Oct. 21, 1930. J. R. WILLIAMSON 1,779,203

SOCKET WRENCH

Filed May 24, 1928 2 Sheets-Sheet 1

Fig. 1.

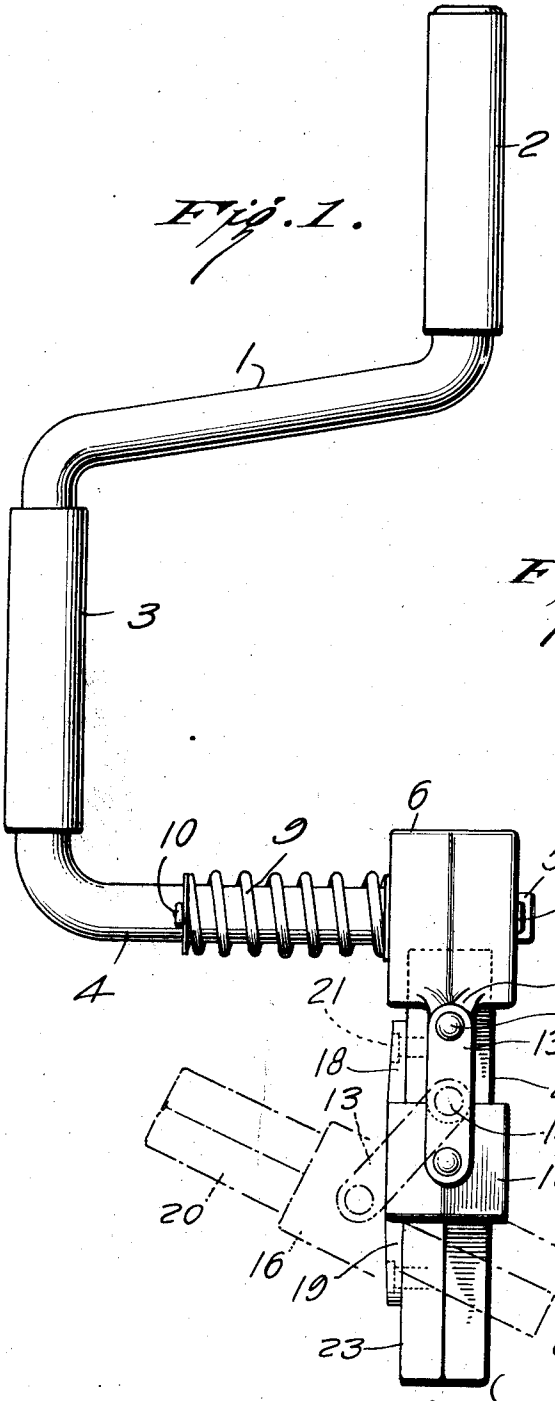
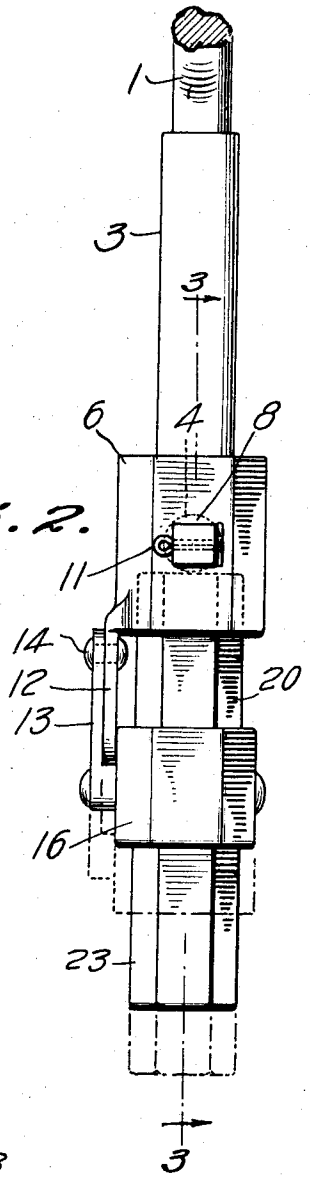


Fig. 2.



