

S. P. PERUSSINA.
 RATCHET WRENCH.
 APPLICATION FILED FEB. 17, 1906.

950,675.

Patented Mar. 1, 1910.
 2 SHEETS—SHEET 1.

FIG. 1.

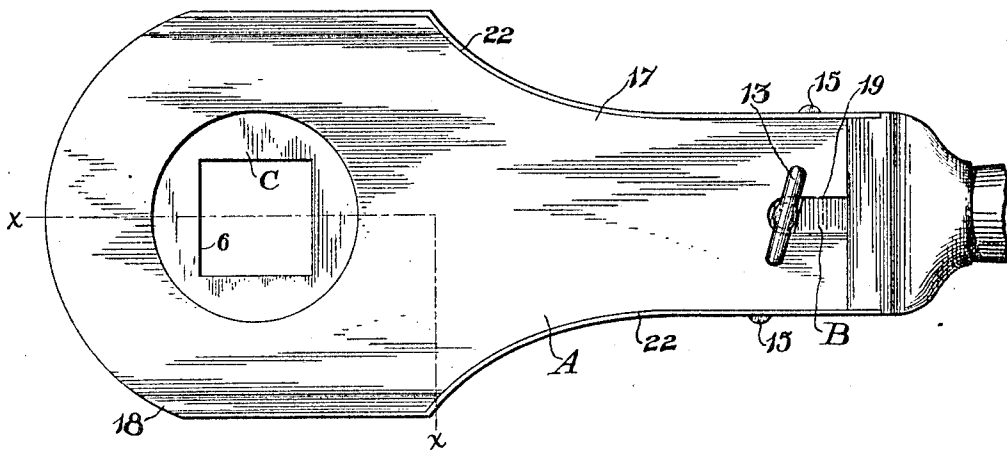
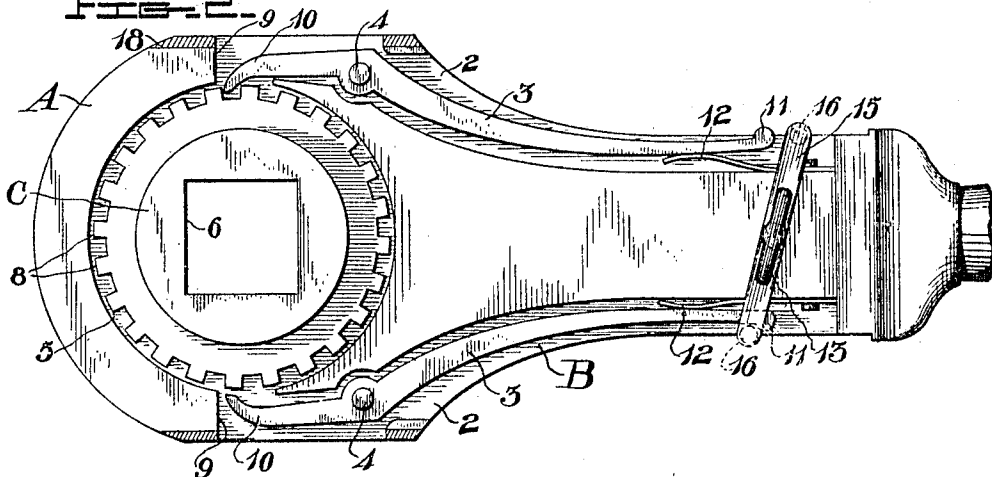


FIG. 2.



Witnesses

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 2 SHEETS—SHEET 2.

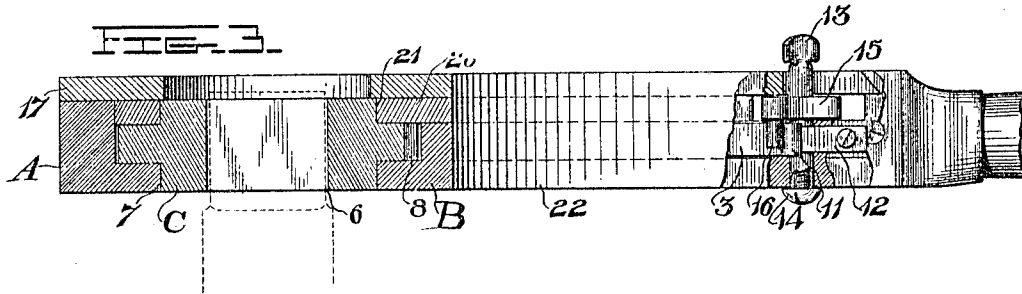


FIG. 4.

