

GUSTAF GUSTAFSON.

Improvement in Machines for Bending Wood.

No. 119,702.

Patented Oct. 10, 1871.

Fig. 1.

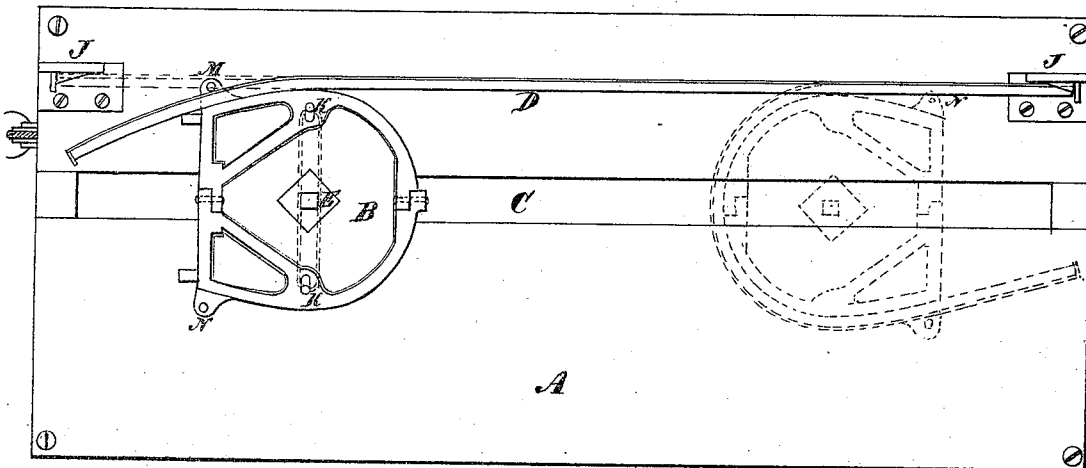
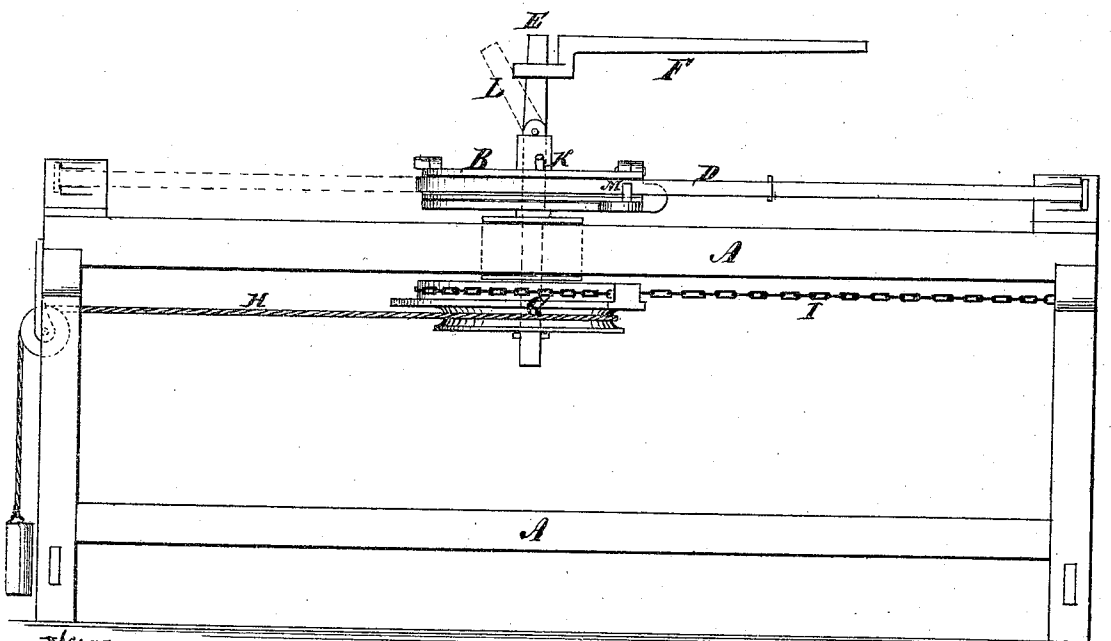


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

GUSTAF GUSTAFSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO HIMSELF, JOHN PHILLIPS, AND HENRY LEIBENSTEIN, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR BENDING WOOD.

Specification forming part of Letters Patent No. 119,702, dated October 10, 1871.

To all whom it may concern:

Be it known that I, GUSTAF GUSTAFSON, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Machines for Bending Wood; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a top view of my invention, and Fig. 2 is a side elevation of the same.

Similar letters of reference indicate corresponding parts in the several figures of the drawing.

My invention has for its object to provide a machine for bending the rims of chairs, which, while it is more particularly adapted to the production of the ordinary ox-bow bend, can, by the use of devices to be hereinafter fully described, be used in making any desired bend; and to this end it consists in a combination of such devices.

In the accompanying drawing, A represents the frame of the machine, which should be substantially constructed to resist the vibrations of the operating parts. B is the mold or pattern around which the wood is bent, and C the slot in which the shaft is rotated. D represents the wood to be bent, having upon its outer side a metallic strap to prevent the fibers of the wood from becoming separated upon the outer bend during the operation of bending. Said strap is provided at its ends with clamps or projections against which the ends of the wood rest, which serve the double purpose of holding the wood in position and preventing end expansion. E is the shaft upon which the mold or pattern is secured, and F the lever by which it is rotated. G represents the pulley upon the lower end of the shaft, beneath the bed or top of the frame, to which is attached rope and weight H or chain I, which, upon the shaft being rotated, winds upon the pulley and draws the pattern from one end of the slot to the opposite end, producing at one and the same time a rotary and a forward move-

ment. Pattern B is jointed or hinged in its center, and when it is removed from shaft E it is bent slightly and a loop placed over pins K, by which means the bent wood is made to assume a hollowed form corresponding to the curvature of the back of the sitter. Shaft E is pivoted, as shown at L, Fig. 2, and, the pattern being placed upon its upper end and the ends of the bent wood properly secured, it is bent over, as shown by dotted lines, by which means the downward or right-angled bend required in office-chair rims is readily produced.

In operating my invention the wood to be bent, after having been properly steamed, is placed, with the strap, within lugs J, and the pattern being brought into proper position and the wood and strap being secured to it by a pin, as shown at M, and that end of the strap loosened from the lug, the pattern is rotated around the wood, the chain or rope and weight propelling it forward, until a full revolution is produced and the bend is completed, as shown by dotted lines in Fig. 1, and a pin, N, introduced in the opposite side of the pattern to hold the bent wood in position. The hollowing or right-angled bend, as preferred, being then applied, the pattern containing the bent rim is then removed and replaced by another, when the operation is repeated.

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

1. Hinged pattern B, for the purpose herein described.

2. Table A, provided with slot C, in combination with pattern B, pivoted shaft E, lever F, pulley G, rope and weight H or chain I, lugs J, and pins K, M, and N, the whole constructed and arranged substantially in the manner and for the purposes herein described.

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Witnesses:

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