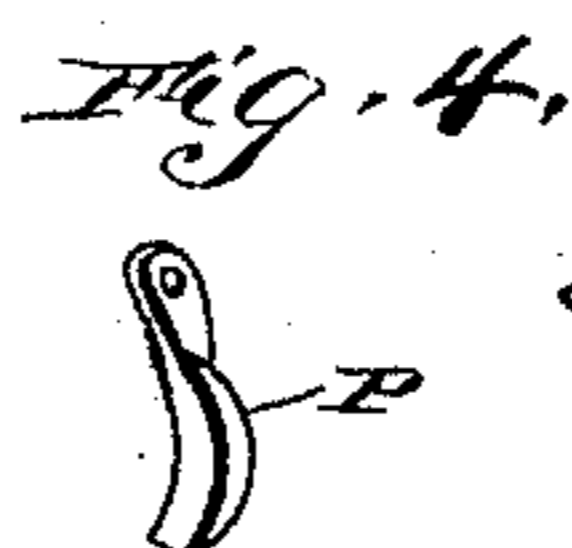
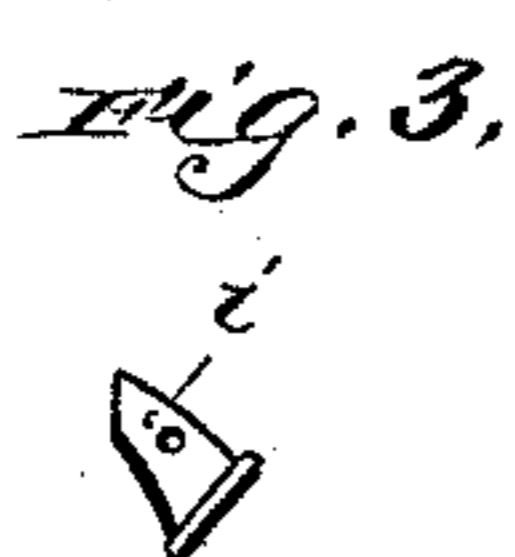
