C. W. LATHAM.

Machine for Tenoning Spokes.

No. 167,547. Patented Sept. 7, 1875.

Fig. 1.

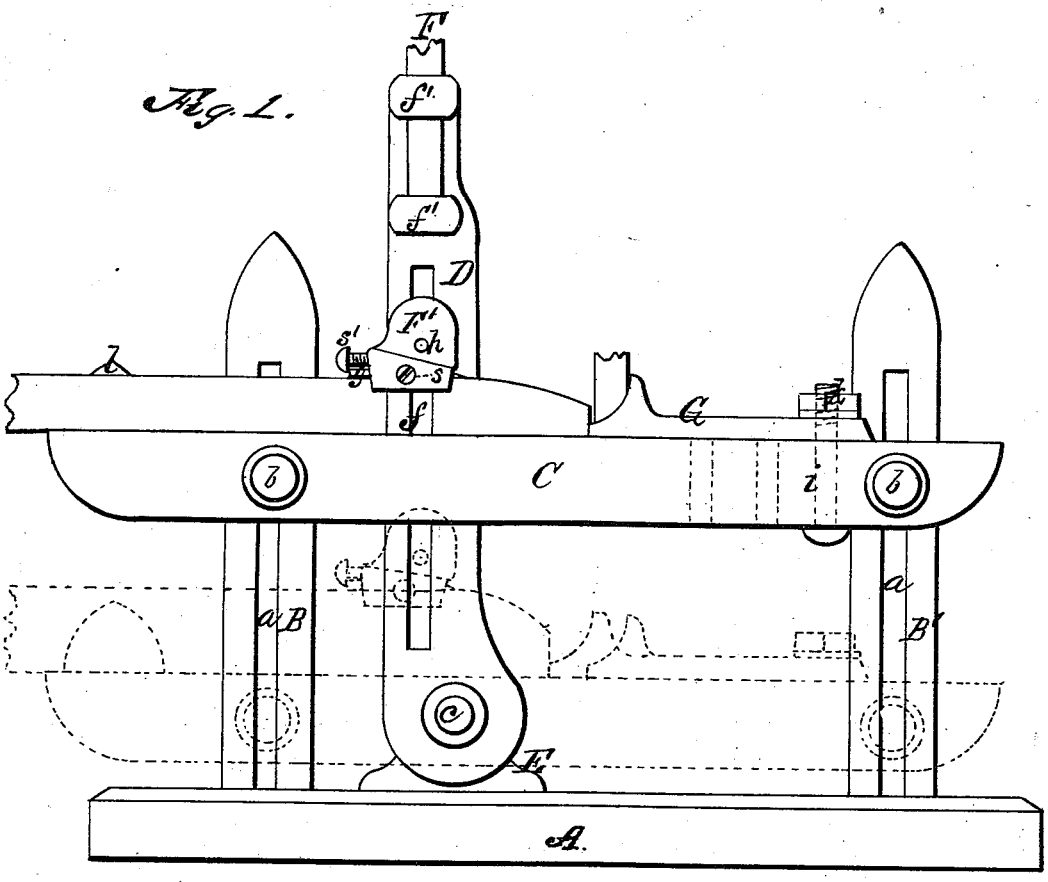


Fig. 2.

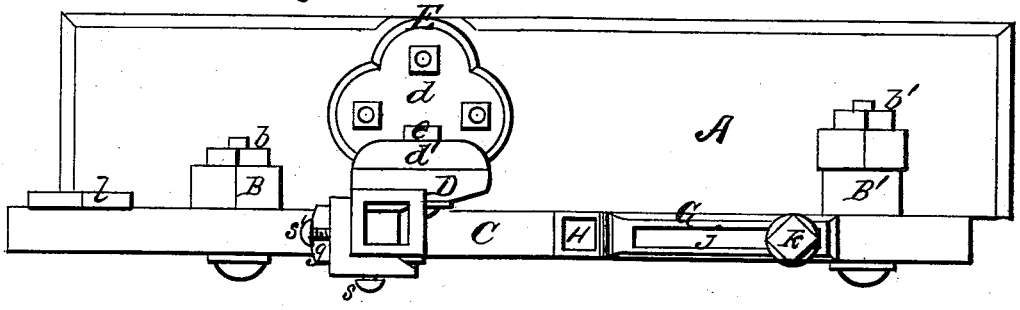
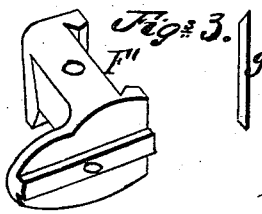


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES W. LATHAM, OF GROTON, ASSIGNOR TO LEVERITT B. TREAT, OF ORANGE, CONNECTICUT.

