W. BRIGGS.

Machine for Bending Wood.

No. 164,901. Patented June 29, 1875.

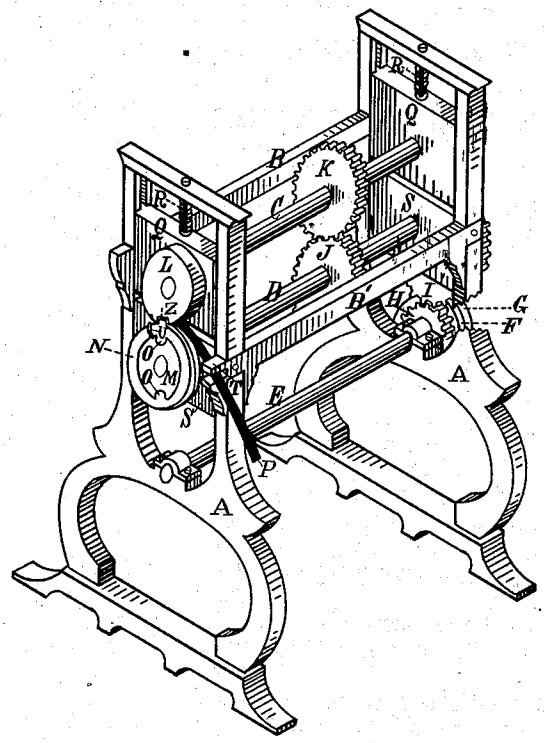

Fig. 1.

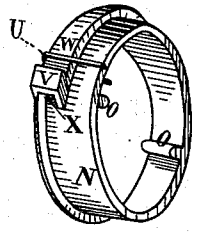

Fig. 2.

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UNITED STATES PATENT OFFICE

WILLIAM BRIGGS, OF ASHBURNHAM, MASSACHUSETTS, ASSIGNOR TO GEORGE C. WINCHESTER, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR BENDING WOOD.

Specification forming part of Letters Patent No. **164,901**, dated June 29, 1875; application filed April 6, 1875.

To all whom it may concern:

Be it known that I, WILLIAM BRIGGS, of Ashburnham, in the county of Worcester, State of Massachusetts, have invented a certain new and useful Improvement in Machines for Bending Wood, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an isometrical perspective view of my improvement; and Fig. 2 a view of the chuck.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

My invention relates more especially to that class of wood-bending machines which are employed in the manufacture of chairs; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed.

The nature and operation of my improvement will be readily understood by all conversant with such matters from the following description.

In the drawing, A A represent the standards or end pieces of the frame-work, which are connected by the cross beams or bars B B′. A horizontal shaft, E, is journaled in the standards A A, carrying at one of its ends the gear H and the fast and loose pulleys F G. Disposed in the upper section of the machine, in the boxes Q S, there are two shafts, C D, connected by the gears J K, the shaft D being also provided with the gear I, which intersects with the gear H of the shaft E. Arranged upon the outer end of the shaft C there is a cam, L, and, upon the corresponding outer end of the shaft D, a chuck-holder or face-plate, M. A former, N, of peculiar formation is fitted upon the holder M, and kept from slipping or revolving thereon by means of splines O O, which fit into corresponding grooves in plate M. Upon the outer edge of the former there is a projection, V, which is hollow, or has opening into one of its sides the socket X, a tapering rib or flange, W, extending from the side of the projection opposite the socket entirely around the former, which is irregular in shape, to correspond with the work the machine is designed to perform. The cam L is also irregular, its periphery conforming reversely with the former N—that is to say, where the surface of the former projects the surface of the cam is depressed, and vice versa.

In the use of my improved machine the bar or hoop P to be bent is first properly steamed, and one of its ends inserted in the socket X, its body resting in a slot in the bracket T. Power is then applied to the shaft E, causing the shafts C D to rotate, and the hoop to be wound round the former N in contact with the flange W, the cam L being pressed firmly upon the hoop during the operation by means of the springs R. When the former has made a complete revolution the clamp U is passed over the former and hoop, as shown in Fig. 2, and the former is then removed from the machine, the hoop being allowed to remain on the former until it "sets" or becomes fixed in its shape.

The cam L is provided with a notch, Z, into which the projection V falls as the cam and former revolve conjointly.

It will be understood that each machine is designed to be fitted with a series of formers corresponding with the work for which it is intended.

Having thus explained my invention, what I claim is—

In a wood-bending machine substantially such as described, the former N, provided with the socket X and tapering flange W, combined to operate with the cam L, shafts C D, and plate M, substantially as and for the purpose set forth.

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Witnesses:

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