

Patented Nov. 8. 1870.

Attorneys.

United States Patent Office.

JOSHUA FIPPS, OF NEW ALBANY, INDIANA.

Letters Patent No. 108,992, dated November 8. 1870.

IMPROVEMENT IN WOOD-BENDING MACHINES.

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, JOSHUA FIPPS, of New Albany, in the county of Floyd and State of Indiana, have invented a new and improved Bending-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in machines for bending wood bars, such as plow-handles and the like, and consists in a combination of a forming-block and a clamping-bar, attached to a suitable frame, and a bending-spring and holding apparatus, all arranged as hereinafter described.

Figure 1 is a side elevation of my improved machine, and

Figure 2 is a horizontal section of the same.

Similar letters of reference indicate corresponding parts.

A is a suitable frame, of wood, for the support of my improved bending apparatus on one side.

B is a forming-block, preferably made of metal, and bolted to one side of the wood frame. This block is shaped on the convex side the reverse of the form required for the article to be bent over it, and in this case, being intended for bending plow-handles, is shaped to correspond with the concave side of the handle.

D is a clamping-lever, pivoted to the frame at E, and provided with a jaw, F, for clamping the end of the bar to be bent against the lower point of the former, to hold it while bending.

This lever has a foot-treadle, G, arranged near the ground, where it can be actuated conveniently by the foot to clamp the end of the bar, and a notched catch-plate, H, is arranged to engage and hold it after the clamping has been accomplished.

I is a spring to throw the lever up again when freed from the catch.

K is an angle-plate for confining the end of the bending-spring L commonly used.

At the end of the bar, to which plate the said spring is connected, this plate is provided with a hook, M, (or it may be an eye or other suitable device,) at the end of one of the plates, for the attachment of a bar or chain, N, for holding the bar after it is bent until it has become fixed by drying.

O is the clamp, which is keyed to the wood bar P before bending, to confine the spring to it.

This frame is provided with a stud, Q, with which the bar N is engaged to act in conjunction with the angle-plate and spring to hold the bent bar after it is removed from the former and the clamp.

The frame A is provided with a shoulder at R, against which the clamp O may be placed, for preventing it from slipping on the spring and the wood bar, when driving up the key to secure the spring to the bar before bending the latter, being laid above the former and the pin T for the purpose.

This pin T is also used to hold the bar P down after bending, and while attaching the holding-bar N.

Having thus described my invention,

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

The combination of the former B, clamping-lever D, angle-plate K, spring L, clamp O, and the holding-bar N, the said former and the bar D being attached to a frame, and the other devices being used in conjunction therewith, all substantially as specified.

JOSHUA FIPPS.

Witnesses:

J. W. WILSON,
L. B. HUCKEY.