

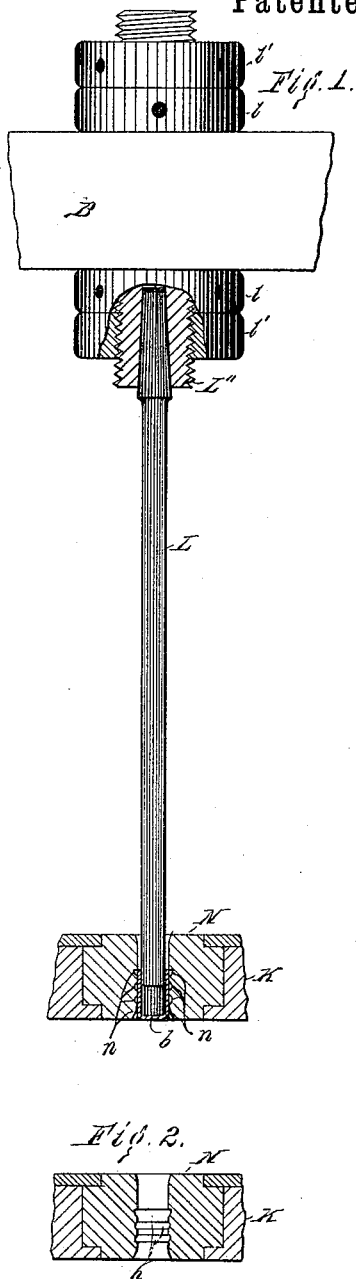
(No Model.)

R. WHITE.

DIE FOR DRAWING SHELLS OR HOLLOW ARTICLES.

No. 346,522.

Patented Aug. 3, 1886.



Witnesses—

Kirkley Hyde,
Arthur M. Day.

Inventor—

Rollin White
By His Attorneys
Moore and White

UNITED STATES PATENT OFFICE.

ROLLIN WHITE, OF LOWELL, MASSACHUSETTS.

DIE FOR DRAWING SHELLS OR HOLLOW ARTICLES.

SPECIFICATION forming part of Letters Patent No. 346,522, dated August 3, 1886.

Application filed January 2, 1886. Serial No. 187,477. (No model.)

To all whom it may concern:

Be it known that I, ROLLIN WHITE, a citizen of the United States, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Dies for Drawing Metallic Blanks, of which the following is a specification.

My invention relates to an improved form of die for drawing metal blanks; and it consists in the device hereinafter shown and described, whereby the blank is stripped from the punch.

In the accompanying drawings, Figure 1 represents a drawing-punch of the usual construction, a part of the head of a machine, the die, and a part of the die-holder, the die and holder being in section, and the lower part of the punch-socket and the lower nuts being broken away to show the manner of holding the punch; Fig. 2, a sectional elevation of the die and a part of the die-holder shown in Fig. 1.

In the drawings, B represents the head of a machine, caused in practice to have a reciprocating motion; *ll*, the nuts, and *ll'* the check-nuts, by which the punch-socket *L'* is retained in the head; *L*, a drawing-punch of the usual construction; *K*, a part of the die-holder, the die *N* being held therein in the usual manner. The die *N* has one or more grooves or recesses, *n*, four being shown in the drawings, cut in the wall of the die, preferably about horizontal, and extending about the internal wall of the opening of the die, in whatever part it is desired to leave the blank *b* when the punch is withdrawn from the die.

The operation of the machine is as follows:

The blank *b* is placed over the die-opening, either by hand or fed by any well-known feeding device, and the descent of the punch drives the blank into the die. As the punch is withdrawn, the blank *b* tends to follow it back and out of the die; but its upper end, spreading out, catches in one or more of the grooves or recesses, and the body of the blank, also tending to expand, swells to a slight degree into the grooves or recesses, thereby increasing the friction between the walls of the die and the outside of the blank to such an extent that it is stripped from the punch.

It is evident that the grooves or recesses may be made of various forms, as spiral, and made with an ordinary tap, or they may extend only partially around the circumference of the wall of the die-opening; but I prefer to make them substantially as herein shown and described.

I claim as my invention—

1. A die provided with one or more grooves in the walls of the die-opening, as and for the purpose specified.

2. A die having its inner wall recessed in one or more parts of the die-opening, whereby the blank, expanding into said recesses, may be stripped from the punch, substantially as shown and described.

ROLLIN WHITE.

Witnesses:

HERBERT R. WHITE,
ALBERT M. MOORE.