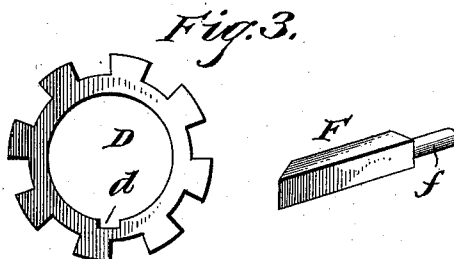
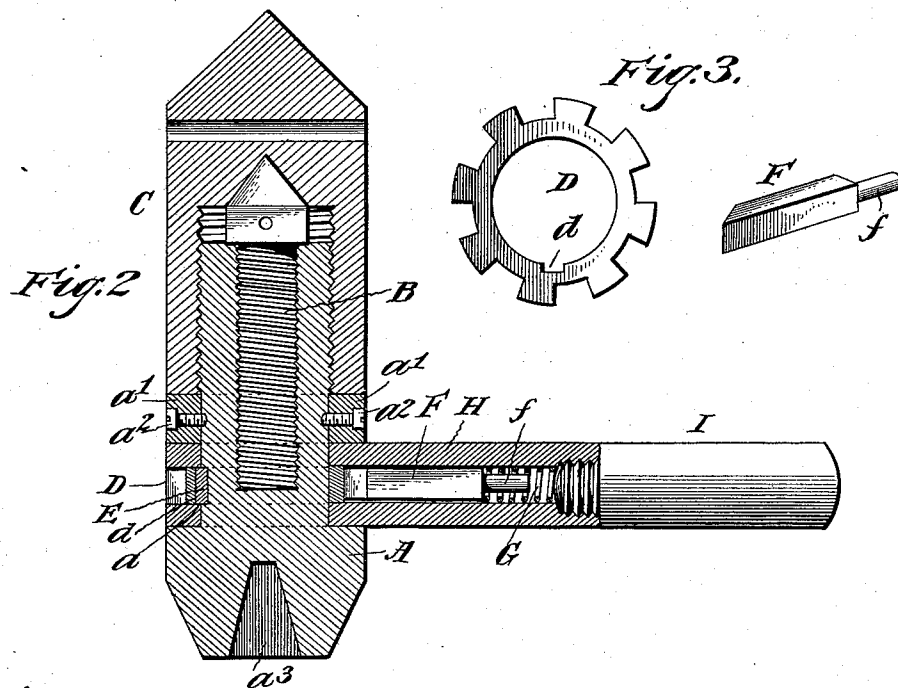
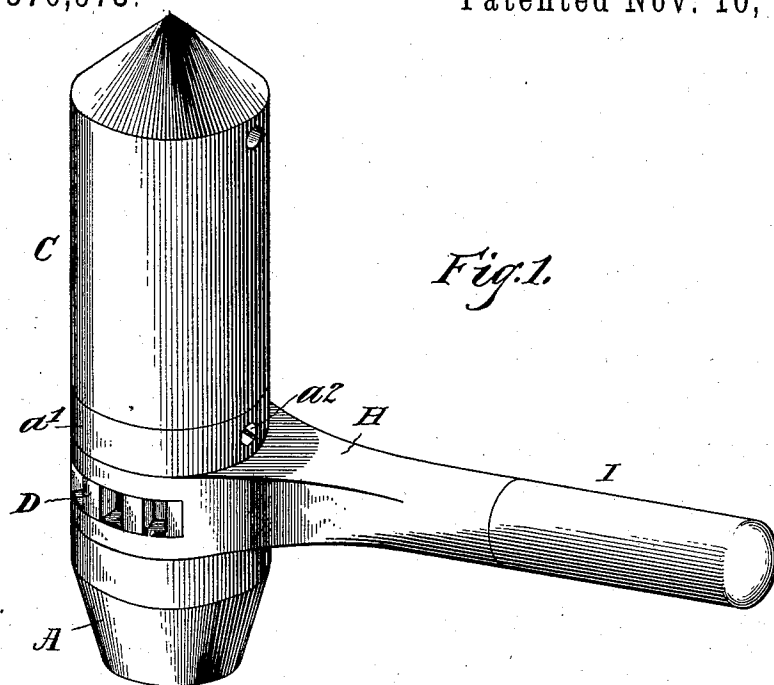


(No Model.)

M. M. WATKINS.
RATCHET DRILL.

No. 570,973.

Patented Nov. 10, 1896.



Witnesses;
C. S. Ober,
H. A. Daniel,

Inventor:
Maerne M. Watkins.
Per Thomas P. Simpson,
Atty.

UNITED STATES PATENT OFFICE.

MAERNE M. WATKINS, OF FERNWOOD, MISSISSIPPI.

RATCHET-DRILL.

SPECIFICATION forming part of Letters Patent No. 570,973, dated November 10, 1896.

Application filed May 11, 1896. Serial No. 591,064. (No model.)

To all whom it may concern:

Be it known that I, MAERNE M. WATKINS, a citizen of the United States, residing at Fernwood, in the State of Mississippi, have invented certain new and useful Improvements in Ratchet-Drills; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The special object of the invention is to make a ratchet-drill which will conveniently work to the right or left, so as to suit all situations.

Figure 1 of the drawings is a perspective view of my right-and-left ratchet-drill; Fig. 2, a median vertical section thereof. Fig. 3 includes a number of detail views.

In the drawings, A represents the drill-spindle, in which works the left-hand feed-screw B and on which works the right-hand feed-nut C, both of which are provided with side holes to receive the device used to turn them, and either may be employed according to the direction in which the spindle is to be rotated. The spindle A has a socket for a square-shanked drill and a surrounding shoulder to support one side of the ratchet-lever H, between whose prongs rotates the ratchet D. The latter has rectangular notches, so as to form two opposite shoulders, against which

the bottom inclined pawl F may work equally well in either direction. This bottom incline on the pawl, which is reversible and held to the ratchet by a spiral spring G, enables it to be drawn back out of the notches. The pawl and spring on its cut-away shank f are dropped into place through the lever H, on which is then screwed the handle I, whose inner end presses the spring. Hence the pawl may be reversed by simply unscrewing the handle I and taking it out, while the left-hand feed-screw may be used by simply removing the right-hand feed-nut.

E is a key working in notches d a to hold wheel to spindle.

When it is desired to turn the drill so as to feed to the right, the feed-nut is used, and when it is required to feed the drill to the left the said nut is removed and the feed-screw employed.

What I claim as new and of my invention is—

In a ratchet-drill, the combination of a drill-stock, reversible driving means therefor, an outer removable right-hand feed-nut and an inner left-hand feed-screw, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

MAERNE M. WATKINS.

Witnesses:

I. J. WATSON,
N. P. SPARKMAN.