

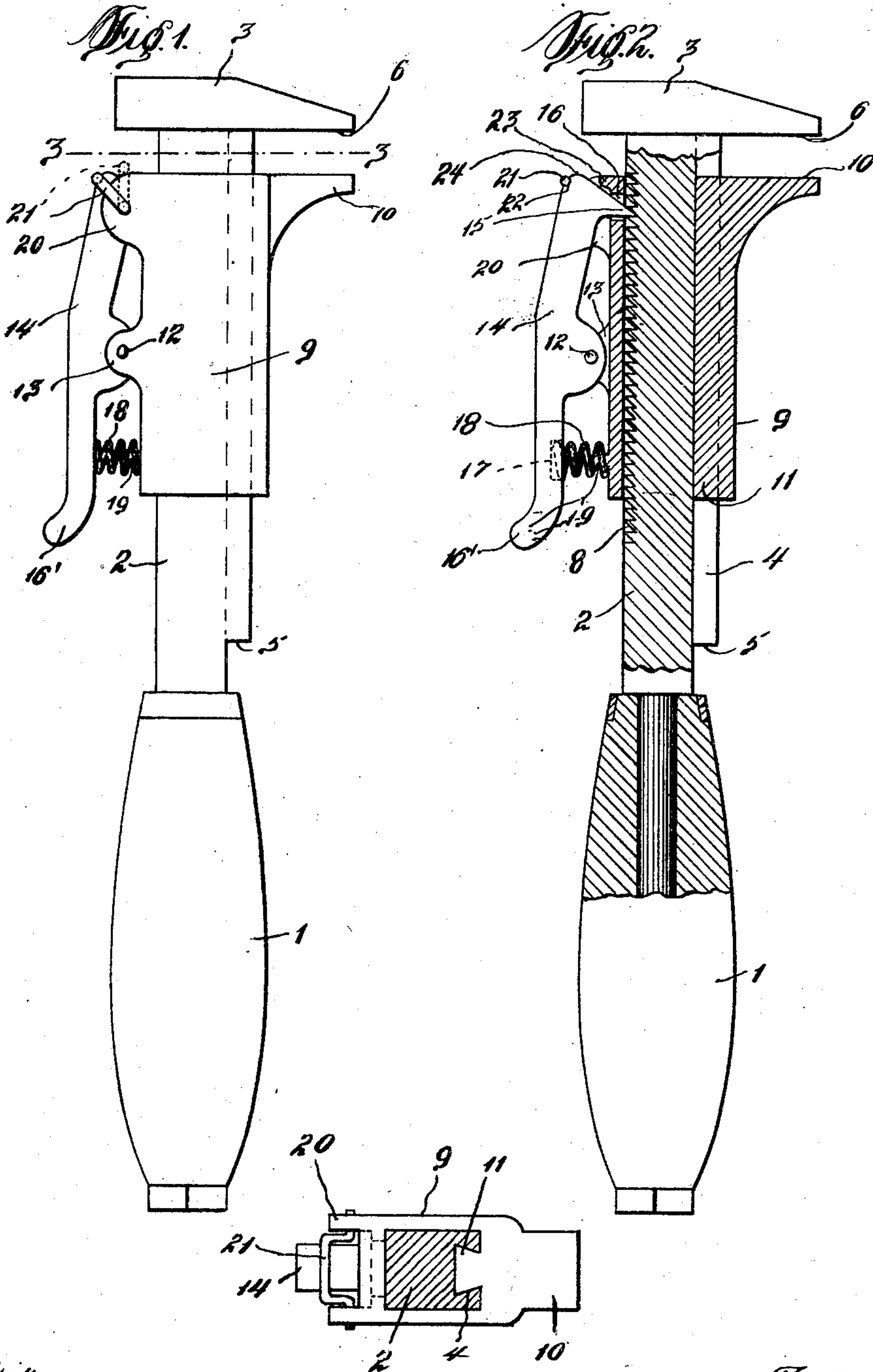
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WRENCH.

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967,788.

Patented Aug. 16, 1910.



Witnesses
David Burnier

Fig. 3.

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UNITED STATES PATENT OFFICE.

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WRENCH.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LOTTE KOVATCH, a citizen of the United States of America, residing at Oliveburg, in the county of Jefferson and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to improvements in wrenches and more especially to that class of such devices in which one member is provided in slidable relation with the other, and the object thereof is to provide a wrench in
15 a manner as hereinafter set forth with a shiftable locking means for maintaining the movable jaw at the desired distance from the fixed jaw of the wrench and further combining with the wrench an auxiliary
20 locking element for engagement with said shiftable locking element whereby the latter is fixedly maintained in position to prevent movement of the adjustable or movable jaw with respect to the fixed jaw of the
25 wrench.

