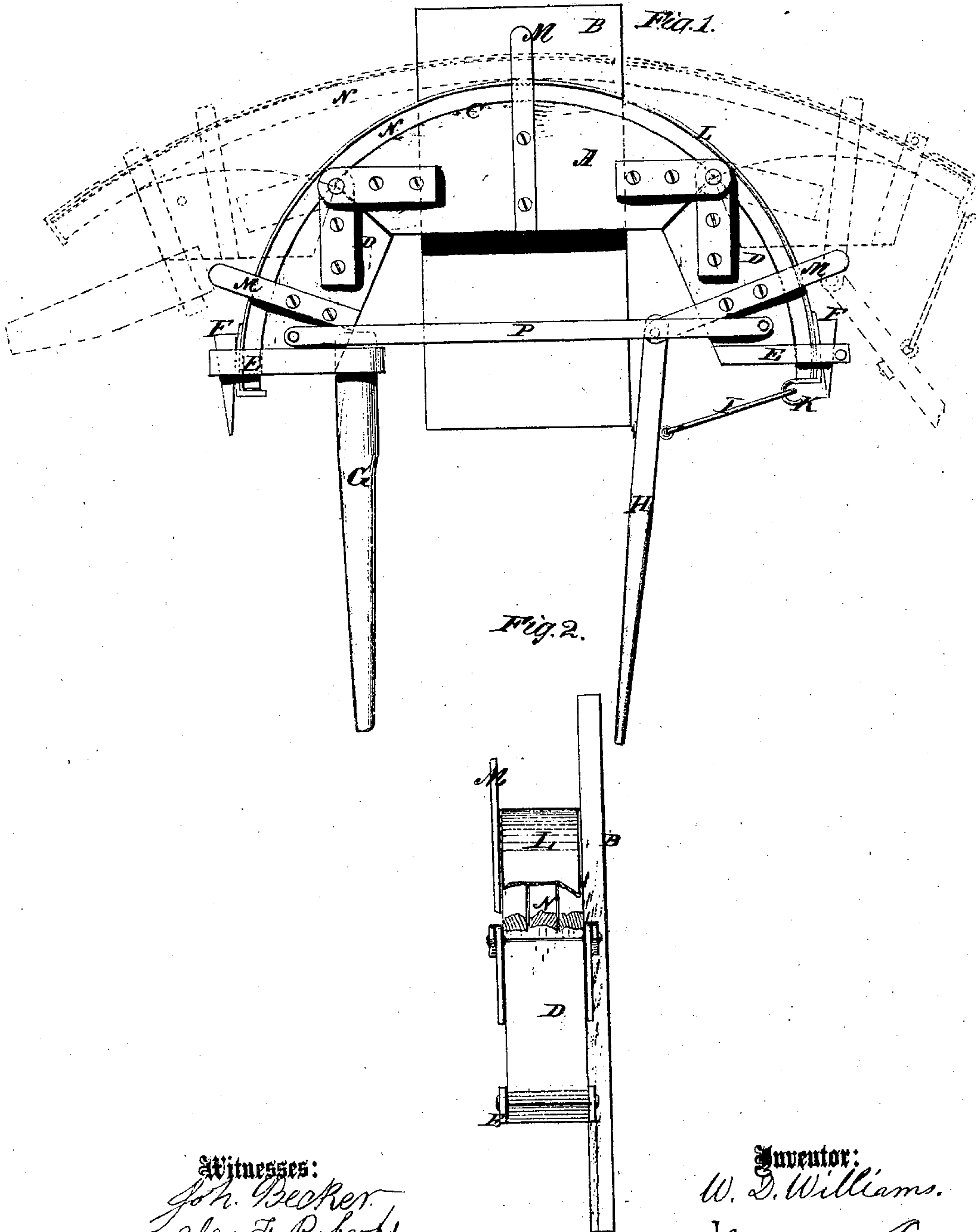


W.D. Williams,

Bending Wood.

No. 102637.

Patented May 3. 1870.



Witnesses:

John Becker.
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United States Patent Office.

WILLIS D. WILLIAMS, OF RALEIGH, NORTH CAROLINA.

Letters Patent No. 102,637, dated May 3, 1870.

IMPROVEMENT IN MACHINE FOR BENDING WOOD.

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, WILLIS D. WILLIAMS, of Raleigh, in the county of Wake and State of North Carolina, have invented a new and Improved Felloe-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 drawings forming part of this specification.

This invention relates to improvements in machines for bending felloes, and consists in a fixed curved block with a curved extension hinged at each end, and provided with holding devices, a confining strap of steel or iron, and operating levers, arranged for attaching the timber and bending it up into a semicircle, all as hereinafter more fully described.

Figure 1 is a plan view of my improved machine, the dotted lines showing the open position for attaching the timber, and

Figure 2 is an end elevation, partly broken.

Similar letters of reference indicate corresponding parts.

A is a strong block of wood or iron permanently attached to a bed, B, and having a curved face, C, formed on the radius of the circle of the wheel for which the felloe is designed.

It is also provided with other curved blocks, D, one hinged at each end, and all so shaped and arranged that, when swung up to the closed position represented in fig. 1, the combined curved faces of these blocks will represent a semicircle, or so much of a circle as it is designed that the felloe shall represent.

These blocks D have yokes of metal, E, projecting radially from the free ends, for confining the ends of the timber and the bending-strap by wedges, F, they also have operating levers, G H, attached. The

one, G, takes in between the inner end of the yoke and the inner face of the block, and the one, H, is jointed to the block, and has a link, I, of metal jointed to it for engaging the hook K at the end of the bending strap L, of iron or other metal which will bend readily.

M represents guide-plates, to keep the timber and strap on the curved face of the blocks.

The blocks D being turned back to the position represented in dotted lines, fig. 1, the timber N, with the strap L, is placed within the yokes E, as shown, and the link I is engaged with the hook K. The levers G H are then turned up into the position represented in full lines, the wedges F being inserted at the proper time, confining the timber at the ends snugly against the faces of the blocks, and finally the holding-strap P is connected to the pins of the blocks D for holding them in the closed position until the timber is "set" sufficiently to remain in the bent position.

By means of these jointed blocks and the bending-strap the timber is bent from one end to the other at the same time without straining the fiber at any one place, the same being snugly confined by the strap against the curved faces of the blocks so as to bend evenly.

Having thus described my invention,

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

The combination of the permanent curved-faced block A, curved blocks D hinged thereto, yokes and levers G H, substantially as specified.

W. D. WILLIAMS.

Witnesses:

R. H. BRADLEY,

J. R. O'NEILL.