

R. L. GLABAZNYA.
WRENCH.
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1,428,282.

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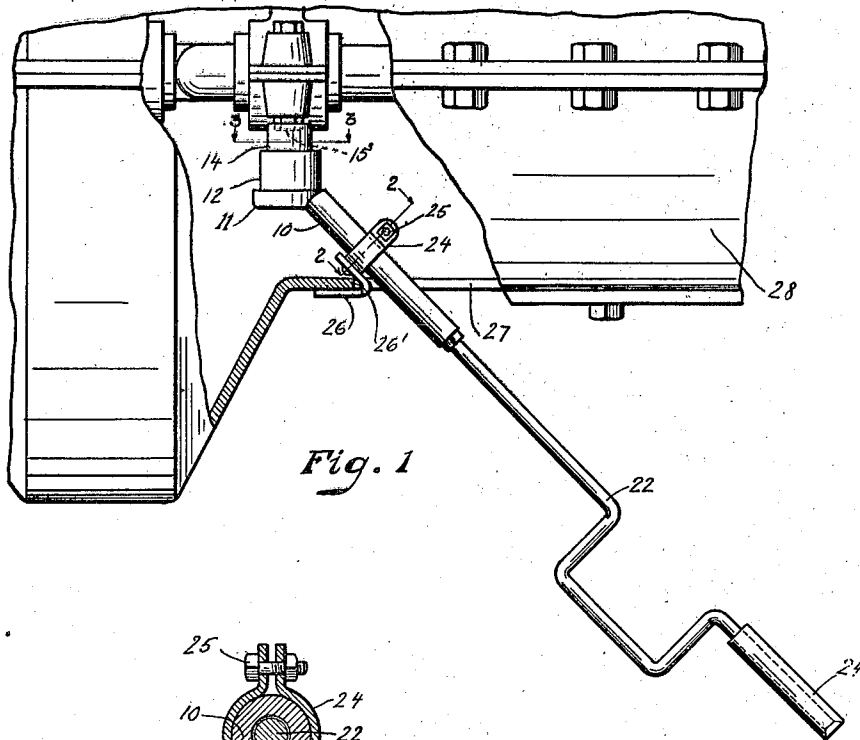


Fig. 1

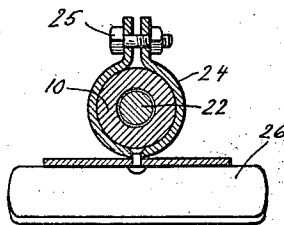


Fig. 2

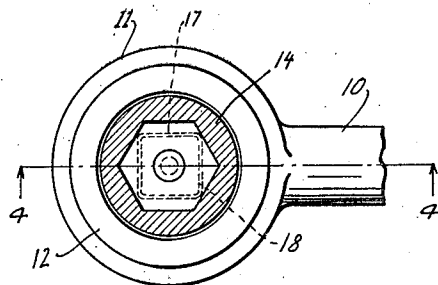


Fig. 3

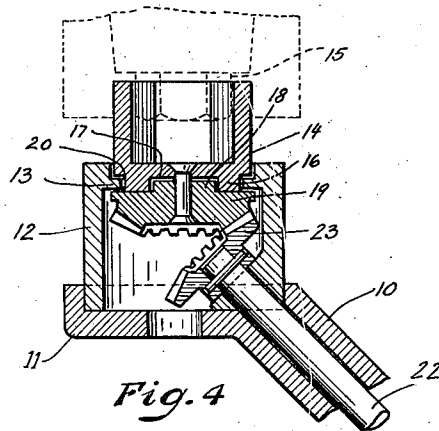


Fig. 4

Witnesses:

Wm. Schnellhardt
C. E. Moody

Inventor
Rudolph L. Glabaznya
By Joshua R. H. B. F. K.
His Attorney

UNITED STATES PATENT OFFICE.

RUDOLPH L. GLABAZNYA, OF CHICAGO, ILLINOIS.

WRENCH.

Application filed August 18, 1921. Serial No. 493,433.

To all whom it may concern:

Be it known that I, RUDOLPH L. GLABAZNYA, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

My invention relates to new and useful improvements in wrenches, and has for its principal object the provision of an improved construction of this character which will be highly efficient in use.

A further object of my invention is the provision of a wrench of this character which can be conveniently manipulated in close quarters for removing or replacing nuts or bolts, and is especially serviceable in removing or replacing nuts or bolts securing the connecting rod of a crank shaft of an internal combustion engine.

A further object of my invention is the provision of an adjustable bearing means whereby the socket member of the wrench can be readily adjusted into engagement with the nuts or bolts to be removed or replaced.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Fig. 1 is a fragmentary side elevational view of an internal combustion engine partly in section showing my improved wrench mounted thereon and applied to a nut or bolt securing the connecting rod to the crank shaft of an engine.

Fig. 2 is a sectional detail view taken substantially on line 2—2 of Fig. 1.

Fig. 3 is a sectional detail view taken substantially on line 3—3 of Fig. 1, and

Fig. 4 is a sectional detail view taken substantially on line 4—4 of Fig. 1.

