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J. C. CORDELL

1,817,352

SPANNER WRENCH

Filed Oct. 19, 1929

Fig. 1.

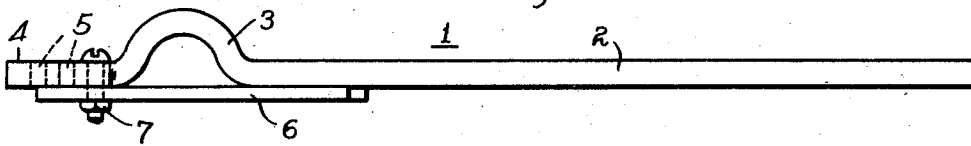


Fig. 2.

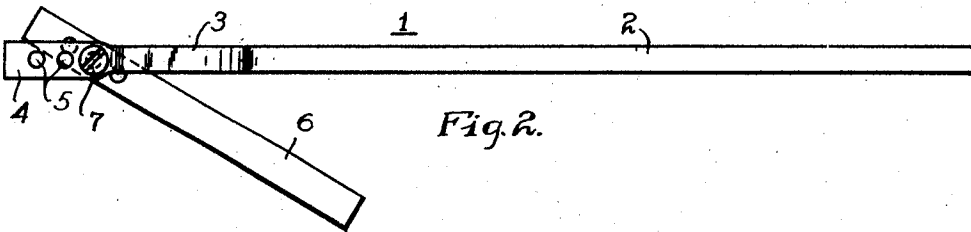


Fig. 3.

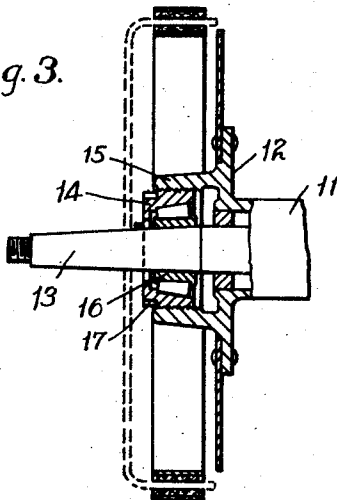


Fig. 4.

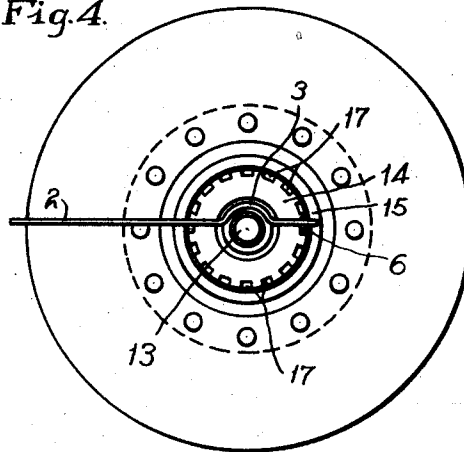


Fig. 5.

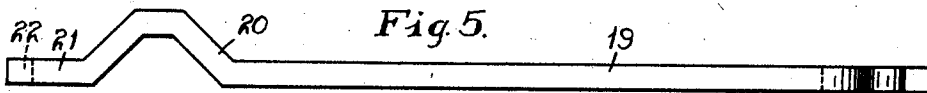
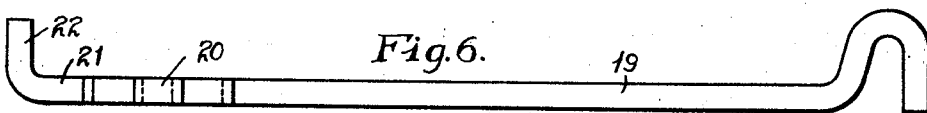


Fig. 6.



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SPANNER WRENCH

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My invention relates to spanner wrenches which are adapted to remove bearing adjusting nuts from the rear axle housing of an automobile.

One object of my invention is to provide an inexpensive adjustable spanner wrench which is adapted to remove bearing adjusting nuts of greatly different sizes.

Another object of my invention is to provide a wrench in which the axle serves as the fulcrum for loosening a bearing adjusting nut.

Still another object of my invention is to provide a spanner wrench which will be simple and economical of construction and positive and reliable in operation.

Briefly speaking my invention consists in providing a lever with an arcuate portion which will fit over an axle or shaft and having a bar pivotally mounted at one end of the lever for fitting in one of the slots or grooves in a bearing adjusting nut. The axle serves as a fulcrum about which the lever actuates the nut.

For a better understanding of my invention reference may be made to the accompanying drawings.

Figure I is a view in side elevation of a spanner wrench constructed in accordance with my invention.

