

(No Model.)

J. G. LOWE.
WRENCH.

No. 536,882.

Patented Apr. 2, 1895.

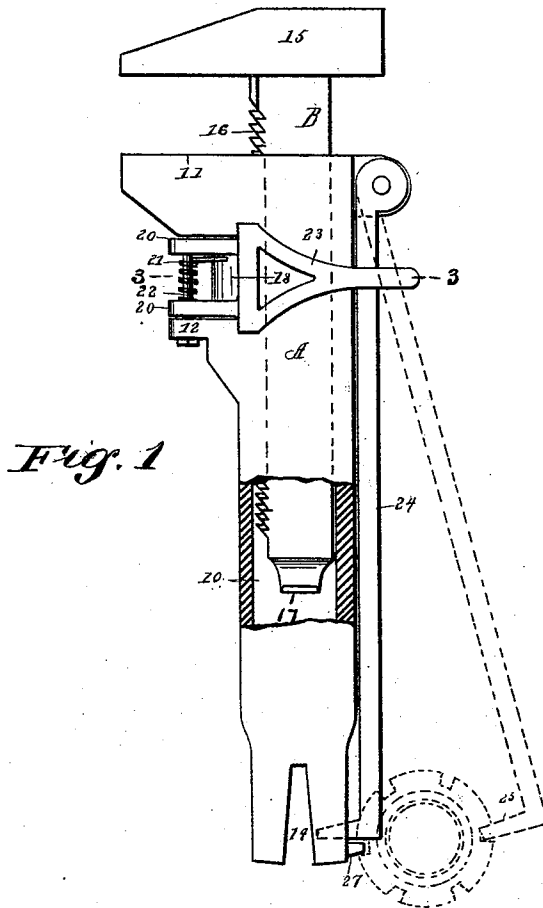


Fig. 1

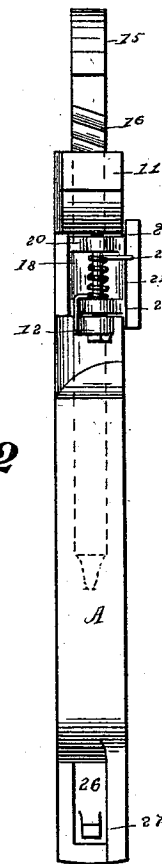


Fig. 2

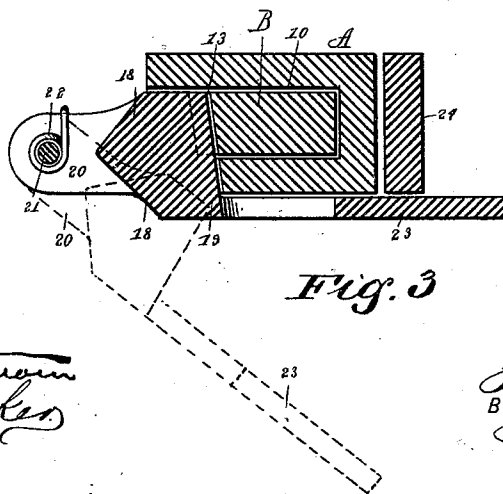


Fig. 3

WITNESSES:

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SPECIFICATION forming part of Letters Patent No. 536,882, dated April 2, 1895.

Application filed July 24, 1894. Serial No. 518,420. (No model.)

To all whom it may concern:

Be it known that I, JAMES G. LOWE, of New York city, in the county and State of New York, have invented a new and Improved Wrench, of which the following is a full, clear, and exact description.

My invention relates to an improvement in wrenches, and especially to an improvement in wrenches adapted for use around a bicycle, or like machine.

The object of this invention is to provide a quick adjusting wrench, and one that will have likewise a wide range, and which may be expeditiously and conveniently manipulated with one hand.

A further object of the invention is to combine with the wrench such tools as are found useful in repairs upon bicycles.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

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

Figure 1 is a side elevation of the wrench, a part of the handle section being broken away. Fig. 2 is a front elevation of the wrench; and Fig. 3 is a section taken transversely, and practically on the line 3-3 of Fig. 1.

