

(No Model.)

G. L. SEYMOUR.
WRENCH.

No. 568,284.

Patented Sept. 22, 1896.

FIG. 1.

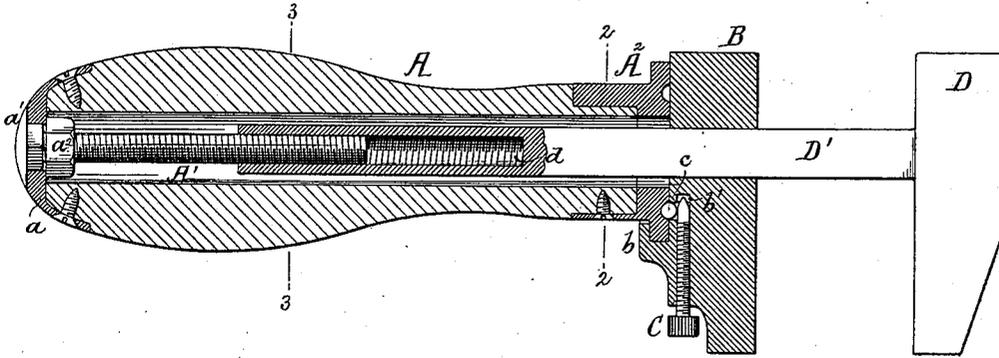


FIG. 6.

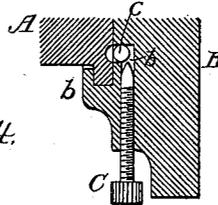


FIG. 4.

FIG. 5.

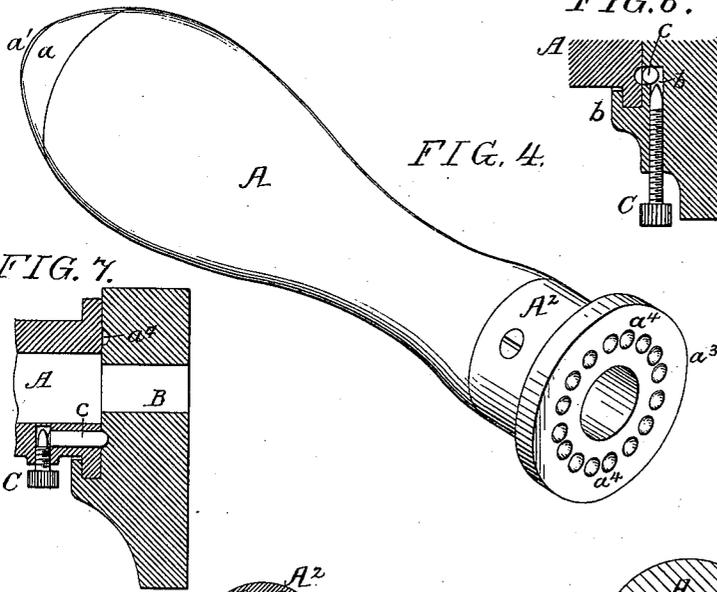


FIG. 7.

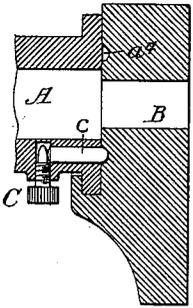


FIG. 2.

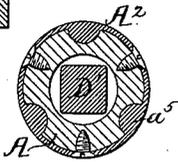


FIG. 3.

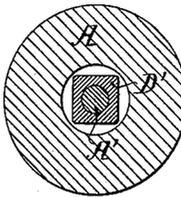
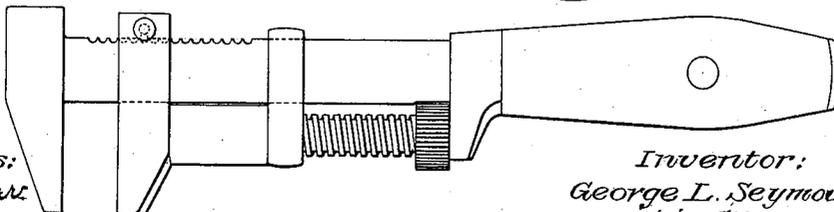


FIG. 8.



Witnesses:
H. S. Turner
Will. O. Benn.

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by his Attorneys
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UNITED STATES PATENT OFFICE.

GEORGE L. SEYMOUR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
TWO-THIRDS TO CHARLES L. DEXTER, OF SAME PLACE.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 568,284, dated September 22, 1896.

Application filed March 3, 1896. Serial No. 581,613. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. SEYMOUR, a citizen of the United States, residing at Philadelphia, Pennsylvania, have invented certain Improvements in Wrenches, of which the following is a specification.

