No. 676,007. Patented June 11, 1901.

T. H. PARRY & W. J. BYERS.

AXLE BENDING MACHINE.

(No Model.) (Application filed Jan. 26, 1901.)

Fig. 1.

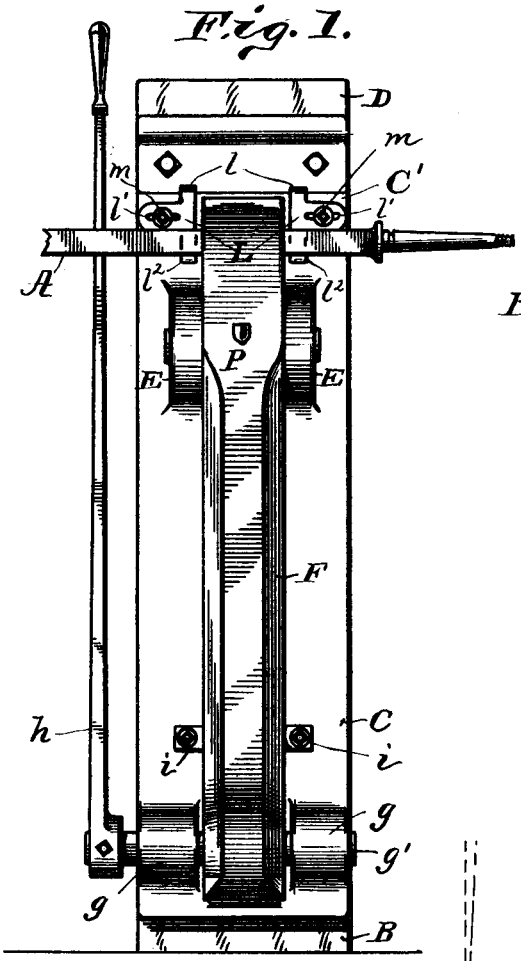


Fig. 2.

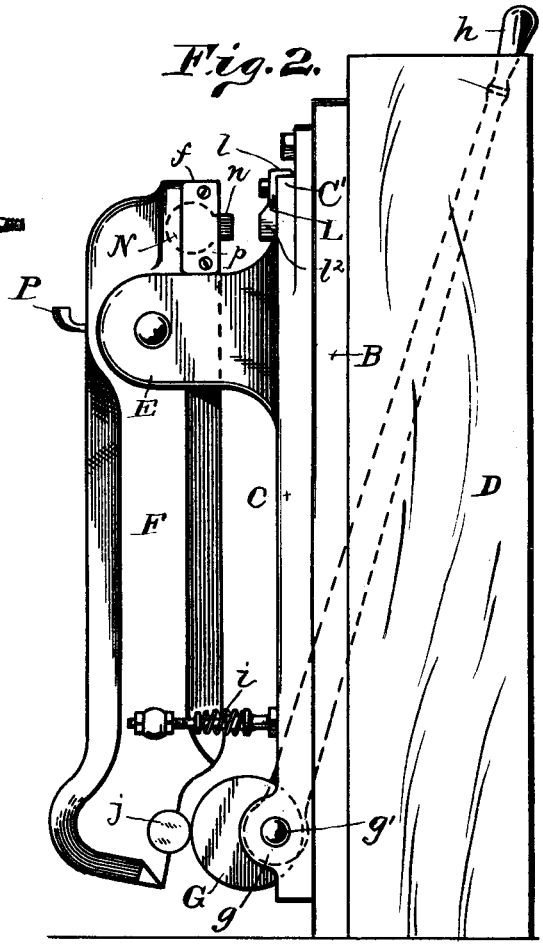
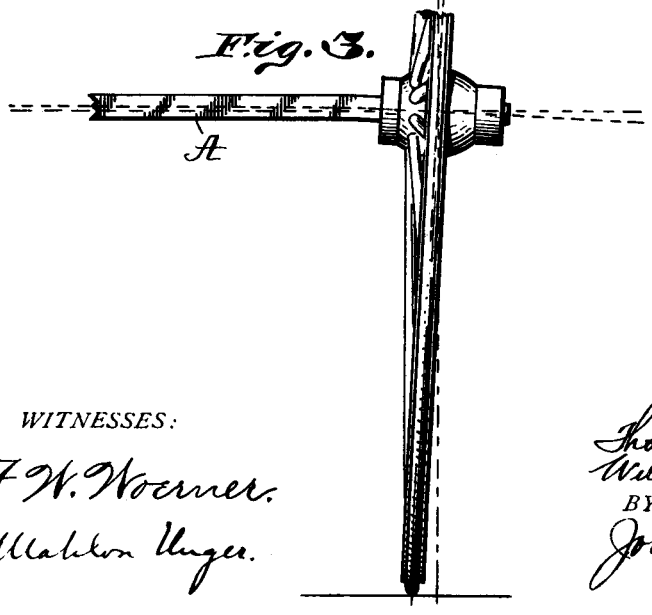


Fig. 3.



