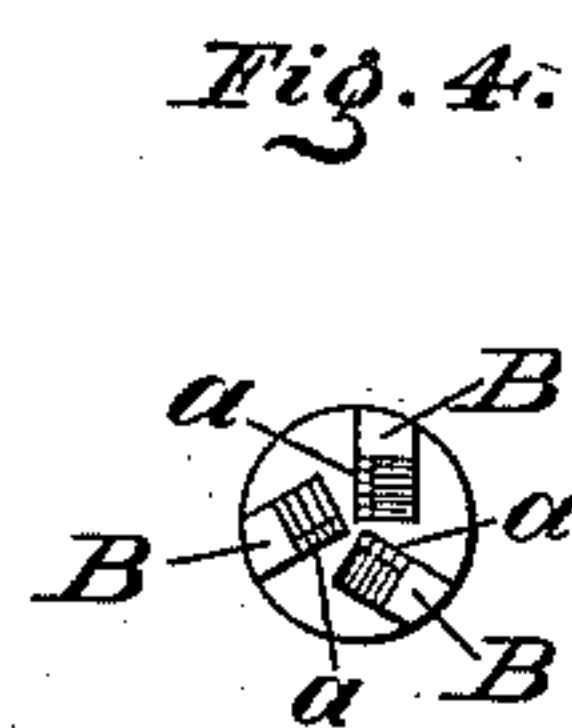
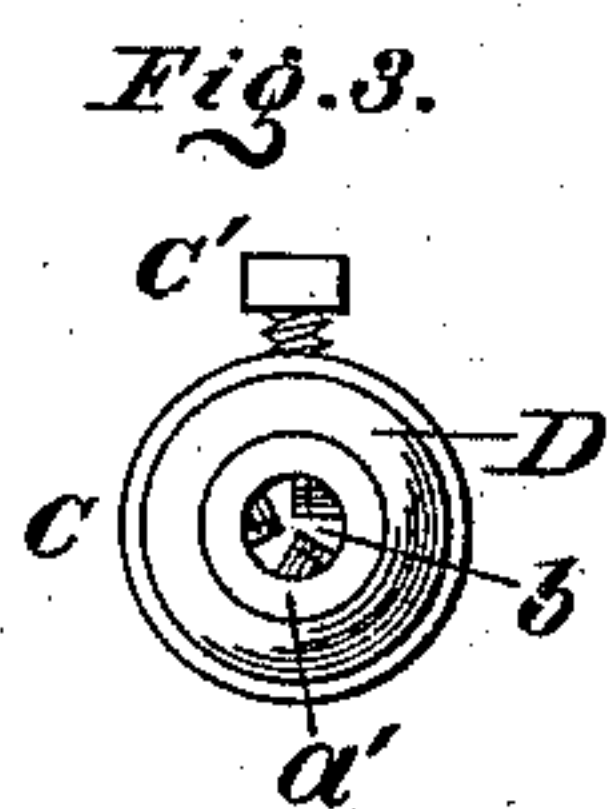
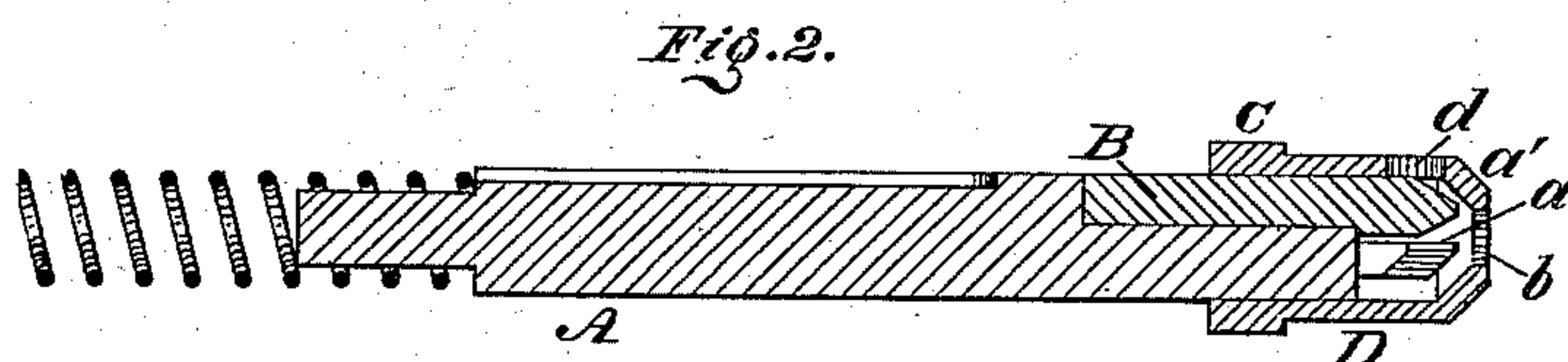
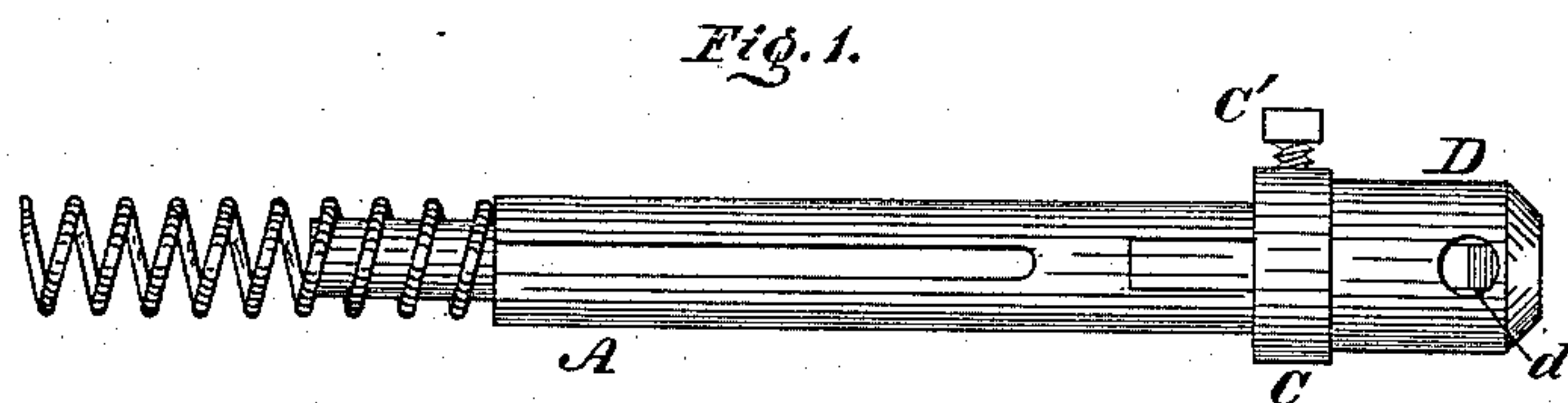


