

C. WRIGHT.
Felly-Bending Machine.

No. 224,758.

Patented Feb. 17, 1880.

Fig. 1.

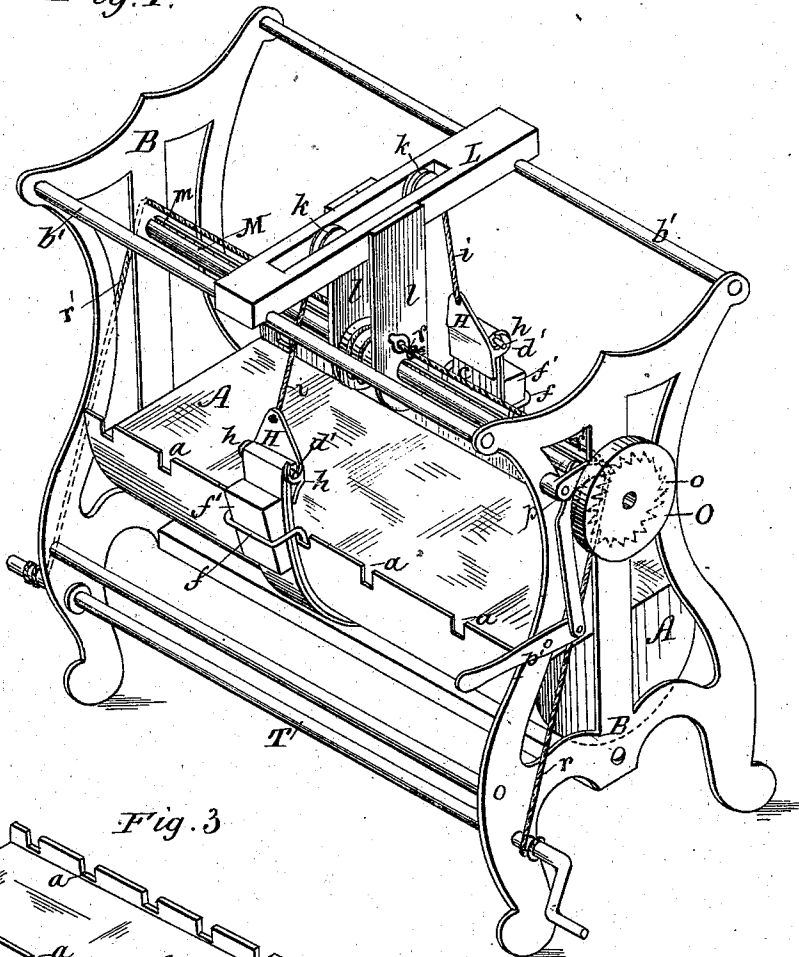


Fig. 3.

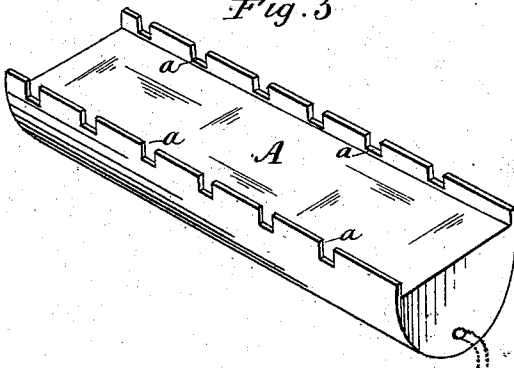


Fig. 5.



WITNESSES

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Robert Lynch

INVENTOR

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Fig. 2.

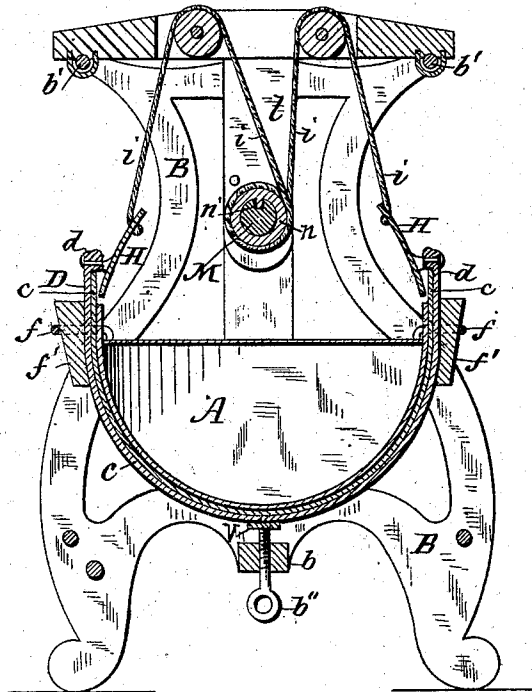
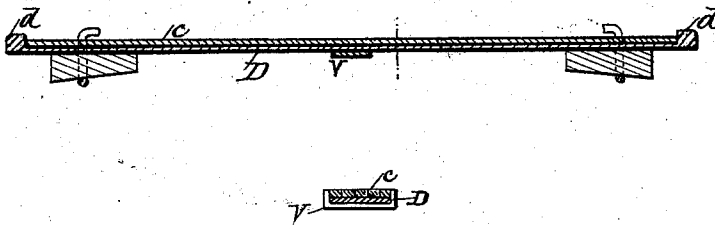


Fig. 4.



