(No Model.)

P. L. FOX.

LOCK MORTISING CHISEL.

No. 314,011. Patented Mar. 17, 1885.

Fig. 1.

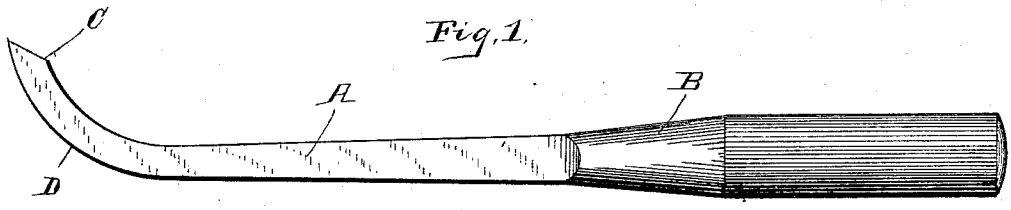
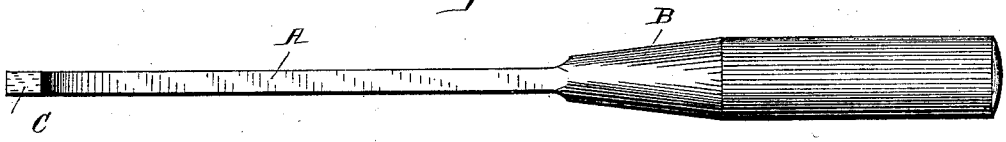


Fig. 2.



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UNITED STATES PATENT OFFICE.

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LOCK-MORTISING CHISEL.

SPECIFICATION forming part of Letters Patent No. 314,011, dated March 17, 1885.

Application filed July 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, PHILO L. FOX, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Lock-Mortising Chisels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to that class of wood-working chisels which are adapted for use in making mortises, and are more especially adapted for mortising locks into doors, window-sashes, &c., or any uses in which mortises are required to be made in light wood-work, it being desirable in this class of work to bore as few holes as possible, to bore them no deeper than is absolutely necessary, to cut away the surplus wood without prying against the edges of the mortise, and to remove the chips from the bottom of the mortise and render it smooth.

Heretofore, so far as I am aware, straight chisels only have been used, the edges of which have been formed by beveling off the metal upon one side, leaving the other side straight. This style of chisel, however, is not well adapted to the making of lock-mortises, for the reason that more holes are required, and they have to be bored deeper, owing to the fact that it is impossible to cut away the wood at the bottom of the mortise with a straight chisel, it being only possible to scrape the bottom by prying against the sides and ends of the mortise, and this can only be done when the wood at the bottom has been splintered by the boring of numerous holes. It will be seen, therefore, that when a straight chisel is depended on in this class of work, there is a double waste of time, first, in boring numerous holes and boring them deeper than the mortise; and, second, in attempting to clear away the splinters at the bottom of the mortise with a chisel which is not adapted to that especial use. It is moreover practically impossible to avoid marring the edges of the mortises, and in light doors it is not infrequent to split out the sides of the mortises in attempting to clear the bottoms with a straight chisel. In addition to the loss of time, which is unavoidable in using a straight chisel, there is a serious loss resulting from the breakage of chisels in trying to scrape the bottoms of the mortises by prying against the sides and ends.

The object of my invention is to produce a tool especially adapted to the class of work described above, which shall be no more expensive to make than an ordinary chisel, which cannot be broken in use, and which will cut the ends and smooth the bottoms of mortises without the slightest danger of marring the edges thereof.

With these ends in view I have devised the novel construction which I will now describe in connection with the accompanying drawings, forming part of this specification.

Figure 1 is a side view, and Fig. 2 an edge view, of my improved chisel.

A is the blade, and B the shank.

The peculiarity of construction is that I form the outer end of the blade in a continuous curve in the same plane as the straight portion and form a cutting-edge by beveling off the inner side, as at C. The strain when in use comes upon the outer side of the curved portion at about the middle of the curve, as indicated at D. It will of course be understood that the exact curvature to be given to the blade is not a matter of vital importance, although I preferably shape the blades about as indicated in Fig. 1. I preferably make the whole of the curved portion of the blade of steel, and proportion the blade about as indicated, thus making the breaking of a blade a practical impossibility. I have found in actual practice that I could put in two locks with this chisel to one with an ordinary straight chisel, and without the slightest danger of breaking out the mortise or breaking the chisel. In using a straight chisel to clear the bottom of an ordinary lock-mortise it is customary to bore five or six holes, while with my improved chisel but three holes are necessary.

Having described my invention, I claim—

1. A chisel-blade formed in a continuous curve at its outer end, whereby a bearing-sur-

face is formed, as at D, and provided with a cutting-edge at its point, substantially as described.

2. A chisel-blade having a straight portion, A, and formed in a continuous curve at its outer end to form a bearing-surface, as at D, the sides of the straight and curved portions being parallel, and a cutting-edge being made at the end by beveling off the inner side of the curved portion, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

PHILO L. FOX.

Witnesses:
A. M. WOOSTER,
WM. A. JONES.