

(No Model.)

H. DAHLMAN.  
SPOKE PULLER.

No. 462,536.

Patented Nov. 3, 1891.

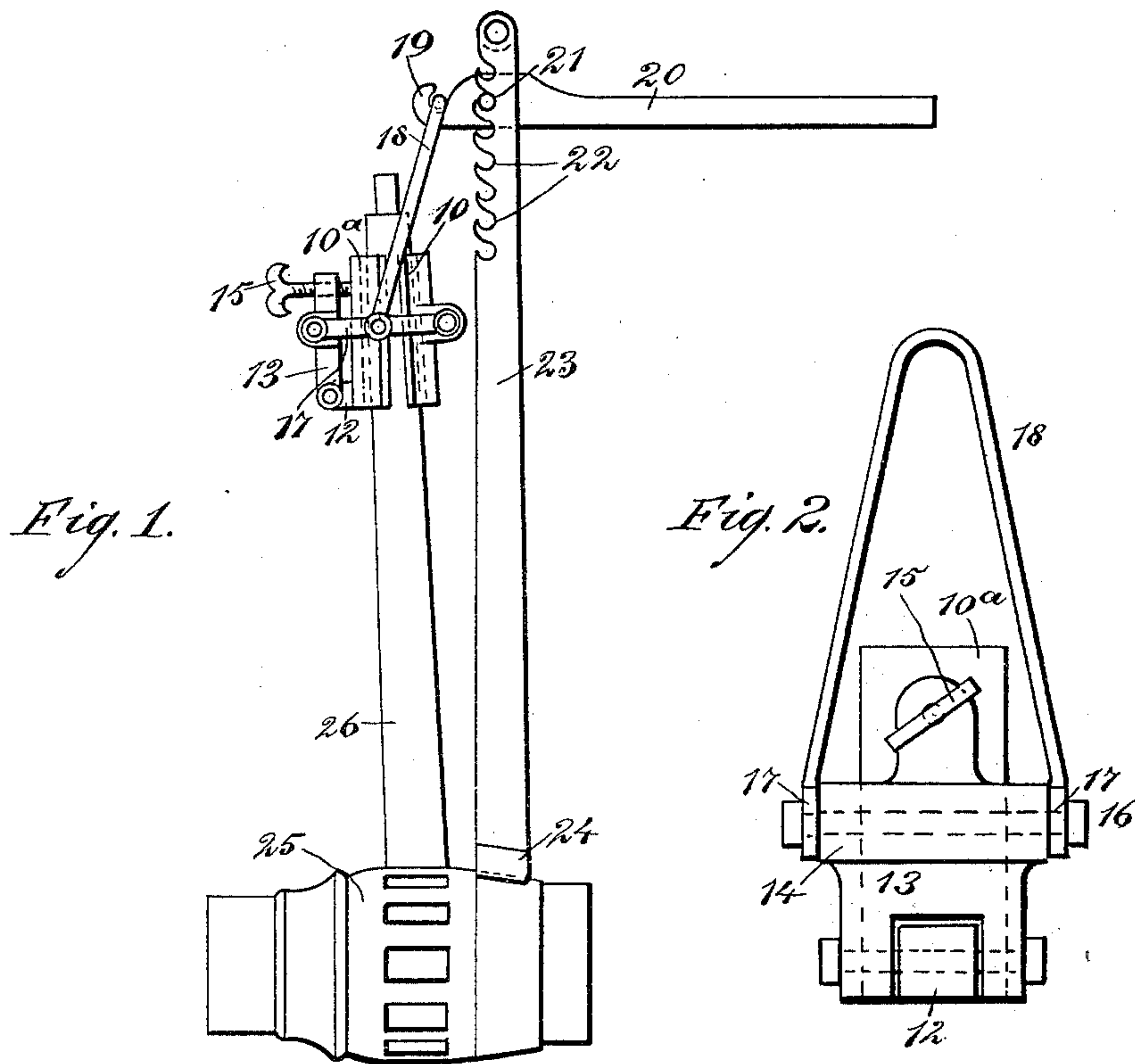
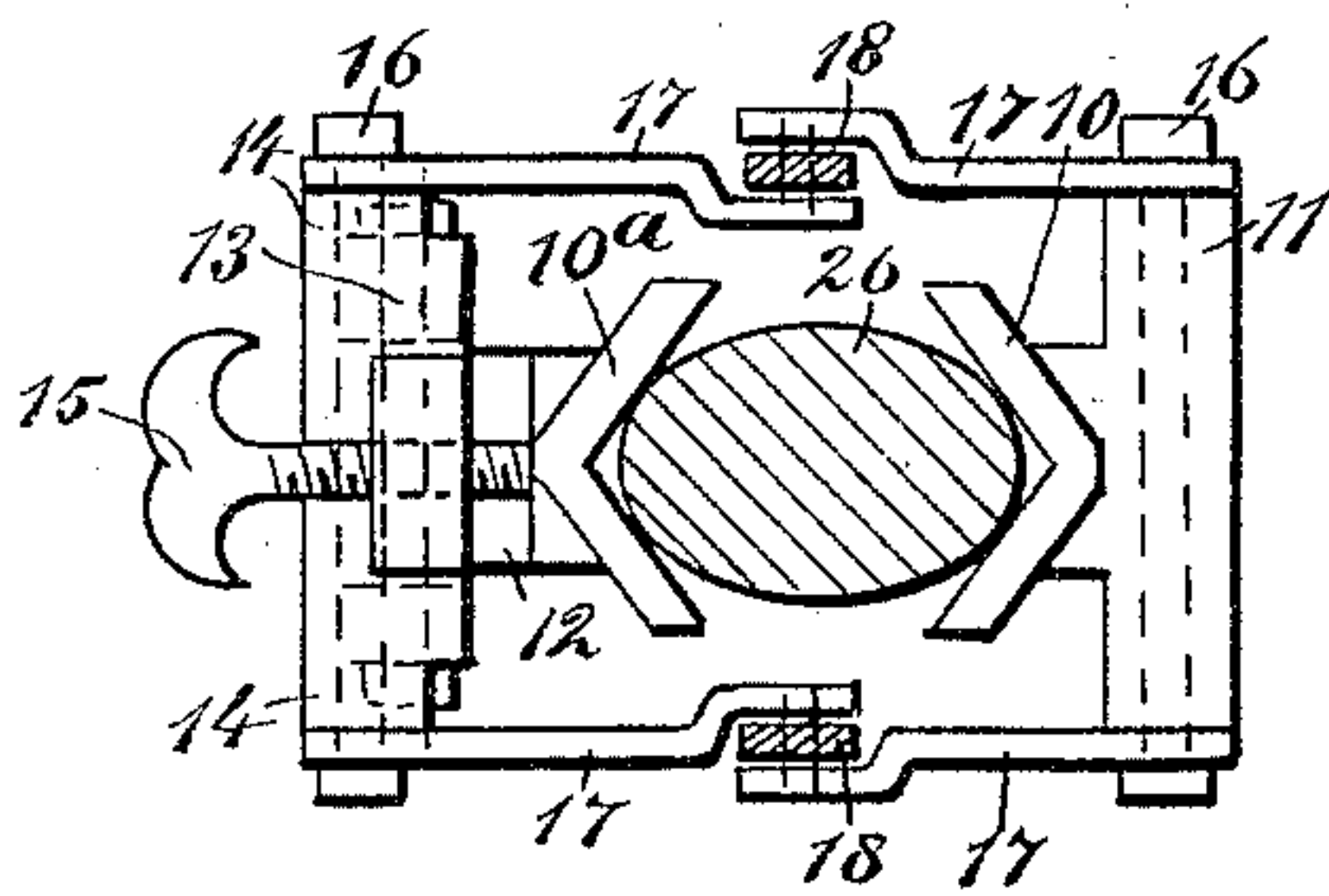