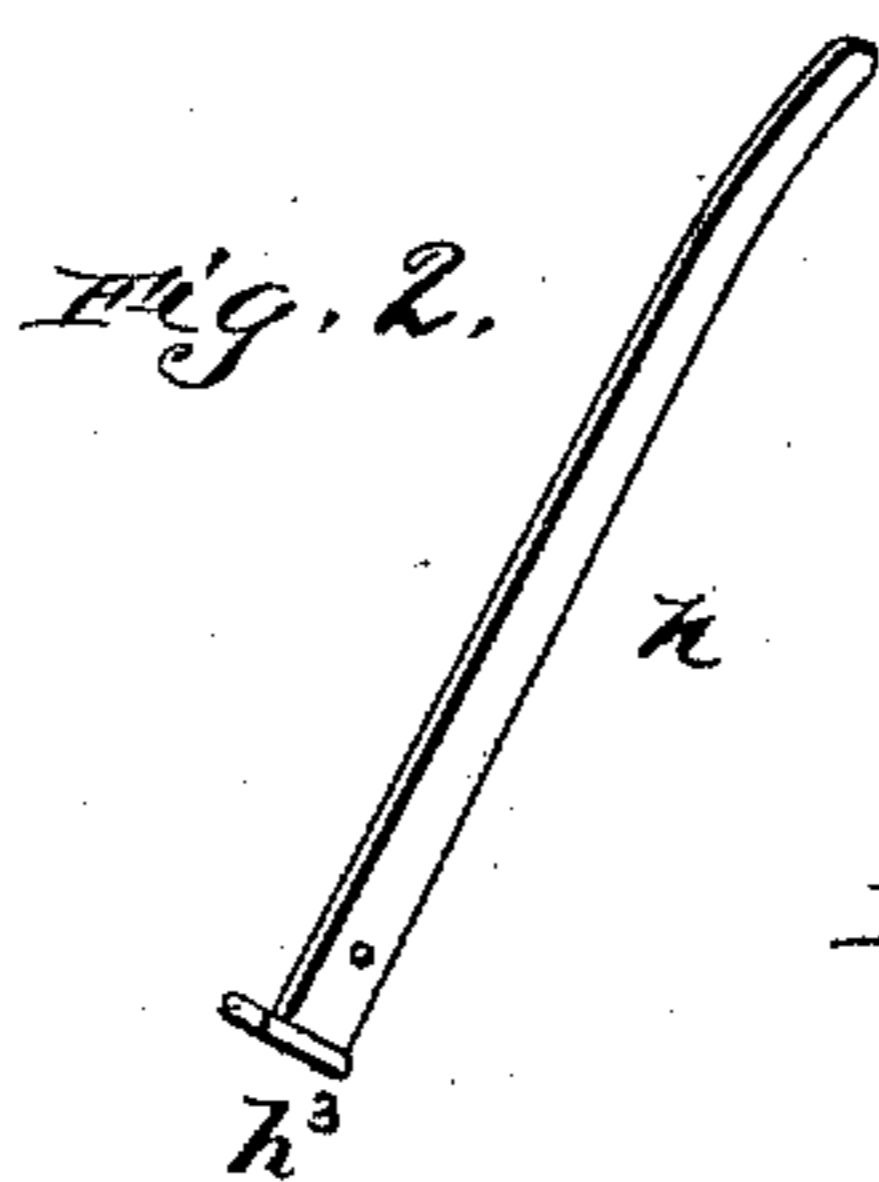
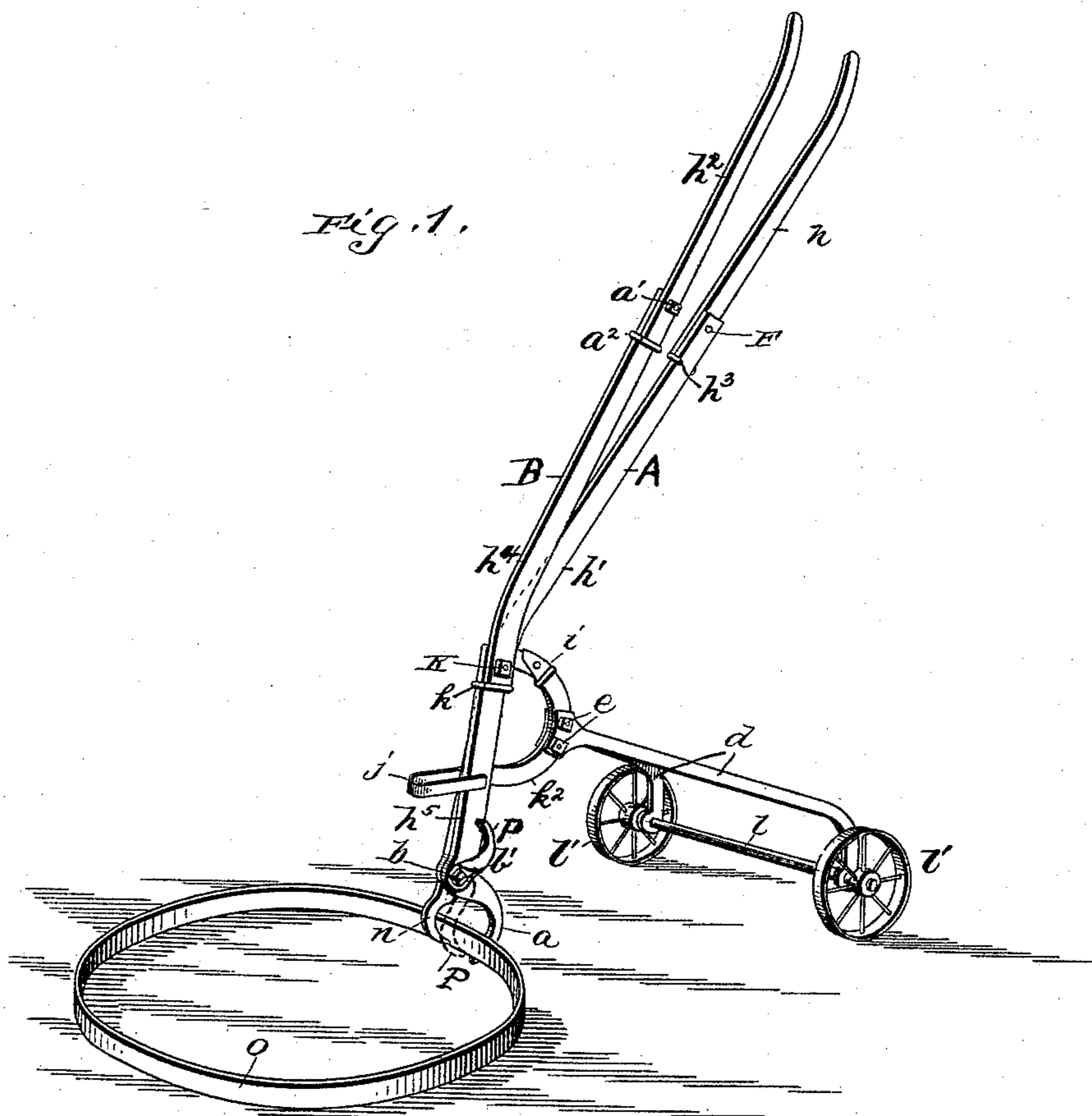


