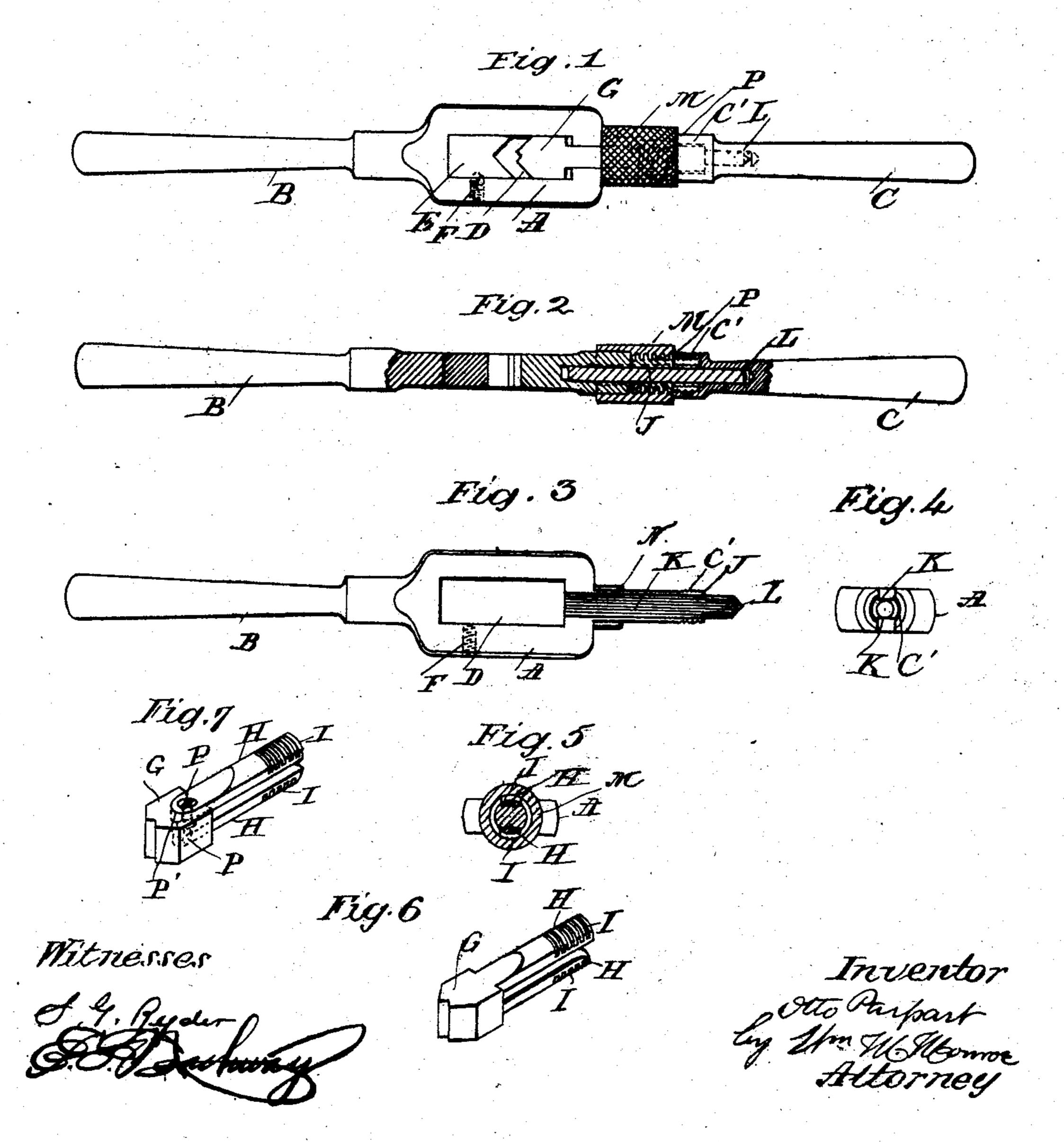
## O. PARPART. TAP WRENCH. APPLICATION FILED JAN. 27, 1911.

994,477.

Patented June 6, 1911.



## UNITED STATES PATENT OFFICE.

OTTO PARPART, OF CLEVELAND, OHIO, ASSIGNOR TO THE STANDARD TOOL COMPANY, OF CLEVELAND, OHIO, A CORPORATION.

## TAP-WRENCH.

994,477.

Specification of Letters Patent.

Patented June 6, 1911.

