C. W. SIEVERT.

PIPE WRENCH.

APPLICATION FILED NOV. 11, 1908.

916,376. Patented Mar. 23, 1909.

Fig. 1.

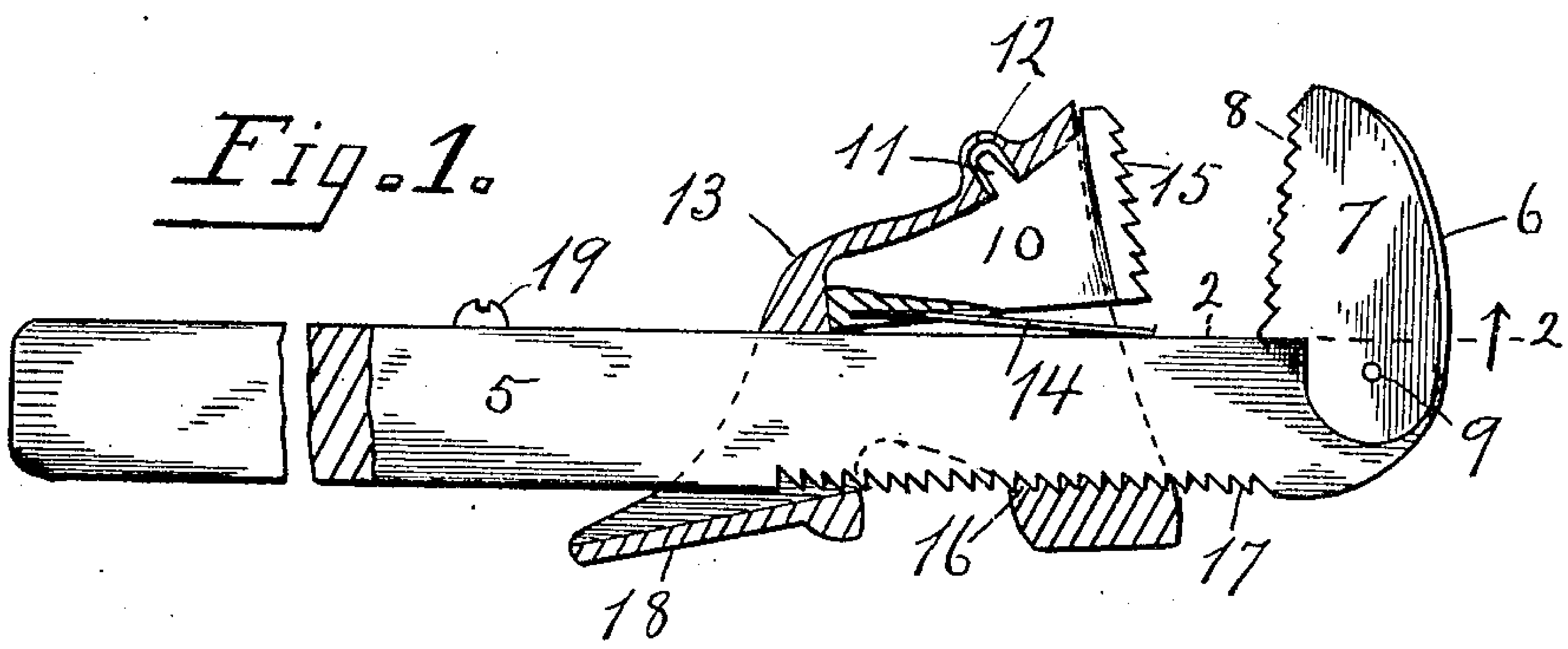


Fig. 2.

