W. P. Hale,

Stake Machine.

No. 98,955. Patented Jan. 18. 1870.

Fig. 1.

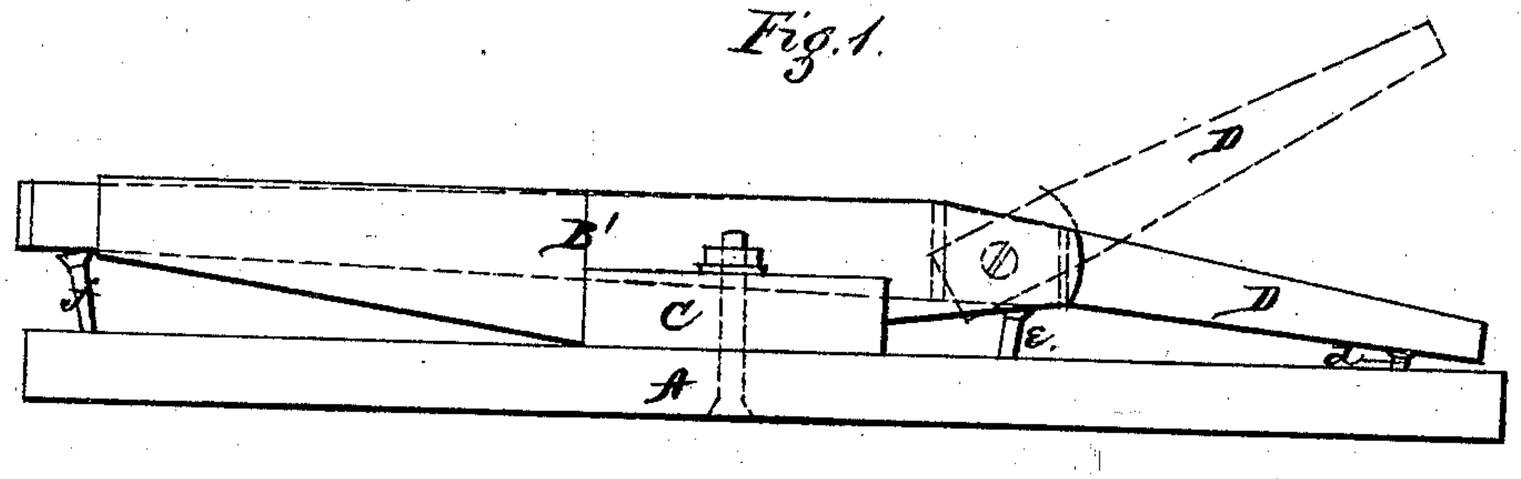
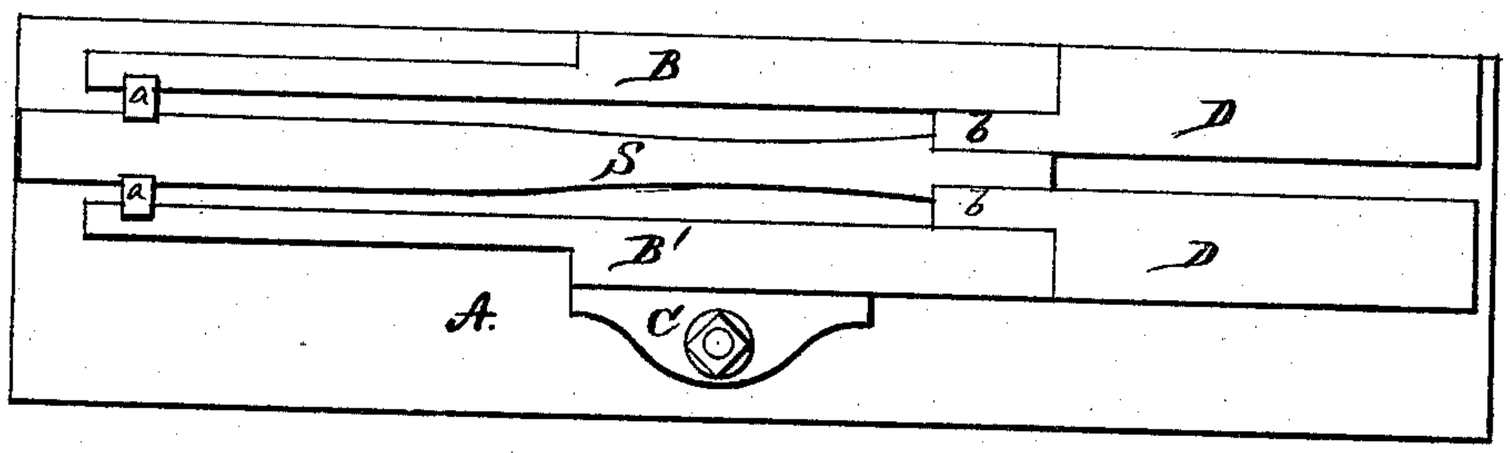


Fig. 2.



Witnesses

John A. Ellis,

H. N. Miller

Inventor

Wm. P. Hale,

per

T. H. Alexander,

Atty.

United States Patent Office.

WILLIAM P. HALE, OF IONIA, MICHIGAN, ASSIGNOR TO HIMSELF AND H. MILLER, OF SAME PLACE.

Letters Patent No. 98,955, *dated January* 18, 1870.

IMPROVEMENT IN MACHINE FOR FINISHING SPOKES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM P. HALE, of Ionia, in the county of Ionia, and State of Michigan, have invented certain new and useful Improvements in Device for Finishing Spokes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being hand to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a machine for finishing the tenons on spokes, ready to drive into the hub of wagon-wheels.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side view, and

Figure 2, a plan view.

A represents the bed of the machine, made of any suitable material, and of any dimensions desired.

On the bed A is secured a bar, B, of suitable length, which is, for one half its length, twice as thick as the other half. The narrower portion of the bar B is bevelled or inclined on the under side, as seen in fig. 1.

On the bed A is placed another similar bar, B′, which can be moved closer to or further from the bar B, by means of a projection, C, on the outside of the bar B′, which has elongated slots, through which a bolt is passed, and thus securing the bar B′ at any desired distance from the bar B, on the bed A.

On the inner side of the bars B B′, near the end of the narrower portion of the same, are, dovetailed in, small pieces *a a*, which are hollowed out on their inner sides, and thus the narrow portions of the bars B B′ form a spring and clasp, to hold the spoke firm in its place.

To the thicker ends of the bars B B′ are connected two bars D D, by means of a circle joint and lip *b*.

The shoulder on the lip rests against the shoulder on the spoke S, and holds the spoke in place.

The bars D D are raised or lowered by means of screws *d*, in the bed-piece, so as to give the spoke the desired bevel.

The spoke S rests on a screw, *e*, between the jaws or bars B B′, which screw is raised or lowered at will, to make the tenon any width desired.

Under the spring-clasp the spoke rests on another screw, *f*, to give the tenon the desired dish or pitch in the wheel. By the adjustment of the jaw B′, the tenon can be made any thickness desired.

The spoke is put into this machine, first with the face-side up, resting on the screws *e f;* it is then planed off on the face as much as is desired, and then turned over in the machine, and, resting on the same screws, it is then planed down to the bevel of the machine. The point is then planed off to the bevel of the machine, which finishes the tenon.

Having thus fully described my invention,

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

The combination, with the jaws B B′, the bars D D, constructed as described, with lips *b b*, and connected by a circle-joint to the jaws, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

WILLIAM P. HALE.

Witnesses:

T. K. BIGNELLS,

EDWIN A. CHUBB.