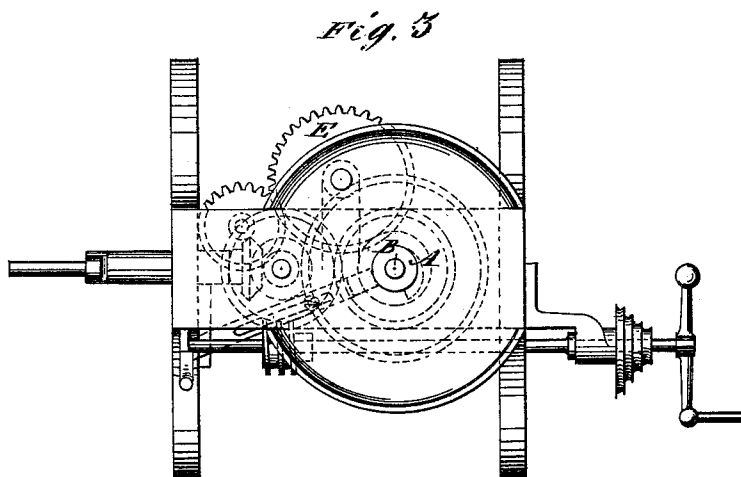
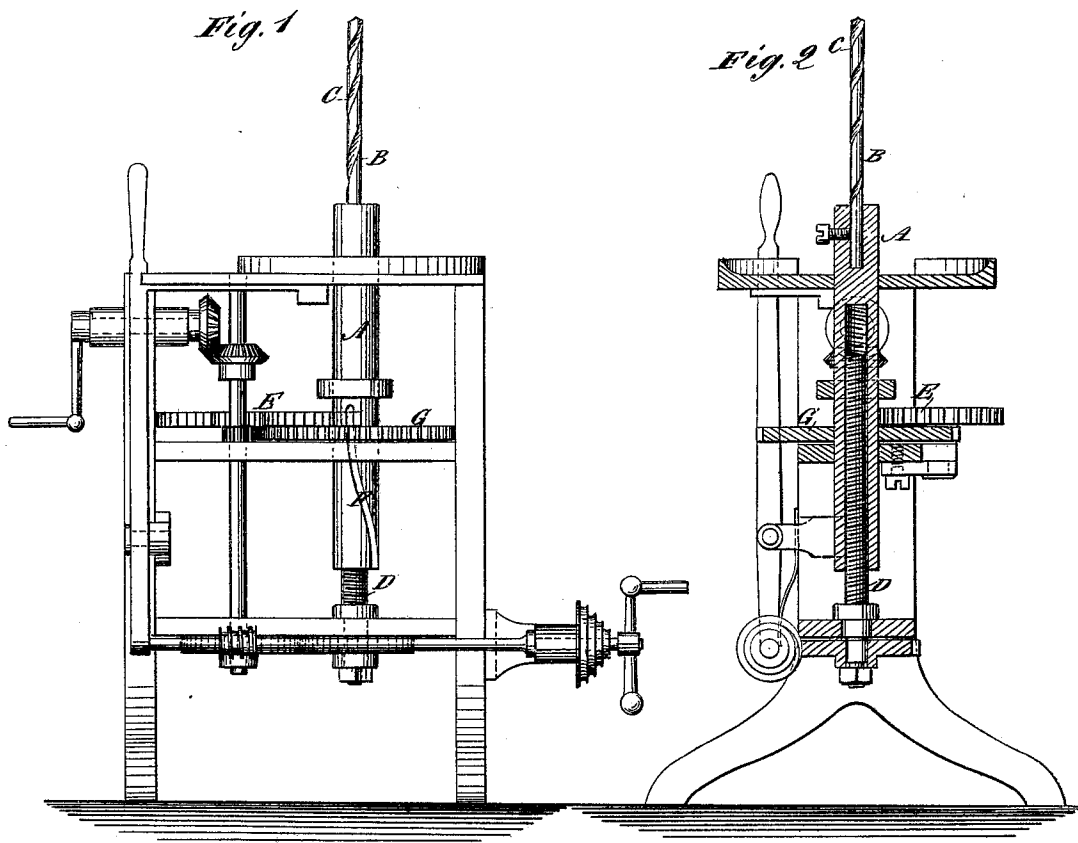


E. S. TABER.

MACHINES FOR MAKING TWIST DRILLS.

No. 175,201.

Patented March 21, 1876.



WITNESSES:
John Goethals
C. Neveu

INVENTOR:
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BY *mm*
ATTORNEYS.

UNITED STATES PATENT OFFICE

EDWARD S. TABER, OF NEW BEDFORD, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR MAKING TWIST-DRILLS.

Specification forming part of Letters Patent No. **175,201**, dated March 21, 1876; application filed February 28, 1876.

To all whom it may concern:

Be it known that I, EDWARD S. TABER, of New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and Improved Machine for Making Twist-Drills, of which the following is a specification:

The object of my invention is to construct a machine to make twist-drills with, increasing pitch or inclination of the grooves; and it consists of a spiral groove or keyway in the mandrel which revolves the blank, and advances it along the cutters which make the spiral or twist grooves, in which groove the key of the wheel which turns the mandrel works, so that, as the mandrel rises along the key its rotation diminishes proportionately to the advance, and so increases the pitch or inclination of the twist.

Figure 1 is a side elevation of my improved machine. Fig. 2 is a sectional elevation, and Fig. 3 is a top view.

Similar letters of reference indicate corresponding parts.

A is the mandrel, in which the blank B is advanced along and revolved between the cutters (not shown) by which the grooves

are formed, the mandrel being advanced by the feed-screw D, and at the same time revolved slowly by the train of gears E, all of which are the same as in the machines heretofore used, except the keyway F in the mandrel, for the key of wheel G, which revolves it, is made to twist or coil around the mandrel to some extent in the reverse direction to that in which the mandrel turns, so that its rotation decreases slightly as it rises, whereby the pitch or inclination of the grooves C to the drill is increased from the point upward. The extent of the inclination of the groove F will be governed by the desired increase of the twist.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The mandrel by which the blank is advanced along and rotated to the cutters, constructed in combination with the rotating gear, to produce an increased-pitch or spiral-cut drill, substantially as specified.

EDWARD S. TABER.

Witnesses:

GIDEON ALLEN, Jr.,
GEORGE R. STETSON.