(No Model.)

T. L. WEAKLY.
TIRE TONGS.

No. 497,227.

Patented May 9, 1893.



Witnesses:
O. H. Mayer.
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UNITED STATES PATENT OFFICE.

THOMAS L. WEAKLY, OF KENNEY, ILLINOIS.

TIRE-TONGS.

SPECIFICATION forming part of Letters Patent No. 497,227, dated May 9, 1893.

Application filed March 3, 1892. Serial No. 423,682. (No model.)

To all whom it may concern:

Be it known that I, THOMAS L. WEAKLY, a citizen of the United States, residing at Kenney, county of De Witt, and State of Illinois, have invented a Tire-Lifter, a new and useful machine for the handling of wagon-tires, of which the following is a specification.

My invention has relation to tire-lifters, and it has for its object to provide a simple and easily operated device whereby a heated tire may be readily raised from the ground and carried to any desired place and then placed over the wheel adapted for receiving the same, such operation being carried out conveniently by one person, and the invention consists in the peculiar construction, arrangement and combination of parts, all as hereinafter fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In said drawings:—Figure 1 is a perspective view illustrating my device in the act of grasping a tire. Fig. 2 is a detail perspective view of a section of one of the operating levers. Fig. 3 is a like view of the stop-piece *i*. Fig. 4 is a like view of a supplementary jaw or chuck adapted to be used with my device.

My tire-lifter comprises a pair of operating levers A, B, which are pivoted together near their lower ends upon a pivoted bolt or pin *b*. The lever A terminates at its lower end in a semi-circular gripping jaw *n*, while the lever B terminates at its lower end in a like gripping jaw *a*, which latter is, however, of slightly greater diameter than the jaw *n*. These jaws are adapted to grip and hold between them a tire O when the same has been sufficiently heated, and the manipulation of said jaws to effect the desired purpose will be presently described.

The operating levers may, if desired, be each made of a single piece but for the purpose of adapting said levers to be taken apart or dismembered to economize space in packing, I preferably form said levers in sections and as will be seen from the drawings I form the lever A in two sections *h h'*, detachably secured together by means of the bolt F and bail *h³*, while the lever B is formed in three sections *h², h⁴, h⁵* the sections *h², h⁴* being detachably secured by means of bolt *a'* and bail *a²*, and the sections *h⁴ h⁵* likewise secured by

