G. BUTTLER.

MORTISING-CHISEL.

No. 192,148. Patented June 19, 1877.

Fig. 4

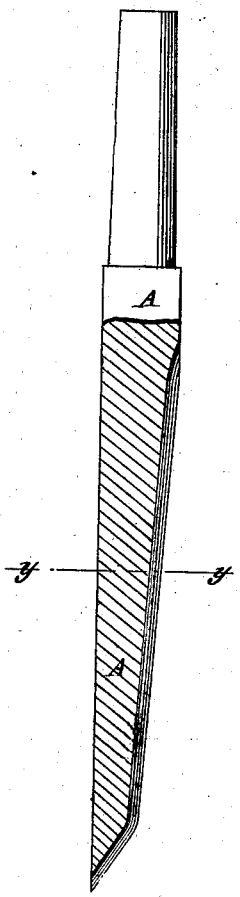

Fig. 1

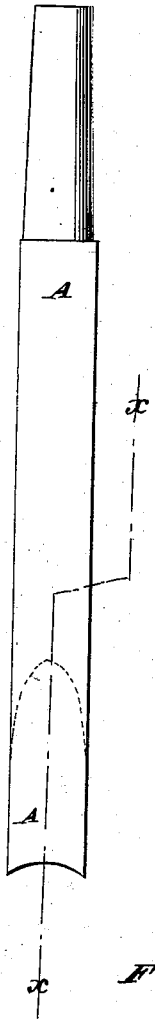

Fig. 2

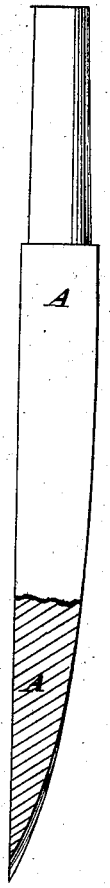

Fig. 5

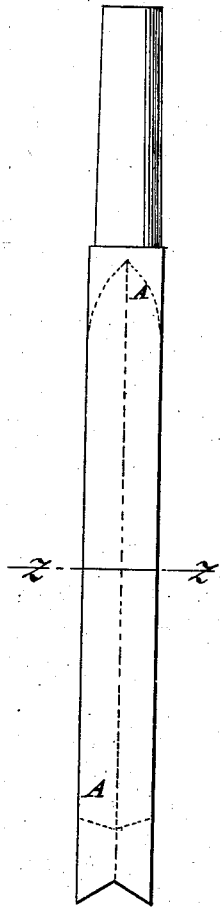

Fig. 6

Fig. 3

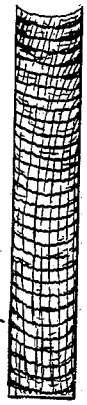

Fig. 7

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UNITED STATES PATENT OFFICE.

GEORGE BUTTLER, OF NEW BRUNSWICK, NEW JERSEY.

IMPROVEMENT IN MORTISING-CHISELS.

Specification forming part of Letters Patent No. **192,148**, dated June 19, 1877; application filed June 4, 1877.

To all whom it may concern:

Be it known that I, GEORGE BUTTLER, of New Brunswick, county of Middlesex and State of New Jersey, have invented a new and useful Improvement in Mortising-Chisels, of which the following is a specification:

Figure 1 is a front view of my improved chisel. Fig. 2 is a side view of the same, partly in section, through the line *x x*, Fig. 1. Fig. 3 represents a chip taken out by the chisel. Fig. 4 is a side view, partly in section, showing a modification of the chisel. Fig. 5 is a front view, showing another modification of the same. Fig. 6 is a cross-section, taken through the line *y y*, Fig. 4. Fig. 7 is a cross-section, taken through the line *z z*, Fig. 5.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved chisel, which shall be so constructed as to work easier and do better work than chisels constructed in the usual way.

The invention consists in a mortising-chisel concaved upon its back and edge, as hereinafter fully described.

In the drawing, A represents the chisel, which is made with a straight front and sides, and with the lower part of its back beveled or rounded. The back of the chisel A is concaved longitudinally, which concavity is extended to the edge of the chisel, so as to leave said edge concaved, as shown in Figs. 1 and 5. The concavity is also extended laterally to the sides of the chisel, so as to leave the rear corners or edges of its sides sharp. The concavity in the back of the chisel may be rounded, as shown in Figs. 1 and 6, or angular, as shown in Figs. 5 and 7.

With this construction, when the chisel is being used, it begins to cut at the corners of its edge, and the chip has its sides forced back and up, giving it the appearance of being a series of small arcs, and making it narrower than the chisel, so that it readily passes out of the mortise. This crimping, bending, or contracting of the chip enables the chisel to be more easily forced into the wood, so that less power will be required to operate it than when constructed in the usual way.

The side edges of the lower rear part of the back shave off the sides of the mortise, leaving it in better condition than is possible when the ordinary chisel is used.

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

A mortising-chisel concaved upon its back and edge, substantially as herein shown and described.

GEORGE BUTTLER.

Witnesses:
JAMES T. GRAHAM,
C. SEDGWICK.