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A. PANNITTI, JR.
RATCHET SCREWDRIVER.
APPLICATION FILED APR. 12, 1918.

Patented Mar. 23, 1920.

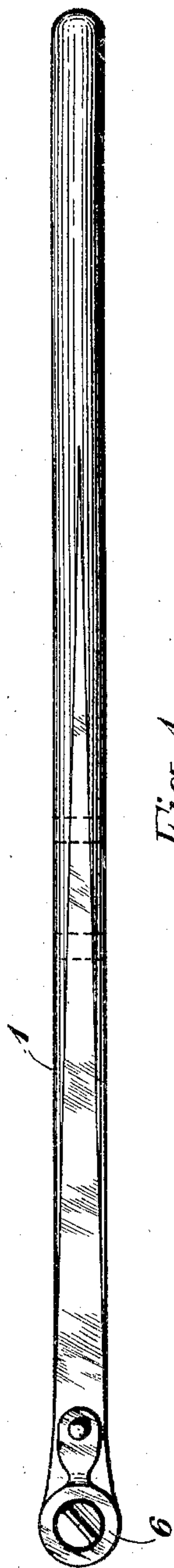


Fig. 1



Fig. 2

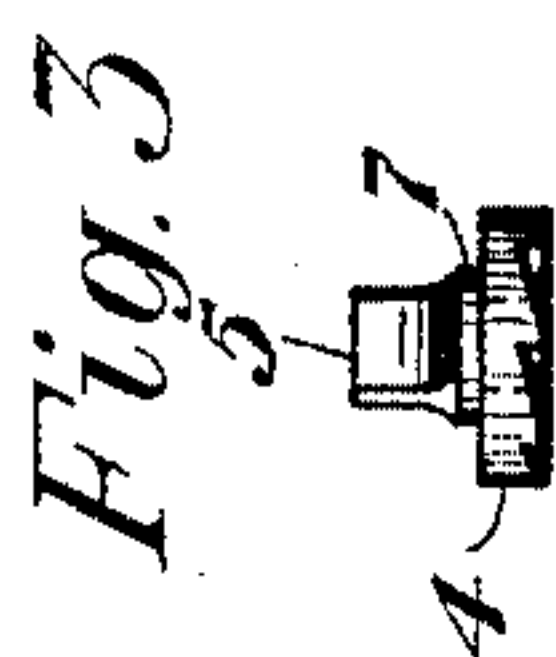


Fig. 3



Fig. 4



Fig. 5

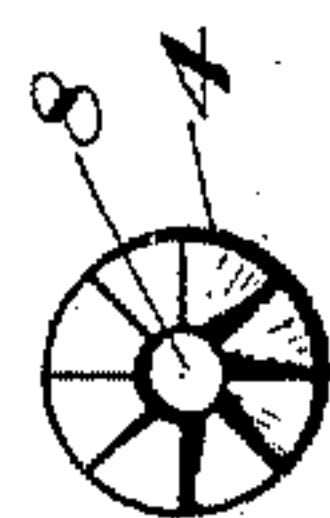


Fig. 3a

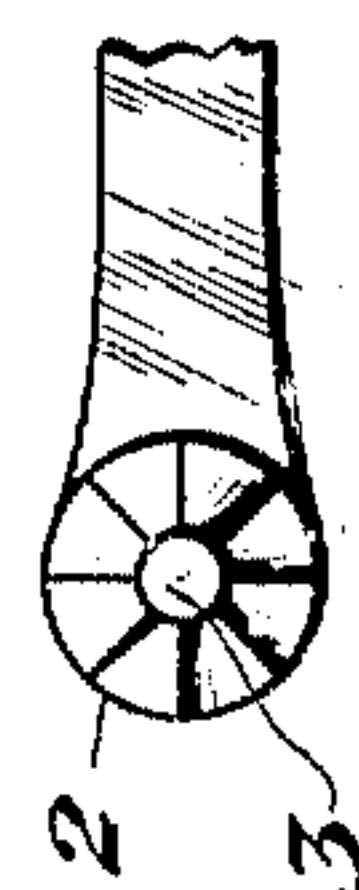


Fig. 4a

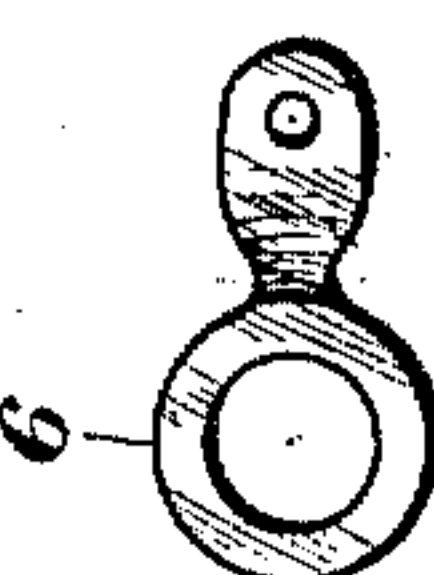


Fig. 5a

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RATCHET-SCREWDRIVER.

