(No Model.)

D. NEI.

SCREW DRIVER.

No. 277,599. Patented May 15, 1883.

fig. 1.

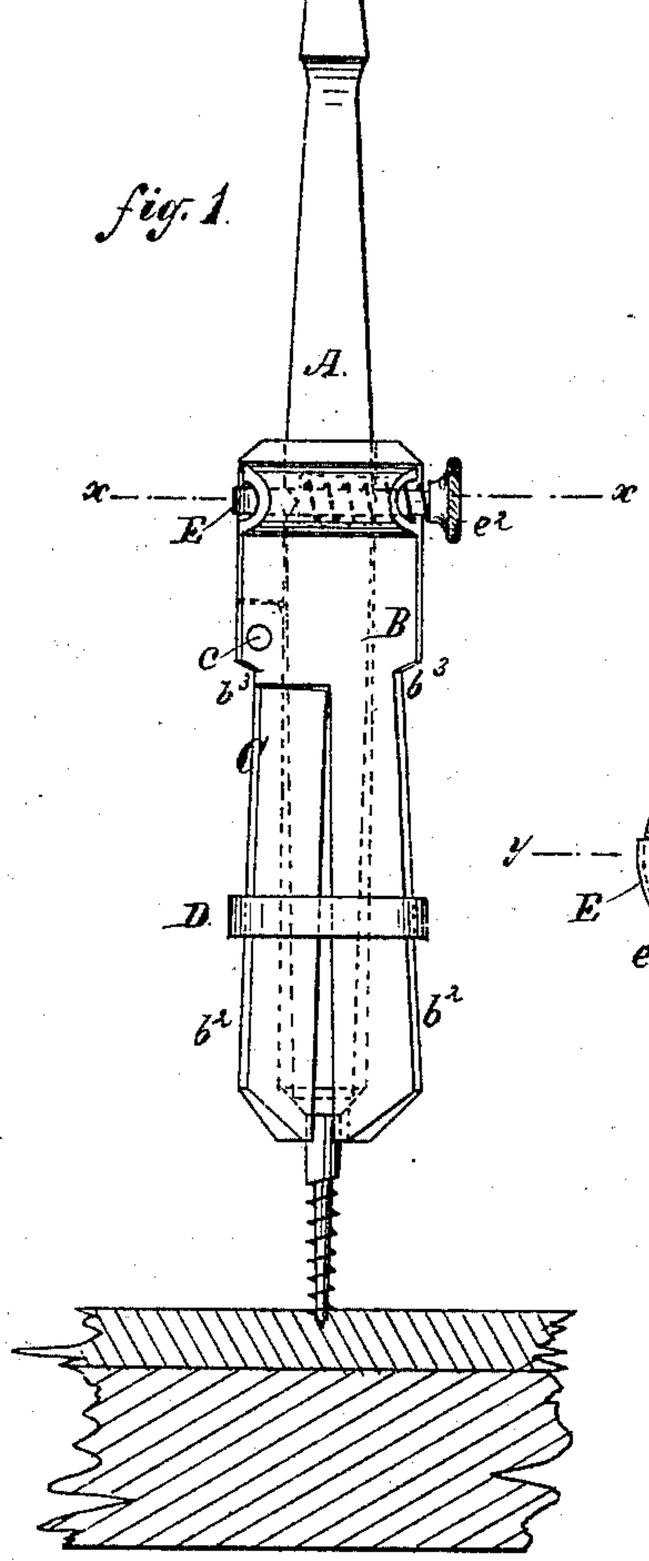


fig. 2.