Inventor

JAMES R. WILLIAMSON,

By Spear, Middleton, Donnelan & Hall

Attorneys

Oct. 21, 1930. J. R. WILLIAMSON 1,779,203

SOCKET WRENCH

Filed May 24, 1928 2 Sheets-Sheet 2

Fig. 3.

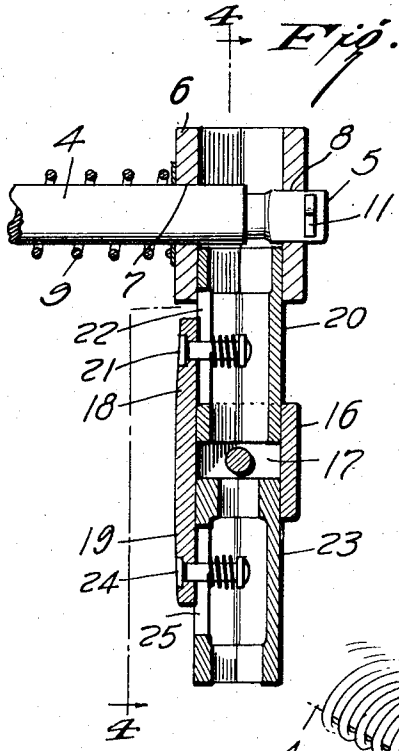
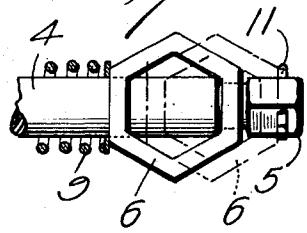


Fig. 5.



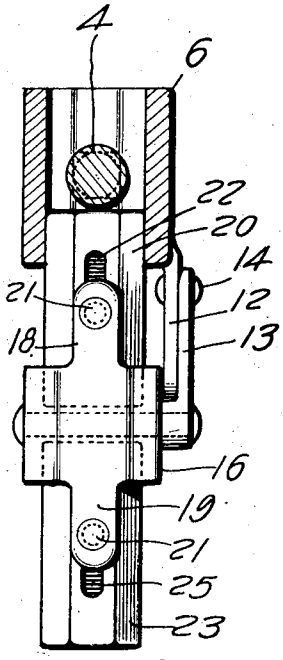


Fig. 4.

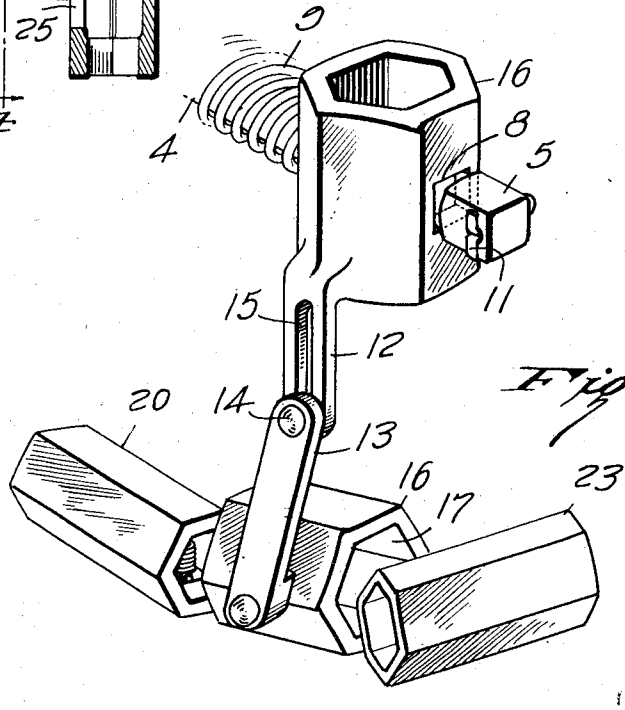


Fig. 6.

Inventor

JAMES R. WILLIAMSON,

By Spear, Middleton, Donaldson & Hall

Attorneys

Patented Oct. 21, 1930 1,779,203

UNITED STATES PATENT OFFICE

JAMES R. WILLIAMSON, OF RALEIGH, NORTH CAROLINA, ASSIGNOR OF ONE-THIRD TO SAMUEL BUNDY, OF DALLAS, TEXAS

SOCKET WRENCH

Application filed May 24, 1928. Serial No. 280,244.

