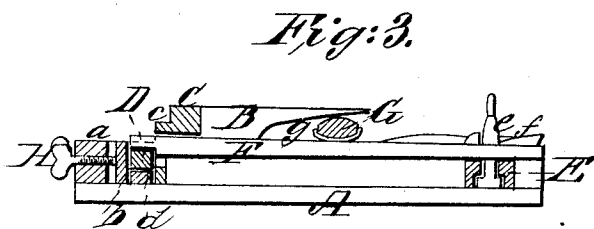
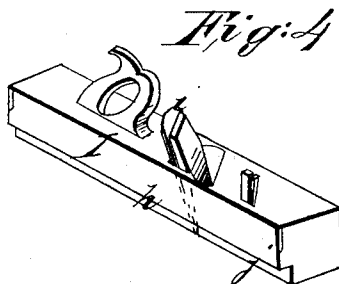
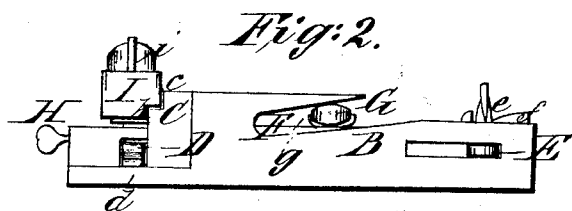
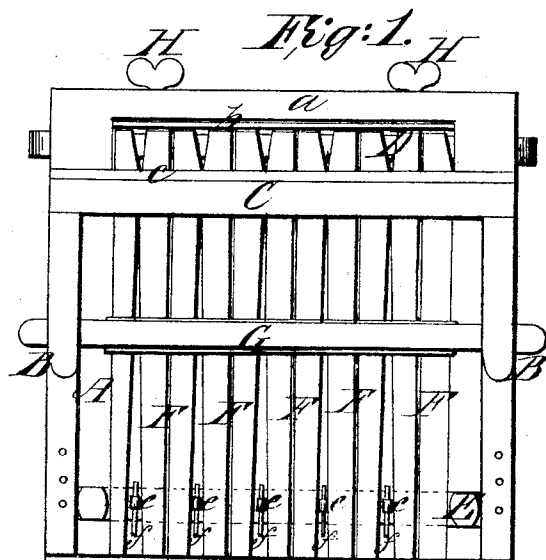


R. L. SIBBET.
SPOKE-TENONING MACHINE.

No. 11,619.

Patented Aug. 29, 1854.



UNITED STATES PATENT OFFICE.

R. L. SIBBET, OF SHIPPENSBURG, PENNSYLVANIA.

METHOD OF TENONING SPOKES.

Specification of Letters Patent No. 11,619, dated August 29, 1854.

To all whom it may concern:

Be it known that I, R. L. SIBBET, of Shippensburg, in the county of Cumberland and State of Pennsylvania, have invented
5 a new and Improved Apparatus or Machine for Tenoning the Hub Ends of Spokes for Wheels; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the
10 annexed drawings, making a part of this specification, in which—

Figure 1, is a plan or top view of my improved apparatus or machine. Fig. 2, is a side view of ditto. Fig. 3, is a longitudinal
15 vertical section of ditto, the plane of section being through the center. Fig. 4, is a detached perspective view of the plane.

Similar letters of reference indicate corresponding parts in the several figures.

20 The nature of my invention consists in securing, in a peculiar manner, a series of spokes within a frame, and so adjusting them by keys and set screws, that a plane of proper construction run over the ends of
25 the spokes will cut the proper tenons thereon, as will be presently fully shown.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and the mode of operation.
30

A, Figs. 1 and 3, is a horizontal board or plate, having a ledge or projection (*a*), at its front end, against which a gage block
35 (*b*), rests.

B, B, are ledges or projections at the sides of the board or plate, and projecting upward a short distance from the front of the board plate, somewhat higher than the front
40 ledge (*a*), as shown in Figs. 2 and 3.

C, is a guide strip, which passes across the board or plate A, and is attached to the ends of the ledges B, B, the guide strip being parallel with the ledge (*a*), as shown
45 in Fig. 1, but some distance above it as shown in Figs. 2 and 3. The guide strip has a rabbet (*c*), cut in its front edge, see Figs. 1, 2, and 3.

D, is a block which passes across the board or plate A, directly in front of the gage
50 block (*b*), the ends of said block passing through mortises in the side ledges B. The block D, does not extend upward as high as the ledge (*a*), see Fig. 3, but its height may be varied by means of keys (*d*), shown in
55 Figs. 2 and 3.

E, is a cross piece at the back end of the

board or plate A. This cross piece is slotted lengthwise and has upright pins (*e*), which fit in said slot, as shown in Fig. 3, and keys
60 (*f*), pass through the pins (*e*), at right angles, as shown in Figs. 1, 2, and 3.

F, represents the spokes, the thick or hub ends of which rest upon the block D, and the extreme ends against the gage block (*b*), see Figs. 1 and 3. The back ends of the
65 spokes rest upon the cross piece E, and are kept properly in place, or the proper distance apart, by the pins (*e*), and keys (*f*), two spokes being between two pins or keys, as shown in Fig. 1.

G, is a cross bar which extends across the spokes F. The ends of this cross bar fit in inclined slots (*g*), (*g*), in the ledges B, B, see Figs. 2 and 3, and when the cross
70 bar is forced in the slots (*g*), (*g*), it binds firmly upon the spokes, and keeps them upon the block (*b*), and cross piece E.

H, H, are set screws, which pass through the ledge (*a*), the ends of the set screws bearing against the gage block (*b*).
80

I, Figs. 2 and 4, is a plane having a recess (*h*), cut in one side to correspond to the rabbet (*c*), in the guide strip C. Besides the ordinary plane iron (*i*), the plane is provided with a cutter *j*, directly in front
85 of the plane iron, for the purpose of cutting smooth shoulders on the spokes.

The spokes F, are clamped in the machine, or bound firmly down upon the block D, and cross piece E, by driving the cross bar
90 G, in the slots (*g*), (*g*), in the ledges B, B, and the plane I, is then placed upon the thick ends of the spokes, the plane resting in the rabbet (*c*), in the guide strip C. By moving the plane along, the tenons are cut
95 on one side of the spokes, the cross bar G, is then loosened and the spokes turned over, and their opposite sides are cut in the same manner, and the tenons are formed. The tenons may be cut of different lengths by
100 moving the gage block (*b*), farther in or out by means of the set screws H, H, and the tenons may be cut of different thicknesses by raising or lowering the block D, by means of the keys (*d*). Many spokes may
105 be operated upon at the same time, according to the size of the machine. The apparatus or machine is simple, not liable to get out of repair, and may be constructed by any mechanic or worker in wood, and at
110 a small cost.

I do not claim the plane I, for they have

been previously used, or similar ones in joinery. But

What I do claim as new, and desire to secure by Letters Patent, is:—

- 5 Securing a series of spokes F, upon a board or plate A, provided with ledges or projections (a), B, B; adjustable gage block (b); guide strip C; cross piece E; cross bar

G; and block D. The above parts being constructed and arranged in the manner and 10 for the purpose as set forth.

R. L. SIBBET.

Witnesses:

ABRAHAM HOSTETTER,
E. B. LEONARD.