Further objects of the invention are to provide the wrench with an interengaging tongue and groove for coupling the movable or adjustable jaw upon the shank and which
30 further constitutes a guide for the movement of the adjustable jaw when the latter is shifted.

With these general objects in view and others that will appear as the nature of the
35 invention is further understood, this improvement consists in the novel combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the appended
40 claims.

In the drawings forming a part of this application and in which like numerals represent similar parts throughout the several views,—Figure 1 is a side elevation of the
45 device, Fig. 2 is a longitudinal section taken partly through the same, and Fig. 3 is a transverse section taken upon line 3—3 of Fig. 1.

Referring more in detail to the drawings,
50 the usual construction of the handle 1 has secured therein the shank 2 terminating in the fixed jaw 3 having a gripping face 6. Said shank is provided longitudinally of its front face with a dove-tailed groove 4
55 which, however, terminates at a point slightly removed from the wrench handle,

the same being effected by said shank having a cut away portion 5. The rear face 7 of the shank is provided with a toothed rack 8. Slidably positioned upon said shank is the
60 sleeve 9 having at one end thereof the jaw 10 arranged for co-action with said fixed jaw 3 upon longitudinal movement of said sleeve in the usual manner. Within said
65 sleeve and preferably constructed integral therewith and running longitudinally the entire length thereof is provided the tongue 11 adapted to fit the dove-tailed groove 4 when the members are assembled, said
70 tongue being upon the same side of said sleeve as the jaw 10 thereof. Pivoted exteriorly of said sleeve and journaled upon the bearing 12 mounted in the lugs 13 carried by said sleeve is the pivoted locking lever
75 14 having one end thereof sharpened as at 15 for engaging the teeth of the rack 8 through the perforation 16 provided in said sleeve at a point adjacent the end thereof. The opposite end of said lever has an end
80 16' adapted for the ready engagement of a finger of the operator, while beneath said end of the lever and seated within the socket 17 on the underneath surface thereof is the resilient spring member 18 which is positioned upon the sleeve 9 by its reception over
85 the integral lug 19 thereof.

Protecting the perforation 16 and formed integral with the sleeve 9 are the perforated opposite ears 20 receiving therebetween the pointed contact end of the lever 14. Jour-
90 naled within the perforations of said ears is the pivoted link 21 adapted to swing outwardly and over the engagement end of said lever, which latter may be provided with a groove 22 or a roughened surface at
95 such point to afford a seating of said link upon the lever edge. Strengthening the ear members 20 and further protecting the perforation 16 and the contact point 15 is the integral spanning partition 23.
100

The complete operation of the invention will be apparent from the above description, it being noted that the desired positioning of the movable jaw 10 with respect
105 to the fixed jaw 3 is accomplished by longitudinally sliding the sleeve 9 upon the shank 2 which is permitted by forcibly depressing the spring engaged end 16' of the lever 14 whereby the pointed end thereof is disengaged from the teeth of the rack and the
110 position desired is fixed automatically by releasing the pressure from said lever end.

Upon positioning the jaws in the desired relation, with the point 15 depressed, an outward swing of the link or locking member 21 sliding over the curved outer end 24 of said lever and becoming seated at the point 22, firmly positions the point 15 in contact with one of the teeth of the rack 8 whereby the movable or adjustable jaw is maintained in position to which it has been shifted. The tongue 11 and groove 4 prevent any relative lateral movement of the parts but afford a fixed path of longitudinal travel, it being evident that upon removal of the handle, the sleeve 9 may be entirely removed from the shank.

Although the present showings of my invention are what are believed to be the preferable embodiments thereof, it is nevertheless to be understood that changes may be made in form, proportion, and minor details of construction without departing from the spirit and scope of my invention as set forth in the present claims.

Having thus fully described the invention and in what manner the same is designed for use, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. A wrench comprising a toothed shank and a movable jaw slidably mounted thereon, a spring-pressed locking member carried by said jaw and having an inwardly-

projecting end extending through the jaw and engaging the toothed shank for maintaining the jaw in its adjusted position, outwardly-extending ears carried by said jaw, a locking link pivoted to said ears and adapted to be swung over said member for maintaining it in locking position, a tongue and groove connection between said jaw and shank, and a fixed jaw carried by the shank.

2. A wrench comprising a toothed shank, a movable jaw slidably mounted thereon, outwardly-extending lugs carried by the jaw, a locking member pivoted to said lugs and having one end formed with an inwardly-extending portion projecting through the jaw and engaging the shank to prevent shifting of the movable jaw, a pair of outwardly-extending ears projecting from the jaw, a locking link pivoted to said ears and adapted to extend over said member for maintaining it in locking position, a dove-tailed tongue and groove connection between the shank and the jaw, and a fixed jaw carried by said shank.

In testimony whereof I affix my signature in the presence of two witnesses.

LOTTE KOVATCH.

Witnesses:

N. D. COREY,
LEWIS JAKUBEK.