W. M. BALDWIN.

WRENCH.

APPLICATION FILED JULY 12, 1918.

1,404,729. Patented Jan. 31, 1922.

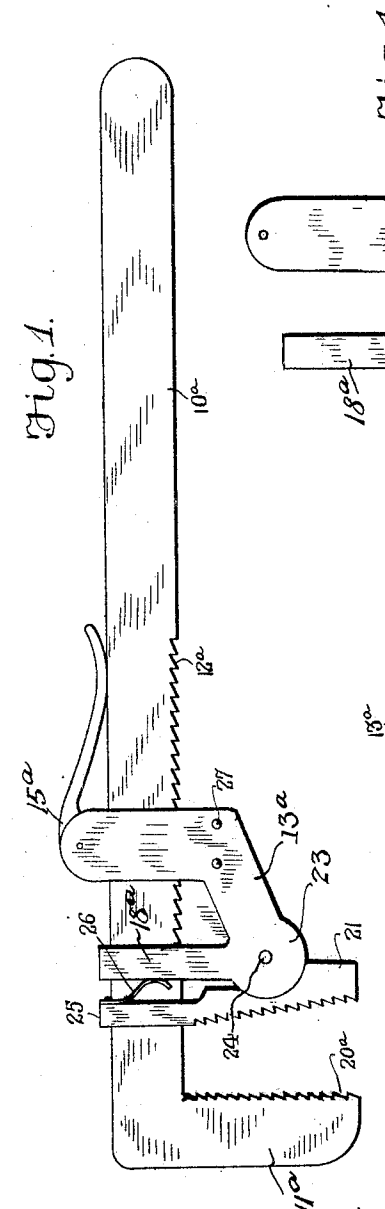


Fig. 1.

Fig. 4.

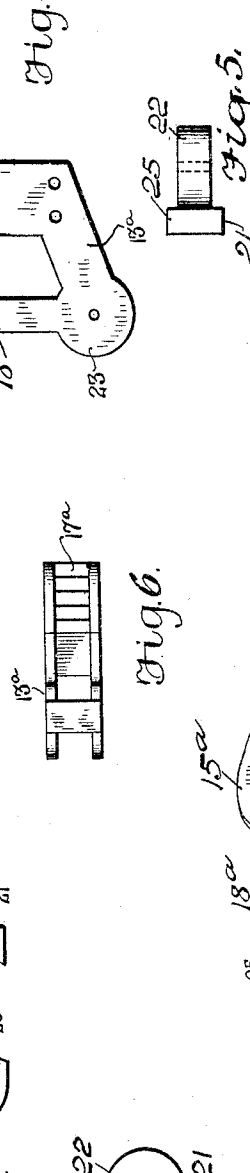


Fig. 2.

Fig. 6.

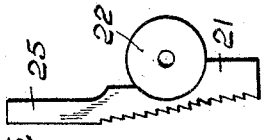


Fig. 3.

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Witnesses

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UNITED STATES PATENT OFFICE.

WALTER M. BALDWIN, OF WEATHERFORD, OKLAHOMA.

WRENCH.

1,404,729. Specification of Letters Patent. Patented Jan. 31, 1922.

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To all whom it may concern:

Be it known that I, WALTER M. BALDWIN, a citizen of the United States, residing at Weatherford, in the county of Custer and State of Oklahoma, have invented new and useful Improvements in Wrenches, of which the following is a specification.

The object of the invention is to provide a quick acting or quick adjusting wrench wherein the parts are adapted to be relatively arranged without loss of time to suit the size or diameter of the object to be engaged, whether a nut or a pipe, and wherein there is sufficient relative movement of the object engaging jaws to insure a firm engagement when turning pressure is applied to the handle or grip of the wrench, loss of time incident to the movement of one jaw toward or from the other, as in the ordinary construction of wrenches being avoided.

Further objects and advantages will appear in the course of the following description, it being understood that changes in form, proportion and details may be resorted to within the scope of the appended claim without departing from the spirit of the invention.

In the drawing:—

Figure 1 is a side view of a nut wrench constructed in accordance with the invention.

Figure 2 is a similar view, with the removable jaw in section.

Figure 3 is a detail view of the gripping element and the movable jaws.

Figure 4 is a similar view of the movable jaw with the gripper element omitted.

Figures 5 and 6 are edge views respectively of the gripper element and movable jaw of the wrench.

Referring now to the drawings in detail, 10^a designates the shank or handle of the wrench which has one of its edges toothed, as at 12^a for engagement by a plural toothed pawl 17^a secured by means of rivets 27 or the equivalent thereof to a pair of spaced plates 13^a extending from a pair of disks 23, said shank carrying the fixed jaw 11^a. The fixed outer jaw is provided with a gripping surface which is serrated as shown at 20^a to cooperate with a serrated gripper element 21, shown in detail in Figure 3, said element being provided with an ear 22 fitted between the spaced disks 23 and pivotally mounted by means of a rivet 24 or the equivalent thereof. The gripper element is preferably provided with a yoke 25 which embraces the shank 10^a and a spring 26 is disposed between said yoke and the corresponding yoke 18^a of the disks 23. The gripper element being thus yieldingly mounted between the disks is adapted when the wrench is used to tilt in opposition to the tension of the actuating spring 26 in order to obtain a firm grip of the pipe or rod or other round objects disposed between the fixed jaw and gripper element. A locking cam 15^a is pivotally secured to the upper ends of the plates 13^a and engaging the smooth edge of the shank.

From the foregoing description it will be obvious that the wrench may be constructed at a comparatively small cost to the manufacturer and the parts thereof are so disposed relatively as to insure the maximum strength of the elements or the dimensions thereof which may be adopted and in practice a sufficiently accurate or nice adjustment of the jaws for the proper engagement of an object disposed therebetween may be secured notwithstanding the fact that the broad or general adjustment may be effected instantly upon the release of the movable jaw by the proper movement of the locking cam.

Having thus described the invention I claim:—

A wrench of the class described comprising a stationary jaw provided with a toothed shank, a serrated gripper element provided with a yoke surrounding said shank, spaced disks pivotally secured to said gripper element and provided with a yoke surrounding said shank, a spring secured to the first mentioned yoke and exerting a pressure against the last mentioned yoke, spaced plates extending from said disks and engaging opposite sides of said shank, a toothed shank secured to said plates and adapted to engage said toothed shank, and a cam member pivotally secured to said plates and adapted to engage said shank.

In testimony whereof I affix my signature.

WALTER M. BALDWIN.