

F. B. HUNT.
Screw-Drivers.

No. 135,340.

Patented Jan. 28, 1873.

Fig 1

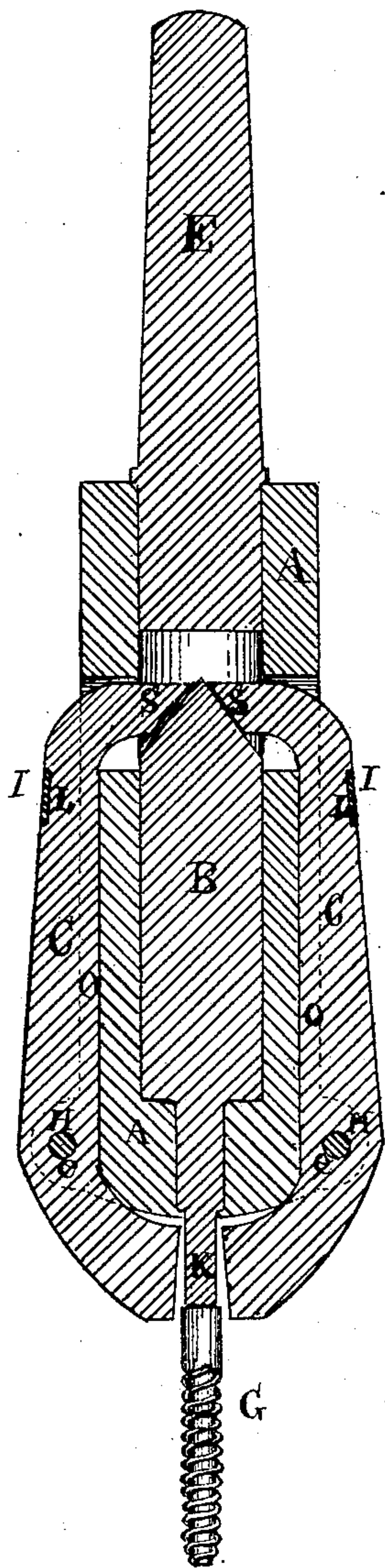


Fig 2

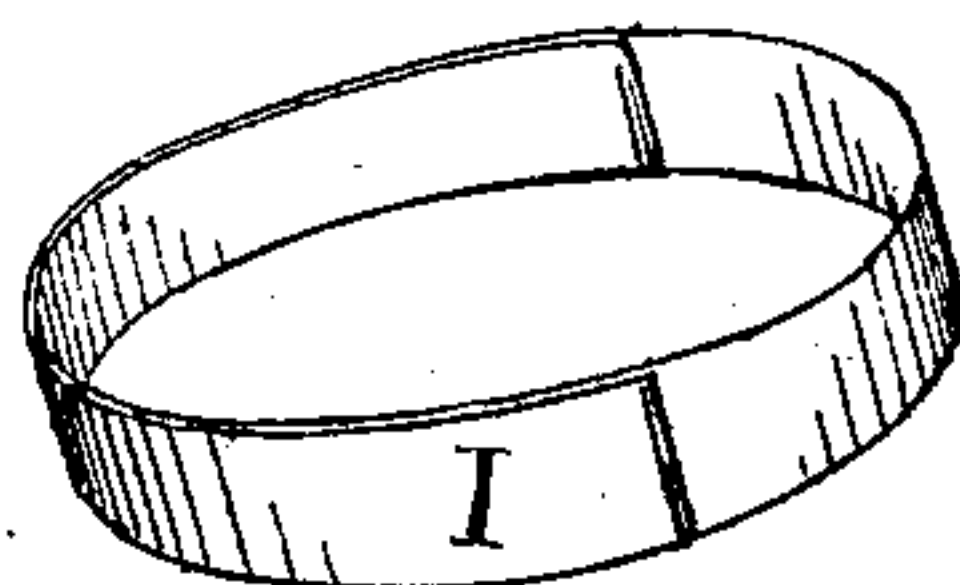
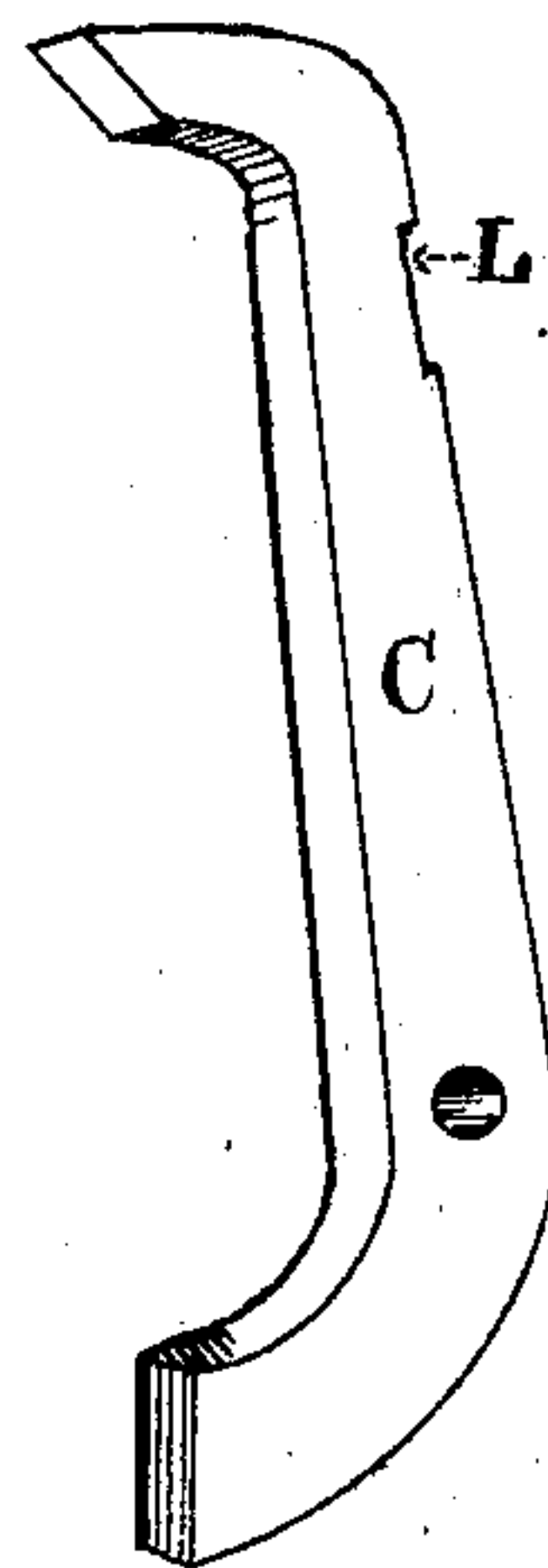