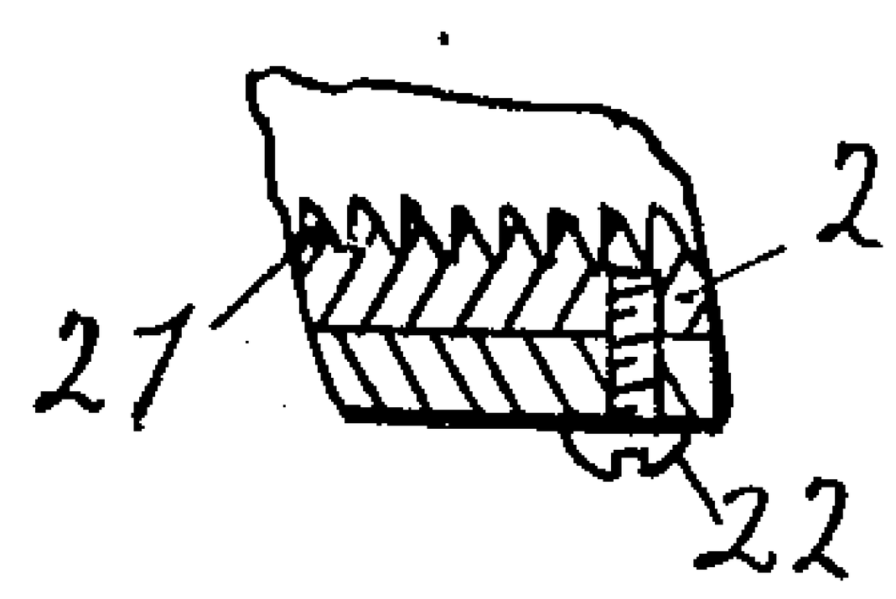
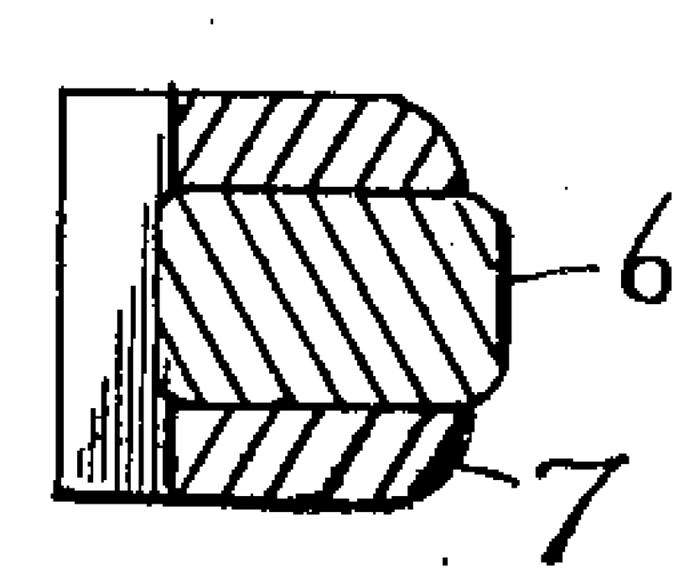


Fig. 3.



Witnesses.

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PIPE-WRENCH.

No. 916,376. Specification of Letters Patent. Patented March 23, 1909.

Application filed November 11, 1908. Serial No. 462,085.

To all whom it may concern:

Be it known that I, CHARLES W. SIEVERT, a citizen of the United States, residing in the city of Los Angeles and county of Los Angeles, State of California, have invented new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

It is the object of my invention to construct a pipe wrench of cheap construction, efficient operation and which can be quickly adjusted to fit upon pipes of different sizes. I accomplish this object by the wrench described herein and illustrated in the accompanying drawings in which;

Figure 1 is a side elevation partly in section of my improved pipe wrench. Fig. 2 is a longitudinal vertical section of the front end of the lower portion of a movable jaw container showing a slight modification of that shown in Fig. 1. Fig. 3 is a section on the line 2—2 of Fig. 1.

In the drawings 5 is the handle at the outer end of which is the fixed jaw 6 which is preferably made integral with the handle. This jaw is provided with a jacket 7 provided with teeth 8, which is removably secured by rivet 9. This jacket is of hardened steel and when the teeth become dull or worn out, by removing the rivet 9 a new jacket can be placed upon the jaw. If desired the jacket could be omitted and the teeth made in the face of the jaw, but I prefer the use of the jacket, as the handle and fixed jaw can be more easily drop forged without teeth on the fixed jaw, than with teeth. There is a greater wear on the teeth than on any other part of the wrench, and it is therefore advantageous and economical to be able to replace them when dull and worn out.

