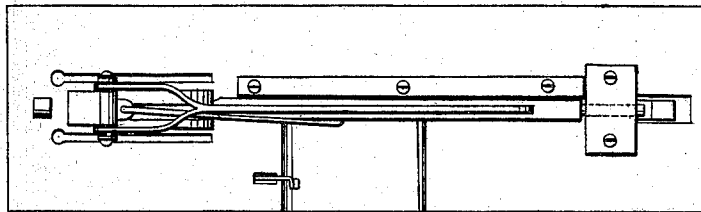


Wood Bending Mach.

Patented Mar. 14, 1871.



Inventor:
E. A. Canner
per Munn &
attys.

UNITED STATES PATENT OFFICE.

E. A. CONNER, OF METROPOLIS, ILLINOIS.

IMPROVEMENT IN WOOD-BENDING MACHINES.

Specification forming part of Letters Patent No. 112,553, dated March 14, 1871.

To all whom it may concern:

Be it known that I, E. A. CONNER, of Metropolis, in the county of Massac and State of Illinois, have invented a new and useful Improvement in Machines for Bending Plow-Handles; 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 drawings, forming part of this specification, in which—

Figure 1 represents a side elevation of my improved apparatus, with a handle ready to be bent. Fig. 2 represents a side elevation, showing the position when the handle has been bent. Fig. 3 shows a plan view; and Fig. 4, a detached view, showing the former.

Similar letters of reference indicate corresponding parts.

The nature of my invention relates to improvements in machines for bending plow and other similar handles, the object of which is to provide a more effective machine than those now in use.

It consists in an arrangement of means whereby the handle to be bent may be laid on a bench in a suitable position, and the end to be bent grasped between a former bending-lever and a binding-strap, and be bent up to the desired form by a movement of the lever, as will be more fully described on reference to the accompanying drawings.

A represents a bench, to which is hinged a right-angled foot-lever, B, and which is also provided with a block, C, having a sliding plunger, *c*, fitted therein. The long arm of the lever B is provided with a notched connecting-rod, which passes up through a slot in the bench, and serves as a handle for raising the lever and a catch for holding it up.

E represents a bending-lever, provided with lugs *a*, and hinged to a right-angled bracket, to which latter is secured the end of a flexible strap of metal, G. A heavy weight, H, is suspended from the axis of the joint between the lever and the bracket. The flexible strap is secured to the bench at *b*, as shown in the drawings.

I represents another flexible metal strap,

provided with a metal bracket at one end, and at the other with a link.

e represents a hooked rod, which hooks into the bracket of the strap I at one end, and at the other in an eye in the said strap near the link *d* under the said strap, the bench being recessed to provide room, as shown.

K represents a former having a curved face corresponding to the curvature which it is desired to give to the handle, which face is also grooved, into which groove the rounded portion of the handle is bent in the act of bending. The former K is provided with lugs *a' a'*, corresponding with those on the lever-handle E, as before described. When a handle is to be bent, it is slipped through the link *d*, so as to present the end to be bent against the bracket of the strap I. It is then laid on the bench in the position shown in Fig. 1, and the former placed on it in the position shown in the same figure, the strap I being laid upon the strap G. The foot-lever B is then unlatched and the handle forced lengthwise by the pressure of the foot on the lever B against the brackets on the end of the straps. The lever is then turned down into the position shown in Fig. 2, and the bending is accomplished, when the hook *e* may be hooked into the bracket and the eye on the under side of the strap I, which holds the handle in the bent position, which may be taken out of the machine and laid away to "set" the weight.

L prevents the longitudinal pressure on the handle, caused by the foot-treadle, from doubling up the joint between the handle and the bracket F when in the position shown in Fig. 2.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The lever E, provided with weight, bending-strap G, grooved former *a' K*, link-strap I *d e*, foot-lever B, and plunger *c*, combined as described, and for the purpose specified.

The above specification of my invention signed by me this 28th day of March, 1868.

E. A. CONNER.

Witnesses:

T. E. WARD,

H. G. BIGELOW.