

No. 847,774.

PATENTED MAR. 19, 1907.

C. E. HOFFMAN.
SCREW DRIVER.

APPLICATION FILED FEB. 16, 1906.

Fig. 1.

Fig. 3.

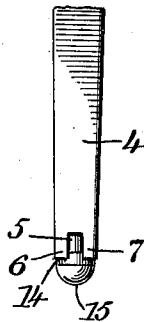


Fig. 2.

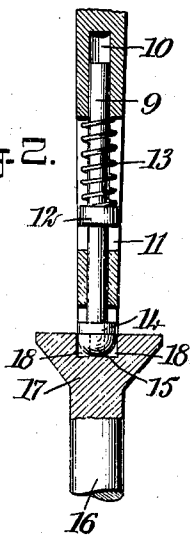


Fig. 5.

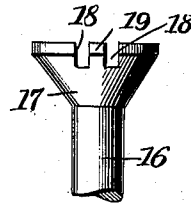


Fig. 4.

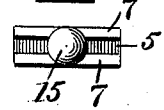


Fig. 6.

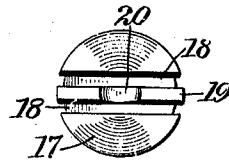
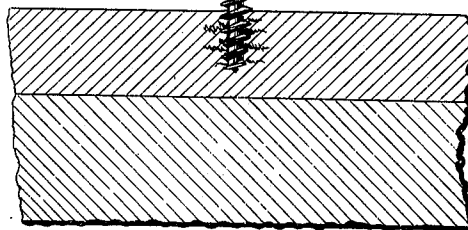
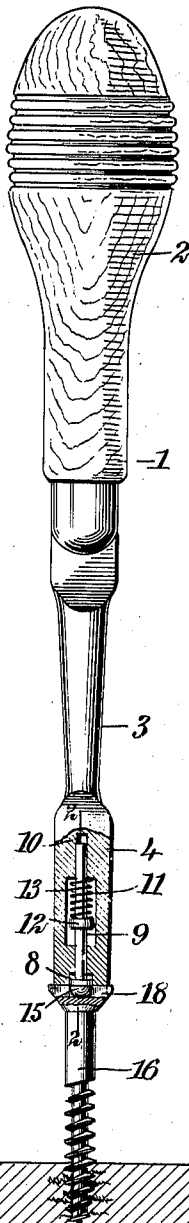
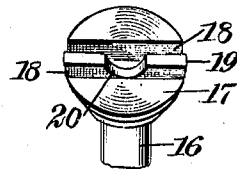


Fig. 7.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CLEMENCE E. HOFFMAN, OF THOMASTON, CONNECTICUT.

SCREW-DRIVER.

No. 847,774.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed February 16, 1906. Serial No. 301,369.

To all whom it may concern:

Be it known that I, CLEMENCE E. HOFFMAN, a citizen of the United States, and a resident of Thomaston, in the county of Litchfield and State of Connecticut, 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 and screws.

The object of the invention is to provide a screw-driver with means which will enable it to seat quickly upon the head of the screw when applied thereto.

The invention resides in the construction of a screw-driver tip.

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 figures.

Figure 1 is a side elevation of the upper portion of the screw-driver, the tip of the screw-driver being represented as broken away. This view represents the screw-driver as applied to a screw, the body of which is shown in elevation, while a portion of the head is shown in cross-section, the screw being represented as applied to two superposed members which are shown in section. Fig. 2 is a longitudinal section through the screw-driver tip, taken on the line 2 2 of Fig. 1 and showing the upper portion of the screw in cross-section. Fig. 3 is an edge elevation of the screw-driver tip. Fig. 4 is an end view of the screw-driver tip. Fig. 5 is a side elevation of the upper portion of the screw with which the screw-driver is to be used. Fig. 6 is a plan of the head of the screw shown in Fig. 5, and Fig. 7 is a perspective view of the head shown in Figs. 5 and 6.

