

N. Purdy,

Bending Wood.

No. 89,790.

Patented May 4, 1869

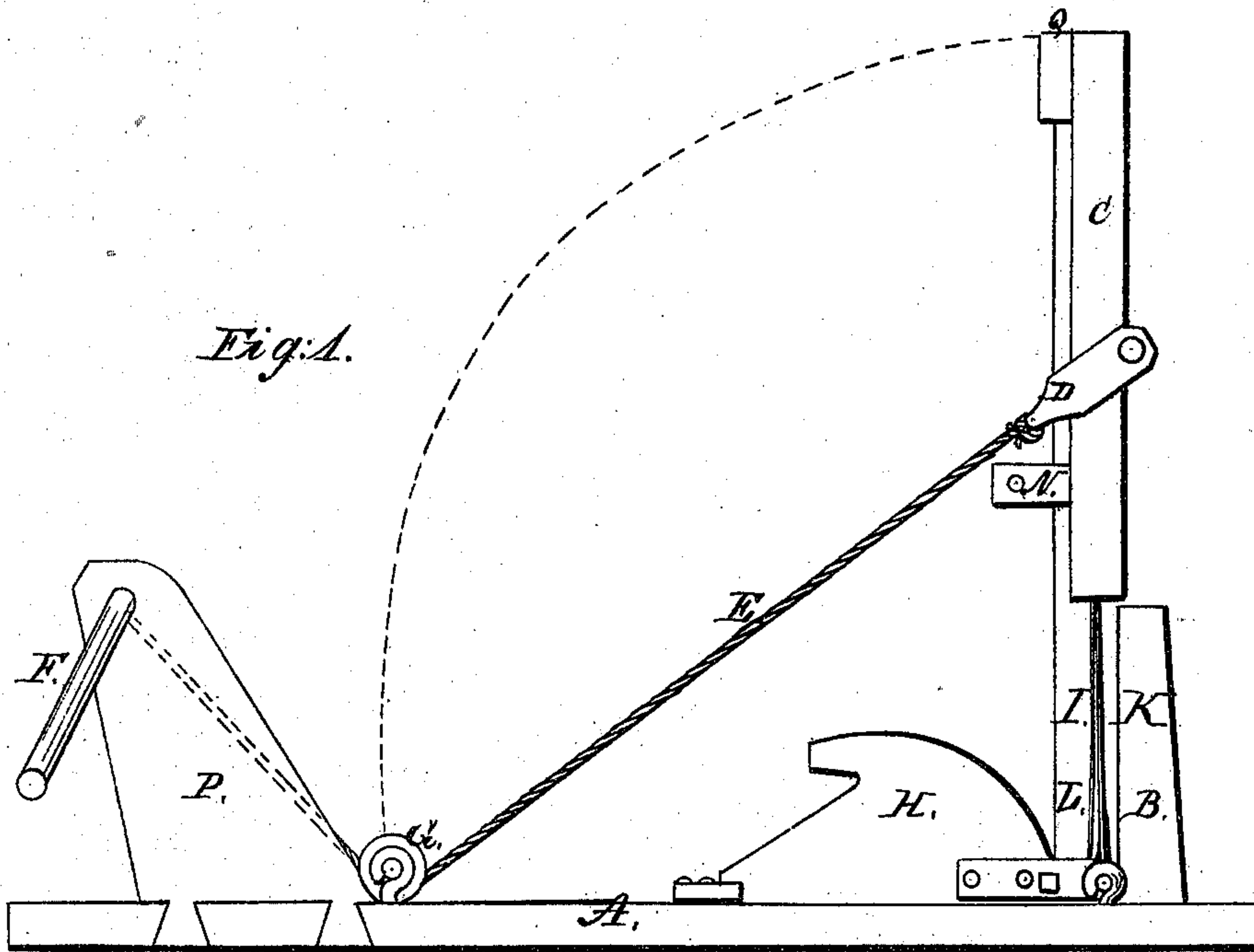
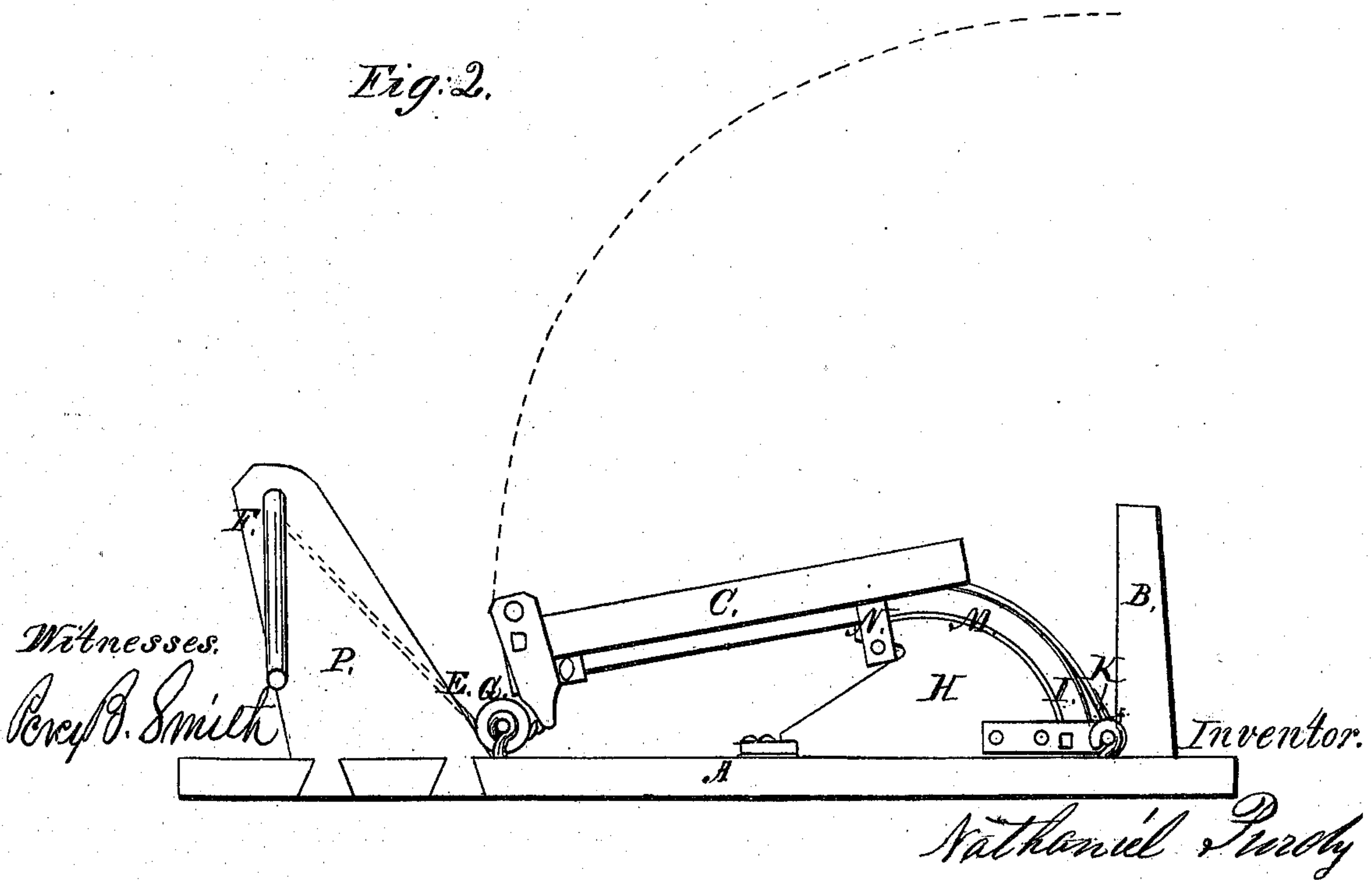


