the screw or screws L. M is an adjustable guide on the inclined surface N at the end of the bed A. It is fastened to the inclined surface (when it has been properly adjusted) by means of the screw O.

The machine is adapted to various kinds of tenons, but is especially useful in trimming spoke-tenons. The adjustable guide M is designed to support the small end of the spoke while the sides of the tenon at the other end are being trimmed. In trimming the sides of the tenon the main guide is adjusted so as to give the tenons the desired thickness. In being trimmed the spoke is held firmly in the required position by the two guides H and M, the latter of which slides out and in or to and from the bed, and is varied as to height by means of the incline N. For trimming the edges of the spoke-tenon the flap or apron K is adjusted or inclined to correspond with the dish of the wheel, or so that when the spoke is placed in an upright position against the flap the knife will cut the edge of the tenon so that it will fit the mortise in the hub and give the proper or desired dish to the wheel.

The machine may be used to good advantage in making wooden wedges for various purposes, the flap in this case being adjusted to give the wedge the desired angle.

The machine may be made of either wood or metal, or partly of wood and partly of metal, and of any required size and proportion.

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

The adjustable guide M, in combination with the guide H and knife C, arranged to operate substantially as and for the purposes described.

ANDREW C. McQUAID.

Witnesses:

E. L. MOUSER,
WM. McQUAID.