E. Lacey,

Bending Wood:

No. 111,218. Patented Jan. 24. 1871.

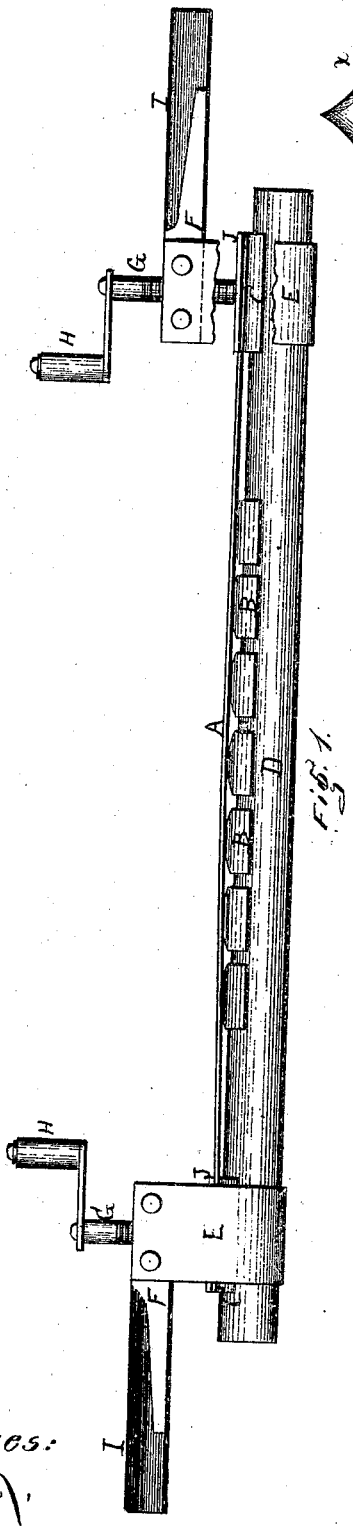

Fig. 1.

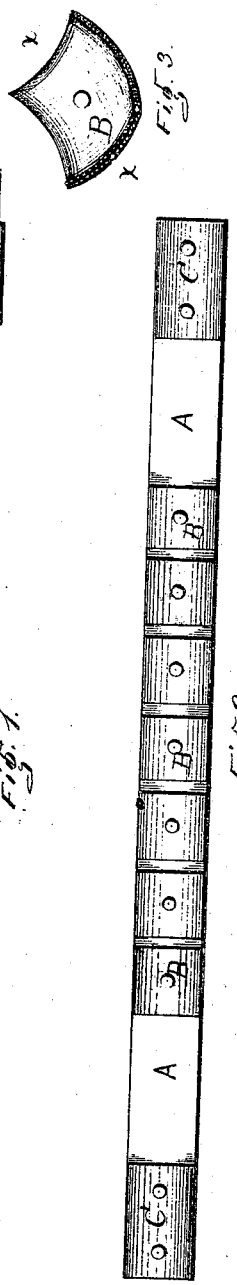

Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

EDWARD LACEY, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN DEVICES FOR BENDING WOOD.

Specification forming part of Letters Patent No. **111,218**, dated January 24, 1871.

To all whom it may concern:

Be it known that I, EDWARD LACEY, of the city of Chicago, in the county of Cook and State of Illinois, have made certain new and useful Improvements in Devices for Bending Wood; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a side elevation of my improved bending device applied to a strip of wood, preparatory to bending the latter. Fig. 2 is a plan view of the bending-strap, and Fig. 3 is a perspective view of one of the links removed from the bending-strap.

Similar letters of reference in the drawings denote corresponding parts.

My invention has for its object to provide an improved device for bending wood to be used in the construction of chair-rims, fellies, &c.

It consists, primarily, in so constructing the links which are attached to the metallic bending-strap that they shall conform to the shape of a strip of wood after the latter is bent and during the operation of bending.

It also consists in the employment of adjustable handles for locking the bending-strap to strips of wood of varying lengths, and for bending the latter upon a suitable form.

In the accompanying drawings, A is the bending-strap, composed of a thin piece of metal, and B are the links firmly secured to one side of the same, at regular distances apart. The links are each curved longitudinally and transversely, the longest arc forming the longitudinal curve, as shown in the line *x x*, Fig. 3. If desired, the radii of the links may be equal longitudinally and transversely, or the greatest transversely.

C are the end links, made concave transversely, and somewhat longer than the links B. They are secured firmly to the strap to form bearings for the wood to be bent at or near the ends of the latter.

The strip of wood D to be bent, which in the drawings is represented as cylindrical in form, after having been properly steamed or soaked, is placed within or upon the links and secured firmly to the strap by the adjustable handles. These handles are each formed of a metallic loop, E, bolted or otherwise secured laterally to a metallic socket, F, through which an adjusting-screw, G, passes. The adjusting-screws are formed with crank-handles H, by which they are operated, and the metallic sockets F are each provided with handles I, of any desired length. After the strip of wood to be bent is placed upon the links, the handles are applied by slipping the loops E over the ends of the stick, and adjusting the screws G so that their points shall bear upon the strap immediately over the links C, as shown in Fig. 1. To prevent the pressure of the screws from bending or indenting the ends of the strap, plates of metal J are firmly secured to the upper surface of the strap at each end, upon which the points of the screws bear. In bending the wood, the operator grasps the handles I, one in each hand, and forces the strip around a suitable form arranged for the purpose in the usual or in any convenient manner. Owing to their curvature, the links B prevent the lateral displacement of the wood, and, during and after the operation of bending, conform to the curvature imparted to the wood, so that the fibers of the latter are prevented from being broken. This result is due to the fact that the links bear throughout their entire length upon the wood, and so hold the fiber of the same together, instead of touching the wood with a small portion of their bearing-surfaces and leaving spaces between the points of contact for the wood to bend at angles, and thus break the fibers.

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

1. In combination with a bending-strap, the curved links B, formed with arcs at right angles to each other, substantially as described, for the purpose specified.

2. In combination with the bending-strap herein described, the adjustable clamping-handles consisting of the metallic loops E, the adjusting-screws, and the operating-handles, for the purpose specified.

3. In combination with the bending-strap herein described, the links C and metal plates J, substantially as described, for the purpose specified.

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Witnesses:

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