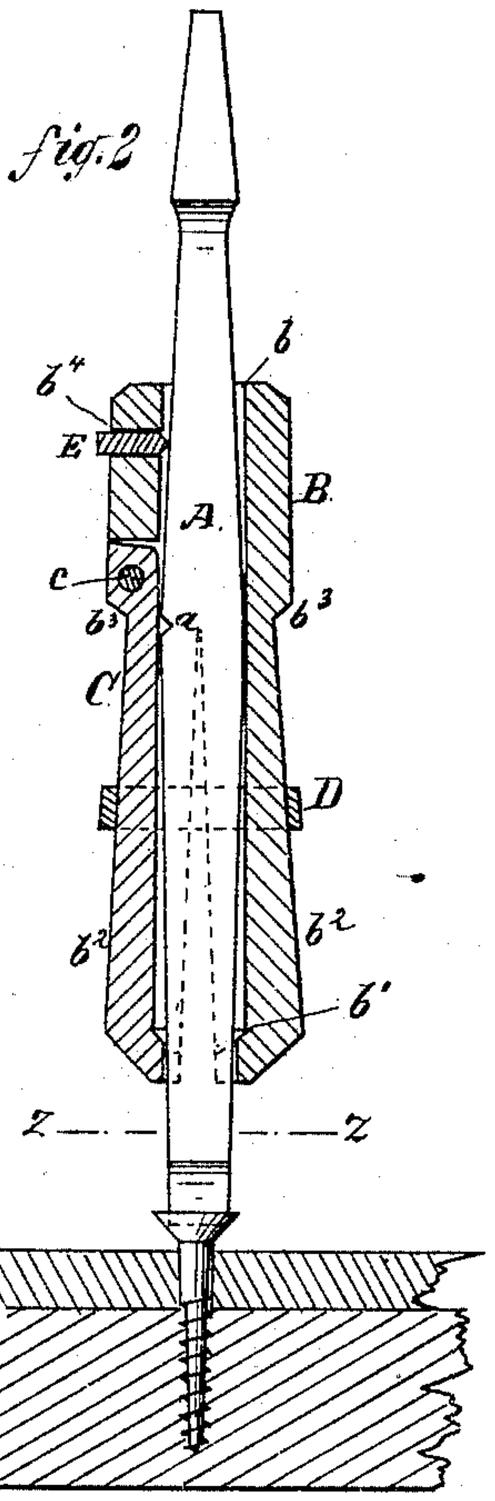


fig. 3.

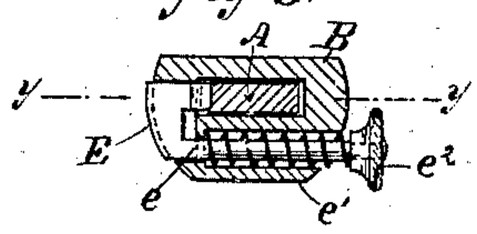
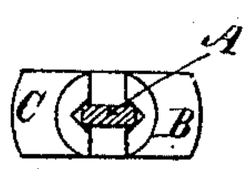


fig. 4.



Witnesses:

Henry Fickling.

A. S. Fitch.

Inventor:

Daniel Nei

By J. R. Fitch,

Atty.

UNITED STATES PATENT OFFICE.

DANIEL NEI, OF ST. LOUIS, MICHIGAN.

SCREW-DRIVER.

SPECIFICATION forming part of Letters Patent No. 277,599, dated May 15, 1883.

Application filed November 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, DANIEL NEI, now residing at St. Louis, Gratiot county, State of Michigan, and a citizen of the Dominion of Canada, have invented an Improved Screw-Driver, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a screw-driver; and it consists in the combination, with the screw-driver, of the devices hereinafter particularly described, whereby the screw is held firmly upon the end of the driver while it is initially driven into its seat, and thus the use of a hammer in seating the screw, or of a gimlet or auger, is rendered unnecessary.

Figure 1 is a front elevation of a screw-driver embodying my invention. Fig. 2 is a vertical longitudinal section of the same on the line *y y*, Fig. 3. Fig. 3 is a cross-section on the line *x x*, Fig. 1; and Fig. 4 is a sectional view, looking upward, on the line *z z*, Fig. 2.

A is the screw-driver, which is in the usual form, and may be driven by the ordinary bit-stock.

B is a metal block, which has the longitudinal aperture *b*, adapted to allow the screw-driver A to pass freely through it, so that the block B may slide vertically on the screw-driver. A portion of one side of the block B, as seen at C, is hinged to the block at *c*, so as to constitute a jaw, as shown. The lower end of the block and its jaw are provided with a conical or dovetail recess, *b'*, adapted to fit upon the flaring screw-head, as shown, when the screw is gripped by the jaw.

D is a ring or band coincident with the exterior of the block and jaw, and adapted to slide vertically of said block and jaw. The block and jaw are of greater diameter at the lower end, as at b^2, than for some distance above said end, whereby the ring D, when slid downward, will close the jaw C tightly, and at the same time said ring will be prevented from slipping off of said block downwardly. The block and jaw are exteriorly shouldered at b^3, so that the ring D cannot slip off upwardly.

E is a catch working in a slot, b^4, in the side of B, and controlled by arm, *e*, provided with a coil-spring, *e'*, the end of the arm outside of the block B having a button, e^2. The end or nose of the catch engages a notch, *a*, on the screw-driver, and by this means the block B and its attached devices are held in the desired place on the screw-driver A.

In operation the block B is slipped onto the driver A until the end of A is just within the recess *b'*, when the catch E engages the notch *a* and holds the parts in position. The ring D is slid upward, the jaw C opened, and a screw has its head inserted between the jaw and block in the recess *b'*. The jaw is closed down and the ring D is drawn down to clamp the jaw tight. The screw thus held may then be started and driven into its seat, as shown in Fig. 1. When the screw is one-half or two-thirds driven home the ring D is slipped upward, the jaw C released, and the catch E disengaged, when the driver A will protrude freely from the lower end of the apertured block B, and the screw be then driven entirely home. The employment of a hammer or a gimlet or auger to initially seat the screw is thus avoided.

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

The combination, with the screw-driver A, of the longitudinally apertured block B, having the jaw C, and adapted to grip a screw-head, the sliding ring or clamp D, and the detaining-catch E, working in notch *a*, all as and for the purpose specified.

DANIEL NEI.

Witnesses:
C. W. GIDDINGS,
R. D. PERRINE.