bolt K and bail *k*. Secured to the section *h'* of lever A is a semi-circular bearing piece *k²*, which has formed integral therewith or secured thereto a U-shaped spring *j*, the arms of which are of such distance apart as to exert a clamping or spring action upon the levers to hold the same together, and said arms being of such length as to permit of the swinging movements of the lever B when in the act of grasping a tire, as will be understood. Rigidly secured to the bearing piece *k²* by means of bolts *e* is a suitable wheeled truck, that which I prefer to employ and have shown in the drawings, comprising the arms or hounds *d*, which have their rear ends curved downwardly and provided with bearings to receive an axle *l*, which is provided at its outer ends with wheels *l'*. Also secured to said bearing piece *k²* is a stop-piece *i*, against which the lever B is adapted to strike and rest when depressed by the workman for gripping the tire, and thus prevent said lever being depressed to too great an extent.

When the device is used for gripping and raising tires which have become much worn I preferably employ a supplementary curved jaw or chuck P shown in detail in Fig. 4, said jaw being adapted to be secured to the lower end of lever A by means of the bolt *b*, said jaw or chuck being arranged to lie upon the side of the jaw *n* opposite the jaw B so as to give a bearing upon each side of said jaw *n*.

For the purpose of adapting my device to operate upon tires of different sizes I provide two or more holes *b'* in the lower ends of the levers to receive the bolt *b*, as will be understood.

In using my device the workman pushes the truck over the ground to the point where the heated tire lies, and then by raising or pushing forward the lever B the jaw *a* is made to separate from the jaw *n*, and said jaw *a*, caused to engage under the lower edge of the tire and then by depressing said lever B said tire is caused to be raised and gripped securely between the jaws. Both levers are then thrown rearwardly, which raises the tire above the ground some distance, and the same may then be conveniently transported by means of the truck to the place where the wheel is ready to receive the tire.

The rear ends of the arms *d*, being bent as

described, the entire device may be thrown backwardly and the wheels *V* forwardly so as to bring the weight of the parts over or substantially over the axle, thus enabling the device to be more easily pushed over the ground and to clear any slight obstructions.

What I claim, and desire to secure by Letters Patent, is—

1. A tire-lifter comprising a suitable wheeled truck, and a pair of levers pivoted together and adapted to grip and raise a tire, and a U-shaped spring embracing said levers in the manner and for the purpose specified.

2. A tire-lifter comprising a suitable wheeled truck, a pair of levers carried by said truck, and pivoted to each other, and provided at one end with gripping jaws adapted to grip a tire and a U-shaped spring embracing said levers in the manner and for the purpose specified.

3. In a tire-lifter, the combination with a suitable wheeled truck, of a lever secured to said truck, a second lever pivoted to the first lever, and gripping jaws carried by said levers at their lower ends, one of said jaws being of greater diameter than the other, and a U-shaped spring embracing said levers as described.

4. In a tire-lifter, the combination with a suitable wheeled truck, of a lever provided with a bearing-piece to which said truck is secured, a second lever pivoted to the first lever and a U-shaped spring carried by the said bearing-piece and embracing the levers, and

gripping jaws at the lower ends of the latter, as and for the purpose specified.

5. In a tire-lifter, the combination with a wheeled truck comprising the hounds having downwardly-curved rear ends, an axle having bearings in said ends, and wheels mounted upon said axle, of a lever provided with a bearing-piece to which the forward ends of the hounds are secured, a second lever pivoted to the first lever, and gripping jaws carried by the lower ends of the levers, and a U-shaped spring embracing the levers as and for the purpose specified.

6. In a tire-lifter, the combination with a wheeled truck, of a lever secured thereto and provided with a bearing-piece as described, and a second lever pivoted to the first lever, and a stop-piece or rest carried by said bearing-piece against which said second lever is adapted to bear, as and for the purpose specified.

7. In a tire-lifter, the combination with a wheeled truck, of a pair of levers carried thereby and pivoted together as described, gripping jaws at the lower ends of said levers, a bearing piece to which said truck is secured, a spring on said bearing piece embracing the levers and a supplementary gripping jaw adapted to be secured to one of the levers, for the purpose specified.

THOMAS L. WEAKLY.

Witnesses:

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