Fig. 3.



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# UNITED STATES PATENT OFFICE.

HENRY DAHLMAN, OF CAMBRIDGE, MINNESOTA.

## SPOKE-PULLER.

SPECIFICATION forming part of Letters Patent No. 462,536, dated November 3, 1891.

Application filed April 11, 1891. Serial No. 388,492. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY DAHLMAN, of Cambridge, in the county of Isanti and State of Minnesota, have invented a new and Improved Spoke-Puller, of which the following is a full, clear, and exact description.

My invention relates to improvements in spoke-pullers; and the object of my invention is to produce a simple and efficient device for use in carriage-repairing, by means of which the spokes may be quickly and easily pulled from the hub of the wheel.

To this end my invention consists in a spoke-puller constructed substantially as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the spoke-puller, showing it applied to a spoke on a wheel-hub. Fig. 2 is an enlarged side view of one of the jaws and the device for adjusting it, and Fig. 3 is a sectional plan of the jaws.

The machine is provided with two similar jaws 10 and 10<sup>a</sup>, the jaws having their adjacent faces formed of angular plates, and the jaw 10 has centrally thereon a laterally-extending rib 11. The jaw 10<sup>a</sup> is provided at the bottom with a rearwardly-extending lug 12, which at its outer end is pivoted to a plate 13, which plate extends upward in the rear of the jaw 10<sup>a</sup> and is provided with a transverse rib 14, which is similar to the rib 11 on the jaw 10 and aligns horizontally with it. The plate 13 is pierced at its upper end by a thumb-screw 15, which impinges on the jaw 10<sup>a</sup>, and by adjusting the thumb-screw the jaw may be tilted more or less to make the two jaws 10 and 10<sup>a</sup> fit any size of spoke. The jaws 10 and 10<sup>a</sup> are connected together by means of arms 17, two of the arms being arranged on a bolt 16, which extends through the rib 11, and the two opposite arms being pivoted on a similar bolt, which extends through the rib 14 of the plate 13. The inner and adjacent ends of the arms 17 are bent slightly in opposite directions, and these inner ends are pivoted to a bail 18, which bail

is adapted to be placed upon a hook 19 on the end of a lever 20. The lever 20 is provided with a pin 21, which extends laterally from the lever near the hooked end of the same, and the pin is adapted to rest in one of a series of sockets 22, which are arranged on the upper part and on one edge of a post 23, the said post being somewhat longer than an ordinary wagon-spoke and having its lower end thickened, as shown at 24, so that it may rest on the hub 25 of a wheel. It will be noticed that as the two jaws are supported by the bail, the jaws being hung pivotally thereon by means of the arms 17, when the jaws are adjusted upon the spoke and an upward pressure exerted upon the bail, the jaws will be tilted inward, so that they will impinge upon a spoke, and their pressure upon the spoke will be increased with the increase of the lifting-pressure on the bail.

The device is operated as follows: The post 23 is arranged upon the upper portion of the hub 25, as shown in Fig. 1. The jaws 10 and 10<sup>a</sup> are clamped upon a spoke 26, which is to be pulled, and the jaws are adjusted upon the spoke by means of the thumb-screw 15. The lever 20 is then arranged in the upper portion of the post 23. The bail 18, which supports the jaws, is secured in the hook 19 of the lever, and then by pressing downward upon the outer end of the lever the hook and bail will be raised, thus raising the jaws, which in their upward movement will pull the spoke with them, so that it will be withdrawn from the hub.

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

1. A spoke-puller comprising a pair of jaws pivotally secured together, a bail supporting the jaws, means for adjusting the jaws upon the spoke, a hooked lever to engage the bail, and a support for the lever, substantially as described.

2. A spoke-puller comprising a pair of jaws pivoted together, means for adjusting the jaws in relation to each other, a bail to support the jaws, a hooked lever to engage the bail, and an adjustable support for the lever, said sup-



port having its lower end thickened to fit the wheel-hub, substantially as described.

3. A spoke-puller comprising similar jaws,  
a plate pivoted on the back of one of the  
5 jaws, a thumb-screw extending through the  
plate so as to impinge on the adjacent jaw,  
inwardly-extending arms pivoted to one of the

jaws and to the plate, a bail pivoted to the inner ends of the arms, and a lever mechanism for raising the bail, substantially as described. 10

HENRY DAHLMAN.

Witnesses:

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