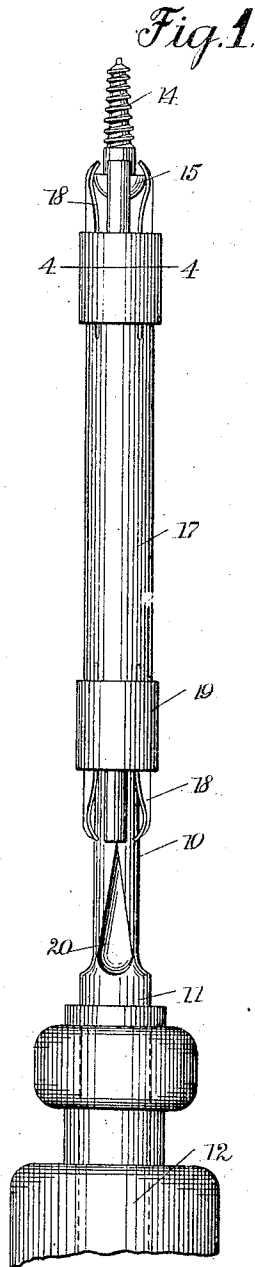
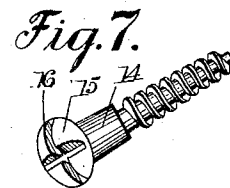
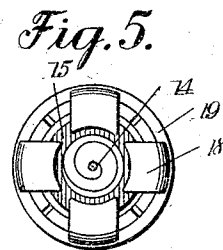
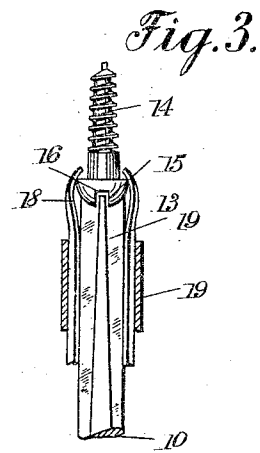
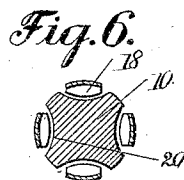
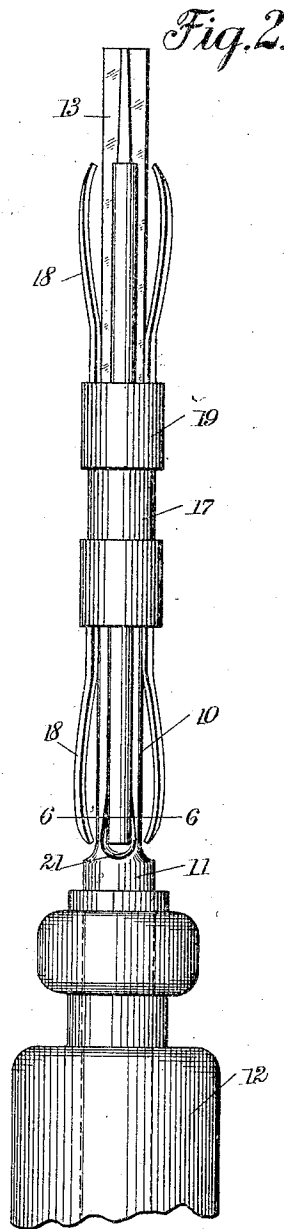


1,047,684.

Patented Dec. 17, 1912.



WITNESSES
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UNITED STATES PATENT OFFICE.

GEORGE B. MULLEN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO HENRY SCHMIDT,
OF NEW YORK, N. Y.

SCREW-DRIVER.

1,047,684.

Specification of Letters Patent.

Patented Dec. 17, 1912.

Application filed June 13, 1911. Serial No. 632,879.

To all whom it may concern:

Be it known that I, GEORGE B. MULLEN, a citizen of the United States, and a resident of the city of New York, Whitestone, borough of Queens, in the county of Queens and State of New York, have invented a new and Improved Screw-Driver, of which the following is a full, clear, and exact description.

This invention relates to screw drivers for inserting and withdrawing wood or other screws, and has reference more particularly to a screw driver having a shank, a blade at the end thereof adapted for engagement with a screw head, and a clamp associated with the screw driver and adapted to hold the screw in position relative to the blade.

An object of the invention is to provide a screw driver of the character indicated which can be inexpensively manufactured, and which can be manipulated with greater ease and facility than the ordinary screw driver.