My present invention relates to a lug wrench, or like device, which is provided with a plurality of sockets of different sizes, mounted upon a single brace element so that any of the sockets may be brought into position for use easily and effectively.

The principal object of the invention is to provide a wrench of the type described which may carry a number of different sockets thereon, in such a manner that anyone may be readily accessible, and which may be so arranged as to be folded compactly when not in use.

The invention comprises the novel arrangement, combination, and construction of parts more fully hereinafter described and shown in the accompanying drawings, in which:

Fig. 1 is a front view of a device embodying the invention,

Fig. 2 is a side elevation of Fig. 1.

Fig. 3 is a sectional view of the invention shown in Fig. 1.

Fig. 4 is a sectional view along the line 4—4 of Fig. 3.

Fig. 5 is a detail of the socket 6 showing it in withdrawn position relative to the squared projection,

Fig. 6 is a perspective of the device with the parts in an inoperative position to show their relationship to each other.

In the drawings, I have shown at 1 a brace element of the usual form having two handles 2 and 3 to be grasped by the operator in the ordinary manner.

One leg 4 of the brace 1 is provided with a squared end 5, and upon this leg is carried a hollow socket 6. The leg 4 penetrates both side walls of the socket member, passing through a round hole at 7 and the squared end through a square hole as at 8. A spring 9, bears against pin 10 and socket 6, the socket being prevented from being pushed off the end of the leg by cotter pin 11. Thus the squared end is normally held in the square hole 8 and the socket does not rotate about the leg 4. By compressing the spring 9 however, the socket may be rotated when desired, for a purpose to be more fully described hereinafter.

Tied to the socket 6 by permanent link 12 and pivoted link 13 which are secured together by bolt 14 riding in slot 15, is a sleeve 16 having a non-circular opening 17 therein.

The sleeve 16 is provided with longitudinal extensions 18 and 19. To the extension 18 is pivoted a wrench 20, as by pin 21 which rides in slot 22. To the extension 19 is pivoted a wrench 23, as by pin 24 which rides in slot 25. Each of the wrenches 20 and 23 is provided with end sockets of different sizes, the exterior of each wrench being of a size and irregular shape to fit the interior bore of socket 6.

By reason of the pin and slot connection, either wrench 20 or 23 may be slid longitudinally out of the sleeve 16, turned around through 180° and then re-inserted in the sleeve. Thus by a simple manipulation, either of four different sockets may be made available. It will be seen that wrenches 20 and 23 together with the sleeve 16, may be moved as a unit longitudinally out of the socket 6 by reason of the construction of the links 12 and 13, and the whole rotated through 180°.

It will also be apparent that by compressing the spring 9, the socket 6 and its assembly may be rotated through 180° about the leg 4 so as to bring the parts within the brace. This not only makes for compactness when the device is not in use, but makes available a fifth socket wrench comprised by the bore of the socket 6.

I claim:

1. A socket wrench comprising a brace having a leg, a socket mounted on said leg, a sleeve, an extensible linked connection between said socket and sleeve enabling end for end reversal and alinement of said sleeve with respect to said socket, socket wrenches on each end of said sleeve, said extensible linked connection permitting reverse telescopic engagement of the sleeve carried socket wrenches with said socket.

2. A socket wrench according to claim 6 in which said socket wrenches are telescopically received one in each end of the sleeve, and extensible linked connections between each of said socket wrenches and said sleeve permitting reverse telescopic engagement of

the said sleeve carried socket wrenches with said sleeve.

3. A socket wrench according to claim 6 in which said socket member is double ended, and means rendering said socket member pivotally adjustable on said leg to four positions 90° apart, said socket member being of non-circular internal form and providing an additional wrench independent of said sleeve carried socket wrenches and at the side opposite to said linked connection to said socket wrenches.

In testimony whereof I affix my signature.

JAMES R. WILLIAMSON.