

(No Model.)

H. G. WORTHINGTON & W. WHEELER.
EXTENSIBLE BIT STOCK.

No. 536,116.

Patented Mar. 19, 1895.

Fig. 1.

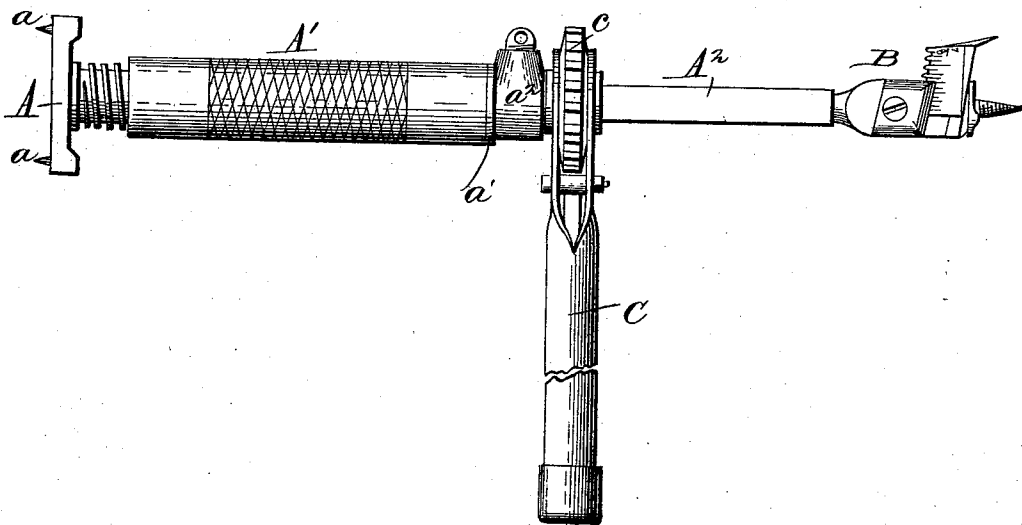


Fig. 2.

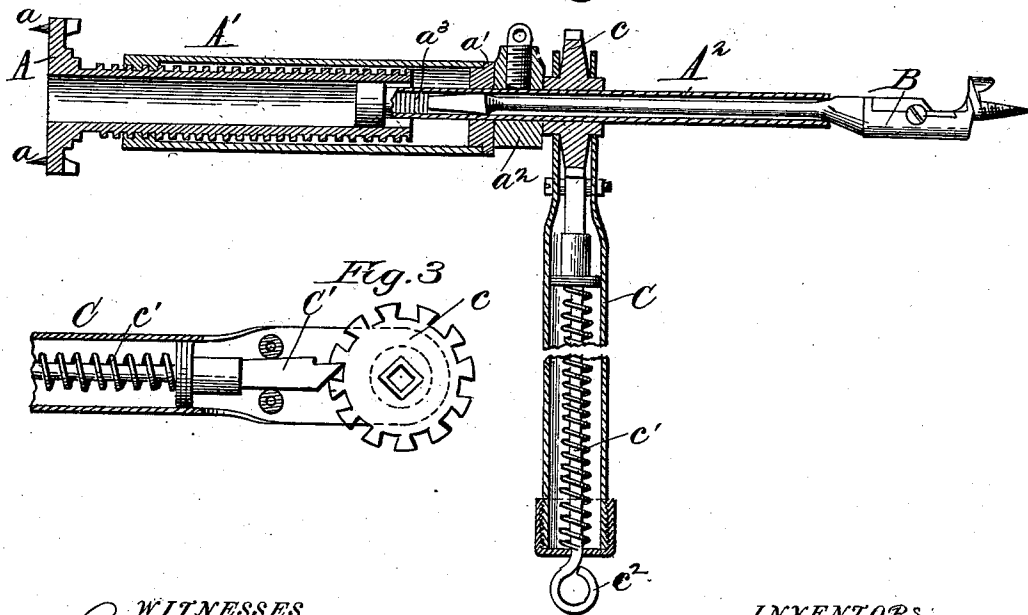
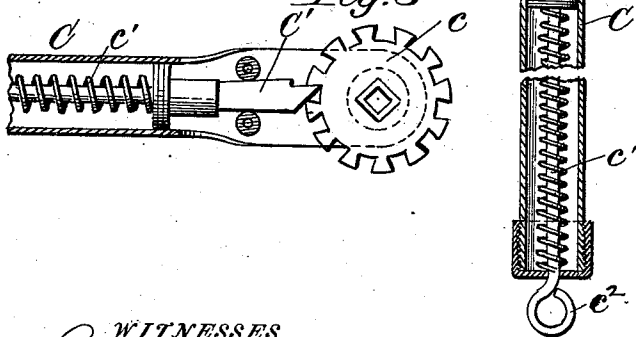


Fig. 3.