Witnesses:

W. B. Masson

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by L. Deane.
Att.

UNITED STATES PATENT OFFICE.

CHARLES WRIGHT, OF FINDLAY, OHIO, ASSIGNOR OF ONE-HALF OF HIS
RIGHT TO YEATMAN BICKHAM, OF SAME PLACE.

FELLY-BENDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 224,758, dated February 17, 1880.
Application filed January 3, 1880.

To all whom it may concern:

Be it known that I, CHARLES WRIGHT, a citizen of the United States, residing at Findlay, in the county of Hancock and State of Ohio, have invented certain new and useful Improvements in Wood-Bending Machines, (Felly-Benders;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of a device embodying the present invention. Fig. 2 is a vertical central cross-section of device shown in Fig. 1. Fig. 3 is a detail, showing the bending-form in perspective. Fig. 4 is a detail, showing, in section, the band and fellies; Fig. 5, plan of shaft and ring.

This invention embodies several improvements in devices or machines for bending wood fellies or any like articles of wood; and these improvements consist in the particular features and details now to be more fully set out and explained.

In the accompanying drawings, A denotes a semicircular form, made of boiler-iron or any suitable material, and set horizontally in any proper frame, B, and designed to be heated by hot air, steam, or in any convenient way. Several fellies, c, having been placed side by side on the flexible metallic strap or band D, their ends fitting toward or against the bent or raised ends d of the strap D, said strap is now so placed under the form A and over the beam b, which runs lengthwise of the frame B and below A, that its middle part comes about over beam b, when a clamping-piece, v, embracing the back and sides of the band D, its bent ends holding the fellies in position, is fixed tight against the back of the band, and thus the fellies on the inside of the band are pressed upon the bottom of A by means of the set-screw b'', which passes through any convenient one of the several holes made for that purpose in b.

To aid in drawing the band or strap D with its fellies down to and upon the sides of A,

the clamping-tips H are fitted by their side hooks, h, on the ears d' of the band D, and then, upon power being applied to these tips by means of the chains or ropes i, which pass over the pulleys k, placed about centrally in the beam L, and are fixed to the ring n on the shaft M, the ends of the band D will be easily brought tight and close upon the sides of the form A. In this process the lower portion of the detachable tips H will cover and protect the end of the fellies as well as retain them in place. The ends of the band D, with its fellies, will now be made fast on the form by fixing the links or straps f about them and in the notches or serrations a, made along the flanged edges of the form A, and then keying them securely in place and upon the band by the wedges f'. The fellies will thus be safely and evenly bent about the rounded part of form A.

The shaft M is operated by a band on wheel O connecting with any suitable or convenient motive power. The movements of this wheel O may be stayed by the pawl p, which can, on occasion, be made to take into the ratchet-wheel o on the side of O, and said pawl can be operated by handle p', jointed to a rod connecting with the pawl and pivoted to the side of the frame B.

The beam L is mounted on rods b', extending on each side lengthwise of the frame, and the beam can be held on these rods by eyes, or in any convenient way or manner, so that it can be moved to and fro on the rods b'. It has also supporting-straps l at its center, which come down and about the shaft M, but so as not in any degree to interfere with its operations.

The ring n has an internal strip, n', which fits in the longitudinal groove m of the shaft M. By this construction and arrangement the ring can readily be moved horizontally on the shaft, and will also take motion from the rotation of the shaft.

The beam L can be moved back and forth on the rods b', as occasion may require, by means of the chains or cords r r' at either end of the machine or apparatus, which play over pulleys or any convenient means in the frame, and are operated by the shaft T in the lower part of the frame. The said chains or cords

are so adapted to or fixed upon the shaft T that its rotation will wind up the cord *r*, attached to one end of it, while at the other end the cord or chain *r'* is unwinding, and thus vice versa. In this way, and very easily, forward or backward movement can be imparted to the beam L.

In making this machine or device any desired materials may be used.

10 By this invention the operation of bending can be very easily, safely, and rapidly performed. Usually the work can be very thoroughly and effectually accomplished in thirty minutes, and then the fellies will be in excellent-good condition for packing and shipment.

In this case no claim is broadly made to the serrated flanges of the bending-form, since this is shown and claimed in another application by me made and filed of even date with these presents.

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

25 1. In a wood-bending machine, having form A, a movable beam, L, combined with grooved

shaft M, ring *n*, and chains or ropes *i*, substantially as set forth.

2. In a wood-bending machine, as described, in combination with movable beam L and means for drawing the band or flexible frame D to the form, the shaft T and ropes or chains *r*, substantially as set forth.

3. In a wood-bending machine, in combination with frame B, movable beam L, and form A, the chains or ropes *i*, operated by ring *n* and grooved shaft M, as described, and shaft T, ropes or chains *r*, and band D, substantially as and for the purposes set forth.

4. In combination with the bending-form A, flexible band D, and chains or ropes operated as described, the detachable clamping-tips H, having hooks *h* to clamp the ears *d'* on the band D, and an extension below these ears which projects inside the fellies, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES WRIGHT.

Witnesses:

WM. M. SOUTHER,
JOHN APPLES.