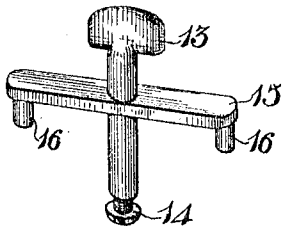


FIG. 5.

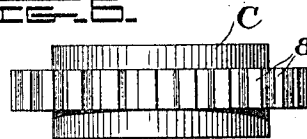


FIG. 6.

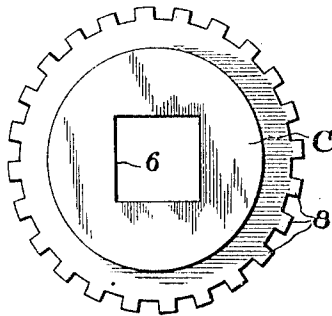
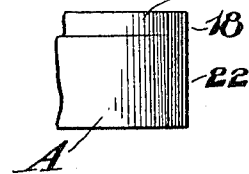


FIG. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

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RATCHET-WRENCH.

950,675.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed February 17, 1906. Serial No. 301,712.

To all whom it may concern:

Be it known that I, SAMUEL P. PERUSSINA, a citizen of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented certain new and useful Improvements in Ratchet-Wrenches, of which the following is a specification.

My invention relates to an improvement in ratchet wrenches, and the object is to provide a wrench in which the rotating heads or sockets can be removed, and heads of different bores substituted.

Another object is to provide means whereby the heads or sockets are capable of rotation either to the right or left at the wish of the operator.

My invention relates to certain other novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claim.

In the accompanying drawings:—Figure 1 is a plan view. Fig. 2 is a top view with the cover removed. Fig. 3 is a sectional view on the line $x-x$ of Fig. 1. Fig. 4 is a view of the locking means. Fig. 5 is a view of the head or socket. Fig. 6 is a view in side elevation of the head or socket, and Fig. 7 is a detail segmental view showing the manner of connecting the cover to the base.

A, represents the wrench, and B the base, which is cut away along its upper edge, as at 2, and pawls 3, 3, are pivotally mounted thereon, and held by pins 4, 4. At the front end a recess 5 is formed and in the base of the recess an aperture 7 is formed, in which the head or socket C is received. The head has a bore 6 which engages the nut, bolt-head or the like, and the bore can be made of any desired form. The ratchet teeth 8 projecting outwardly from the rim of the head or socket C are adapted to be received in the recess 5, and the wall of the recess is provided with openings 9, 9, for the ends 10, 10, of the pawls 3, to engage the teeth 8 of the head C. The opposite ends of the pawls are provided with rounded knobs 11, and springs 12 secured to the body of the wrench en-

gaging the pawls tend to throw them outward and in engagement with the teeth 8 of the head or socket.

A lock or key 13 passes through the body of the wrench and is held in position by a screw 14. Projecting outwardly from the lock, arms 15 are formed, which are provided with projections 16, 16, adapted to engage the knobs 11 of the pawls 3.

A cover 17 sliding in grooves 18, passes over the various parts, and has an elongated slot 19 which fits around the lock 13. Between the cover and base B of the wrench is a plate 20, which has an opening 21 which surrounds the head C and prevents any lateral play.

Extending around the edge of the wrench a metal band 22 is secured.

The operation of the wrench is as follows:—The bore of the head C is placed around the nut to be screwed up or removed, and the lock 13 is turned so that the projection 16 will pass over the knob 11 and hold the pawl 3 out of engagement with the teeth 8 of the head C, while the pawl which is free will be in engagement with the teeth 8, and by rotating the handle 23 of the wrench backward and forward the nut will be caused to move on the bolt. For instance, as shown in Fig. 2, as the wrench is rotated to the left the head remains stationary, but when rotated to the right it is revolved and at the same time carries the nut with it.

Of course, when both pawls are free, or the lock 13 is not in engagement with either of them, both pawls engage the teeth 8, by the springs 12 throwing them outward.

It will be seen that a head or socket having a different sized bore can be easily placed in the wrench by simply withdrawing the cover, and removing the plate 20.

It is evident that many slight changes might be made in the form and arrangement of the several parts described, without departing from the spirit and scope of my invention and hence I do not wish to limit myself to the exact construction herein set forth.

Having fully described my invention,

what I claim as new and desire to secure by Letters Patent, is:—

In a wrench, the combination with a base, of a head or socket having teeth formed therein received in the base, pawls engaging the teeth, means for retaining either pawl out of engagement with the teeth, a plate having an opening therein through which the head is received whereby the head is

held in position, said plate extending over the pawls for retaining them in position, and a cover slidably mounted on the base for holding the plate in position.

SAMUEL P. PERUSSINA.

Witnesses:

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