A further object of the invention is to provide a screw driver in which the screw clamping or holding device can be easily manipulated to render it operative and to release it, and in which the clamping device can be inoperatively positioned so that it will not interfere with the ordinary use of the implement.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a side elevation of an embodiment of my invention, showing the clamping device operative to hold a wood screw in engagement with the end of the blade; Fig. 2 is a similar view showing the clamping device inoperatively disposed; Fig. 3 is a fragmentary longitudinal section of the blade end of the screw driver showing the corresponding extremity of the clamping device; Fig. 4 is an enlarged cross section on the line 4—4 of Fig. 1; Fig. 5 is an enlarged end elevation showing a screw positioned at the extremity of the blade; Fig. 6 is an enlarged cross section on the line 6—6 of Fig. 2; and Fig. 7 is a perspective view of a

wood screw of the kind adapted for use with my screw driver.

Before proceeding to a more detailed explanation of my invention, it should be clearly understood that while the screw driver is partly used in connection with wood screws, it may also be advantageously used with other screws which are provided with slots, grooves or kerfs formed to receive the angularly shaped blade of the driver. It will be appreciated that with the ordinary screw and screw driver the blade will often slip from engagement with the straight slot and thereby cause injury to the screw itself or to the material in which it is being driven or from which it is being removed. By employing a screw driver blade of angular cross section which is received in a correspondingly formed slot, such slipping is obviated, and a more efficient engagement with the screw head is effected thereby. The clamping device, which I prefer to employ with the screw driver, permits the screw to be held in operative relation with the blade end. This construction is of obvious advantage, in that it allows the screw to be started into the material without first partly driving the screw by means of a hammer, or without holding the screw manually during the initial part of the operation. The use of the clamping device thus leaves both hands of the operator free for the manipulation of the implement.

Certain of the details of construction, shown for example, herewith, form no part of the invention, and can be varied in accordance with individual preference and special conditions, without departing from the underlying spirit of the invention as defined in the appended claims.

Referring more particularly to the drawings, I have shown, for example, a screw driver having a shank of suitable length, and preferably of circular cross section. It has an enlargement 11 by means of which it is secured at the end of a suitable handle 12. It will be understood that the shank may also be provided with means to permit its attachment to a special form of handle, or, for example, to a brace. The shank 10, at its free end, is formed into a blade 13 of cross shaped or angular cross section so that the blade is virtually two blades set at right angles to each other. These separate blades

are of tapered form and are adapted to be received in the correspondingly formed kerf or slot 16 of the head 15 of a wood or other screw 14.

5 The clamping device which I employ with my screw driver is movably mounted upon the shank 10 thereof, and includes an elongated tubular member 17 of such proportions that it can slide freely upon the shank. At 10 the ends the tubular member is formed into four spring claws 18 preferably of slight outward curvature and having the free ends inwardly disposed toward each other. Slid- 15 able upon the member 17 are clamping rings 19 adapted to be moved along the claws 18 to force the latter inwardly toward each other to clamp upon a screw head to hold the same in operative relation with the end of the blade, as is clearly shown in Figs. 1, 3 20 and 5. The clamping device can be reversed in case the claws at one end or the other become worn or deformed.

Near the handle the shank of the screw driver has four notches or grooves 20 adapt- 25 ed to receive the ends of the claws 18 at one end of the clamping device, so that the latter can be securely held in inoperative position with the end of the blade free and unob- 30 structed for the ordinary operation of the screw driver. In this way the clamping device will not interfere with the use of the implement when the clamping device itself is unnecessary.

35 Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A screw driver having a shank, a blade at the end thereof adapted for engagement with a screw head, a tubular body slidable

upon said shank and having at each end a 40 plurality of spring claws adapted to engage the screw head, to hold the screw in position at the end of said blade, and clamping rings slidable upon said body to move into and out 45 of operative relation with said claws, said shank having adjacent to its handle a plurality of grooves into engagement with which the claws at the inner end of the tubular body may be clamped to hold said body upon the 50 shank in an inoperative position with the end of the shank projecting beyond the claws.

2. A screw driver having a shank and a blade at the end thereof for engagement with a screw head, and a screw holding de- 55 vice comprising a tubular body removably and slidably mounted upon the shank of the screw driver and having at each end a plurality of claws, and two clamping rings slid- 60 ably mounted on the body to move into and out of operative relation with said claws, whereby the screw holding device can be reversed and the claws at the inner end of the body made to serve as a means for holding 65 the device in an inoperative position.

3. A screw holding attachment for screw drivers, comprising a tubular body having each of its ends formed into a plurality of claws, and two clamping rings slidably 70 mounted on the tubular body to move into and out of operative relation with said claws.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE B. MULLEN.

Witnesses:

JOHN K. BRACHVOGEL,
JOHN P. DAVIS.