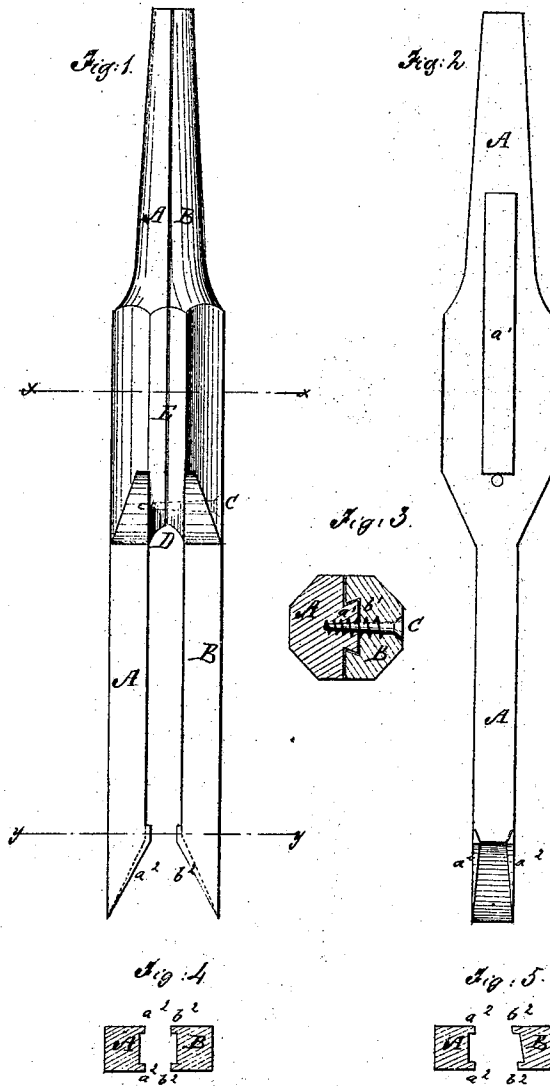


E. M. Connell,

Mortising Chisel.

No. 113,075.

Patented Mar. 28, 1871.



Witnesses.

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EDGAR McCONNELL, OF SHARON, PENNSYLVANIA.

IMPROVEMENT IN CHISELS FOR MORTISING-MACHINES.

Specification forming part of Letters Patent No. **113,075**, dated March 28, 1871.

To all whom it may concern:

Be it known that I, EDGAR McCONNELL, of Sharon, in the county of Mercer and State of Pennsylvania, have invented a new and useful Improvement in Mortising-Chisels; 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, in which—

Figure 1 is a side view of a pair of my improved mortising-chisels. Fig. 2 is a detail view of the inner side of one of the chisels. Fig. 3 is a detail cross-section of the same taken through the line *xx*, Fig. 1. Fig. 4 is a detail cross-section of the same taken through the line *yy*, Fig. 1. Fig. 5 is the same view as Fig. 4, but showing one of the square chisels replaced by a beveled one.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish improved mortising-chisels which shall be so constructed that they may be used for mortising rectangular or dovetailed mortises without reversing, and which will draw their own cores while cutting the mortises, thus saving time and labor; and it consists in the chisels constructed and arranged in pairs, as hereinafter more fully described.

A and B represent a pair of the chisels, the inner sides of the upper parts or shanks of which coincide with and fit upon each other, as shown in Fig. 1.

Upon the inner side of the shank of one of the parts or chisels, as A, is formed a dovetailed projection or flange, *a'*, which fits into a dovetailed groove, *b'*, in the inner side of the shank of the other part or chisel B, as shown in Fig. 3. This construction keeps the chisels A B in place upon each other laterally.

The chisels A B may be kept in place upon each other longitudinally by a screw, C, pass-

ing in through one of said parts and screwing into the other part, or by any other convenient and suitable means.

The inner edges of the lower or cutting ends of the chisels A B are beveled off in the ordinary manner, and upon the edges of said bevels are formed flanges *a² b²*, which extend a little above the said bevels and form shoulders, as shown in Figs. 1 and 2.

This construction gives a narrow space at the top of the bevels, through which the chips pass into the wider space between the blades of the chisels A B, through which they rise and from which they fall out at the sides of the said blades. In case they do not fall out they rise between the said blades till they strike the V-shaped shoulders D, where the shanks of the chisels come in contact with each other, and escape along the grooves E in the sides of said shanks, thus preventing all choking or clogging of the chisels, and causing the chisels to draw their own core.

By making one or both the chisels A B beveled, as shown in Fig. 5, a dovetailed mortise, or one having inclined ends, may be cut. This construction enables the entire mortise to be cut without reversing, and in either direction, as may be most convenient.

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

1. A pair of mortising-tools, A B, detachably united by male and female dovetails *a' b'* upon their respective shanks, as described, and for the purpose specified.

2. The shouldered flanges *a² b²*, combined with the intermediate channel between the blades and the inclined shoulders D, to enable the chisel to draw its own core, as described.

EDGAR McCONNELL.

Witnesses:

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