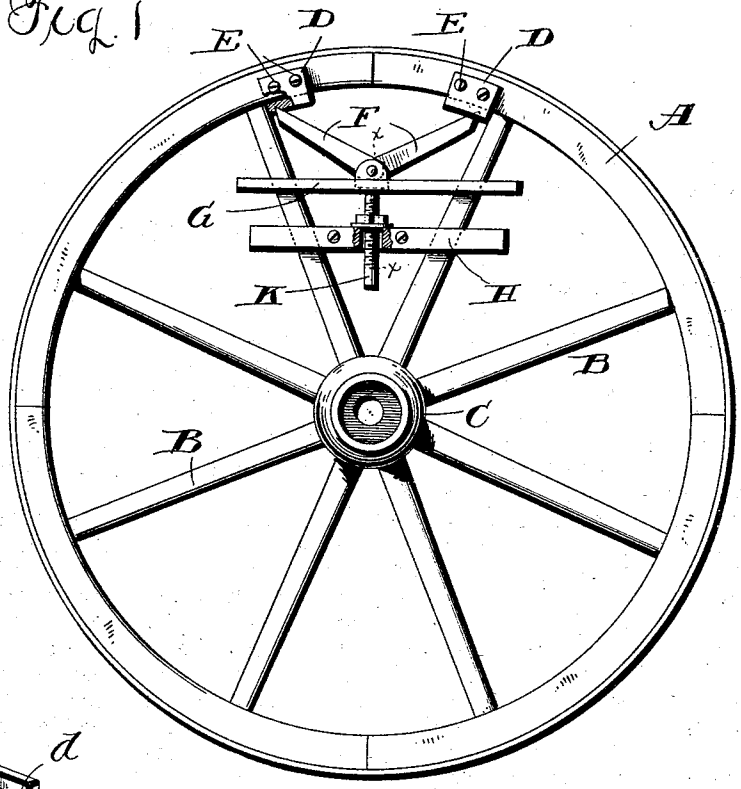
(No Model.)

J. P. ROSS.

TIRE TIGHTENER.

No. 487,777. Patented Dec. 13, 1892.

Fig. 1



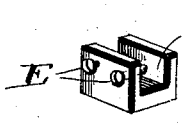


Fig. 2.

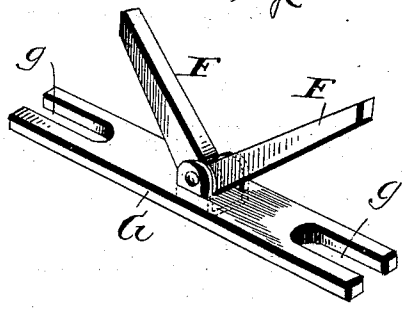


Fig. 3.

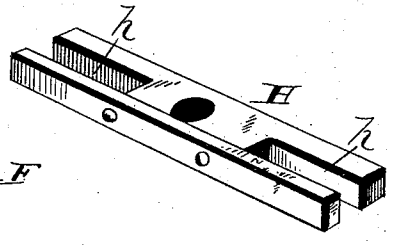
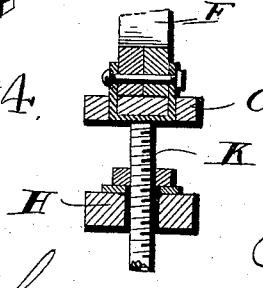


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN P. ROSS, OF WATERLOO, ALABAMA.

TIRE-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 487,777, dated December 13, 1892.

Application filed July 25, 1892. Serial No. 441,194. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. ROSS, a citizen of the United States, residing at Waterloo, in the county of Lauderdale and State of Alabama, have invented certain new and useful Improvements in Tire-Tighteners; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in tire-tighteners, and aims to provide a device of this character which shall be simple in construction and of easy application, whereby the tire of a carriage-wheel can be readily spread for the purpose of tightening the same.

My invention consists, further, in the novel combination, arrangement, and adaptation of the parts, which will be more fully hereinafter described, and then specifically defined in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, like letters of reference indicating like parts throughout the several views, in which—

Figure 1 is a side elevation of a tire-tightener attached as for use on the wheel of a vehicle. Fig. 2 is a detail view of one of the guide-plates. Fig. 3 is a detail view of a sectional guide-plate through which passes a threaded screw. Fig. 4 is a sectional view taken on line *x x*, Fig. 1.

Reference now being had to the drawings by letter, A represents the felly of an ordinary carriage-wheel; B, the spokes connected to the same; C, the hub, and D are clamps which are so constructed as to fit over the felly and are recessed, as seen at *d*, and said clamps are provided with set-screws E for securely holding the clamps to the felly while the tire is being tightened.

F are arms hinged to a guide-plate G at the pivotal point *f*, and the ends of said arms are adapted to bear against the clamps in the recesses *d*. The guide-plate G has its ends bifurcated, so as to fit over the spokes, as shown at *g g*.

H is a sectional guide-plate having the recesses at the end *h*, said sections being fastened together by means of pins or bolts I. Through the center of the plate H passes the bolt K, which is provided with suitable nut and washer, and the end of said bolt is adapted to bear against the under side of the guide-plate G, so that when the bolt is screwed up against the guide-plate the arms crowd the clamps against the felly, thus tightening the tire.

The simpleness of the construction of a tightener constructed in accordance with my invention is readily seen, and the same can be readily applied by any unexperienced persons.

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

In a tire-tightener, in combination, having recessed tire-clamps, the guide-plate G, provided with arms pivoted near the center of the same adapted to bear against the said clamps, of a secondary guide-plate fastened together with bolts, and a threaded bolt having suitable nut and washer, which passes through the sectional guide-plate and bears against the guide-plate G, all substantially as shown and described.

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

JOHN P. ROSS.

Witnesses:
J. C. ROSS,
G. D. CROW.