

*B.B. Hill,
Bit Stock,*

No 18,282,

Patented Sep. 29, 1857.

Fig. 3.

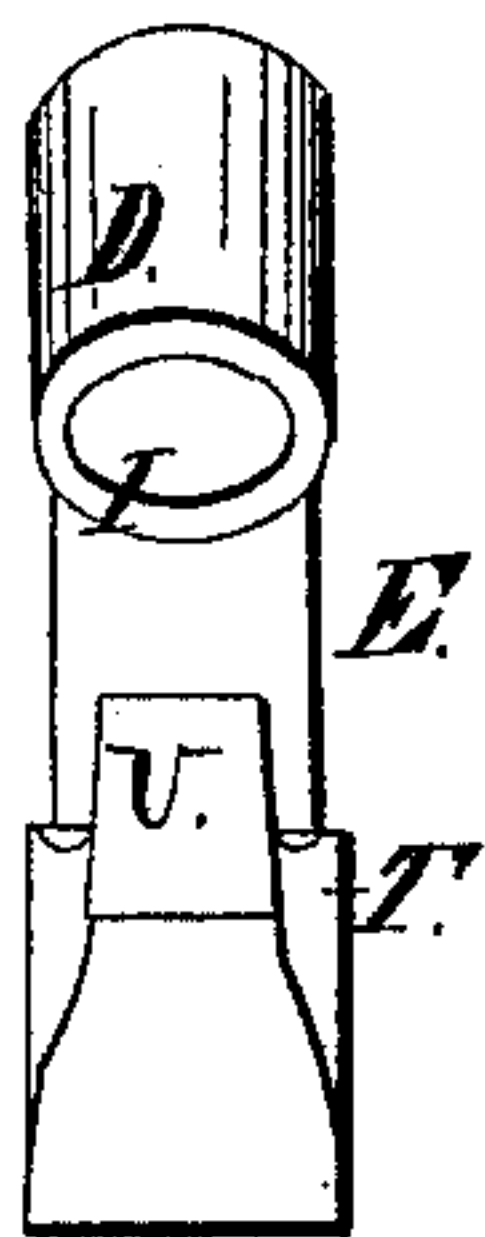


Fig. 4.

