

M. B. FLYNN.
Machines for Bending Tires.

No. 146,329.

Patented Jan. 13, 1874.

Fig. 1.

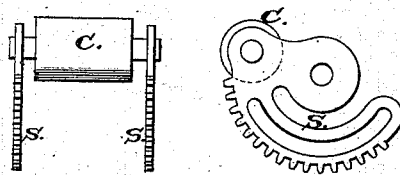


Fig. 2.

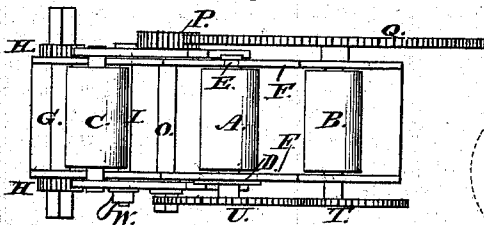


Fig. 3.

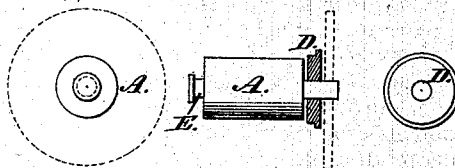


Fig. 4.

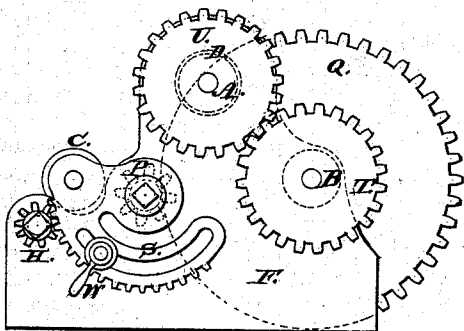
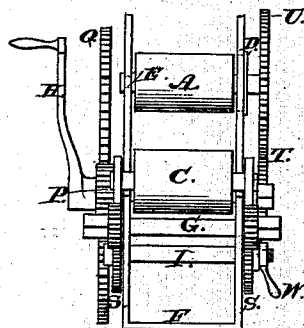


Fig. 5.



Witnesses:

Robt. Payne.
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UNITED STATES PATENT OFFICE.

MAURICE B. FLYNN, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN MACHINES FOR BENDING TIRES.

Specification forming part of Letters Patent No. **146,329**, dated January 13, 1874; application filed December 24, 1873.

To all whom it may concern:

Be it known that I, M. B. FLYNN, of the city of Brooklyn, county of Kings and State of New York, have invented certain Improvements in Machines for Bending Iron Tires, Fifth-Wheels, and other articles, of which the following is a specification, reference being had to the accompanying drawing, in which—

Figure 2 represents a top view of machine having my improvements applied thereto. Fig. 4 represents a side view of the improved machine, and Fig. 5 represents an end view of same. Fig. 1 represents the adjustable roller C detached from machine along with the geared segments, to illustrate the mechanism for raising and lowering the roller for the purpose of changing the circle of the metal being bent; and Fig. 3 represents the movable roller, journal, and gear, also detached, showing the mechanism by which the middle roller *a* is withdrawn, so that the tires, fifth-wheels, &c., can be readily removed after being bent.

My invention has for its object the production of a cheap, durable, and effective machine for bending iron tires, fifth-wheels, &c.

To enable others to make, construct, and use my invention, I will proceed to describe its parts in detail.

The machine is mounted on a bed or frame, F, which may be attached or secured to a bench or block. To the roller B, which revolves in journals formed in bed or frame F, is attached the gear-wheels T and Q. On one end of the roller A is attached the gear-wheel U and the round box or journal D, the gear-wheel U fitting and corresponding to the gear-wheel T. A journal is made in the side of bed or frame F, to admit the shaft E of roller A, and a circular aperture is made in the opposite side of bed or frame F to admit the box or journal D, in which the roller A revolves upon the shaft E, which forms a part of said roller. The box or journal D is made larger in diameter than the roller A, which enables the operator to withdraw the gear U, the box D, and the roller A, when necessary, in order that the bent work may be the more readily removed. The two segments S S, in which are formed journals for the ends of roller C, and which hold same, are fitted on shaft O, or on bosses on sides of frame F, through which shaft O revolves; and these segments are held

in any desired position by means of the bolt I and thumb-nut W, a slot being made in segments, through which bolt I passes. The segments S S are moved and adjusted by means of the pinions H H, attached to shaft G, which is revolved by a wrench applied to either end of same. To the shaft O, which works in journals formed in each side of bed or frame F, is attached the pinion P, which fits or corresponds to gear-wheel Q, and the ends of shaft are squared, in order that it may be revolved by crank or pulley applied to either end.

To operate the machine, place the iron or metal to be bent in the machine, by entering end of bar between the rollers A and B, until the end lies upon the roller C; raise the roller C to the required height by turning pinion H, which operates in the geared segments S S. When adjusted to the position required to form the desired circle, screw up the thumb-nut W until the roller C and segments are firmly held in place, apply the power to shaft O, and the bar will be forced through by friction, and the motion of the rollers A and B, until the circle is formed; then withdraw the roller A from side of machine, as before described, lift the bent bar from machine, slip the roller, box, and gear back in place, and proceed as before.

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

1. The improved machine herein described, consisting of the bed F, the gears T and U, attached to rollers, as before described, and said gears operating in each other, the segments S S, operated by the pinions H H and shaft G, the roller C, and shaft O, with its pinion P, all combined and operating as set forth.
2. The removable roller A, box D, and gear U, combined and operating to allow the ready and convenient removal of bent work.
3. The adjustable segments S S for holding roller C, the shaft G, and pinions H H, for adjusting said segments, and the bolt I and thumb-nut W, for holding same in place.

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Witnesses:

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