

No. 688,372.

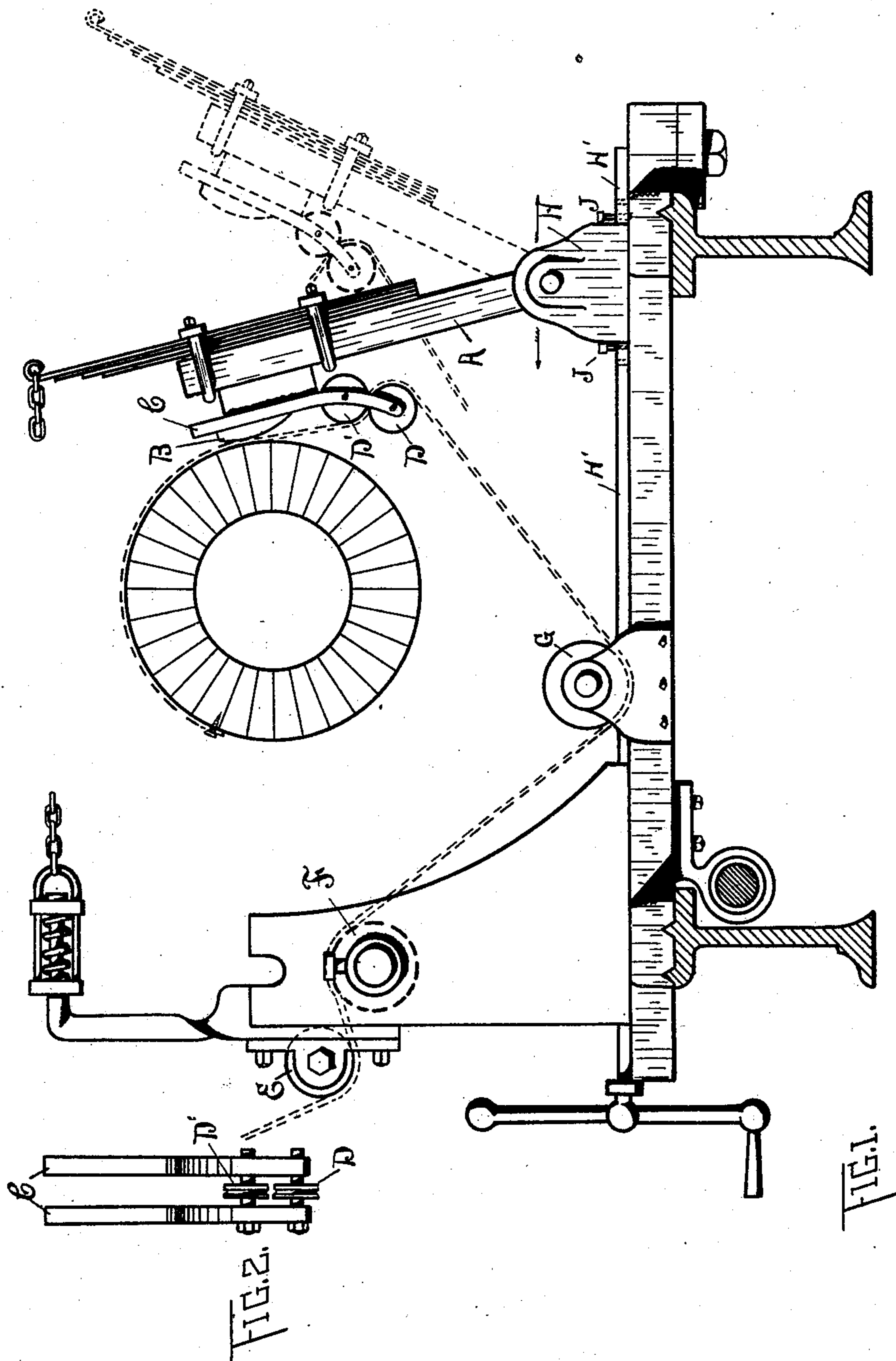
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M. F. WILCOX.

MECHANISM FOR BANDING WOODEN PIPES.

(Application filed Apr. 22, 1901.)

(No Model.)



WITNESSES:
J. Gould.
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UNITED STATES PATENT OFFICE.

MERRILL F. WILCOX, OF BAY CITY, MICHIGAN, ASSIGNOR TO MICHIGAN PIPE CO., OF BAY CITY, MICHIGAN.

