G. P. LOOMIS.

Screw-Drivers

No. 147,059. Patented Feb. 3, 1874.

Fig 1

Fig 2

Fig 6

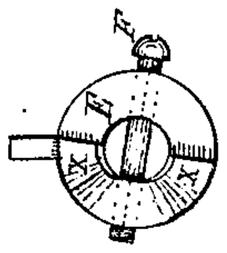

Fig 5

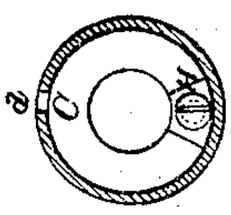

Fig 4

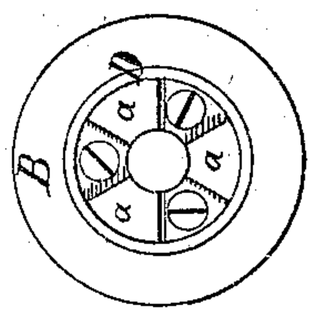

Fig 3

Attest,
Wm. Mattison
Edwin H. Risley

Inventor,
Geo P. Loomis

UNITED STATES PATENT OFFICE.

GEORGE P. LOOMIS, OF UTICA, NEW YORK.

IMPROVEMENT IN SCREW-DRIVERS.

Specification forming part of Letters Patent No. **147,059**, dated February 3, 1874; application filed December 17, 1873.

To all whom it may concern:

Be it known that I, GEORGE P. LOOMIS, of Utica, county of Oneida and State of New York, have invented a new and useful Improvement in Screw-Drivers; and I hereby declare that the following is a full, clear, and exact description of my invention, reference being had to the accompanying drawing, which forms a part of this specification.

Figure 1 is a side elevation. Fig. 2 is a longitudinal section; Fig. 3, an end view of the handle B; Fig. 4, a transverse section of the case C; Figs. 5 and 6, a plan and side view of the double pawl E.

Similar letters of reference denote like parts in all the figures.

My invention consists of a steel blade, A, having a round shank, which extends entirely through the handle, with a shoulder next the blade, and a nut at the end to keep the handle in place. On this round shank the wood handle B turns freely. A metal disk, D, with certain projections and recesses, as shown at *a a a*, is attached to the handle by means of screws or otherwise, and of course turning with the handle. On the end of the shank, next the blade, is placed the metal case C. Within this case is placed the double-toothed pawl E, which is kept in place by a round screw-pin, F, on which the pawl swings freely. This pin passes entirely through the case C, the pawl E, and the shank of the blade A, causing the whole to turn together. The pawl has two teeth, *x x*, one on each side of the pin, and both facing the same way. One of the teeth is kept in contact with the disk D by the bevel bolt and springs, (shown at H,) which press on the angular spline on the back of the pawl. An arm of this pawl passes through the slot *a* in the case C.

In using this screw-driver, the handle is at all times held firmly in the hand. A tooth of the pawl, catching in one of the recesses of the disk, turns the blade with a forward motion of the handle. With the backward movement of the handle the pawl slips over the projection on the disk, so that with the alternate forward and backward motions of the handle, the blade has only a forward movement. To turn the blade the other way, the projecting arm of the pawl is thrown to the other end of the slot, which brings the opposite tooth of the pawl in contact with the disk, and turns the blade with the backward motion of the hand.

I hereby disclaim the device as shown in the patent of H. L. Hildreth, No. 112,143, February 28, 1871, for a screw-driver.

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

The blade A, in combination with the double reversible toothed pawl E, supported by pin F, which passes through case C and spindle of blade A, spring H, which returns the pawl to position, and disk D, with its projection engaging the pawl E, all arranged as described, for the purpose set forth.

GEO. P. LOOMIS.

Witnesses:

DEXTER GILLMORE,

ALFRED BANISTER.