J. PEGLER.

WRENCH.

APPLICATION FILED FEB. 2, 1918.

1,280,533. Patented Oct. 1, 1918.

Fig. 1.

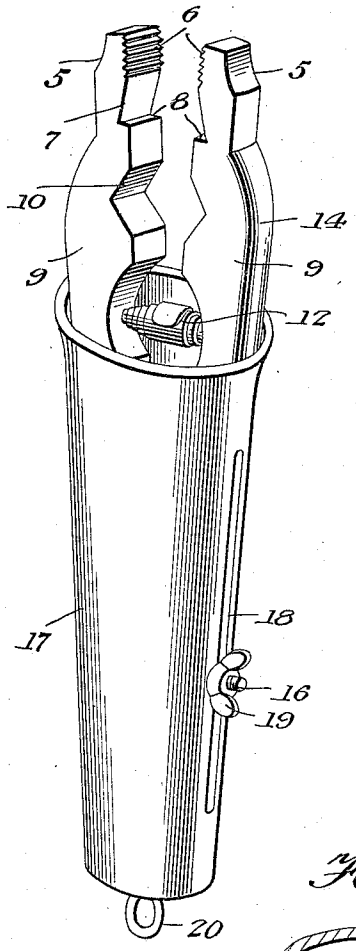


Fig. 2.

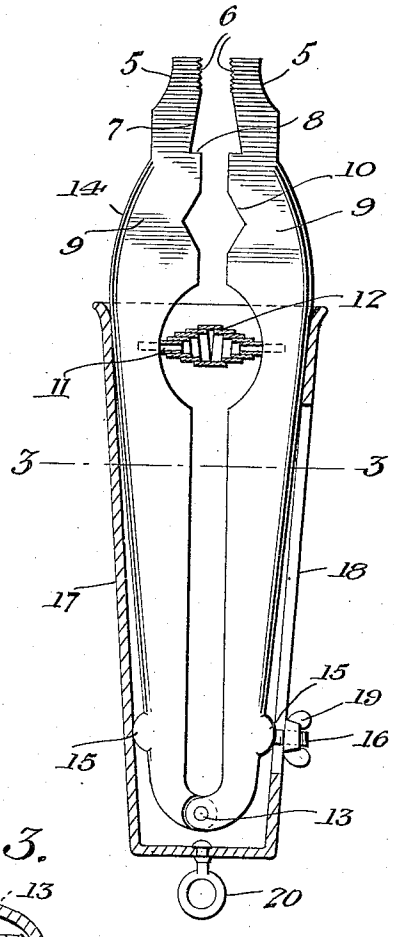
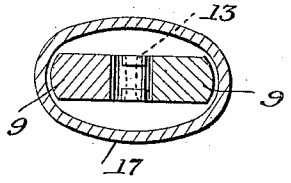


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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WRENCH.

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To all whom it may concern:

Be it known that I, JOHN PEGLER, a citizen of the United States, residing at Charles City, in the county of Floyd and State of Iowa, have invented new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to improvements in wrenches.

The object of the invention is to simplify and improve the existing art by producing a wrench comprising a pair of pivoted jaw members normally forced away from each other by a spring, the pivoted ends of the said jaws being received in a sleeve which is longitudinally adjustable and which is designed to swing the jaws on the pivot against the tension of the spring to bring the said jaws in object engaging position and to retain the said jaws in such position.

Other objects and advantages will appear as the nature of the invention is better understood, reference being had to the accompanying drawings, in which,

Figure 1 is a perspective view of a wrench constructed in accordance with this invention.

Fig. 2 is a side elevation of the same, parts being broken away and parts being in section,

Fig. 3 is a detail, enlarged sectional view approximately on the line 3—3 of Fig. 2.

The jaws of the wrench are indicated by the numerals 5 and have their active faces provided with transverse teeth or serrations 6. Inward of the teeth the jaws are formed with opposed angle surfaces 7 terminating in shoulders 8. The jaws are formed on the outer ends of the body or shank portions 9 of the wrench. These shanks 9 have their inner faces straight, and, a suitable distance inward of the shoulders 8 are provided with V-shaped notches 10 between which nuts, or similar articles may be engaged, as is also true with respect to the angle surfaces 7, the shoulders 8, and the toothed surfaces 6. The straight inner edges of the shanks 9, at a suitable distance from the notches 10 are provided with curved depressions having arranged at the center thereof pins 11 which receive the end coils of a spring 12, the said spring normally forces the shanks, and consequently the jaws away from each other. The shanks 9, at their ends opposite that formed with the jaws 5 are rounded inwardly toward each other, one of the said rounded ends being formed with a tongue received in the bifurcation in the other rounded end, a pivot 13 passes through these portions of the shanks and hingedly connects the same.

From their rounded ends the outer edges of the shanks are gradually increased in thickness to a point slightly inward of the notches 10, and are from thence rounded inwardly, as at 14, to the straight outer edges of the jaws 5, the corners of the said jaws being cut inwardly, as illustrated by the drawings.

Formed on the outer edges of the shanks on each of the jaws, adjacent the reduced pivoted ends thereof are rounded bosses 15—15, one of the bosses being provided with a threaded stem 16.

The handle member is indicated by the numeral 17 and comprises a hollow cone-shaped element which is elliptical in cross section. The hollow handle 17, upon one of the sides thereof is provided with an elongated slot 18 through which the threaded stem 16 passes, and the numeral 19 designates a winged nut which is threaded on the stem 16 and which is designed to bind the casing against the lugs 15 to hold the handle longitudinally adjustable with respect to the jaws and shanks thereof, thus permitting the spring 12 to exert its influence to spread the jaws, or to compress the said spring to bring the jaws toward each other. The winged nut 19 engaging with the outer face of the handle, and the boss 15, on which the stem 16 is formed, engaging with the inner face of the handle provide guide means between the handle and the wrench. The bosses 15 contacting with the inner face of the hollow handle 17 materially reduce friction between the wrench and handle, and consequently permit of the easy operation of the device.

The closed outer end of the hollow conical handle 17 has preferably swiveled an eye member 20 whereby the wrench may be suspended when not in use.

It is believed, from the foregoing description, when taken in connection with the drawings, that the simplicity and advantages of the construction, will be apparent without further detailed description.

Having thus described the invention, what I claim is:

1. In a wrench of the class described, two jaws having integrally formed shanks, the ends of which are rounded toward each other and pivotally connected, each of said shanks, adjacent the pivot having an outwardly extending boss, a threaded stem projecting from one of the bosses, a hollow cone-shaped handle receiving the shanks and in contacting engagement with the bosses thereof, said handle having an elongated slot through which the threaded stem passes, and a binding nut on said stem designed to contact with the handle and to force the boss on the stem against the inner wall of the handle.

2. In a wrench of the class described, two jaws having coextensive shanks, the inner faces of which being straight and being provided with inturned portions at their ends opposite those formed with the jaws, and the said nuts being pivotally connected, said shanks gradually increasing in width from their pivots to points adjacent the jaws, spring means between the shanks for forcing the same away from each other, said shanks having their outer edges adjacent to their pivot provided with outwardly rounded bosses, a threaded stem projecting from one of the bosses, a hollow cone-shaped handle which is elliptical in cross section receiving the shanks and in contact engagement with the bosses, said handle having a longitudinal slot through which the threaded stem passes, and a binding nut on the stem designed to contact with the outer face of the handle and force the boss on the stem in frictional engagement with the inner wall of the handle.

In testimony whereof I affix my signature.

JOHN PEGLER.

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