MECHANISM FOR BANDING WOODEN PIPES.

SPECIFICATION forming part of Letters Patent No. 688,372, dated December 10, 1901.

Application filed April 22, 1901. Serial No. 56,917. (No model.)

To all whom it may concern:

Be it known that I, MERRILL F. WILCOX, a citizen of the United States, residing at Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Mechanism for Banding Wooden Pipes; 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.

This invention relates to improvements in mechanism for applying wire upon wooden tubes, pipes, or similar articles, and pertains more especially to improvements in certain mechanism for banding wooden pipes described in Patent No. 236,286, dated January 4, 1881, and issued to me.

The improvement consists in certain means whereby the mechanism described in the patent referred to is adapted to be used for banding pipes with wire instead of with flat iron bands, and comprises means for easily and quickly adjusting the tension of the wire as it winds upon the pipe.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a transverse section of a machine for winding the pipe with wire, the position of the arm carrying the tension-wheels when swung back away from the pipe being indicated by dotted lines. Fig. 2 is a detail of the tension-wheels.

To successfully band a wooden pipe with wire, it is necessary to wind the wire on under heavy tension combined with pressure, so that the wire becomes firmly embedded in the surface of the pipe. To produce the proper tension and to confine the tension to a short length of wire just before it is wound on the roller and to effect this without the aid of a long train of wheels, I provide an upright arm A, pivoted at its lower end and arranged to swing transversely outward from the pipe. Near the upper end of the arm A is secured the wearing-plate B, which bears against the wire as it is wound upon the pipe and embeds it into the wood. A removable and adjustable bracket C is secured to the arm A and carries at its lower end the two grooved tension-wheels D and D'. The wire coming from

the spool passes between the grooved guide-wheels E and F and under the lower guide-wheel G, thence upward between the tension-wheels D and D', and thence around the pipe.

When the arm A is swung over toward the pipe, the wearing-plate B presses against the wire and a heavy tension is brought upon the wire just before it winds on the pipe by the tension-wheels D and D', which double-kink the wire. When the arm A is in the position shown by the dotted lines in Fig. 1, the wire can run loosely over the lower wheel D and is not affected by the upper wheel D'.

In order to increase or decrease the tension of the wire, it is only necessary to vary the amount that the combined actions of the tension-wheels D and D' kink or bend the wire. This is accomplished by moving the pivotal center of the arm A horizontally farther away from or closer to the vertical center line of the pipe. For that purpose the block H, in which the lower end of the arm A is pivoted, is mounted to slide along the transverse guide H'. The block H can be secured in position by means of bolts or pins J, inserted in holes in the guide H', or by any other well-known clamping or locking mechanism.

The wire can be wound spirally from end to end of the pipe by moving the guide and the mechanism carried by it throughout the length of the pipe.

By the means above described I have produced a mechanism of extreme simplicity for binding wire upon pipes and like articles, resulting in the cheap and rapid production of a more nearly perfect product than it has been possible to manufacture by more complicated means.

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

1. In a machine for binding wooden tubes with wire, the combination with the pivoted arm, the wearing-plate, and the bracket carried by said arm, of a pair of grooved wheels D and D' carried by the bracket; the transversely-adjustable block H carrying said arm, the guide H', and means for securing said block in various positions along said guide, so as to vary the amount the wire is bent by the wheels.

2. In a machine for binding wooden tubes

with wire, comprising an arm pivoted at its lower end to a block and carrying near its upper end a wearing-plate and an adjustable bracket; a pair of grooved wheels revolubly
5 mounted one above the other in the lower end of said bracket, and operating to allow the wire to run freely over the lower wheel when the pivoted arm is swung back, and to double-kink the wire between the wheels when the
10 pivoted arm is in its operative position, thereby producing tension in that part of the wire between the wheels and the pipe when the latter is revolved, substantially as set forth.

3. In a machine for binding wooden tubes
15 with wire, the combination with the transversely-swinging arm carrying at its upper

end a wearing-plate and a bracket having two wire-kinking wheels; of a block to which is pivoted the end of said swinging arm, said block being transversely adjustable, for the
20 purpose of varying the angular movement of the pivoted arm, and thereby increasing or decreasing the amount that the wire is kinked by the wheels, to vary the tension of the wire as it winds upon the tube. 25

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

MERRILL F. WILCOX.

Witnesses:

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GEO. B. WILLCOX.