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HORACE G. WORTHINGTON AND WILLIAM WHEELER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNORS OF ONE-THIRD TO JAMES M. WHITE, OF SAME PLACE.

EXTENSIBLE BIT-STOCK.

SPECIFICATION forming part of Letters Patent No. 536,116, dated March 19, 1895.

Application filed November 17, 1894. Serial No. 529,152. (No model.)

To all whom it may concern:

Be it known that we, HORACE G. WORTHINGTON and WILLIAM WHEELER, citizens of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Extensible Bit-Stocks; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our said invention consists in an improved construction of extensible bit-stocks for use in boring holes through studding, for running pipes through partitions, and all such similar uses where it is inconvenient to get a proper brace against an ordinary bit-stock, as will be hereinafter more fully described and pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof and on which similar letters of reference indicate similar parts: Figure 1 is a side elevation of said bit-stock with the parts in the position they occupy when in use; Fig. 2, a central longitudinal section through the same, and Fig. 3, a detail view of the ratchet.

In said drawings the portions marked A represent the bit-stock, B the bit, and C a ratchet lever for operating the same.

The bit-stock, A, consists of a tubular standard mounted on a base-plate having brads, a , on its outer face, said standard being exteriorly screw threaded. A tubular interiorly screw threaded hand nut, A' , is mounted on said standard provided with a loosely fitted cap, a' . An extensible socket, A^2 , preferably angular in form, is mounted in said part, A' , and adapted to slide through a correspondingly formed aperture in said cap, a' . A collar, a^3 , is mounted on said socket, A^2 , and may be fixed in any desired position thereon by means of a set-screw. Said socket is of the form required to receive the shank of the bit and of any length, and may be filled to any desired point with packing, a^3 , which may be of any convenient suitable material, or especially provided for the purpose. By this means

different adjustments of the bit may be secured, as will be readily understood.

The bit, B, is or may be of any desired construction adapted for boring whatever kind of material is to be operated upon. Its shank is mounted in the extensible socket, A^2 , the desired extension from the end of said socket being secured by means of the proper number of packing devices, a^3 , placed in said socket.

The ratchet lever, C, is in the main of a well known construction. It consists of a hollow lever having a circular ratchet, c , journaled in its forward end provided with square notches, and a reversible pawl, C' , mounted in said handle. Said pawl is tapered upon one side and is held forward into engagement with the ratchet by means of a spring, c' . The shank of said pawl extends out through the end of the lever and is provided with a hand piece, c^2 , by which it may be withdrawn from engagement with the ratchet and turned over when it is desired to reverse the operation. The ratchet, c , has a central aperture adapted to fit upon the socket, A^2 .

In operation the several parts are assembled as shown in Fig. 1, the length of the stock being adjusted by means of the collar, a^2 , which holds the extensible socket, A^2 , in the desired adjustment, and the packing in said socket which supports the bit in the desired extended position. The hand nut, A' , is in its lowest position. The base-plate, A, is then placed against the stud or other part opposite the stud or part to be bored and the hand nut then turned to force the bit forward against said part. The bit is then turned by means of the ratchet lever operated by one hand and is forced forward by means of the hand nut, A' , operated by the other hand, the brads in the base-plate, A, serving to hold the stock from turning, thus furnishing a secure support. When it is desired to back out the bit, the pawl, C' , is turned and the operation reversed.

Having thus fully described our said invention, what we claim as new, and desire to secure by Letters Patent, is—

1. An extensible stock for holding bits, &c.,

consisting of the base, A, the hand nut, A', provided with the cap, a', the extensible socket, A², adjustably supported on said cap, and a ratchet mounted on said socket for operating same, substantially as set forth.

5 2. An extensible stock for holding bits, &c., consisting of the base, A, the hand nut, A', the cap, a', mounted thereon provided with an aperture for receiving the extensible socket, 10 A², said extensible socket mounted therein, packing devices in said socket, whereby the bit may be adjusted, said bit mounted therein, and a ratchet operating lever mounted on said socket, substantially as set forth.

15 3. An extensible stock for holding bits, &c., consisting of a tubular standard mounted upon a suitable base-plate, a tubular hand nut mounted on said standard, a socket ad-

justably mounted upon said nut, the bit and a suitable ratchet lever mounted on said 20 socket for operating the same, substantially as set forth.

4. The combination of the base, A, hand nut, A', mounted thereon, socket, A², adjustably secured on said hand nut, and a ratchet 25 lever mounted on said socket for operating the same, consisting of the circular ratchet and the reversible spring pawl mounted in the tubular lever, C, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses. 30

HORACE G. WORTHINGTON.

WILLIAM WHEELER.

Witnesses:

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NATHAN WEILL.