

Jan. 13, 1925.

G. O. CARLSON

1,522,804

WRENCH

Filed Feb. 14, 1924

Fig. 1.

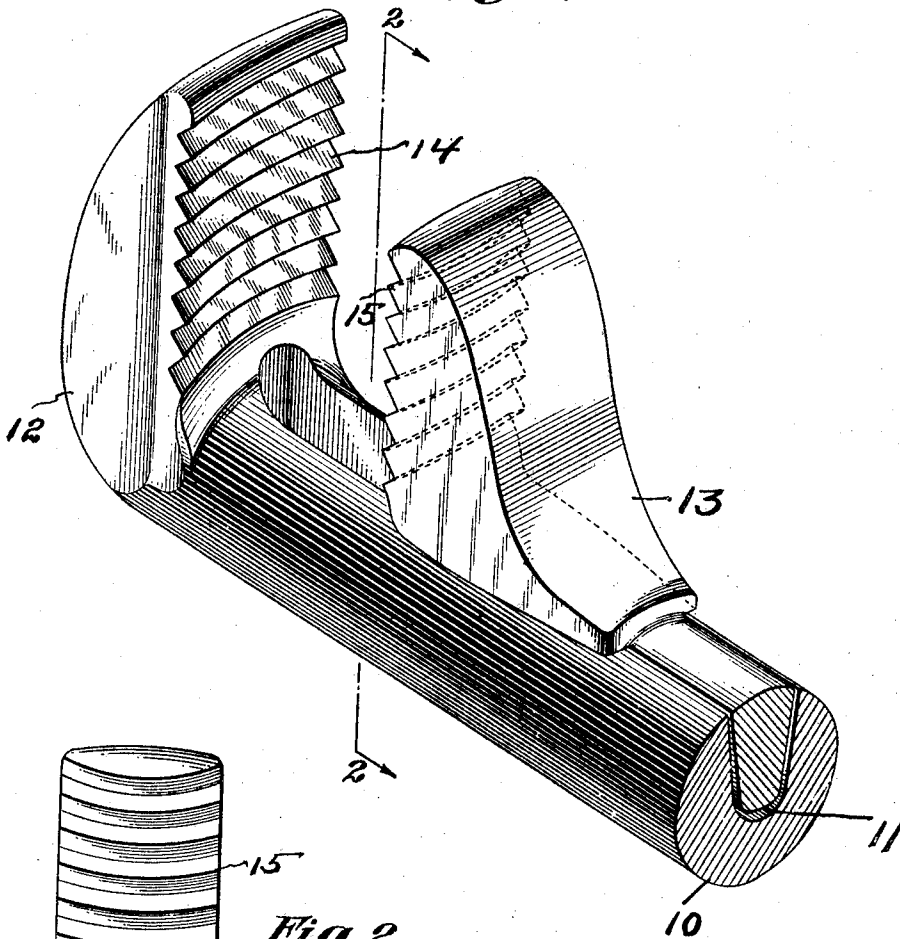
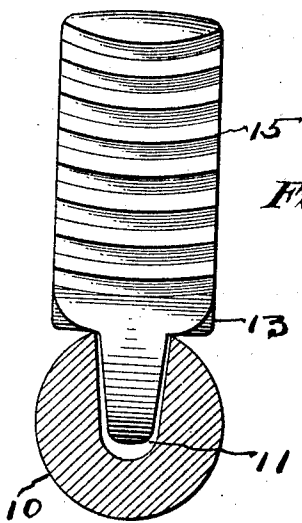


Fig. 2.



INVENTOR
GUSTAVE O. CARLSON
BY *Ginge Estacy*
ATTORNEY

UNITED STATES PATENT OFFICE.

GUSTAVE O. CARLSON, OF WETHERSFIELD, CONNECTICUT, ASSIGNOR OF ONE-HALF TO
HENRY HANSON, OF MIDDLETOWN, CONNECTICUT.

WRENCH.

Application filed February 14, 1924. Serial No. 692,705.

To all whom it may concern:

Be it known that I, GUSTAVE O. CARLSON, a citizen of the United States, residing at Wethersfield, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a new and improved wrench having for its object, among other things, to provide the jaws thereof with teeth that will insure a positive grip upon the article engaged thereby.

To these, and other ends, my invention consists in the wrench having teeth constructed substantially as herein described and as illustrated in the drawings accompanying and forming part of this specification, wherein like numerals of reference designate like parts in both figures.

Figure 1 is a fragmentary view of the head portion of a wrench having my improvements connected therewith; and

Figure 2 is a transverse sectional view thereof, taken generally upon line 2—2 of Figure 1.

In the drawings, 10 designates a portion of the shank of a wrench having a longitudinal groove 11 in one side thereof and terminating at one end in a fixed jaw 12.

Within this longitudinal groove is slidably mounted the movable jaw 13 which is moved toward and away from the fixed jaw by any of the many means well known in the art, but not shown herein, as they are immaterial to my present invention.

I have only illustrated one of the many forms of wrenches having movable and fixed jaws, because the detail construction thereof constitutes no part of the invention herein disclosed.

While the invention is shown as applied to a wrench having a fixed and movable jaw, it is equally well adapted to a wrench wherein both of the jaws are fixed or movable relatively to each other.

The gripping faces of the jaws are usually provided with straight teeth arranged either at a right angle to the side of the jaw or inclined relatively thereto. In operation, these straight teeth do not prevent a sidewise or lateral movement of the wrench in relation to the object gripped, therefore, the wrench has a tendency to slip, is insecure in the hand and unnecessarily mars the surface against which the teeth are in contact.

In my invention I have entirely eliminated these and other objections to the teeth so formed, by making the teeth curved instead of straight, the center of the arc thereof being in a line parallel with the sides of the jaw and substantially midway therebetween.

In the drawings, the teeth in the fixed jaw are designated 14 and those in the movable jaw 15, these being preferably arranged so that they curve in opposite directions, that is in the fixed jaw the curvature of the teeth is toward and in the moving jaw is away from the shank. With teeth so arranged a positive grip is assured upon the article engaged by the wrench and any tendency to a lateral or swinging movement of the wrench relatively thereto is negated by the teeth upon one of the jaws resisting any such movement of the other jaw.

What I claim is:

1. In a wrench having companion jaws, teeth upon the gripping surfaces thereof arranged in series and curved from end to end, the curvature of the teeth in one jaw being the reverse of the curvature of the teeth in the other jaw.

2. In a wrench having companion jaws, one of which is fixed and the other one movable; teeth upon the gripping surfaces thereof arranged in series and curved from end to end, the curvature of the teeth in the fixed jaw being away from the shank thereof and the curvature of the teeth in the movable jaw being toward the said shank.

In testimony whereof, I have hereunto affixed my signature.

GUSTAVE O. CARLSON.