

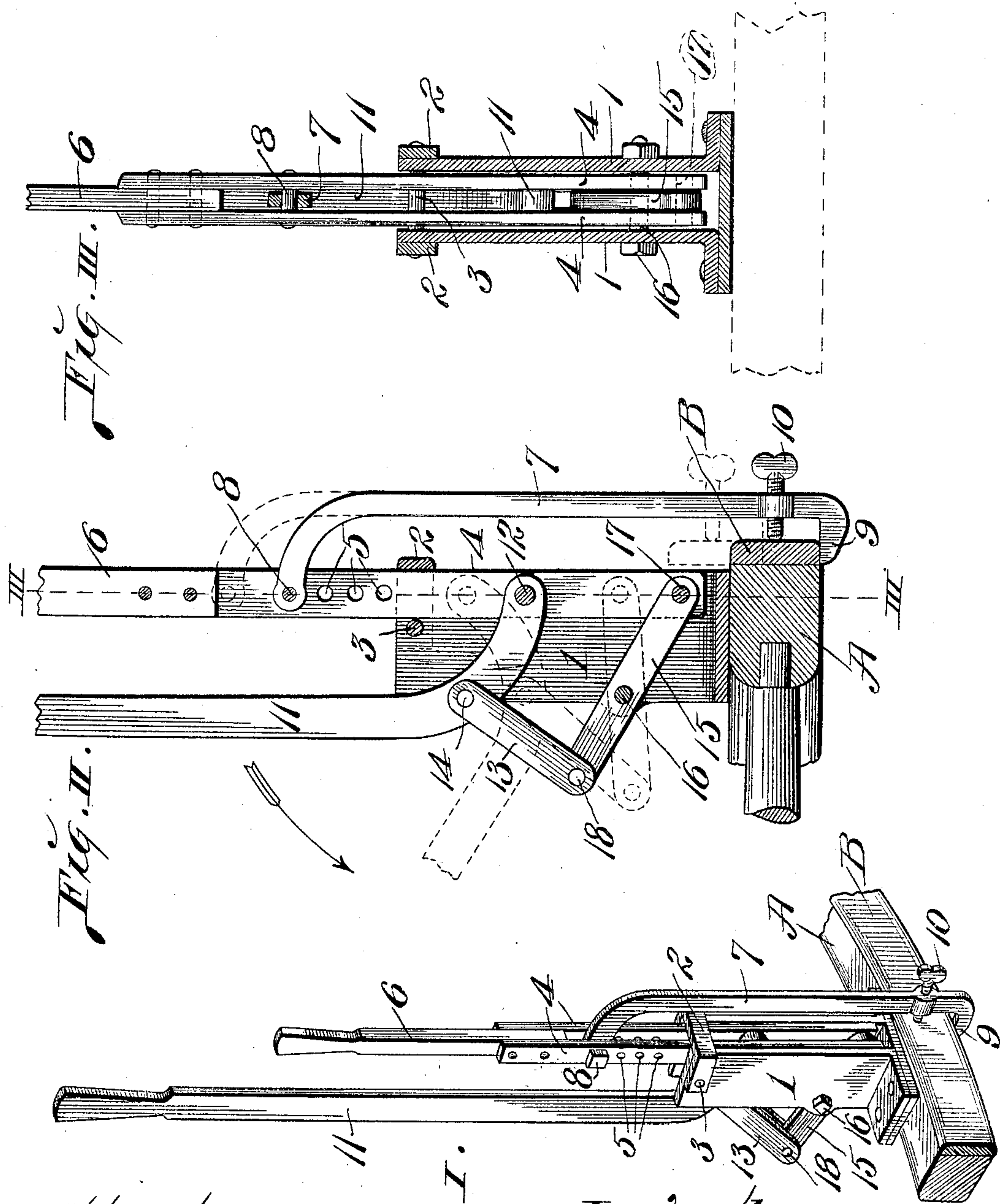
No. 803,276.

PATENTED OCT. 31, 1905.

H. EICHMANN.

TIRE PULLER.

APPLICATION FILED MAY 1, 1905.



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Fig. I.

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UNITED STATES PATENT OFFICE.

