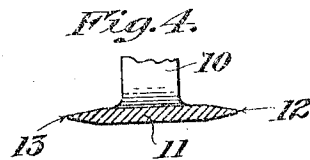
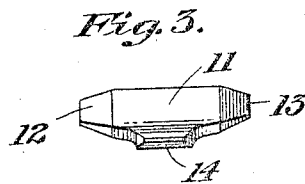
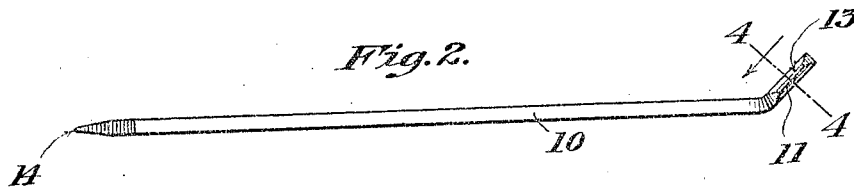
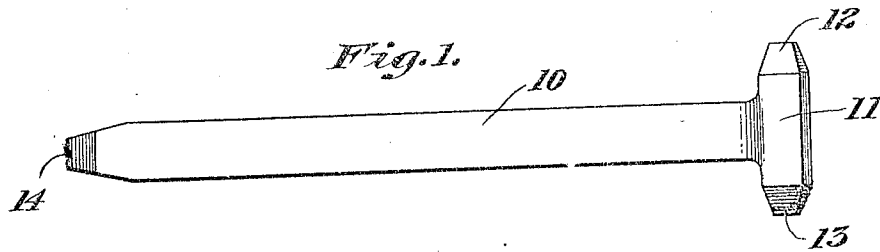


W. C. GORDON.
SCREW DRIVER.
APPLICATION FILED NOV. 14, 1910.

1,020,141.

Patented Mar. 12, 1912.



Witnesses:
M. E. Crozier
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UNITED STATES PATENT OFFICE.

WALDO C. GORDON, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO HERBERT J. WILDER, OF NORWOOD, MASSACHUSETTS.

SCREW-DRIVER.

1,020,141.

Specification of Letters Patent.

Patented Mar. 12, 1912.

Application filed November 14, 1910. Serial No. 592,228.

To all whom it may concern:

Be it known that I, WALDO C. GORDON, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Screw-Drivers, of which the following is a specification.

This invention relates to screw-drivers.

More particularly it relates to screw-drivers adapted for turning a screw which is set in a position to which access by a tool held in the line of the axis of the screw is difficult, or set so that a half revolution cannot be attained by one stroke of the screw-driver.

It is the object of the invention to improve upon devices heretofore known for this purpose.

It is also an object of the invention to produce an improved tool having the other advantages of that herein shown and described.

In the accompanying drawings, which illustrate an embodiment of the invention, Figure 1 is a side elevation of the tool; Fig. 2 is a plan; Fig. 3 is an end elevation; and Fig. 4 is an elevation in section on the line 4-4 of Fig. 2.

In a preferred embodiment of the invention the entire tool may be made from a single piece of metal in which, as represented in the drawings, there is a shank or body portion 10, which constitutes the handle. There is at one end of the handle a head 11, running across the handle and having two bits 12, 13, integral therewith; and there is at the other end of the handle a bit arranged in the line of the handle and constituting an ordinary screw-driver. The head 11 may be considered as a broadened continuation of the handle at an angle thereto. The edges of the blades or bits 12, 13, lie in the same plane and this plane is so related to the handle that the line of the handle makes an angle of 45° with the plane as shown in Fig. 2. The bits' edges are preferably parallel to each other, and consequently are horizontal when the handle is horizontal as shown in Fig. 1, on opposite sides of the handle.

With a tool constructed as thus described it is possible to reach into a corner and turn a screw set so close therein that it cannot be engaged by a screw-driver held in the hand vertically above it in the ordinary way,

and where there is not room to make a half turn at a stroke.

The operation is as follows: Holding the implement in the hand, one of the bits is inserted in the slot in the screw and the handle is turned as far as possible. Then the bit is removed from the slot, and while removed the implement is turned about the longitudinal line of the handle as an axis, and is also swung back toward the other wall, turning about the axis of the screw. The first motion described results in presenting to the screw the other bit at the head end, with its edge running at right angles to the line in which the slot was left by the first bit. The second described movement, in which the handle swings back to the other wall, turns the bit 90°. It can then be engaged in the slot. The working stroke then occurs, the implement being swung as far as it can go about the axis of the screw. This turns the screw 90°, assuming the corner to be a right angle. By repeating this operation the screw may be turned in successive strokes of 90° each. This operation is effected with a convenience not heretofore known, for the motions described are such that the tool is held conveniently and continuously in the hand, without removing the head of the instrument from the immediate vicinity of the head of the screw. In that way no manipulation or movement is required in addition to the normal movement required for rotating the screw, except a simple and easily effected rotation of the tool on its own handle-axis during the time when it is momentarily lifted from the screw-head in order to get a fresh hold.

The formation of the tool in the peculiar shape shown, in which there is a relatively long straight handle with a head at one end projecting at right angles thereto in both directions, and with a bit projecting from the handle at the other end, makes a tool peculiarly adapted for universal use as a screw-driver. When used to drive screws in the ordinary way, the head 11 is held in the hand, the bit is applied to the screw, and the head furnishes a broad and convenient grip and rest on which the palm of the hand may press to force the screw with the full pressure desired; while when used for screws in the extraordinary situations above described, in which the head 11 is not held in the hand, the end 14 which is held in or near

the palm of the hand, having no projections, presents no obstacle to free and easy rotation of the tool on the axis of its handle while held in the hand.

5 I claim:

A screw driver, comprising a bar having at one end a bit-edge adapted to engage in the slot of a screw and extending perpendicular to the longitudinal dimension of the bar; having at the other end a head extending perpendicular to the longitudinal dimension of the bar, said head having two bit-edges on opposite sides of said bar, each

in a plane parallel to said longitudinal dimension of the bar and both in a single plane making forty-five degrees angle with said longitudinal dimension of the bar; the said head lying in the last mentioned plane and forming a handle by which the said bit-edge may be turned.

Signed by me at Boston, Mass. 10th day of November, 1910.

WALDO C. GORDON.

Witnesses:

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