J. W. Huffman,

Tenoning Machine.

No. 107,911. Patented Oct. 4. 1870.

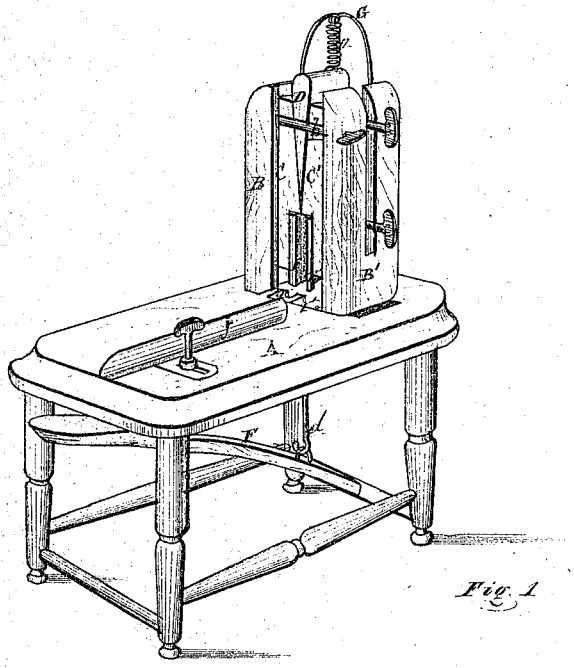

Fig. 1

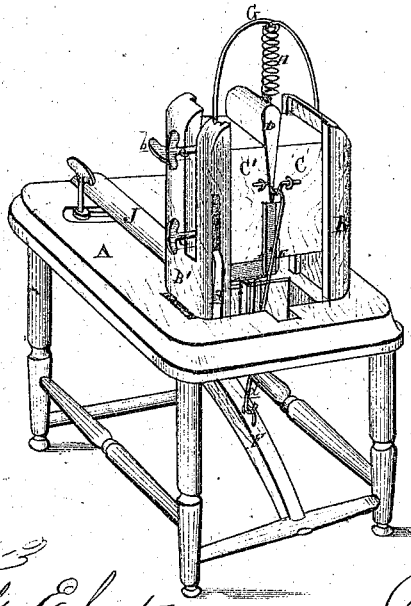

Fig. 2

ATTEST.
Sam'l Spray 3d
Frederick Eberts

INVENTOR
John W. Huffman
Per Attorney
Thos. J. Sprague

United States Patent Office.

JOHN W. HUFFMAN, OF FREMONT, INDIANA.

Letters Patent No. 107,911, dated October 4, 1870.

IMPROVEMENT IN MACHINES FOR TENONING SPOKES.

To whom it may concern:

Be it known that I, JOHN W. HUFFMAN, of Fremont, in the county of Steuben and State of Indiana, have invented a new and useful Improvement in a Spoke-Tenoning Machine; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a perspective view of my machine, from the front, and

Figure 2 is a similar view, from the rear.

Like letters indicate like parts in each figure.

The nature of this invention relates to the construction of a machine for tenoning the ends of spokes, fitting them to enter the mortises in the hub of a wheel.

It consists in the general arrangement of the various parts, as more fully hereinafter set forth.

In the drawing—

A represents a table, supported by a proper frame.

B is a stationary standard, erected at the rear end of the table, at the side of an opening therein.

B′ is a similar standard, movable, in the opposite side of the opening in the table, having a tenon projecting down through it. This standard is secured therein by a key, *a*, as shown in fig. 2.

The standard B′ is held parallel with the other by a screw-rod, *b*, passing through its flange, and engaging with a nut in the stationary one.

C C′ are sections of a cross-head, secured together by screw-rods *c*, and moving vertically in slides in the inner faces of the standards; they have interposed between them the wedge-shaped key D, which, when driven down, spreads the section C′ away from the other.

E E′ are cutters, in the form of a shouldered chisel, and sloped on the cutting-edge, to give a drawing cut; each chisel forms or shapes one side of the tenon.

F is a treadle, pivoted under the table, and to which the cross-head is connected, by a rod *d*, by means of which the cross-head is drawn down.

G is an arched rod, erected on the standards, having a spiral spring, H, suspended from it, whose lower end is secured to the cross-head, to draw the latter up from the table, when the treadle is released from the foot of the operator.

I is a templet, secured to the table, at the edge of the opening, the cutter E passing in close proximity to its edge.

I′ is a similar templet, but secured to and moving with the standard B′.

J is a gauge, on the table, to guide the operator in placing the spoke to be tenoned, which, being in position, he presses down the treadle, bringing down the cross-head, whose chisels being secured in a recess in the inner lower corners of the sections, shear off the wood, and thus form the tenon, whose thickness equals the distance between the chisels.

To increase the thickness of the tenon, loosen the screw-rod *b* and key *a*, and move out the standard B, securing as before; then loosen the screws in the cross-head, and drive the wedge to spread the sections and their chisels apart, and secure as before described.

What I claim as my invention, and desire to secure by Letters Patent, is—

The cross-heads C C′, the wedge D, the standards B B′, and screw-rods *b* and *c*, with the spring H, the yoke G, the chisels E E′, the templets I I′, the rod *d*, treadle F, and guide J, all in connection with a table, A, when constructed and arranged as described and shown, and as and for the purposes set forth.

JOHN W. HUFFMAN.

Witnesses:

FREDERICK EBERTS,

SAM. J. SPRAY.