Figure II is a plan view of the same wrench.

Figure III is a vertical section through a rear wheel bearing showing the manner in which the wrench is employed to remove a bearing adjusting nut.

Figure IV is a view in side elevation of the bearing illustrated in Fig. III.

Figure V is a view in side elevation of a modified form of spanner wrench constructed in accordance with my invention.

And Figure VI is a plan view of the spanner wrench illustrated in Figure V.

Referring particularly to Figures I and II of the drawings, the spanner wrench 1 comprises a lever 2 having an arcuate portion 3 and an end 4 in which there are a plurality of bolt holes 5. A bar 6 is pivotally mounted upon the end 4 of the wrench 1 by means of a bolt 7. The bar 6 is provided with a plural-

ity of bolt holes 5 corresponding to those in the end 4.

The object of the three bolt holes 5 in both the end 4 of the wrench 1 and the bar 6 is to provide adjusting means for varying the distance of the bar 6 from the arcuate portion 3 of the wrench 1 and also to vary the distance of the bolt 7 from the end of the bar 6.

The manner in which my wrench is employed may be best understood by referring to Figure III and IV of the drawings, wherein a stationary housing 11 of an automobile is shown provided with a flange 12 for supporting the brake bands. An axle 13 is rotatably mounted in said housing 11 by means of a threaded bearing adjusting nut 14.

The bearing adjusting nut 14 is mounted in the correspondingly threaded annular flange 15 which is an integral part of the flange 12. When the bearing adjusting nut 14 has been positioned in the flange 15 for some time it may become bent or rusted and is difficult to remove.

The bearing adjusted nut 14 is provided with an inner annular ring 16 which is positioned directly on the axle 13. A plurality of roller bearings are rotatably mounted between the adjusting nut 14 and its inner annular ring 16. The nut 14 is provided with a plurality of grooves 17 to assist in its removal.

The bearing adjusting nut 14 is removed by placing the arcuate portion 3 of wrench 1 on the axle 13 and inserting the end of the bar 6 in one of the grooves 17 of the nut 14. The operator keeps one hand on the bar 6 to maintain it positioned in the groove 17 and actuates the lever 2 of the wrench 1 with the other hand.

The holes 5 in the end 4 of the wrench 1 and the bar 6 permit the bar 6 to be adjusted so as to provide for different sized bearing adjusting nuts 14.

Referring to the modified form of my invention illustrated in Figures 5 and 6 of the drawings, the wrench 19 is provided with a V shaped bend 20 which makes it adapted to fit over axles of different diameters. At the end 21 of the wrench 19, a lug 22 is provided. This lug 22 is substantially perpen-

dicular to the plane in which the remainder of the wrench 19 lies. The lug 22 is provided in place of the bar 6 illustrated in Figures I-IV, inclusive, of the drawings.

5 The advantage of the modified form of the wrench is that it may be made of a single piece of wrought iron and is adapted to fit on a wide variety of axles.

It is apparent that either wrench 1 or 19
10 may be used to screw the nut 14 into the annular flange 15 of the housing 11.

What I claim as my invention is:—

1. A spanner wrench comprising a lever
15 having a curved portion in one plane and adapted to fit only partially around an axle and pivot thereon and a movably mounted bar adapted to be manually actuated to either side of said plane to serve as an engaging lug.

2. A spanner wrench comprising a lever
20 having a curved portion lying in one plane and adapted to fit only partially around an axle and pivot thereon and a pivotally mounted bar adapted to lie therein and to be swung to either side of said plane to
25 serve as an engaging lug.

3. A spanner wrench comprising a straight lever having a bent portion lying in one plane and adapted to fit only partially around an
30 axle and pivot thereon, a bar which serves as an engaging lug, and a bolt for pivotally mounting said bar at the end of said lever having the curved portion.

4. A spanner wrench comprising a lever
35 having a bend therein to form a loop, and a bar pivotally mounted thereon to interchangeably lie across the mouth of the loop in the plane of the loop and the lever, or to be swung somewhat across said plane so
40 that one end projects laterally from one end of the lever to serve as an engaging lug.

5. A spanner wrench comprising a lever
45 having a bend therein lying in a plane and adapted to fit only partially around an axle and pivot thereon and a bar one end of which is adapted to be actuated manually to either side of said plane and the other end to serve as an engaging lug and means comprising
50 a plurality of bolt holes for variably positioning said bar on said lever.

In testimony whereof, I have hereunto subscribed my name this 16th day of October, A. D. 1929.

JOSEPH C. CORDELL.

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