10 is the rocking jaw of the wrench which is provided with a pin 11 in the top thereof. This pin projects into a recess 12 in the top of the rocking jaw container 13 to hold the jaw from accidentally separating from the container

14 is a spring secured to the lower face of the rocking jaw at the rear end thereof, and normally keeps the front end of the jaw elevated as shown in Fig. 1 of the drawings. The rocking jaw is preferably of tool steel and the teeth 15 are preferably tempered. The rocking jaw container slides upon the handle and is provided on the upper surface of the front portion of the lower part thereof, with ratchet teeth 16 which engage with like ratchet teeth 17 in the lower edge of the handle. At the rear of the lower side of the container is a release lever or handle 18 the front portion of which contacts with the lower surface of the handle. When it is desired to adjust the rocking jaw by applying pressure to the rear end of the container handle the ratchet teeth thereof are moved out of engagement with the ratchet teeth of the handle, and the container, carrying the rocking jaw, can be moved toward or from the fixed jaw as desired to adjust it for the size of pipe upon which it is to be used. A screw 19 in the upper surface of the handle limits the rearward motion of the container and is so placed that when the container contacts with said screw the jaws are opened to their fullest capacity for use upon pipe of the largest size upon which the wrench is capable of being used.

In the modification shown in Fig. 2 the lower front portion of the container is provided with a removable plate 20 provided with ratchet teeth 21 which engage the ratchet teeth of the handle. This plate may be removably secured to the container by screw 22. The object in providing this plate is that it may be made of tempered steel while the container is preferably made of cast metal. The outer ends of the jaws are preferably wider apart than the inner ends and the opposing faces of the jaws slope away from the line drawn at right angles to the upper surface of the handle.

In the operation of the wrench when it is on the top of the pipe, as the handle is moved downwardly, the teeth of the rocking jaw rock downward thereby wedging the pipe between the jaws and gripping the pipe most firmly. This motion is produced by the rear end of the shank of the jaw engaging the container which holds it against longitudinal movement, while the front end containing the teeth is free to move downward. The reverse movement of the handle quickly releases the jaws from the pipe. The handle constitutes the shank of the fixed jaw.

By this construction a cheap, quickly adjusted and efficient pipe wrench is provided, as the handle, fixed jaw, and rocking jaw can be drop forged of tool steel and the rocking jaw container can be formed of malleable cast steel or iron.

Having described my invention what I claim is;

1. A pipe wrench comprising a handle having a fixed jaw on one end thereof and a series of ratchet teeth on the back of the handle extending to near the jaw; a rocking jaw container slidably mounted on said handle, said container having ratchet teeth adapted to engage the ratchet teeth of the handle, said container having a handle on the lower rear portion thereof, the front end of which engages the wrench handle and the other portion of which handle normally projects away from the wrench handle; a rocking jaw removably contained in said rocking jaw container; means secured to said rocking jaw for removably securing the same in said container; and means for holding the front end of the rocking jaw elevated above the wrench handle when the parts are assembled for use.

2. A pipe wrench comprising a handle having a fixed jaw on the outer end thereof and having ratchet teeth on the back of the handle terminating near the fixed jaw; a jacket removably secured to said fixed jaw, said jacket having teeth in its outer face; a rocking jaw container slidably mounted on said wrench handle, a plate removably secured within the lower front portion of said container, said plate having ratchet teeth which engage the teeth of the handle and hold the container against rearward movement; a handle secured to said container on the lower rear portion thereof, the front end of which engages the wrench handle, and the other portions normally project away from the wrench handle; a rocking jaw removably secured in said container; and means for holding the front end of the rocking jaw yieldingly elevated above the wrench handle when the parts are assembled.

3. A pipe wrench comprising a straight handle having ratchet teeth in the back thereof; a fixed jaw on the outer end of said handle projecting away from the front of the handle; teeth in the face of said fixed jaw which is toward the rear end of the handle, said teeth being in a plane inclined to a line perpendicular to the upper surface of the handle; a rocking jaw container slidably mounted on said handle, said container having in its lower front portion teeth to engage the teeth on the handle; means secured to said container to rock the teeth thereof out of engagement with the teeth of the handle; and a rocking jaw rockably secured in said container, said rocking jaw having teeth normally standing in a plane inclined to a line perpendicular to the upper surface of the wrench handle, the teeth in said jaws being farther apart at the top than at the bottom.

In witness that I claim the foregoing I have hereunto subscribed my name this 6th day of November, 1908.

CHAS. W. SIEVERT.

Witnesses:

G. E. HARPHAM,

E. F. BRITTAN.