Fig. 2.



United States Patent Office.

NATHANIEL PURDY, OF MILWAUKEE, WISCONSIN.

Letters Patent No. 89,790, dated May 4, 1869.

IMPROVEMENT IN WOOD-BENDING MACHINE.

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, NATHANIEL PURDY, of the city and county of Milwaukee, and State of Wisconsin, have invented a new and useful Improvement in Wood-Bending Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a view of the machine with a piece of wood in it ready for bending.

Figure 2, a view of the machine with a piece of wood bent.

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

The object of my invention is to produce a machine for bending wood in an expeditious manner.

A is the bed-piece.

B, a fixed standard.

C, backing-piece to the bending-band.

D, clevis, with pin passing through its ends, back of the support C, so that the clevis can slip on the support.

E, rope.

F, crank and shaft.

The shaft is made without any shoulder on it, so that, as the rope E is wound around it, it can move endways, and thus prevent the rope from riding.

G, pulley.

H, form over which to bend wood.

I, a thin strip of iron placed between the bending-band and the wood.

K, the main bending-band, its lower end fastened to the bed-piece A.

L, a piece of wood in position to be bent.

M, a piece of wood in the machine after it is bent.

N, strap to hold the wood bent to the form.

O, loop on the form, to hold the end of the wood.

P, one of the crank-shaft supports, there being two of them, rope E winding on the shaft between these supports.

Q, a block on the end of bending-band K, for end-pressure.

Operation.

The machine, as shown, fig. 1, with the bending-band K, with its back support C placed in a perpendicular position, the support C should be thrown back, so as to rest on standard B. The thin strip of iron I is placed against the bending-band K, its lower end in the loop O. A piece of steamed wood, L, is placed as shown, fig. 1, the strap N placed so as to enclose the wood to be bent and the strip I. The clevis D, permanently attached to the rope E, is slipped over support C, and secured, by a pin passing through it, back of the support. Then turn crank F, which winds the rope round the crank-shaft, drawing the wood forward over the form H, till it assumes the position fig. 2. The crank-shaft being of a size its whole length, it works endways as the rope is wound round it, which prevents the rope from riding. As the support C and bending-band are drawn forward, bringing the wood over the form, the clevis D slips along over support C, toward its end, changing the leverage. When the wood is bent over the form, strap N is brought down so that its ends come over the form, so that a pin can be put through under the projection in the form, which will hold strip I and the wood to the form, when the bending-power is removed. Then raise form H and band K, and their attachments, and, as they are raised to an upright position, the wood, owing to its curve, becomes shorter than band K, and the end-pressure is removed. Then the wood, form, and strip I can be removed, and another form can be placed in the machine, and the operation repeated.

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

A wood-bending machine, consisting of the stationary back-set B, the lever or support C, with its shoulder Q, sliding clevis D, rope E, shoulderless windlass F, pulley G, frame H, and flexible band K, substantially as set forth.

NATHANIEL PURDY.

Witnesses:

PERCY B. SMITH,

FRANCIS BENINGHAUSEN.