

Mortising Machine.

Patented Sep. 13. 1870.

Fig. 1.

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DAVID S. SHEARER, OF WAUPUN, WISCONSIN.

IMPROVEMENT IN MORTISING-MACHINES.

Specification forming part of Letters Patent No. 107,413, dated September 13, 1870.

To all whom it may concern:

Be it known that I, DAVID S. SHEARER, of Waupun, in the county of Dodge and State of Wisconsin, have invented a new and useful Improvement in Devices for Cutting Lock-Bolt and other Mortises, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a side elevation of a hand mortising machine or device, constructed in accordance with my improvement; and Fig. 2 a section of the same, taken as indicated by the line *xx* in Fig. 1, showing the machine as adjusted to its work.

Similar letters of reference indicate corresponding parts.

My invention consists in a hand machine or device mainly designed to be used for cutting the mortises in the frame-work or division-pieces of bureaus and other articles, the same comprising a revolving cutter carried by a swinging yoke, which is adjustable along a slide-bar carried by a clamp that serves to hold the machine to its place. By this machine mortises for lock-bolts may be cut with the greatest ease, rapidity, and exactness.

Referring to the accompanying drawing, A represents what may be termed the upper, and B the lower, piece of a clamp for holding the machine to the division-piece or wood in which it is required to cut the mortise.

To secure a steady hold and prevent the machine from turning when at work, said clamp is provided with two or more clamping-screws, C C, arranged to pass through the lower piece B at a suitable distance apart.

D is a yoke for carrying, in a transverse relation to it, the cutter-shaft F, on which is secured the cutter G, that is revolved by a crank or handle, H, made fast to said shaft.

This cutter G is formed of a series of seg-

mental cutters, sharpened not only at their advance ends or noses *a*, but also formed with beveling sides or cutting-edges *b* of gradually-increasing depth from the noses of the cutters.

Such style of cutter I find well adapted to perform the work designed for it, but a different construction of revolving cutter may be substituted.

The yoke D is hung upon a slide-bar, I, which is free to turn in bearings *cc*, arranged to project from the top piece A of the clamp.

J is a set-screw for holding the yoke in place on the slide-bar after the cutter has been adjusted to cut the required mortise. On slackening said set-screw the yoke may be adjusted along the slide-bar I to gage the cutter to its work.

The cutter-shaft F has a screw at its one end to keep it from working endwise to prevent displacement of the cutter after it has been set to cut the mortise. The slide-bar I is also restrained from working endwise.

After the machine has been securely clamped and the cutter properly adjusted, it is only necessary, in order to cut the mortise, to turn the shaft F by the handle H, and to bear down on the yoke D, and, where a succession of parallel cuts are required, to slide the yoke D on the slide-bar I, and fix it at its altered set by means of the screw J.

A machine or device thus constructed and provided affords every facility for cutting lock-bolt and other like mortises with accuracy and dispatch.

What is here claimed, and desired to be secured by Letters Patent, is—

The combination of the swinging yoke D and revolving cutter G with the clamp A B and hinge-bar I, substantially as specified.

DAVID S. SHEARER.

Witnesses:

C. S. KELSEY,
J. O. BAKER.