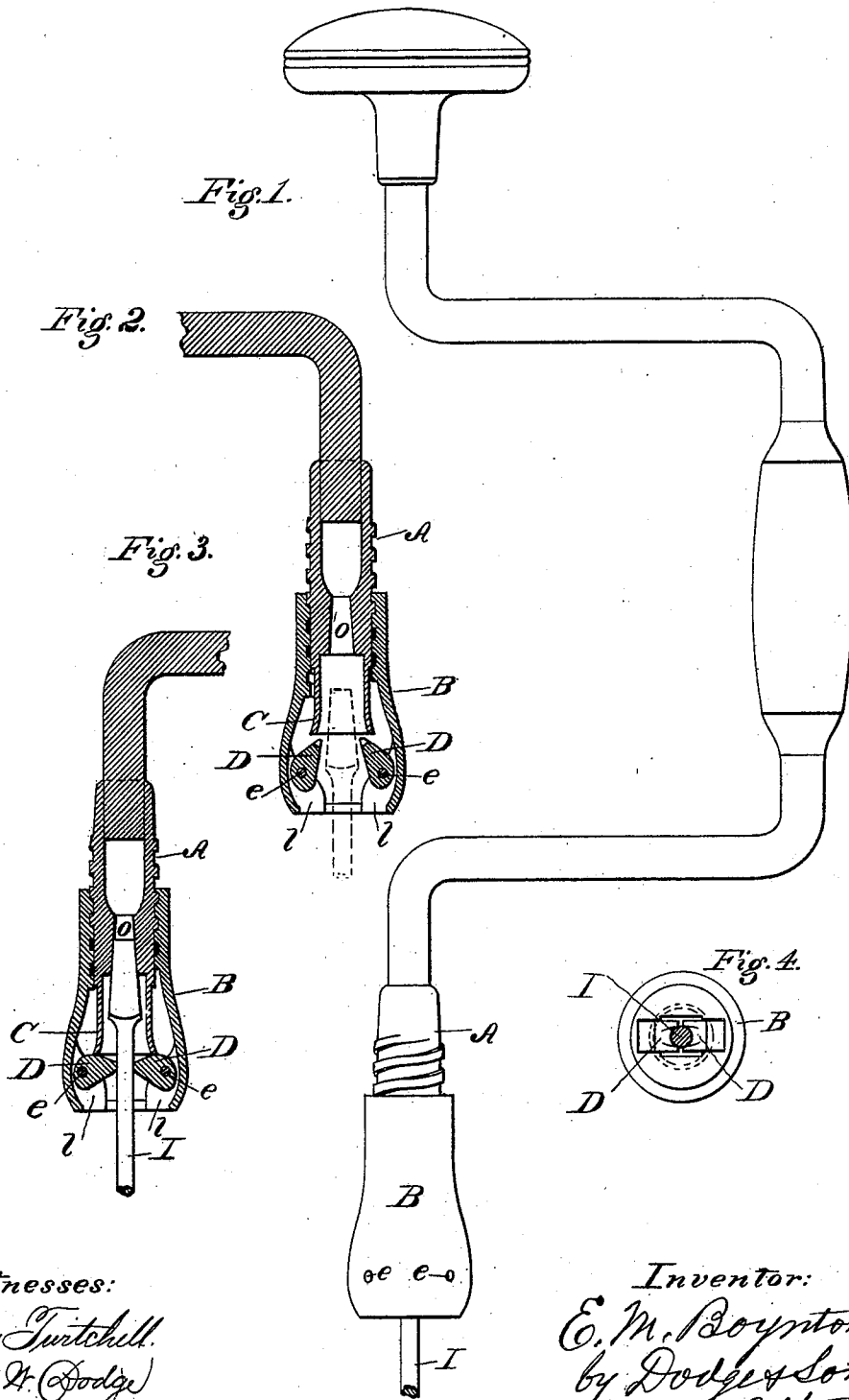


E. M. BOYNTON.
BIT-STOCK.

No. 177,089.

Patented May 9, 1876.



Witnesses:
Donn Turtchill.
Hill H. Dodge

Inventor:
E. M. Boynton.
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Attys

UNITED STATES PATENT OFFICE.

EBEN M. BOYNTON, OF NEW YORK, N. Y.

IMPROVEMENT IN BIT-STOCKS.

Specification forming part of Letters Patent No. **177,089**, dated May 9, 1876; application filed February 14, 1876.

To all whom it may concern:

Be it known that I, EBEN MOODY BOYNTON, of New York, in the county of New York and State of New York, have invented certain Improvements in Bit-Stocks, of which the following is a specification:

My invention consists of a bit-stock having a screw-cap carrying a pair of pivoted jaws, so arranged that when the cap is screwed onto the head the jaws will be forced inward and made to clasp the bit or tool, all as hereinafter more fully described.

Figure 1 is a side elevation of a bit-stock complete, made on my plan. Figs. 2 and 3 are longitudinal sections of the head and operating parts, the former showing the tool released and the latter showing it held in place. Fig. 4 is an end view.

In constructing a bit-stock on my plan I make the body in any of the usual styles, and to the end in which the tool is inserted secure a head or socket piece, A, which has a rectangular taper socket, O, to receive the corresponding shank or end of the bit I, as shown in Figs. 2 and 3. The end of this head A is extended out beyond the socket O, and is made circular in cross-section, with its extremity made more or less bell-mouthed, as shown in Figs. 2 and 3. I then provide a tubular cap, B, which is fitted to screw on the head A, as shown, it having at its outer end, on opposite sides, two lugs, L, on its interior, between which I pivot the clamping-jaws D on pins e, as shown in Figs. 2 and 3. These jaws D are made of such a length that, when turned to the position shown in Fig. 3, they will grasp between their ends the stem of a bit, I, which may be inserted in the head, their outer and upper portions being made cam-shaped also, so that, when turned to a certain extent, they will lock or bear against the outer walls of the cap B, thereby preventing them from turning far enough to permit their loose ends to pass beyond a horizontal line at right an-

gles to the axis of the head. The ends of these jaws D are made concave, or with a notch in them, so that, when crowded against a bit or tool, they will clasp it and hold it centrally between them.

As shown in Fig. 2, it will be seen that the cap B is screwed off far enough to permit the jaws D to hang loose without contact with the tubular end of the head-piece A, and when in that position the bit I can be inserted between the jaws, as represented in dotted lines, and seated in the socket O. As the cap B is screwed on, the end of the tubular part C of the head-piece A presses against the inclined outer sides of the jaws D, thereby forcing them inward, and causing their ends to close against and grasp the bit I between them, as represented in Fig. 3.

To remove the bit it is only necessary to screw the cap off far enough to release the jaws D.

It will be seen that by this construction I produce a bit-stock that will center and hold bits or tools of any size, from the largest to the smallest usually made, and that is very simple and cheap to make.

I am aware that pivoted jaws have been arranged in the screw-cap of a bit-stock, as in the patent of C. H. Stockbridge, February 19, 1867; but in that the jaws are made long, so as to hold simply by fitting over the shoulders of the bit, and not by grasping the stem between them, as in my case. I therefore do not claim the pivoted jaws, broadly; but

What I do claim is—

In combination with the head-piece A, having a socket, O, for receiving the tool, the short pivoted jaws D, constructed and arranged to grasp the tool between their ends, substantially as shown and described.

EBEN M. BOYNTON.

Witnesses:

P. T. DODGE,
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