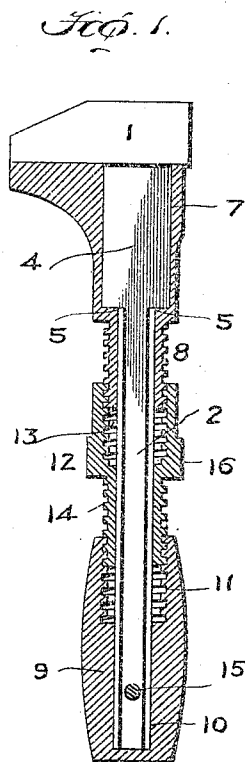
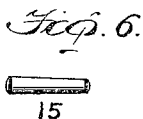
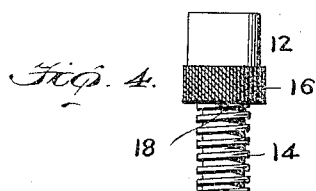
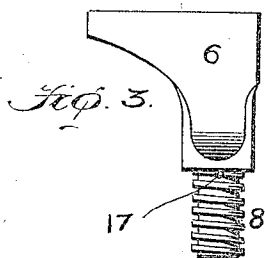
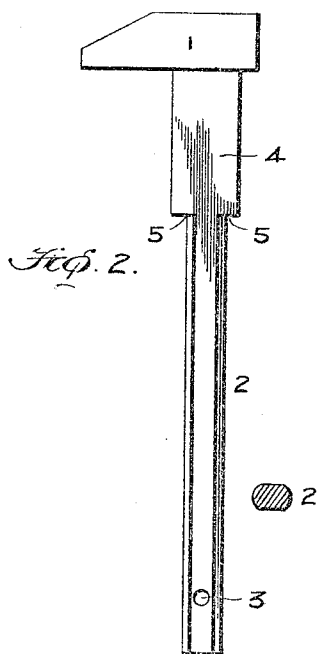


No. 807,209.

PATENTED DEC. 12, 1905.

J. H. SHEPHERD.
WRENCH.

APPLICATION FILED JULY 21, 1905.



Witnesses

Wm. A. Bond
Wm. A. Bond.

Inventor
James H. Shepherd

E. H. Bond
Attorney

UNITED STATES PATENT OFFICE.

JAMES H. SHEPHERD, OF IDAHO SPRINGS, COLORADO.

WRENCH.

No. 807,209.

Specification of Letters Patent.

Patented Dec. 12, 1905.

Application filed July 21, 1905. Serial No. 270,644.

To all whom it may concern:

Be it known that I, JAMES H. SHEPHERD, a citizen of the United States of America, and a resident of Idaho Springs, in the county of Clear Creek and State of Colorado, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to certain new and useful improvements in wrenches, and more particularly to that class of such devices wherein is employed a right and left hand thread and means whereby the movable jaw is quickly adjusted.

The present invention has for its objects, among others, to provide an improved construction, cheap of manufacture, strong and durable, easily manipulated to adjust the same, and composed of few parts, and those readily assembled, but when once in assembled condition not easily or accidentally separable.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a substantially central longitudinal section through my improved wrench. Fig. 2 is an elevation of the fixed jaw and its shank detached from the other parts, showing a cross-section of the shank. Fig. 3 is a similar view of the movable jaw. Fig. 4 is a similar view of the adjusting-sleeve. Fig. 5 is a like view of the handle portion. Fig. 6 shows the securing pin or rivet.

Like numerals of reference indicate like parts throughout the several views.

Referring now to the details of the drawings, 1 designates the fixed jaw, having a shank portion 2 of suitable length provided near its end opposite the jaw with an opening 3 for a purpose which will soon be made apparent. This shank has, near the jaw, a rectangular enlarged portion 4 with square shoulders 5, and this portion serves an important function, as will be explained.

6 is the movable jaw. It is provided with an interior recess or socket 7 of a form and shape to conform to that of the enlargement 4 of the shank 2, which it receives, as seen in Fig. 1. The bottom wall of this socket is square, as seen in Fig. 1, to receive the square shoulders 5 of the shank 2 of the fixed jaw,

by which means the movable jaw is firmly held within the socket and wobbling is prevented.

The movable jaw is formed with a hollow exteriorly-screw-threaded extension 8, as seen best in Fig. 3.

9 is the handle portion. It is formed with an interior bore or socket 10, in which is received the end of the shank 2 of the fixed jaw, as seen in Fig. 1, and with an enlarged socket 11, which is interiorly screw-threaded.

12 is a sleeve having at one end an interior screw-threaded socket 13 to receive the screw-threaded extension 8 of the movable jaw and an exteriorly-screw-threaded extension or portion 14, which is received in the socket 11 of the handle 9, as seen in Fig. 1.

The shank 2 of the fixed jaw is of the form seen in Fig. 2, and the parts are assembled by first placing the movable jaw on the said shank, then the sleeve 12, and then the handle portion 9, and then a pin or rivet 15 is passed through an opening in the handle portion and through the opening 3 in the end of the shank 2, and the parts are held against separation.

The movable jaw is adjusted by turning the sleeve portion 12 either one way or the other, the said sleeve having a diametric or annular enlargement 16, with its periphery knurled, as seen in Fig. 4, for this purpose.

The screw-threads 8 and 14 are oppositely disposed, one being right and the other left, and the interior threads of the sockets 13 and 11 are likewise oppositely screw-threaded for an obvious purpose, as seen clearly in Figs. 1 and 3 and 4.

The extension 8 of the movable jaw may be provided with an opening 17, as shown in Fig. 3, for the introduction of a lubricant when necessary, and the extension 14 of the sleeve 12 may be provided with a similar opening 18 for a like purpose.

From the above it will be seen that I have devised a novel form of wrench which will be found most efficient for all the purposes for which such a device can be used, and while the structural embodiment of my invention as hereinbefore set forth is what I at the present time consider preferable it is evident that the same is subject to changes, variations, and modifications without departing from the spirit of the invention or sacrificing any of its advantages. I therefore do not wish to restrict myself to the details of construction nor the proportions of parts herein disclosed, but reserve the right to make such changes, va-

riations, and modifications as come properly within the scope of the protection prayed.

What is claimed as new is—

1. In a wrench, a fixed jaw, its shank, and
5 rectangular enlargement with shoulder, a
movable jaw with rectangular socket with
shoulder to receive said enlargement, exteriorly-threaded extension, a handle portion with
interiorly-threaded socket, and a sleeve slid-
10 ing on said shank and with interiorly-threaded
socket to receive the threads of the movable
jaw and an exteriorly-threaded extension
received in the socket of the handle portion,
the threaded engagement of said sleeve with
15 said parts being of an opposite nature, and
means for securing the end of the shank of the
fixed jaw within the handle portion.

2. In a wrench, a movable jaw having an
exteriorly-threaded extension and an interior
20 rectangular socket said enlargement and socket

having cooperating shoulders, a fixed jaw with
a shank with rectangular enlargement received
in said socket, a handle portion with socket to
receive the end of the said shank and a threaded
socket, means for securing the shank with- 25
in the first-mentioned socket of the handle
portion, and a sleeve sliding on said shank and
having a threaded extension directly engaging
the threads of the socket of the handle portion
and an interiorly-threaded socket receiving 30
directly the threaded extension of the said
movable jaw, the threaded engagements of the
said sleeve with the opposite parts being of
opposite nature.

Signed by me at Idaho Springs, Colorado, 35
this 18th day of July, 1905.

JAMES H. SHEPHERD.

Witnesses:

WM. L. BUSH,

R. I. DAVIES.