Referring more particularly to the parts, 1 represents the screw-driver, which has a handle 2 of common form, from the end of which a shank 3 projects, which is formed into a head 4 of substantially rectangular form and tapering slightly in edge elevation, as shown in Fig. 3. The extremity of this head 4 is formed with a longitudinal cut 5, disposed on a central plane, so as to form a double tip 6, presenting separated forks 7.

On the central axis of the head 4 as viewed in Fig. 1 at the tip 6 a recess 8 is formed, which is of greater depth than the cut 5. Mounted in the head 4 longitudinally I provide a centering-pin 9, which is adapted to slide in a suitable bore 10, as indicated. Near its middle portion the material of the head 4 is removed, so as to form a slot or opening 11, and in this opening 11 the pin 9 is formed with a rigid collar 12. About the body of the pin above this collar I provide a helical spring 13, which presses downwardly upon the collar, as indicated, the upper extremity of the spring thrusting against the upper end of the opening 11, as will be readily understood. The pin 9 passes downwardly into the recess 8, at which point it is provided with a slightly-enlarged head 14, which is preferably formed on its lower side into a rounded nose 15.

In Fig. 3 the normal condition of the centering-pin 9 is illustrated, showing that the head 14 of the pin normally projects beyond the tip 6 of the screw-driver. Reference should be had to Fig. 4, in which the appearance of the end of the screw-driver is illustrated. In Figs. 5 to 7 I illustrate a screw which is adapted to be used with the screw-driver described above. This screw presents a substantially conical head 17, presenting a flat upper face provided with two transverse grooves or notches 18, disposed slightly apart so as to form a transverse rib 19, as indicated. This rib 19 passes through the axis of the screw, as indicated, and at its middle point it is provided with a recess or notch 20, which is adapted to receive the projecting head 14 of the screw-driver in order to facilitate its application to the head of the screw.

In using the screw-driver it should be understood that the screw is set in position at the point where it is to be fixed, and the screw-driver tip is then applied quickly to its head. The projecting head 15 of the centering-pin can then be moved across the upper face of the head until it lodges in the notch 20. The screw-driver will then be forced downwardly upon the head and at the same time rotated. As this takes place the centering-pin 9 will maintain the screw-driver tip constantly in a central position, and when the forks 7 arrive over the grooves 18 with which they are to register the screw-driver immediately drops into position, making a firm en-

gagement with the screw-head, as will be readily understood. After the screw-driver seats itself upon the head, as described, it will be used thereafter as an ordinary screw-driver by simply rotating the same so as to advance the screw.

My invention may be applied to screws of different kinds having heads of any form. It is equally applicable to round-headed machine-screws and round-headed wood-screws. A screw-driver having a double tip, as described, is much stronger and less apt to break than those having one tip.

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

1. A screw-driver having a slidable centering-pin mounted at the extremity thereof, and means for resiliently pressing said pin outwardly, said pin projecting beyond the tip of said screw-driver.

2. A screw-driver having a recess in the tip thereof, a depressible pin slidably mounted at said tip, and having a head normally projecting from said tip and adapted to pass inwardly into said recess, and a spring normally pressing said pin outwardly.

3. A screw-driver having a longitudinal cut in the extremity thereof, whereby a double tip is formed, said screw-driver having a substantially central recess at said tip, a slidable pin mounted in said screw-driver and having a head normally projecting beyond said tip, said head being adapted to be received within said recess when said pin is pressed.

4. A screw-driver having a head presenting a slot therein, a pin slidably mounted in said head and having a collar received in said slot, said pin further having a head projecting beyond the tip of said screw-driver, and a spring surrounding said pin, lying within said slot and thrusting against said collar, said spring affording means for normally maintaining said pin projecting beyond said tip.

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

CLEMENCE E. HOFFMAN.

Witnesses:

SALMIO STOCKMAN,

THOMAS H. GENEZENBACH.