The preferred form of construction, of my improved wrench, as illustrated in the drawing, comprises a cylindrical sleeve or housing 10 having a cup-shaped support 11 integrally formed on one end thereof. Rigidly mounted on the support 11 is a housing 12 provided with an inner supporting flange 13 formed integrally therewith adjacent one end thereof and adapted to support a chuck

or socket member 14 rotatably mounted thereon adapted to engage a nut or bolt 15 when in operative position. The inner wall of the socket member 14 may be of any desired shape to accommodate the shape of the nut or bolt to be operated on. The said socket member 14 is provided with an annular rib 16 and a central recess 17 for the reception of a hub 18 integrally formed on a bevel gear 19 seated against the annular rib 16 and rigidly secured to the socket member 14 by any suitable means. The periphery of the bevel gear 19 projects beyond the annular rib 16 providing a recess 20 for the reception of the flange 13. Journalled in the cylindrical housing 10 is a crank shaft 22 projecting into the interior of the housing 12, said projecting portion provided with a bevel gear 23 rigidly fixed thereon and meshing with the bevel gear 19. The other end of the crank shaft 22 is provided with a handle 24 affording means for steadying the wrench in position when the crank shaft 22 is manipulated. Adjustably mounted on the sleeve 10 is a collar 24 rigidly secured in the desired position by means of a nut receiving bolt 25. Pivotaly carried by the collar 24 is an angular bent bearing member 26 adapted to engage the edge 26' of the opening 27 of the crank case 28 of a motor, as best shown in Fig. 1. By this arrangement of a bearing member the socket member 14 can be readily adjusted into engagement with the nut or bolt 15. The object of pivotaly connecting the bearing members 26 to the collar 24 is to permit oscillation of the sleeve 10, when required, so as to bring the socket member 14 into operative engagement with the nut 15 which is to be removed.

In operation the bearing plate 26 is brought into engagement with the edge 26' of the opening of the crank case 28, and the sleeve 10 is adjusted in the desired position, bringing the socket member 14 into engagement with the nut or bolt of the connecting rod to be removed or replaced. The bearing member 26 is held in position by means of the handle 24, and by rotating the crank shaft 22, the socket member 14 is caused to rotate and thereby accomplish its respective duty, as can be readily understood.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without depart-

ing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of the construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

10 1. A wrench of the class described comprising a sleeve; a nut receiving socket mounted on said sleeve; an operating shaft journaled through said sleeve and operatively connected to said socket; an angular
15 bearing member adjustably carried by said sleeve adapted to engage the edge of the opening of a crank shaft casing, substantially as described.

20 2. A device of the class described comprising a sleeve, an angular formed bearing member on said sleeve adapted to engage the edge of the opening of a crank shaft casing of a motor; a support formed on one end of said sleeve; a socket member rotatably
25 mounted on said support; an operating shaft journaled in said sleeve; and means mounted on one end of said shaft engaging said socket member for rotating said member, substantially as described.

30 3. A wrench of the class described comprising a sleeve; a nut receiving socket carried by said sleeve; an operating shaft journaled through said sleeve and operatively connected to said socket; and an angular
35 bent bearing member carried by said sleeve adapted to engage the edge of the opening of a crank shaft casing, substantially as described.

40 4. A device of the class described comprising a sleeve; a support formed on said sleeve; a housing having an inner annular flange mounted on said support; a socket member rotatably supported by said flange;
45 an annular rib formed on said socket member; a bevel gear rigidly fixed to said socket member, the periphery of said gear projecting beyond said rib forming a recess for the reception of said flange; an operating shaft journaled in said sleeve; and a bevel gear
50 mounted on said shaft meshing with said first mentioned gear for rotating said socket member, substantially as described.

5. A device of the class described com-

prising a sleeve; a support formed on said sleeve; a housing having an inner annular
55 flange mounted on said support; a socket member rotatably supported by said flange; an annular rib formed on said socket member; a bevel gear rigidly fixed to said socket member, the periphery of said gear project-
60 ing beyond said rib forming a recess for the reception of said flange; an operating shaft journaled in said sleeve; a bevel gear mounted on said shaft meshing with said first mentioned gear for rotating said socket
65 member; and a bearing member pivotally mounted on said sleeve adapted to be adjusted longitudinally with respect thereto, substantially as described.

6. In a wrench, the combination with a
70 sleeve, of a nut receiving socket member carried by said sleeve; an operating shaft journaled in said sleeve and operatively connected to said socket member; and a
75 bearing member pivotally carried by said sleeve to permit lateral oscillation of said sleeve with respect to said bearing member, substantially as described.

7. In a wrench, the combination with a
80 sleeve, of a nut receiving socket member carried by said sleeve; a shaft journaled in said sleeve and operatively connected to said socket member; and an angular shaped bearing member pivotally carried by said sleeve adapted to be adjusted longitudinally with
85 respect thereto and to permit lateral oscillation of said sleeve with respect to said bearing member, substantially as described.

8. In a wrench, the combination with a
90 sleeve, of a socket member carried by said sleeve adapted to make operative engagement with a nut of the connecting rod of a crank shaft; and a bearing member pivotally carried by said sleeve adapted to engage
95 the edge of the opening of a crank shaft casing and to permit lateral oscillation of said sleeve with respect to said bearing member, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RUDOLPH L. GLABAZNYA.

Witnesses:

FREDA C. APPLETON,
LILLIAN ARONSON.