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UNITED STATES PATENT OFFICE.

THOMAS H. PARRY AND WILLIAM J. BYERS, OF INDIANAPOLIS, INDIANA, ASSIGNORS TO THE PARRY MANUFACTURING COMPANY, OF SAME PLACE.

AXLE-BENDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 676,007, dated June 11, 1901.

Application filed January 26, 1901. Serial No. 44,911. (No model.)

To all whom it may concern:

Be it known that we, THOMAS H. PARRY and WILLIAM J. BYERS, citizens of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Axle-Bending Machines, of which the following is a specification.

It is well known that the two wheels mounted on a vehicle-axle when properly set are not parallel with each other, but are slightly oblique to a vertical plane and closer together at their bottoms. The proper obliquity of the wheels is well known to those skilled in the art of vehicle manufacture, and this obliquity is obtained by properly bending the ends of the axles. This has been done in various ways, all of which are slow, uncertain, or otherwise unsatisfactory; and the objects of this invention are to provide a machine by the use of which just the requisite bend can be given to the axle in an expeditious manner and to provide a machine which will be inexpensive to construct, simple in its operation, and durable.

We accomplish the objects of the invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view in front elevation of our improved bending-machine; Fig. 2, a side elevation of same, and Fig. 3 a portion of a vehicle axle and wheel mounted thereon with direction-lines demonstrating the changed positions of wheel obtained by bending the axle.

Like letters of reference indicate like parts throughout the several views of the drawings.

A, Fig. 1, is the axle which is to be bent, as shown in Fig. 3, to set the wheel in at the bottom.

B is a heavy oak plank to which the main plate C of our bending-machine is bolted, and D is a strong wooden post set firmly in a vertical position, to which the plank B is bolted securely.

E represents a pair of ears integral with the plate C, to which is pivotally secured the heavy iron or steel jaw-bar F. The lower end of plate C is provided with eyes g to receive the bolt g', upon which is eccentrically mounted the roller G. This eccentric roller G moves with the bolt g', and said bolt g' has the hand-lever h, by which the eccentric roller is rocked. The lower end of the jaw-bar F bears against roller G and is firmly drawn thereto by springs i i. It will be observed that the jaw-bar F is a lever, the long arm of which bears against the eccentric roller G G and is actuated by the throw of the lever sufficiently to impart a limited but powerful movement to the upper short arm of said jaw-bar or lever. To lessen the friction between the jaw-bar and eccentric roller, we provide the friction-roller j in bar F to contact with roller G.

The top end of plate C is reduced in thickness to form ledge C′ to secure supporting-fingers l of adjustable bearings L. The bearings L are two in number and consist of a body with slot l', through which bolts m take, by which the said plates are adjustably secured to permit the two bearing-plates to be moved toward or from one another. The plates have the raised bearings l^2, against which the axle A is pressed by the inward movement of the jaw-bar F.

The jaw-bar F has the nose n, which is intended to be brought against the axle A with great pressure intermediate the two bearing-points l^2 of plates L. The degree of pressure will be controlled by the throw of the lever h, and that, being thrown by hand by a boy in plain view of the principal operator of the machine, will be regulated by speech or other signal between the two.

In order that the nose n may contact squarely with the axle in all positions of the moving jaw-bar, we make it vertically adjustable, as follows: The jaw-bar at its upper end is rabbeted on each inner corner, having a middle flange of the same thickness as the nose. A large transverse circular opening is formed through this flange, and in this opening is seated the circular body N of the nose. The nose n projects out through a slot in the circular opening and has a limited vertical adjustment. The circular body is held in the flange by means of plates p, bolted on either side of said opening. P is an oil-cup having a passage-way for oil from it to the pivot on which the jaw-bar swings.

Having thus fully described our invention,

what we claim as new, and wish to secure by Letters Patent of the United States, is—

1. An eccentric roller, means for rocking same, a plate having a pair of bearings, a lever pivotally secured to the plate having a nose on its short arm intermediate of and opposite to the two first-mentioned bearings and the long arm of said pivotal lever bearing against the eccentric roller and actuated thereby, substantially as described and shown.

2. A plate, an eccentric roller supported thereby, a lever controlling same, a pair of laterally-adjustable bearings, a jaw or lever pivotally secured to the plate and having its long arm bearing upon and moved by the movement of the eccentric roller and having an adjustable nose bearing on its short arm, substantially as described and shown.

3. In a machine for bending axles, a plate having laterally-adjustable bearings, an eccentrically-mounted roller, means for rocking the roller, a lever pivotally secured to the plate, springs to hold the long arm of the lever against the eccentric roller and an adjustable nose-piece forming a bearing of the lever against the axle, substantially as described and shown.

In witness whereof we have hereunto set our hands and seals, at Indianapolis, Indiana, this 21st day of January, A. D. 1901.

THOMAS H. PARRY. [L. S.]
WM. J. BYERS. [L. S.]

Witnesses:
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