IMPROVEMENT IN MACHINES FOR TENONING SPOKES.

Specification forming part of Letters Patent No. **167,547**, dated September 7, 1875; application filed January 23, 1875.

To all whom it may concern:

Be it known that I, CHARLES W. LATHAM, of the town of Groton, in the county of New London and State of Connecticut, have invented a new and valuable Improvement in Machines for Tenoning Spokes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view of my machine. Fig. 2 is a plan view of the same, and Figs. 3 are detail views.

This invention has relation to spoke-tenoning machines.

The object of the invention is to produce a machine for preparing the tenons of spokes for vehicle-wheels, for which Letters Patent of the United States were granted to me bearing date May 19, 1874, and numbered 151,141.

The nature of the invention consists in a vertically-adjustable rest, a cutter-blade capable of being adjusted to or from the pivot of its actuating-lever, whereby the curve may be reduced to any extent to suit various sizes of spokes, and the machine is adapted to be used for pointing fence-pickets, shingles, and other like articles of wood, wherein a double-curved end is desirable, all as will be hereinafter more fully explained.

In the annexed drawings, A designates the base or platform of my improved machine, upon which are erected two uprights or standards, B B′, at a suitable distance apart, which standards are each provided with a vertical slot, *a*, the former being slightly in rear of the latter, as shown in Fig. 2. C designates a spoke-rest, which is vertically adjustable in a horizontal plane, with relation to standards B B′, by means of bolts *b* passing horizontally through the said rest and through slots *a*, a nut, *b′*, being applied upon their projecting screw-threaded ends for the purpose of securing the rest in any desired position. By this means rest C is rendered vertically adjustable in a horizontal plane, and also capable of being set in position inclining either downwardly from standard B, or from standard B′, as may be desired. D indicates a vertically-vibrating lever, having its fulcrum at *c* upon a metallic plate, E, rigidly secured to the base A. This plate consists of a base, *d*, having a number of perforations cut through it, for the purpose of attaching it to the base of the machine and of an upright part, *d′*, through which, and the lower end of lever E, is passed the pivot *e*, upon which the said lever vibrates. The body of this plate is longitudinally slotted at *f*, as shown in Fig. 1, its upper end being provided with loops *f′*, vertical to the length of the lever, into which is inserted a wooden handle, F, and this slot is designed to receive the spline of a bit-holder, F′, carrying a cutter-plate, *g*, which is clamped in the same by means of a set-screw, *s*, and is held against endwise displacement by means of a flat-headed screw, *s′*, inserted into a screw-threaded perforation in the head of the bit-holder, with its head resting over the upper edge of the bit *g*, as shown in Fig. 1. Bit-holder F′ is adjustably secured to lever E by means of a screw-threaded bolt, *h*, which is passed through slot *f* of the said lever, and is forced into a screw-threaded perforation in the body of the said holder, and any adjustment thereof may be obtained by loosening the said bolt, placing the bit-holder in the desired position, and then setting up bolt *h* by means of a wrench, thereby clamping the same rigidly against the body of lever D, and effectually holding it against displacement. G designates a head-block, which is arranged upon rest C, and is adjustable to or from the fulcrum of lever D by means of a clamping-bolt, *i*, which is passed through the said rest, and through a longitudinal slot, *j*, of the said block, and is maintained in position by a nut, *k*, applied upon its upper screw-threaded end, as shown in Fig. 1. To adjust this block, loosen nut *k* and arrange it in the desired position, then set up the nut, and the block will be rigidly clamped against the rest, and will be held immovable with relation to the pivot of lever D. Lever D and rest-block G are both of metal, and, in order to prevent the cutter from coming in contact when in use with the end of the said rest, where it would be prematurely dulled, I

have provided a socket, into which a piece of wood is designed to be inserted, coming in contact with which the edge of the said cutter will be prevented from injurious dulling and denting.

My improved machine is used in the following manner: The tenon end of the spoke is placed against head-block G, the body thereof resting upon rest C with its end against guide *l;* cutter-plate *g* is then adjusted with reference to the fulcrum of lever D, and in accordance with the sharpness of the curve to be imparted to the tenon; lever D being now forcibly thrust or drawn down, a shaving will be taken off from the edge of the tenon, forming a curve upon the upper edge of the same, of which the convexity will be upward, thereby accomplishing the desired result.

What I claim as new is—

The combination, with the detachable cutter-plate *g*, clamped in place by set-screw *s*, of the screw *s'*, applied to cutter-holder F', with its head over the upper edge of the said plate for the purpose of holding it against endwise displacement, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHAS. W. LATHAM.

Witnesses:

DWIGHT N. PRENTICE,

F. A. HOLMES.