H. S. TENNYSON.

SPANNER WRENCH.

APPLICATION FILED FEB. 25, 1915.

1,158,085.

Patented Oct. 26, 1915.

Fig. 1.

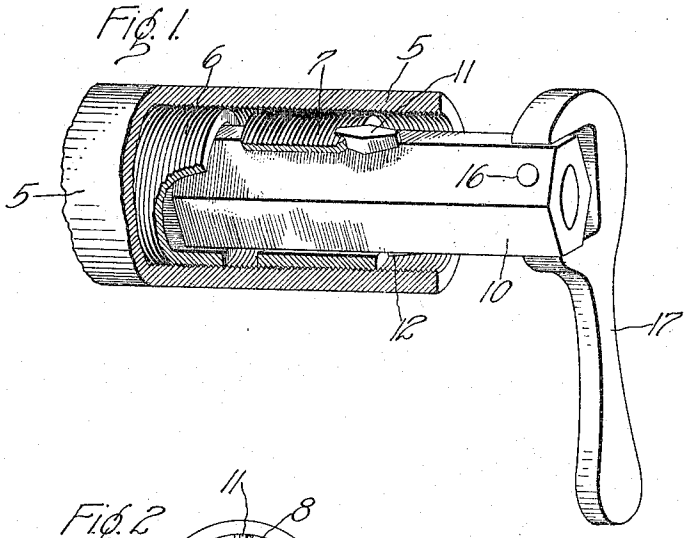


Fig. 2.

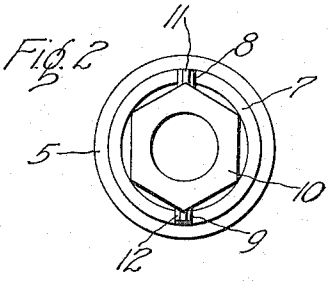
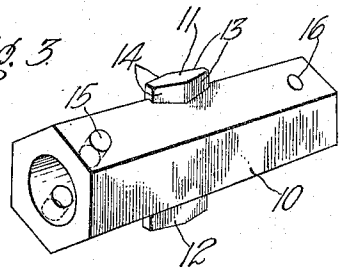


Fig. 3.



Witnesses

R. L. Connor

Justine Seng.

Inventor

Herbert S. Tennyson

by R. L. Berry

his Attorney

UNITED STATES PATENT OFFICE.

HERBERT S. TENNYSON, OF LOS ANGELES, CALIFORNIA.

SPANNER-WRENCH.

1,158,085. Specification of Letters Patent. Patented Oct. 26, 1915.

Application filed February 25, 1915. Serial No. 13,808.

To all whom it may concern:

Be it known that I, HERBERT S. TENNYSON, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Spanner-Wrenches, of which the following is a specification.

This invention relates to a spanner-wrench and particularly pertains to a spanner-wrench for operating externally threaded tubular nuts, which nuts are adapted to be positioned within tubular sleeves or casings.

It is the object of this invention to provide a spanner-wrench by means of which the nut may be easily inserted into the sleeve and screwed home therein, or adjusted, or removed therefrom by rotating the wrench.

The principal object of the invention is to provide a spanner-wrench having a double ended stock so formed and constructed that it may be engaged at either end by a brace-chuck, by a wrench, or by a pin, and rotated thereby to advance or retract the nut in its mounting, and in which the stock forms a centering member on its introduction into the tubular nut.

A further object is to provide a spanner-wrench comprising a stock having diametrically opposed nut engaging lugs thereon and which lugs are preferably formed integral with the stock and formed with slightly tapered end portions to facilitate their engagement with diametrically opposed end slots formed on the nut; the lugs having an increased thickness at their central portions whereby they are reinforced and strengthened to withstand considerable strain and prevent easy breakage thereof.

A further object is to provide a device of the above character which is simple and economical in construction and which will occupy small space.

The invention is illustrated in the accompanying drawings in which:

Figure 1 is a view illustrating the application of the invention showing the wrench as engaging an externally threaded tubular nut in the act of inserting or removing same in relation to an internally threaded casing; portions of the casing and nut being broken away. Fig. 2 is an end view showing the wrench in its nut-engaging position. Fig. 3 is a perspective view of the spanner-wrench.

