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PATENTED MAR. 3, 1908.

J. W. GAY.  
SPOKE EXTRACTOR.  
APPLICATION FILED OCT. 4, 1906.

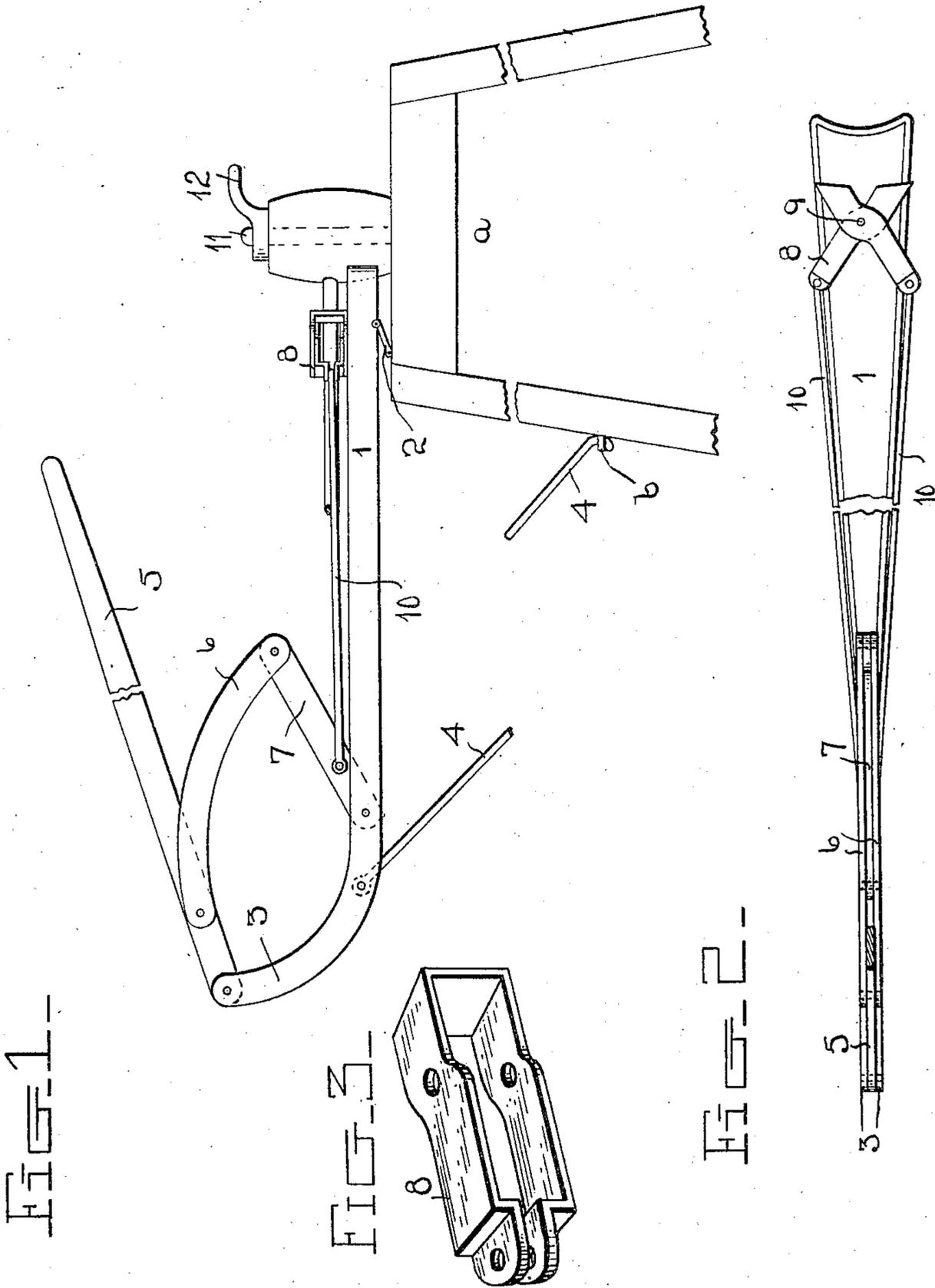


FIG. 1-

FIG. 2-

FIG. 3-

Witnesses

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# UNITED STATES PATENT OFFICE.

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## SPOKE-EXTRACTOR.

No. 881,070.

Specification of Letters Patent.

Patented March 3, 1908.

Application filed October 4, 1906. Serial No. 337,467.

*To all whom it may concern:*

Be it known that I, JOSEPH W. GAY, a citizen of the United States, residing at Solomon Rapids, in the county of Mitchell and State of Kansas, have invented certain new and useful Improvements in Spoke-Extractors; 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.

My invention is an improved spoke extractor for extracting spokes from the hubs of a wheel when repairing the same, and it consists in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings,—Figure 1 is a side elevation of a spoke extractor, embodying my improvements, showing the same in operative position; Fig. 2 is a plan view of the same, and Fig. 3 is a perspective view of one of the jaws.

In the construction of my improved spoke extractor, I provide a bar 1, which is connected near its inner end to a wheel stand *a*, by a hinge or other suitable connection 2. The inner end of the said bar is to bear against the hub of the wheel. Its outer end is provided with an upturned arm 3. A brace rod 4 is attached to the said arm and to an eye *b* on the wheel-stand. To the upper end of the arm 3 is pivoted a hand-lever 5. The same is connected by a link 6 to a link-lever 7. A pair of gripping jaws 8, which are pivotally connected together, as at 9, are connected to the link-lever by a pair of rods 10. Each of the said gripping jaws constitute in effect an open, rectangular link with one end formed from the free ends of the strip of metal from which the link is formed, and which ends are bent towards each other and perforated, and the other end of the link is preferably inclined so that the inner edges of the inclined portions of the two links will oppose each other and project slightly toward the outer end of the spoke when in engagement therewith, and thereby prevent the liability of the jaws slipping on the spoke when being operated. The said gripping

jaws are to be closed against the spoke on opposite sides thereof and the lever 5 being then moved outwardly causes the link 6 to move in the same direction, and the link-lever 7 to draw outwardly on the said rods 10, thereby firmly clamping the gripping jaws against the spoke and causing the latter to be drawn out from the hub which has been rigidly secured upon the screw-threaded standard 11 by the nut 12.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, as defined by the appended claims.

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

In a spoke extractor, a support provided with a vertically arranged clamping device for engaging with the hub of a wheel, a bar pivotally secured to the top of the support at one side of the clamping device, a brace from the support to the bar, a hand lever and a link lever pivotally secured to the outer portion of the bar, a link connected at its ends to said levers, a rod pivotally connected at one end with each of said link levers, and two open, substantially rectangular link-shaped jaws connected to said rods, the sides of the jaws crossing each other, above and below the spoke, respectively, and the end of each link opposite the connection of the link with its rod being inclined so that the gripping edges of the two links will oppose each other and extend slightly toward the outer end of the spoke when the device is being operated.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH W. GAY.

Witnesses:

FRANK SOPER,  
W. R. BAKER.