Nov. 24, 1925. 1,562,810

L. TOWL

SCREW DRIVER OR TURNSCREW OR THE LIKE

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Fig. 1.

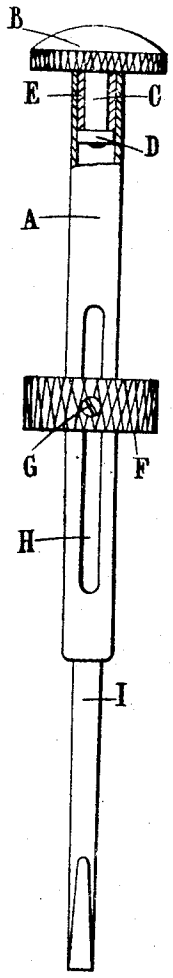


Fig. 2.

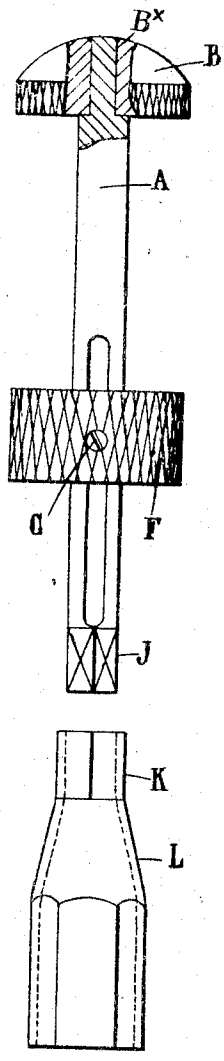
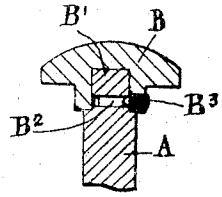


Fig. 3.



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UNITED STATES PATENT OFFICE.

LESLIE TOWL, OF FOREST GATE, LONDON, ENGLAND.

SCREW DRIVER OR TURNSCREW OR THE LIKE.

Application filed November 20, 1922. Serial No. 602,129.

To all whom it may concern:

Be it known that I, LESLIE TOWL, a subject of the King of Great Britain, residing at No. 155 Earlham Grove, Forest Gate, London, E., England, have invented certain new and useful Improvements in Screw Drivers or Turnscrews or the like, of which the following is the specification.

In screwdrivers as hitherto made, the handle is rigidly fixed to the operative edge or blade which fits within the screw for turning same, and consequently the hand has to be released from the handle of the screwdriver for turning in order to make the next turn, or the tool has to be lifted from the screw slot.

The object of my invention is to provide such a construction of screwdriver or like device which will enable the operative blade or edge of the driver to be turned, while the pressure of the hand is maintained upon the handle.

According to my invention I provide a tool shank or body which may be a sleeve or tubular, in the lower end of which body the operative edge or blade or the like for fitting the screwdriver is detachably or rigidly secured, and I provide rotatively fitting within the outer or handle end of the said body a spindle or other suitable means to prevent it being withdrawn from the said body, and on the upper end of the said body I provide a disc or knob or the like against which the palm of the hand may conveniently press in order to exert pressure longitudinally on the tool to keep the operative edge or blade of the screwdriver in the screw.

I provide a ring or disc with a milled periphery which closely fits the exterior of the said body, the ring is provided with a set screw to permit of longitudinal adjustment of the milled ring on the said body by means of a slotted recess formed longitudinally in the said body in which the screw may be tightened at a desired or suitable position in the length of the same.

The device or tool operates as follows:—The said rotatively mounted knob is placed in the palm of the hand, and continuous pressure, without removing the hand, may then be exerted by said knob upon the blade or screwdriving edge or the like, while the said milled ring or disc may be gripped by the finger and thumb of the same hand and readily turned upon the knob spindle.

In larger tools of the same kind, the one hand may be used to exert the pressure and the other hand to turn the tool.

Instead of a screwdriver blade being fitted in the end of the said sleeve, a box spanner or the like may be fitted thereon which may be readily turned without removing the hand as before described.

And in order that my invention may be completely understood, reference should be made to the accompanying sheet of drawings which shows the preferred mode of carrying it into effect as applied to a screwdriver and a box spanner.