More specifically 5 indicates a tubular sleeve which is threaded on a post 6. The tubular sleeve 5 is internally threaded and is adapted to receive an externally threaded tubular nut 7 of a size to screw into said tubular sleeve 5 and to be advanced against the post 6 to lock the sleeve 5 against displacement. The tubular nut 7 is provided on its outer end with diametrically opposed slots 8 and 9 for the reception of a tool by which the nut may be rotated. The present invention resides in a tool for turning nuts of the character described and is here shown as consisting of a shank or stock 10, of suitable length, and of a cross-sectional size and shape to fit slidably within the nut 7. As shown in the drawings, the cross-section of the wrench is hexagonal, but it is obvious that it may be of any desired form, provided only that the ends of the stock have tool engaging faces formed thereon.

Formed on the shank of stock 10, preferably integral therewith, is a pair of lugs 11 and 12 which are positioned substantially midway of the stock and arranged on diametrically opposite sides thereof. The lugs 11 and 12 are slightly tapered longitudinally from a point intermediate their ends toward each end thereof as indicated at 13 and 14. The tapered ends of the lugs are of less width than the width of the slots 8 and 9 in order to facilitate the engagement of said lugs in said slots when it is desired to operate the nut.

The stock 10 is preferably tubular in form for the purpose of lightness and is provided with transverse bores 15 and 16 adjacent each end thereof for the reception of a pin, nail or similar object by means of which the stock may be rotated when a wrench or brace is not available.

In the operation of the invention the nut 7 is placed in position on one end portion of the stock 10 with the slots 8 and 9 engaging the lugs 11 and 12; the nut 7 being thus supported on the stock 10 with the latter centered therein by reason of the edges of the stock formed at the intersection of its side faces contacting the inner periphery of the nut. The nut 7 is then engaged with the internal threads of the sleeve 5 and is advanced or retracted in relation to the latter by rotating the stock 10; the rotation of the stock 10 being effected by means of a supplemental tool of any suitable description. This tool may consist of a wrench 17 as shown in Fig. 1 or may comprise a brace with the chuck of which the stock 10 is

adapted to be engaged. In some instances the stock may be rotated by means of a nail or pin inserted in the perforations or bores 15 and 16, as before described.

By forming the tool with duplicate end portions its engagement with the nut 7 is facilitated as either end of the tool may be introduced into the nut and either end may be engaged by a pin or other tool for rotating same.

By forming the nut-engaging lugs 11 and 12 with a thickened portion intermediate their ends they are laterally reinforced and strengthened against easy breakage.

This spanner wrench is particularly adapted for use in the insertion and removal of the externally threaded tubular lock nut employed in motorcycle clutch construction and obviates the use of chisels and other crude implements commonly used for this purpose; the use of this tool being advantageous in that it permits the nut 7 being introduced a considerable distance into the sleeve 5 where occasion demands.

The tool may be made of various sizes, according to the use to which it is to be put but by reason of being adapted to be employed in conjunction with other tools such as a wrench or a pin the need of a handle thereon is dispensed with thus rendering the tool compact so as to occupy small space in the tool kit.

What I claim is:

1. A spanner-wrench for operating externally threaded tubular nuts comprising a tubular stock, a pair of diametrically opposed longitudinally extending lugs formed integral with the stock and positioned substantially midway of the length thereof, said lugs being tapered toward either end and adapted to engage slots in the end of the nut to be operated, said stock being formed with transverse bores adjacent its ends for the reception of a tool whereby the stock may be rotated.

2. A spanner-wrench for operating externally threaded tubular nuts having diametrically opposed end slots, comprising a stock, a plurality of longitudinally extending lugs formed integral with the stock, said lugs being positioned substantially midway of the ends of said stock on diametrically opposite sides thereof and adapted to engage the slots in the nut to be operated, said stock being provided with tool-engaging means on each end thereof.

3. A spanner-wrench for operating externally threaded tubular nuts, comprising a stock, a pair of lugs intermediate its ends and arranged on diametrically opposed sides thereof, said stock being of angular cross-section at its ends and provided with transverse bores for the reception of a tool, whereby the stock may be rotated.

4. A spanner-wrench for operating externally threaded tubular nuts comprising a stock, a pair of lugs intermediate its ends and arranged on diametrically opposed sides thereof, said stock being of angular cross section at its ends adapted for the reception of a tool, whereby the stock may be rotated.

In witness that I claim the foregoing I have hereunto subscribed my name this 15th day of February, 1915.

HERBERT S. TENNYSON.

Witnesses:
R. S. BERRY,
J. L. GELLER.