1,334,674.

Specification of Letters Patent.

Patented Mar. 23, 1920.

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To all whom it may concern:

Be it known that I, ALPHONSE PANNITTI, Jr., residing at Newark, in the county of Essex and State of New Jersey, have invented certain Improvements in Ratchet-Screwdrivers, of which the following is a specification.

This invention relates to screwdrivers and more particularly to the class of ratchet screwdrivers. One of its objects is to provide a device of this nature wherein there are means for operating a rotatable slot-engaging member by ratchet mechanism.

A further object of the invention is to provide a construction capable of operation in connection with pieces of apparatus wherein screws are employed in angular and other positions not accessible by the ordinary straight screwdriver. A further object consists in the provision of a device in which comparatively few and simple parts are employed. Other and further objects will more fully appear hereinafter.

In the drawing forming a portion of this specification, in which like numerals represent like parts throughout, Figure 1 is a top plan view of the ratchet screwdriver; Fig. 2 is a side elevation of said device; Fig. 3 is an elevation of the rotatable slot-engaging member; Fig. 3^a is a bottom plan view of the rotatable slot-engaging member; Fig. 4 is a side elevation of part of the ratchet mechanism in which the rotatable slot-engaging member is seated; Fig. 4^a is a top plan view of Fig. 4; Fig. 5 is a side elevation of a tension means for keeping the rotatable slot-engaging member in position, and Fig. 5^a is a top plan view of the same.

The invention may now be more fully understood from the following description when taken in connection with the accompanying drawing, in which is illustrated a preferred form of the invention. The ratchet screwdriver consists of a handle 1, at one end of which is formed a serrated or toothed portion 2 forming part of a ratchet mechanism. A pivot member 3 is fixed to the portion 2 and forms a seat about which a rotatable head 4 turns, the head being provided with an opening 8 to receive said pivot member. The part 4 is provided with serrations or toothed portions to cooperate with the similar serrations of the part 2. Forming a part of the rotatable head 4 is a slot-engaging member 5 which is adapted to en-

gage the slot of a screw or other object to be driven. A tension member 6 is fixed at one end to the member 1, and the other end is bent at an angle thereto and is so punched out as to allow the slot-engaging member 5 to protrude therethrough, said tension members also forming an annular bearing surface to engage with a shoulder 7 of member 4 to keep said member on its pivot 3 and also to keep the members 2 and 4 in engagement with each other. The serrated members 2 and 4 cooperate to produce a ratchet mechanism whereby a screw or other object may be rotated step by step. The spring or tension member 5 may be made of some resilient material such as brass, while the other elements of my improved device are preferably composed of steel. It will be understood, however, that any suitable or desirable materials may be employed.

In order to drive a screw or other body by means of the ratchet screwdriver, the member 5 is inserted in the slot of said screw or other body and kept in place by a slight pressure of the hand. The handle 1 is then moved in a contra-clockwise direction until the serrated portions 2 are locked in depressions in the serrated head 4. By now turning the handle 1 in the opposite direction, a movement is imparted to the screw to start it in place. When the handle 1 is again rotated in a contra-clockwise direction the toothed or serrated member 2 is moved by the inclined teeth of the coacting toothed or serrated member 4 until it falls in the depressions thereof and is thereby locked, whereupon, as previously pointed out, by turning in the opposite direction a movement is again transmitted to the screw. The motion of intermittently rotating the handle 1 of the ratchet screwdriver is kept up until the screw or other body is in the desired position. The spring 5 applies tension to the toothed member 4 and keeps it seated upon the member 3 and in engagement with the oppositely opposed toothed or serrated member 2 at all times.

It sometimes happens in restricted areas that the free operation of this screwdriver is prevented by a stud or other obstruction, and to obviate any difficulty which may be encountered in this direction, a notch 9 may be provided in the handle 1.

It will be obvious that the general principles herein described may be embodied in

many other organizations widely different from those illustrated, without departing from the spirit of the invention as defined in the following claim.

5 Having now described my invention, what I claim and desire to secure by Letters Patent is:

10 A ratchet screw driver comprising a ratchet disk having a handle integral there- with and extending therefrom at right angles to the axis of said disk, a pivotal member affixed to said disk and having its axis co-incident with the disk as an axis, a complementary ratchet disk having a recess

at its center for receiving said pivotal mem- 15 ber, a spring for normally maintaining said ratchet disks in engaging position, said spring comprising an annular portion for engaging said complementary disk, a tongue projecting from said annular portion and 20 affixed to said handle, and a slot-engaging member integral with said complementary disk and extending therefrom in the direction of the axis of said disk.

In testimony whereof, I have signed my 25 name to this specification this 11th day of April, 1918.

ALPHONSE PANNITTI, JR.