P. HARTIN.  
Tool for Pointing Bolts.

No. 235,766.

Patented Dec. 21, 1880.



Witnesses:

No. P. Grant,  
W. F. Kircher

Inventor:

Philip Hartin,

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ATTORNEY.

# UNITED STATES PATENT OFFICE.

PHILIP HARTIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO WELSH & LEA, OF SAME PLACE.

## TOOL FOR POINTING BOLTS.

SPECIFICATION forming part of Letters Patent No. 235,766, dated December 21, 1880.

Application filed February 26, 1880.

*To all whom it may concern:*

Be it known that I, PHILIP HARTIN, a citizen of the United States, residing at the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Tools for Pointing Bolts, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of the tool embodying my invention. Fig. 2 is a longitudinal section thereof. Fig. 3 is a front-end view thereof. Fig. 4 is a front-end view of the bits.

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

My invention consists of a head or stock having bits adapted for pointing bolts and a collar for guiding the bolts to the bit, all as will be hereinafter fully set forth and definitely claimed.

Referring to the drawings, A represents a head or stock, and B B a series of cutters or bits, which are fitted in longitudinally-extending grooves on the periphery of said stock, the cutting-edges being shown at *a*.

C represents a sleeve which circumscribes the stock A and shanks of the bits B, and by means of a screw, C', firmly secures the bits to the stock.

D represents a collar which is fitted over the forward ends of the stock A and bits B, so as to project partially in front of the cutting-edges of said bits. The front wall, *a'*, of the collar has an opening, *b*, of a diameter a little less than that of the bolt to be pointed, said opening being central, so as to coincide with the central point of the series of bits B.

The collar D may be formed with or secured to the sleeve C, and is held to the stock by means of a screw independent of the screw C'; but it is preferred to have the collar and sleeve connected as one, in which case the screw C' serves the common purpose of securing both the collar and sleeve to the stock.

The sleeve C is, however, shown as made in one piece, with the collar D as an enlargement for strengthening purposes.

The operation is as follows: The stock is properly advanced to the bolt to be pointed and rotated, or vice versa, and the bolt directed into and through the opening *b* of the front wall of the collar D, so as to reach and be acted upon by the cutting-edges of the bits, whereby a portion of the point of the bolt is removed, or, in other words, the bolt is properly pointed.

It will be seen that the wall of the opening *b* serves to guide the bolt and present it true to the cutters, and thus the work of pointing bolts will be uniformly, reliably, and expeditiously accomplished, while the cutters are braced from near their points to the extreme inner end of the sleeve or enlargement C, or well along the shanks of the cutters, and thus enabled to endure the outward strain, and retained firmly in position when the bolt reaches the cutting-edges and presses thereagainst.

By loosening the screw C' the collar and sleeve may be displaced and the bits removed for purposes of sharpening, repairs, &c.

In the periphery of the collar D are openings *d*, which are located adjacent to the front edges of the bits and permit the discharge of the cuttings, oil, &c.

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

The combination, with the head A and cutters B, of the collar D, formed with a front opening, *b*, and encircling the bits from their cutting-edges inwardly along the shanks thereof, and the tightening-screw, substantially as and for the purpose set forth.

PHILIP <sup>his</sup> + HARTIN.  
mark.

Witnesses:

JOHN A. WIEDERSHEIM,  
W. F. KIRCHER.