Fig 3



Fig 4



Witnesses
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UNITED STATES PATENT OFFICE

FRANKLIN B. HUNT, OF RICHMOND, INDIANA, ASSIGNOR TO EDWARD R. MATTHEWS AND WILLIAM N. MATTHEWS, OF SAME PLACE.

IMPROVEMENT IN SCREW-DRIVERS.

Specification forming part of Letters Patent No. **135,340**, dated January 28, 1873.

To all whom it may concern:

Be it known that I, FRANKLIN B. HUNT, of Richmond, county of Wayne and State of Indiana, have invented certain Improvements in Chucks for Driving Screws, and other purposes, of which the following is a specification:

My invention relates to improvement in screw-drivers, when the screws are made without a head, as will be hereinafter fully described.

Figure 1 is a vertical section of the machine, showing every part of the combination except the spring-band, which is shown in Fig. 2. Fig. 2 is the spring-band which holds the upper end of the levers or jaws against the plunger B. Fig. 3 is a view of the plunger. Fig. 4 is a view of one of the jaws.

In making the chuck, I first prepare the body or barrel A by boring the hole for the plunger B and planing grooves *o* in the sides of the barrel to receive the jaws C. There is a projection on the lower end of the barrel, shown at H, through which the jaws pass, and also a pin, *e*, upon which the jaws vibrate, the pin *e* being the fulcrum of the lever, formed by extending the jaws upward. The upper end of the plunger B is made cone-shape, and the lower end, K, is made a little smaller than the screw or article which is intended to be grasped and held. The spring-band I being placed in the recesses L in the upper end of the jaws or levers holds them inward on the cone at the upper end of the plunger B, and

opens the jaws at their lower extremities. The shank E is placed in a socket to fit, which may be worked by hand or power, and the whole thing is revolved.

Thus it will be seen that when the whole machine is pressed down upon the top of the screw, as shown at G, Fig. 1, the lower end of the plunger comes in contact with the upper end of the screw, and is thereby forced upward, and the upper tapering end of the plunger B is forced between the upper inclined ends of the jaws, as shown at S, pressing them outwardly, and consequently the lower ends inwardly, to grasp the screw. I thus combine two forces; the lever formed by the jaws and the inclined plane of the upper end of the plunger. In place of the spring-band I, separate springs may be attached to the upper end of the barrel, which will press upon the upper end of the levers or jaws C, and keep them in place when the machine is at rest.

Any suitable attachment of spring or springs for this purpose may be used.

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

The combination of the barrel A, jaws C, plunger B, and spring-band I, when operating in the manner and for the purpose substantially as described.

FRANKLIN B. HUNT.

Witnesses:

NELSON A. HUNT,
WM. N. MATTHEWS.