The object of my invention is to lock the jaws of an adjustable wrench at a point fixed upon by the operator, so that after the tool is once set for a certain work it will remain fixed until readjusted, thus preventing the working loose of the jaws, which is a constant annoyance.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of my improved wrench. Fig. 2 is a transverse section on the line 2 2, Fig. 1. Fig. 3 is a sectional view on the line 3 3, Fig. 1. Fig. 4 is a perspective view of the handle detached. Fig. 5 is a perspective view of the movable jaw. Fig. 6 is a sectional view of part of the wrench, showing the ball out of the socket. Fig. 7 is a view of a modification, in which the lock is in the handle; and Fig. 8 is a view showing the application of my invention to an ordinary wrench.

A is the handle. B is the fixed jaw, having a square opening therein and which in the present instance moves with the handle, and D is the movable jaw, having a square shank D', adapted to the opening in the jaw B, and this shank is internally screw-threaded, as shown at *d*.

Secured to the rear end of the handle is a plate *a*, and attached to this plate is a screw-bolt A', the threads of which are adapted to the threads in the shank D' of the jaw D. This bolt A' has a head *a'*, and in the present instance has a square portion adapted to a corresponding opening in the plate *a*. The bolt is confined to the plate by a nut *a*². Other means of fastening this bolt may be resorted to without departing from my invention.

By the above arrangement the jaw B can be moved toward or from the jaw D by turning the handle A.

At the opposite end of the handle A is a ferrule A², having a flange *a*³, and in the face of this ferrule are a series of pockets *a*⁴. The jaw B has a lip which rests back of the

flange *a*³, as clearly shown in Fig. 1, and prevents the jaw becoming detached from the handle.

In the jaw B is a socket *b'* for a ball *c*, and extending into this socket back of the ball from one side is a threaded plug C. This plug has a tapered end, so that when the plug is screwed into the socket, as shown in Fig. 1, the tapered end will force the ball into one of the pockets *a*⁴ in the flange *a*³, which is opposite the socket, but by withdrawing the plug the ball will be free, as shown in Fig. 6, and the jaw B will be unlocked from the handle A.

It will be seen that if the machinist or other user of the wrench is using the wrench on work of a certain size he can adjust the wrench to the work and then lock the jaw B to the handle in the manner described, thus preventing the jaws moving one in respect to the other by the constant handling of the tool.

I preferably form on the inside of the ferrule A², Fig. 2, longitudinal ribs *a*⁵, which prevent the ferrule turning on the handle, and I secure the ferrule, as well as the plates *a*, to the handle by screws or other fastenings.

It will be understood that the shank D' may have an external thread and the handle may have an internal thread to which the shank may be attached without departing from my invention.

In Fig. 7 I have shown a modification in which the locking device is in the handle, and instead of using the ball a plate having rounded ends is used as a substitute, the pockets being formed in the jaw B, so that on turning the screw-plug the bolt or ball, as the case may be, can be forced into any one of the pockets, and thus the jaw can be locked to the handle.

In Fig. 8 I have shown the application of my invention to the ordinary monkey-wrench. On the rear portion of the shank are formed recesses, and the movable head has a socket for the reception of the ball, which is adjusted by means of the screw-plug.

I claim as my invention—

1. The combination in a wrench, of the handle and the fixed jaw, pockets in one part, and a bolt carried by the other part, means for forcing the bolt into one of the pockets

and holding it therein so as to lock the fixed jaw to the handle, a movable jaw and means for adjusting the jaws, substantially as described.

5 2. The combination in a wrench, of the movable jaw, the fixed jaw, the handle swiveled to the fixed jaw and having a screw-threaded portion adapted to a screw-threaded portion of the movable jaw, a series of pockets
10 and a ball adapted to said pockets, with means for locking the ball in one of the pockets, substantially as described.

3. The combination of the handle A, a ferrule A² having a flange, a series of pockets in
15 the face of said flange, a jaw B having a portion extending back of the flange and having a recess, a ball adapted to said recess, a plug for forcing the ball into one of the pockets in the flange, a jaw D having a screw-threaded
20 shank, a screw on the handle adapted to the threaded screw of the shank, substantially as described.

4. The combination of the handle A having

a plate *a*, a threaded stem A' secured to said plate and extending into the handle, a jaw D
25 having a squared shank extending into the handle, said shank having a screw-threaded opening adapted to the threaded stem A', a flanged ferrule secured to the handle and having a series of concentric pockets, a jaw B
30 having a portion *b* extending back of the flange and having an opening *b'*, a ball adapted to said opening, a threaded plug having a tapered end adapted to the threaded opening
35 in the jaw B so that by adjusting this stem in the ferrule and thus lock the jaw to the handle, substantially as described.

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

GEORGE L. SEYMOUR.

Witnesses:

WILL A. BARR,
JOS. H. KLEIN.