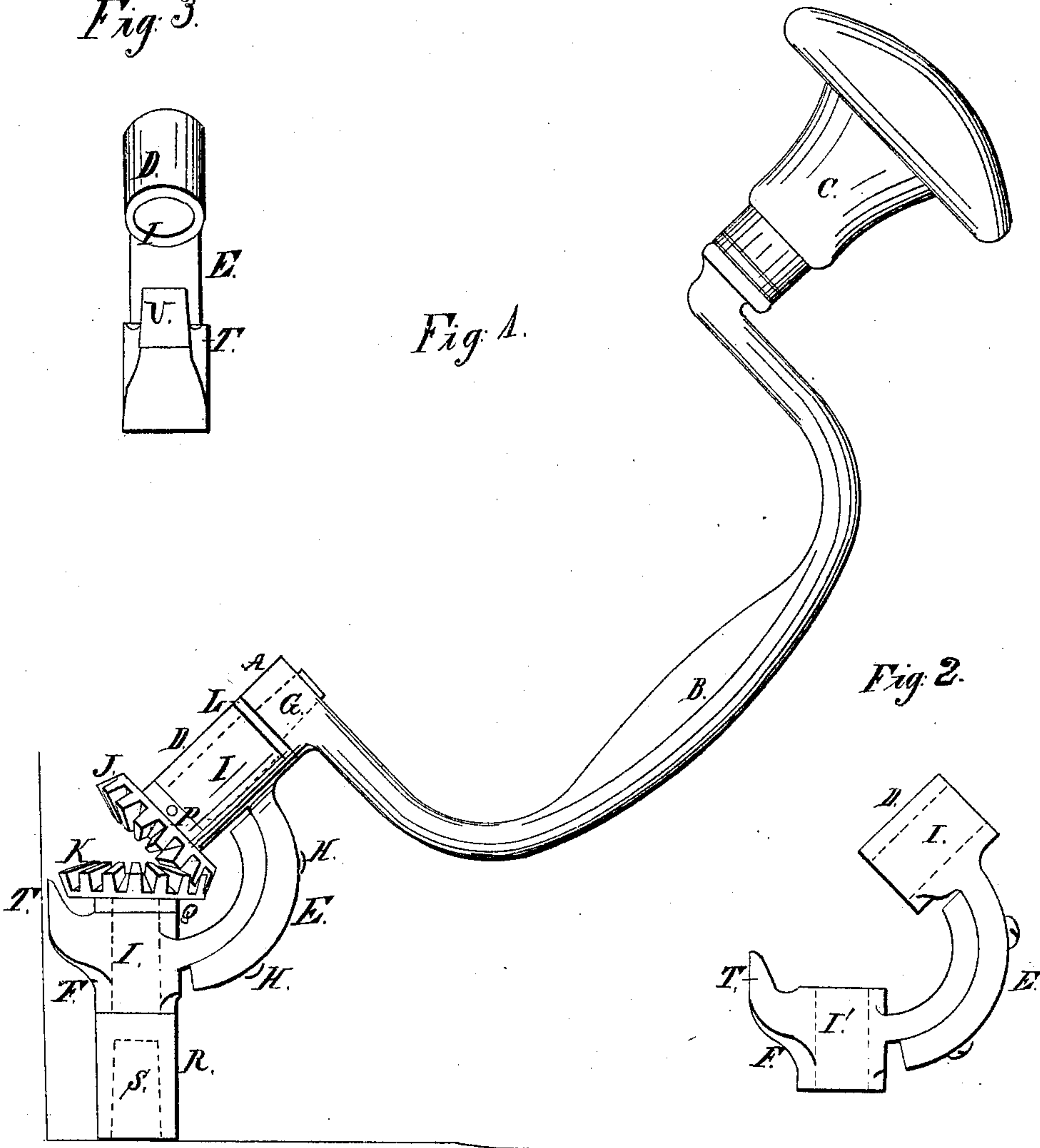
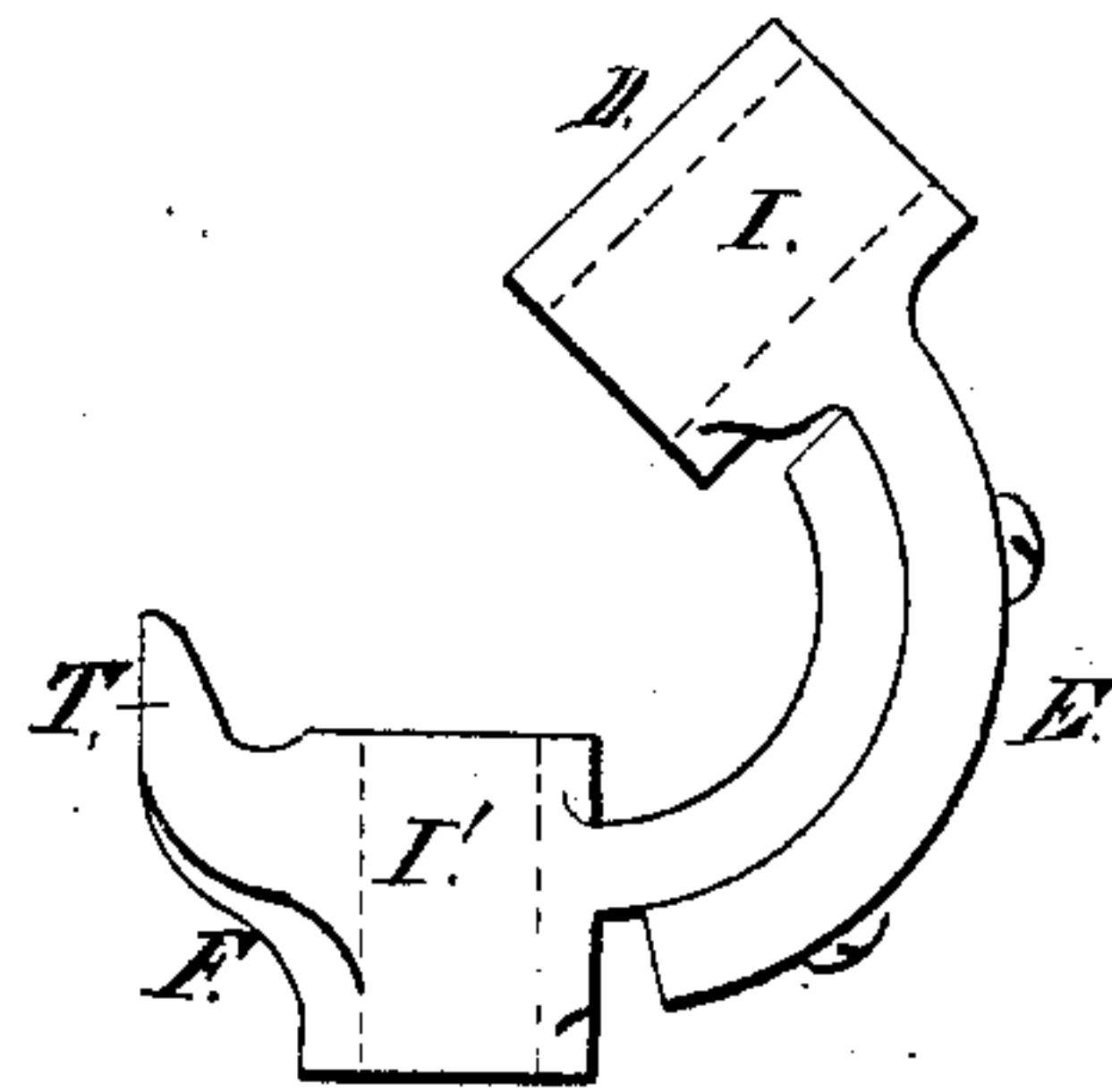


