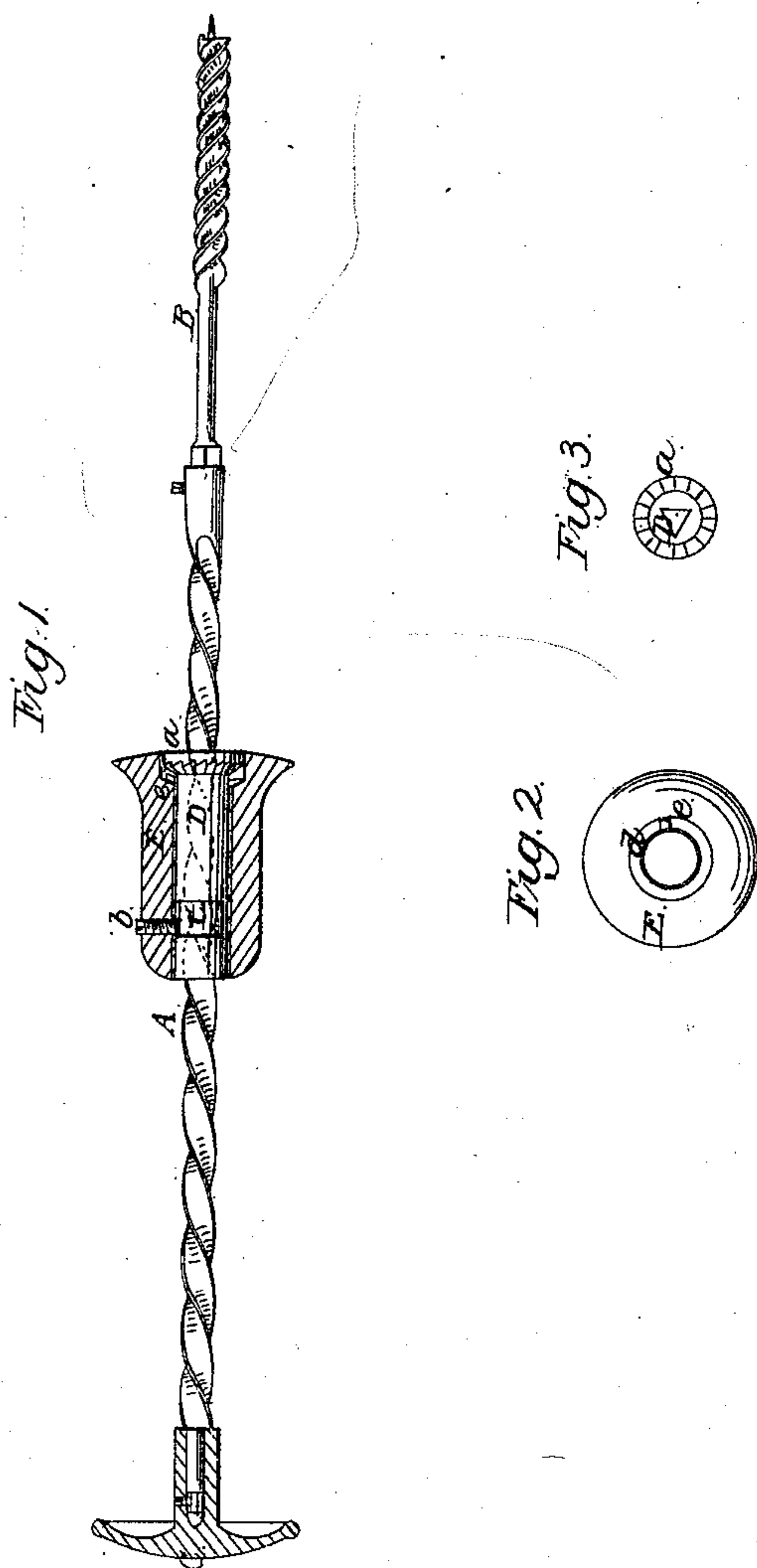


M. S. Brooks.

Metal Drill.

N^o 24,005.

Patented May 17, 1859.



Witnesses:

*Samuel Denison
E. W. Parmelee*

Inventor:

M. S. Brooks

UNITED STATES PATENT OFFICE.

MERRITT S. BROOKS, OF CHESTER, CONNECTICUT.

DRILL-STOCK.

Specification of Letters Patent No. 24,005, dated May 17, 1859.

To all whom it may concern:

Be it known that I, MERRITT S. BROOKS, of Chester, in the county of Middlesex and State of Connecticut, have invented a new and Improved Drill-Stock or Brace for Operating Bits for Drilling in Metal or Boring in Wood; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1, is a longitudinal section of my invention. Fig. 2, is a detached end view of the sliding collar. Fig. 3, is a detached end view of the tube and ratchet which are fitted within the sliding collar.

Similar letters of reference indicate corresponding parts in the several figures.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a screw shaft which is constructed of metal, and of any proper dimensions according to the desired size of the tool. In the outer end of this shaft the bit B, is secured, and the inner end of the screw shaft is fitted with a swivel connection in a pressure knob C, as shown clearly in Fig. 1. On the screw shaft A, a metal tube D, is fitted, said tube having an internal female twist or thread corresponding to the twist or screw form of the shaft A, said tube fitting on the shaft and operating precisely the same as a nut. To the outer end of tube D, a ratchet *a*, is attached. The tube D, is placed loosely in a socket E, which may be of wood and secured to the tube D, by a screw *b*, which passes transversely into the socket, its inner end fitting in a groove *c*, made circumferentially in the tube D, said screw permitting the tube D, to turn within the socket E, but not allowing it to slide

longitudinally out from it. This will be clearly understood by referring to Fig. 1.

The ratchet *a*, of the tube D, fits within a recess *d*, in the end of the socket E, and in said recess a stop *e*, said stop being driven into the socket and permitting the ratchet *a*, to turn in one direction only, viz., from left to right.

The operation is as follows:—The knob C, is placed against the breast of the operator, or the palm of the hand is pressed against it and the bit B, applied to its work. The operator moves the socket E, by hand, back and forth on the shaft A, and the tube D, in consequence of the stop *e*, preventing its rotation from right to left, rotates the shaft A, and bit B, from left to right as the socket E, and tube D, is shoved outward toward the bit B. As the socket and tube is drawn back, the shaft and bit remain stationary, the tube D, turning within the socket E.

By this improvement the bit is made to turn in one direction only, viz., its cutting direction, and the bit will not have its edge destroyed as has been hitherto the case, by a reverse movement of the bit.

I do not claim, broadly, the invention of a drill stock having its shaft made in the form of a screw; but

Having thus described my invention, I claim and desire to secure by Letters-Patent,

The arrangement and combination with a spiral or screw-shaped shaft A, of a tube D, ratchet (*a*), and stop (*e*), within the socket E, as and for the purpose herein shown and described.

MERRITT S. BROOKS.

Witnesses:

SOCRATES DENISON,
E. W. PARMELEE.