In carrying out the invention the handle section A of the wrench is provided with an interior chamber 10, commencing at its outer end and terminating a predetermined distance from its inner end. The said handle section is likewise provided with a jaw 11 formed at its outer end at what may be termed its front side, and an extension 12 below the jaw and removed a predetermined distance therefrom, thereby forming a recess which is provided with an opening 13, leading directly into said chamber 10. The lower end of the handle is made to terminate substantially in a claw 14.

A shank B, has sliding movement in the chamber 10 of the handle or body of the wrench, and the said shank is provided with a jaw 15 at its upper end, and with a series of diagonally formed teeth 16 upon its forward edge, which edge is beveled inwardly,

as is best shown in Fig. 1, while the inner end of the shank is shaped as a screw driver 17.

A locking head 18, is located in the recess between the jaw 11 and the extension 12 of the handle, and the inner face of this head is beveled to correspond to that of the toothed surface 16 of the shank, and the beveled face of the locking head is provided with teeth 19, corresponding to those on the shank, as shown in Fig. 3.

Ears 20, are projected outwardly from the locking head, and a pivot pin 21, is passed through said ears, through the extension of the handle and into the jaw 11, the said pin being surrounded by a spring 22, acting to force the head in locking engagement with the shank; and the locking head is manipulated through the medium of a handle 23, extending across what may be termed the front side of the wrench.

A clamping arm 24, is pivoted upon the rear edge of the handle section A, preferably at the upper end thereof, and the lower end of this arm is provided with a member or head 25, at right angles to the body, the body being adapted to rest against the rear edge of the wrench; and the head or member 25 is adapted to enter a recess 26, formed in the rear face of the rear member of the claw 14, the said claw being provided upon said face with a pin 27, located below the head of the arm 24. The claw 14 is adapted for use especially in straightening a wheel, while the arm 24, in conjunction with the pin 27, is employed successfully for manipulating ball casings, as shown in dotted lines in Fig. 1.

In the operation of the wrench, the handle 23 of the locking head is carried at an angle to the body of the wrench, as shown in dotted lines in Fig. 3, whereupon the locking head will be carried out of engagement with the shank of the movable jaw, and the said jaw may be carried inward or outward, as the object grasped may demand. When the proper adjustment has been made, the locking head is again carried to an engagement with the shank of the movable jaw, holding it in the said position, and owing to the inclined toothed faces of the shank and the locking head, a locking engagement, or a disengagement, of the two parts may be expeditiously and conveniently accomplished.

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

1. In a wrench, the combination, with a handle section provided with a stationary lower jaw, and a removable shank having sliding movement in the body and provided on its upper end with a jaw opposed to the fixed jaw, and a screw driver on its lower end and having one of its edges inclined and provided with diagonally located teeth, of a spring-controlled locking head pivoted upon the handle section of the wrench and provided with an inclined toothed face for engagement with the corresponding edge of the said shank, as and for the purpose specified.
2. In a wrench, the combination, with a handle having a lower jaw formed thereon and provided with an interior chamber, a movable upper jaw, and a shank forming a portion of the said jaw and having sliding movement in and removable from the chamber of the handle, the forward edge of the said shank being inclined transversely and provided with diagonally located teeth, and the lower end of the removable shank terminating in a screw driver and an extension formed upon the han-

dle beneath the fixed jaw, the handle between the jaw and extension being open to communicate with its interior chamber, of a locking head provided with ears located in the space between the fixed jaw and the extension of the handle, a pin pivoting the said ears, a spring normally forcing the head in engagement with the shank, the said engaging face of the head being beveled and provided with diagonal teeth to engage with those of the shank, and a handle by means of which the said head is operated, as and for the purpose specified.

3. A wrench for the purpose described, having its inner end terminating in a claw, one member of which is widened and provided with an opening, and a pin projected outwardly from one wall of the opening, and an arm pivoted at one side of the jaw, the free end of the arm being provided with a member at an angle to the body, and adapted to enter the opening in the said member of the claw, as and for the purpose set forth.

JAMES G. LOWE.

Witnesses:

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