GEORGE SIBBALD, OF DENVER, COLORADO.

CANT-SLIP WRENCH.

UNITED STATES PATENT OFFICE.


To all whom it may concern:

Be it known that I, GEORGE SIBBALD, a citizen of the United States, residing at the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Cant-Slip Wrenches; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a wrench having one or more movable or adjustable jaws provided with positive means for engaging articles of different shapes and sizes. Briebrly, the invention comprises a handle provided with a pivoted jaw and having thereon an adjustable block to which there is pivoted a jaw having the shape of a cant hook. Preferably a spring is provided for normally urging the cant hook toward the other jaw. The two jaws are provided with a plurality of engaging faces at angles to one another whereby nuts or other objects of different shapes may be firmly engaged. Certain of said faces are also provided with teeth which permit positive engagement, and which also will engage curved objects such as pipes. By moving the smaller jaw, which is pivoted directly upon the handle, nuts or the like of different sizes may be readily and firmly held. The strain upon the handle transmitted to the cant hook through the medium of its pivotal connection with the block securely maintains engagement of the wrench with the article held.

In the drawings:

Fig. 1 is an elevation showing the device engaging a nut.

Fig. 2 is a fragmentary elevation showing an engagement with a nut of larger proportions.

Fig. 3 is an elevation showing an engagement with a square nut.

Fig. 4 shows engagement with a pipe.

Fig. 5 is a rear elevation of the wrench.

The wrench comprises a handle 10 upon which a sliding block 12 is adjusibly mounted, the adjustment being produced by means of a thumb screw 14 held in the block 12 by a pin 13, said screw engaging in notches 15 of the handle 10. For the purpose of strengthening the block 12, the same carries a web 112 beyond the screw 14 which connects the portions of the block 12 lying at the ends of said screw 14 and supporting the pin 13.

At the forward end of the handle 10 there is pivoted at 16 a small swinging jaw 18. The jaw 18 is provided with a plurality of engaging faces. Face 20 is elongated and toothed as shown. A short face 22 is disposed at right angles to the face 20, and a short plain face 25 is arranged at 30 degrees to the face 22. By this construction faces 20 and 22 will engage a square nut 24 and faces 20 and 25 will engage a hexagonal nut 26.

At the same time, the Wrench may be used after the fashion of a common pipe wrench by reason of the fact that the jaw 18 having the shape of a cant hook 28 is pivotally mounted upon the handle 10, and the continuous strain upon the cant hook jaw 28 serves to increase the security of the engagement. The tip of the jaw 38 is provided with a plurality of toothed engaging faces 34, 35, 36, and 37, the faces 34 and 36 being approximately at an angle of 60 degrees to each other to receive sides of a hexagonal nut 26, the face 38 being provided to engage the third side of a small nut 26 as in Fig. 1, or a portion of the surface of a small pipe. It will be seen that the jaw 18 will be positioned approximately as shown in Fig. 1 for engagement of a small object and will be swung toward the jaw 28 for engagement of larger objects as shown in Figs. 2 and 3. Thus the two jaws 18 and 28 may be adjusted for firm engagement of any object within the capacity of the wrench, and the continuous strain upon the cant hook jaw 28 serves to increase the security of the engagement. At the same time, the wrench may be used after the fashion of a common pipe wrench.

It will also be noted that by swinging the jaw 18 farther toward the right than is shown in any of the figures, a flat object may be engaged between the two jaws and firmly held for such purposes as twisting.

From the foregoing, it will be seen that a wrench has been provided capable of being put to all of the uses of any of the common types of wrenches, and also capable of
some other uses. Adjustment is quick and the engagement is secure.

I claim:

1. A wrench comprising a handle, a gripping jaw (18) pivotally connected to one end thereof, said jaw having a projecting portion (25) extending beyond the gripping face (20) at one side thereof, a member (12) adjustably movable along said handle, a cant hook shaped gripping jaw (28) pivotally connected to said movable member, and having its gripping portion extending beyond said first named gripping jaw, and on the side of the latter which carries the projecting portion, whereby said projecting portion engages said second named jaw and prevents crushing action.

2. A wrench comprising a handle, a gripping jaw (18) pivotally connected to one end thereof, said jaw having a toothed gripping surface (20), a projecting portion (25) extending beyond said gripping surface at one side thereof, said projection having a shoulder (22) substantially at right angles to said surface (20), for cooperating with square nuts, an inclined portion beyond said shoulder (22) and making an angle of substantially 120 degrees with said gripping surface (20), a member (12) adjustably movable along said handle and a cant hook shaped gripping jaw (28) pivotally connected to said movable member and provided with gripping surfaces (34), (35) and (36) for cooperating with said movable jaw.

3. A wrench having a handle, a gripping jaw (18) pivotally connected to one end thereof, cooperating stops on said handle and said jaw to limit the relative movement of the two members, said jaw having a toothed gripping surface (20), a projecting portion (25) extending beyond said gripping surface at one side thereof, said projection having a shoulder (22) substantially at right angles to said surface (20), for cooperating with square nuts, an inclined portion beyond said shoulder (22) and making an angle of substantially 120 degrees with said gripping surface (20), a member (12) adjustably movable along said handle and a cant hook shaped gripping jaw (28) pivotally connected to said movable member and provided with gripping surfaces (34), (35) and (36) for cooperating with said movable jaw.

In testimony whereof I affix my signature.

GEORGE SIBBALD.