(No Model.)

R. D. JOHNSON.

BIT STOCK.

No. 306,690. Patented Oct. 14, 1884.

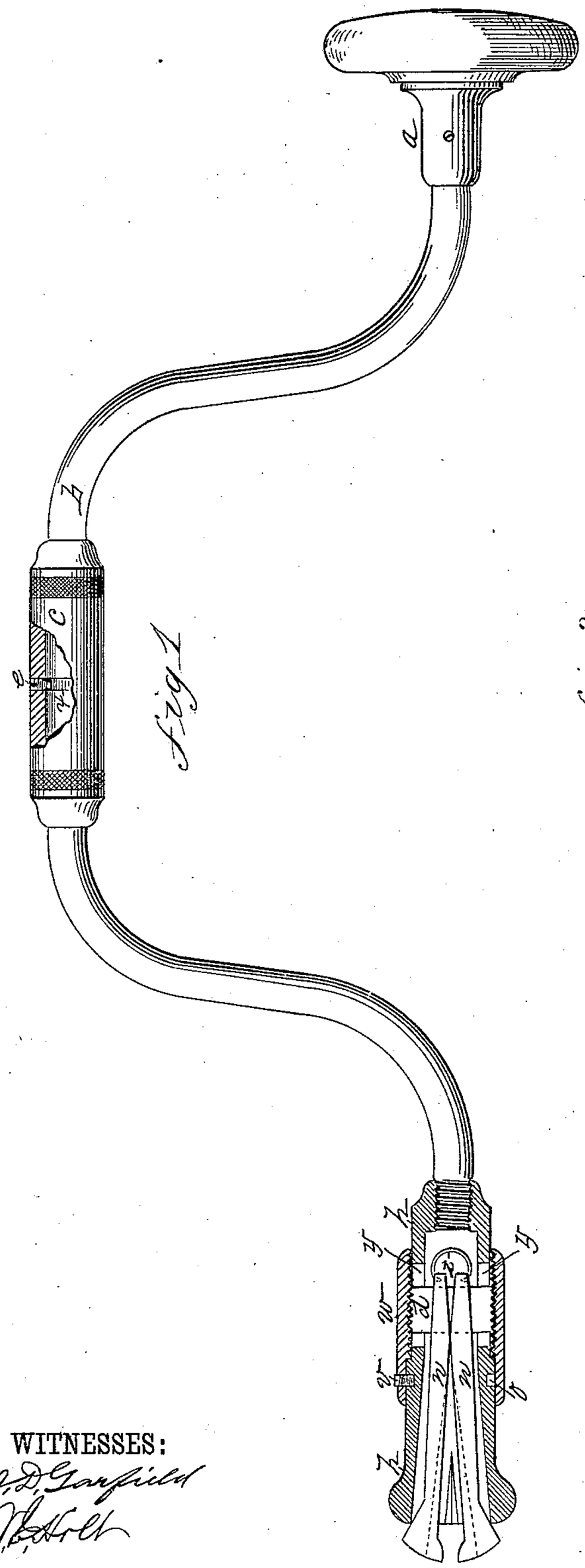

Fig. 1.

Fig. 2.

WITNESSES:

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BIT-STOCK.

SPECIFICATION forming part of Letters Patent No. 306,690, dated October 14, 1884.

Application filed May 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, RICHARD D. JOHNSON, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Bit-Stocks, of which the following is a specification.

This invention relates to improvements in bit-stocks, the object being to provide in such tools improved and simplified means for holding and operating the bit-jaws, and for securing the hand-sleeve to the arm.

In the drawings forming part of this specification, Figure 1 is a side elevation of a bit-stock, partly in section, constructed according to my invention. Fig. 2 is a detail view.

In the drawings, *b* is the arm of the usual form, having the rosette *a* secured to its upper end by a screw, which enters a groove formed around that part of the arm, whereby the end of the arm is free to rotate in the rosette. The hand-sleeve or swivel *c* is placed on the bar from which the arm is made before the latter is bent to the required shape, and is secured thereon, but left free to turn by a screw, *e*, which passes through the side of the sleeve, and whose point engages in the annular groove *x* in the arm. This manner of securing the hand-sleeve on the bit-stock obviates the expense of fitting and securing the sleeve by more expensive methods after the arm is formed, as is generally the practice. The jaw-holder *h* is secured onto the lower end of the arm *b* by screwing or other suitable means, and is suitably chambered to receive within it the bit-shank jaws *n n*, which are suitably grooved interiorly to receive the bit-shank, and provided with inclined bearing-points to operate against the end of the holder for closing them when they are drawn into the latter. The holder *h* is provided with openings *y y* in its opposite sides, and has an interiorly-screw-threaded sleeve, *w*, fitted thereon, which covers said openings *y*. A groove, *o*, is formed around the outside of holder *h*, and the point of screw *v* in sleeve *w* enters said groove, whereby the sleeve is secured on the holder, but is free to turn. The jaws *n* are perforated near one end to receive the screw-threaded jaw-bar *d*, on which they are hung. Said perforations are a little longer than the width of said bar, to permit the jaws to freely vibrate on the latter. Raised bearing-points are provided on the jaws one side of the bar *d*, on which they swing. A spring, *z*, is made to have its ends hook onto the ends of the jaws *n*, as shown, whose retracting power serves to spread the opposite ends of the jaws, as indicated in the drawings. The jaws *n* and the screw devices by which they are worked would be quite as operative for holding a bit-shank without the spring *z*, or any other one, to open the jaws, for the sharpened end of the said shank can be easily entered between the jaws if they are not held apart, as shown; therefore the spring may be dispensed with if desired. The jaw-bar *d* has its ends screw-threaded to correspond with the screw on the inside of the sleeve *w*, and is adapted to be moved back and forth in the openings *y*, carrying the jaws *n* with it by turning said sleeve.

In operating the above-described tool the sleeve *w* is turned to move bar *d* and the jaws *n* toward and beyond the end of holder *h*, letting the jaws open by the action of spring *z* sufficiently to receive the shank of the bit which is to be used, and after the shank has been placed between the jaws the sleeve *w* is turned in the reverse direction, drawing the jaws into the holder, and so forcing their inclined sides against the latter as to cause the shank to be forcibly clamped and held firmly secured to the bit-stock.

The above-described manner of constructing the jaws, bar *d*, and sleeve *w*, and their relative arrangement conduce to great strength and durability, and bring the clamping strain of the jaws directly upon the screw-operating parts without employing any intermediate devices, which are liable to be broken and deranged.

I am aware that it is not new to hang the jaws of a bit-stock on a pin in the jaw-holder; nor is it new to move the jaws by a swiveled sleeve.

I do not claim the parts, broadly, but only the specific combination set forth.

What I claim as my invention is—

In a bit-stock, the chambered jaw-holder having side openings, the internally-screw-threaded sleeve swiveled on said jaw-holder to cover said openings, the bar passing through said openings, and having end threads engaging the threads in the sleeve, and the perforated jaws supported on said bar, said jaws engaging with the jaw-holder as described, all combined and co-operating substantially as described.

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