Fig. 2.



Witnesses:

S. W. Adams.

A. Doolittle.

Inventor:

Benjamin B Hill

UNITED STATES PATENT OFFICE.

BENJAMIN B. HILL, OF CHICOPEE, MASSACHUSETTS.

BIT-HOLDER.

Specification of Letters Patent No. 18,282, dated September 29, 1857.

To all whom it may concern:

Be it known that I, BENJAMIN B. HILL, of Chicopee, in the county of Hampden and State of Massachusetts, have invented an

5 Improvement in Bit-Holders; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters and figures marked thereon.

10 Figure I is a perspective view of a bit-stock with the attached bit-holder. Fig. II side view of the bit-holder, the bevel gear being detached. Fig. III—front view of the same.

15 My invention consists of a curved arm, so constructed that it can be attached to the common bit-stock, and at the same time give support and bearing to two bevel gears, placed at an angle of about forty-five de-

20 grees with each other and having near the lower gear a flat rest or bearer by means of which the bit is held in a fixed position with reference to the axis of rotation of the stock, when in use, the whole arrangement being

25 such that holes can be bored in the corner of a room (as in bell hanging) while the hand, revolving with the bow of the stock is at some distance from the walls of the apartment.

30 The common bit-stock is represented at A, B, C Fig. I and connected with it at D, E, F, is the diagonal bit-holder, which may be permanently affixed to the stock at A, or it may have a square shank G, like the common

35 bit, and be detached at pleasure. The circular arm or connection is made in two

parts, which are attached to each other by the screws H. H', and in each of these parts there is a cylindrical box or bearing I and I' within which play the shafts or axes of the 40 bevel gears J and K which are placed at an angle of about forty-five degrees with each other as above mentioned. The upper gear J, is held in place by a suitable collar L and steady-pin P, and the base of the lower 45 gear K rests upon the flat part Q near to the lower connecting arm. The axis of the lower gear K is enlarged at R and has a square socket S, to receive the shank of the bit. Upon one side of the lower connecting 50 arm there is a projection T, extending about one eighth of an inch outside of the gear K, and having a flat or plane surface as shown at U, Fig. III; this may be about half an 55 inch, or one inch in area; when the tool is in use, this rests against the wall or side of any object that is at right angles with the hole that is to be bored; it sustains a part of the thrust or pressure that is communicated from the stock, giving a firm bearing or sup- 60 port to the bit, and at the same time it traverses forward, as the hole is bored, in the direction of the axis of the bit.

I claim—

The diagonal bit-holder having a projec- 65 tion or rest T, which forms a guard to the bevel gears and gives support to the bit, as herein described.

BENJAMIN B. HILL. [L. S.]

In presence of—

AMORY DOOLITTLE,
S. M. ADAMS.