Application filed January 27, 1911. Serial No. 605,020.

To all whom it may concern:

Be it known that I, Otto Parpart, a citizen of the United States, and resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Tap-Wrenches, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

The objects of the invention are to provide an adjustable tap wrench having the advantages of simplicity and strength in construction and convenience in use, and in which the moving parts are easily put to-

gether and operated.

The invention comprises the forms of construction and combination of parts hereinafter described, shown in the accompanying drawings and specifically pointed out in the claims.

In the accompanying drawings Figure 1 is a plan view of the device; Fig. 2 is a longitudinal section thereof; Fig. 3 is a plan view of the stock portion with the jaws and the operating parts removed; Fig. 4 is an end view of the stock with the handle removed; Fig. 5 is a transverse section through the stock and movable jaw and operating sleeve nut; Fig. 6 is a perspective view of the movable jaw. Fig. 7 is a perspective view of a modified form of jaw showing detachable fork members.

In these views A is the stock, having one integral handle B and one removable handle C attached to the screw threaded extremity C' of the stock.

D is the central rectangular opening in which the jaws are inclosed, on three sides; on the jaw E is fixed and secured by means of a set screw F and the other jaw G is longitudinally movable in the opening D.

The movable jaw is provided with parallel projections H, H which are screw threaded at I, I, and these projections extend longitudinally toward the removable handle, and inclose a portion J of the stock and its extension L between them.

The projections H, H are partially sunken in the channels K, K in the stock and its extension, leaving the screw threaded portions I raised above the stock.

The stock is cylindrical at its projecting part J and corresponds in diameter with the

diameter of the screw threaded portions of 55

the jaw.

The projecting portions of the movable jaw slide in the channels formed in the stock and are operated by means of a sleeve nut M which engages them. This nut is in- 60 closed between the shoulder N upon the cylindrical extension of the stock and the inner extremity of the handle at P, so as to turn freely to move the jaw in and out, but cannot escape therefrom since it is prevented 65 by the handle from doing so. This form of construction forms a long and rigid guide bearing for the movable jaw, which is not likely to wear unevenly or get out of alinement and hence the jaw itself can be made 70 shorter and be given a greater range of movement. There is also no liability to loosen the handle since it does not turn or move in operating the tool, but the parts of handle and stock remain perfectly rigid. 75 A short projection L at the end of the projection J enters the end of the handle and gives a rigid bearing.

In Fig. 7 the forks H H of the movable jaw G, are made detachable for convenience 80 in assembling the parts and are secured by means of screws P, P, in shallow slots P'

in the jaw.

Having described the invention what I claim as new and desire to secure by Let- 85 ters Patent is:

1. In a tap wrench, in combination, a stock having a cylindrical projection at one end provided with a screw threaded extremity, a fixed handle at the other end, a 90 central rectangular opening, a detachable handle secured to the screw threaded extremity of said cylindrical extension, and having a shoulder at its inner end, said stock and extension also provided with a 95 longitudinal channel on each side, a fixed jaw in said rectangular opening, a movable jaw in said opening, longitudinal projections upon said jaw slidingly mounted in said channels and provided with screw 100 threaded extremities of the same diameter as the said cylindrical extension, said extension provided also with a shoulder, and a sleeve nut upon said cylindrical extension, said nut inclosed between the said shoulder 105 on said extension and handle and engaging the screw threaded projections on said movable jaw.

2. As an article of manufacture, a tap wrench comprising a stock having a cylindrical projection provided with a shoulder and a reduced extremity, a handle detach-5 ably secured to said extremity and having a shoulder at its inner end, said stock having a channel on each side extending longitudinally therethrough and through said cylindrical extremity, a movable jaw in said 10 stock and screw threaded projections on said jaw said projections movable in said channels, and a sleeve nut sleeved over said cylindrical portion between said shoulders and engaging said screw threaded projections on 15 said movable jaw.

3. In a tap wrench, a stock provided with

an extension and with longitudinal guide channels in one end, a movable jaw provided with projecting screw threaded portions slidable in said channels, a removable handle 20 having a shoulder at its inner end, said channeled portion also provided with a shoulder and a screw threaded sleeve upon said extension between said shoulders, said sleeve engaging said screw threaded projections 25

In testimony whereof, I hereunto set my hand this 20" day of January 1911.

OTTO PARPART.

In presence of— S. G. RYDER, E. E. Northway.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."