HENRY EICHMANN, OF WELD COUNTY, COLORADO.

TIRE-PULLER.

No. 803,276.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY EICHMANN, a citizen of the United States, residing in Weld county, near Berthoud, in the county of Larimer and State of Colorado, have invented certain new and useful Improvements in Tire-Pullers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an implement for pulling or extracting vehicle-wheel tires from the fellys of the wheels.

Figure I is a perspective view of my tire-puller shown in position on a fragment of vehicle-wheel ready for use in pulling the tire from the felly. Fig. II is an enlarged view, partly in elevation and partly in vertical section, of the implement. Fig. III is a vertical section taken on line III III, Fig. II.

A designates a fragment of a vehicle-wheel felly, and B a fragment of tire thereon.

1 designates a head-block, which consists of a pair of side uprights and a base-plate to which said uprights are secured at their lower ends. The upper ends of the uprights are tied together by a strap 2 and a tie-rod 3, that is located at the rear of said strap.

4 designates a pull-bar, preferably consisting of two sections, that is slidably positioned between the strap 2 and tie-rod by which the bar is guided. This bar is provided with a plurality of bolt-holes 5 and has secured to its upper end a handle 6. The lower portion of the pull-bar is adapted to operate between the two uprights of the head-block 1.

7 designates a grip-arm that is pivotally connected to the pull-bar 4 by a bolt 8, that is adapted to be inserted through either of the bolt-holes 5 in order that the grip-arm may be raised and lowered to diminish or increase the combined length of the pull-bar and grip-arm according to necessity in pulling tires of different widths. The upper end of the grip-arm is preferably curved, as seen in Figs. I and II. At the lower end of the grip-arm is an intumed finger 9, that is adapted to be positioned beneath the wheel-tire to be pulled.

10 is a set-screw passing transversely through the grip-arm near its lower end and above the finger 9 in a position to bear against the wheel-tire to limit the inward movement of said finger in order that it may not overlap the wheel-felly when the implement is put in position for use.

11 designates a hand-lever that is pivoted

at 12 to the pull-bar 4, and 13 is a link pivoted at 14 to said lever and extending downwardly therefrom.

15 is a rocking bar that is fulcrumed intermediate of its ends at 16 through the medium of a pivot-pin seated in the uprights of the head-block 1 beneath the lower portion of the hand-lever 11. One end of this rocking bar is pivoted at 17 to the lower end of the pull-bar 4, and the other end is pivoted at 18 to the lower end of the link 13.

In the practical use of my tire-puller the head-block 1 is placed upon the vehicle-wheel felly at the point at which strain is to be exerted to pull the tire. The grip-arm 7 is then swung inwardly to position its finger 9 beneath the lower edge of the tire, while the wheel is lying in horizontal position and the set-screw 10 is adjusted to the proper degree in order that the arm-finger may securely engage the edge of the tire without touching the wheel-felly. The operator then grasps the pull-bar handle 6 and presses the hand-lever 11 downwardly, as indicated by the arrow, Fig. II, in which movement it swings upon its pivotal point 12 and forces the link 13 downwardly, causing it to depress the outer end of the rocking bar 15 and elevate the forward end of said rocking bar. The rocking bar is thereby caused to act upon the pull-bar 4 and elevate it, so that it will exert a pull upon the grip-arm 7 and withdraw the tire from the felly, as indicated in dotted lines, Fig. II.

I claim as my invention—

1. In a tire-puller, the combination of a head-block, a pull-bar slidably fitted to said head-block, a grip-arm connected to said pull-bar, a lever pivoted to said pull-bar, a link pivoted to said lever, and a rocking bar fulcrumed to said head-block and having one of its ends pivoted to said pull-bar and its other end pivoted to said link, substantially as set forth.

2. In a tire-puller, the combination of a head-block, a pair of guide members fitted to said head-block, a pull-bar operating between said guide members, a grip-arm pivoted to said pull-bar, a lever pivoted to said pull-bar, a rocking bar fulcrumed to said head-block and pivoted to said pull-bar, and a link connecting said lever and rocking bar, substantially as set forth.

HENRY EICHMANN.

In presence of—

J. W. PURVIS,
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