Fig. 1 illustrates in part section the application of my invention as a screwdriver.

Fig. 2 illustrates this application to a box spanner.

Fig. 3 shows a method of securing the rotary knob rotatively to the tool body.

Referring to Fig. 1, the sleeve or tube A forms the main part or body of the tool. The knob or disc B has integrally formed with it or rigidly secured to it the spindle C which has a collar D rigidly secured at the lower end thereof, which abuts against a second sleeve or small length of tube E which is fixed inside the sleeve A, thus the knob B is rotatable within the end of the sleeve A without being removable therefrom. A milled ring or disc F is fitted closely over the exterior of the sleeve A, and is provided with a set screw or grub screw G, the head of which is flush with the peripheral surface of the milled ring F. A slot H is formed longitudinally in the sleeve or body A into which the inner end of the said grub screw G is adapted to fit to lock the ring F in a suitable position on the sleeve A relatively to the rotatable knob B. By releasing the screw G, the milled ring F may be adjusted and slid along the slot in order to adapt the distance of the ring F in the knob B for any hand. The lower end of the sleeve A is adapted to receive and securely hold detachably or rigidly the screwdriver blade or edge I.

Referring to Fig. 2, the operation of the tool and the rotatable knob or disc B, also the milled ring F are similar to those previously described with reference to Fig. 1,

but the disc and knob are of somewhat larger diameter, and a different method is shown of securing the knob rotatively to the body A of the tool. In this case the body A is solid and it is provided with a knob B and shoulder at the upper end to receive the knob, the upper end being riveted over at B^x as shown in this figure to hold the knob to the body. The lower end of the body A is formed with a square J on its exterior adapted to fit a corresponding square in a socket K on the head of a box spanner L.

Referring to Fig. 3, this view shows another method of securing the rotatable knob or disc B upon the upper end of the body A, a recess B' is formed in the centre of the knob B adapted to receive the upper end of the body A, and a groove B^2 is formed in the neck of the body in which is secured a grub screw B^3, the point of which fits the groove, thus securing the knob B rotatively to the body A.

It will be clear that the apparatus shown is applicable to other implements or tools of this kind required to be rotated by hand and retained upon the work.

In either case the knob or disc B is held in the palm of the hand and the milled ring F may be gripped between the first finger and the thumb and rotated while retained in position in the hand, thereby rotating the main portion of the tool, and simultaneously the tool may be retained upon the work whether the slot of a screw or a nut or the like, thus enabling by this tool the whole operation of the turning the screw or the nut or the like to be effected by one hand. Alternatively in larger tools if both hands are employed, the one may hold the rotatable knob, while the other grips the milled ring or the like, and the tool may be retained in contact with the work without any necessity to remove the tool therefrom.

What I do claim as my invention and desire to secure by Letters Patent is:—

1. A tool of the class described, adapted to be operated by one hand, said tool including a body part, a rotary abutment on the upper end of the body part for the palm of the hand and an annular disk concentrically arranged on the body part and of larger diameter than the body part, said disk having a milled outer face and being adapted to be gripped and turned by the fingers and thumb while said rotary abutment is engaged by the palm of the hand.

2. A tool of the class described, adapted to be operated by one hand, said tool including a body part, a rotary abutment on the upper end of the body part for the palm of the hand, an annular disk concentrically arranged on the body part and of larger diameter than the body part, the disk having a milled outer face and being adapted to be grasped and turned by the finger and thumb while said rotary abutment is engaged by the palm of the hand, said disk slidably engaging the body part for adjustment longitudinally thereof, and means for securing the disk in different positions of adjustment on the body part relatively to the rotary abutment.

3. A tool of the class described adapted to be operated by one hand, said tool including a body part provided with a longitudinally extending groove in its outer face, a rotary abutment for the palm of the hand on the upper end of the body part, an annular disk concentrically arranged on the body part and slidably engaging the same for longitudinal adjustment, and means for securing the disk in different positions of adjustment on the body part fixed thereto against relative rotary movement, said means including a set screw on the disk extending into the groove of the body part.

LESLIE TOWL.