M. V. Nobles,

Bit Stock.

No. 51,660. Patented Dec. 19, 1865.

Fig. 2.

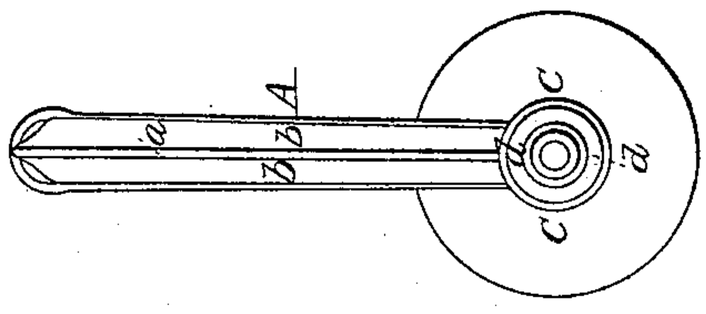


Fig. 4.

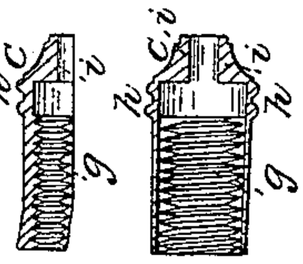


Fig. 1.

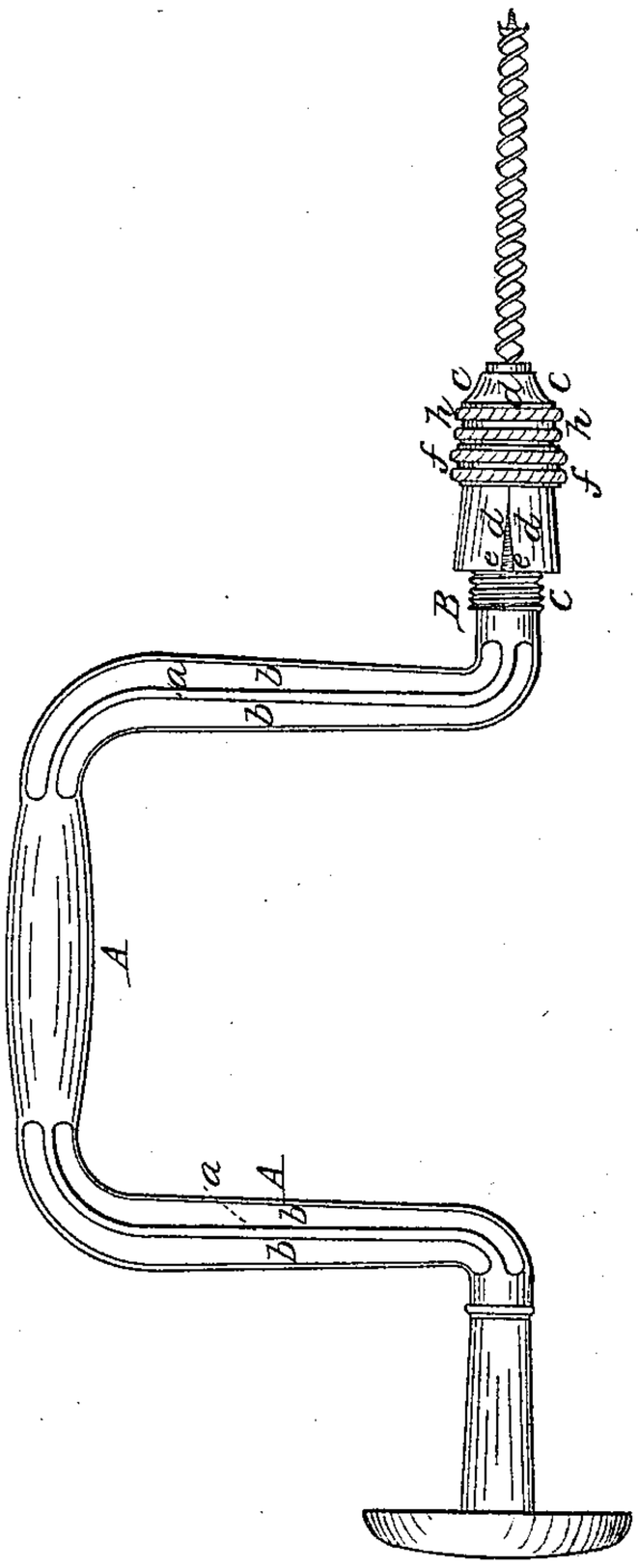
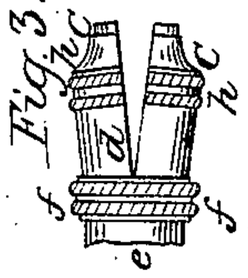


Fig. 3.



Witnesses.

Jno. D. Patten

F. W. Heilborn

Inventor:

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By atty. A. B. Stoughton.

UNITED STATES PATENT OFFICE.

MILTON V. NOBLES, OF ROCHESTER, ASSIGNOR TO HIMSELF AND JOHN C. NOBLES, OF RUSHFORD, NEW YORK.

IMPROVEMENT IN BIT-HOLDERS FOR BRACES.

Specification forming part of Letters Patent No. **51,660**, dated December 19, 1865.

To all whom it may concern:

Be it known that I, MILTON V. NOBLES, of Rochester, in the county of Monroe and State of New York, have invented certain new and and useful Improvements in Tool, Bit, and other Holders for Braces, Auger-Handles, Spindles, Chucks, and other similar purposes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a side view of a brace and bit constructed after my plan; Fig. 2, an end view of the same. Fig. 3 represents a view of the split jaws and ring used in making the holder. Fig. 4 represents the same split jaws opened up to show the sectional internal screw-threads therein.

Similar letters of reference, where they occur in the several figures, denote like parts in all of them.

The uncut socket and split sleeve is the subject-matter of a patent heretofore granted to me.

My present invention consists in combining with the split sleeve or ferrule and its ring a screw cut on the exterior of the socket and sectional screw-threads in the interior of the sleeve or ferrule, so that, in addition to the holding properties of the socket and split jaws or sleeve, I may also hold the bit or other thing by drawing it toward the socket by the screw-threads, the sleeve serving as a nut to run down upon the socket.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents a bit-stock of the usual general form, but ribbed, as at *a*, and hollowed out between the ribs, as at *b*, for the sake of lightness and strength, and for giving finish to the tool.

The socket B is solid—that is, uncut—and has a square hole in it to receive the shanks or ends of such tools as may be used in it, and has, moreover, a screw-thread cut upon its exterior, as at *c*.

The sleeve or ferrule C is split, as at *d*, or made in two parts, and at the rear of the sleeve, where the joint or split is, the sections are cut away, as at *e*, so that they may tip to open or close the jaws of the sleeve, as seen in Figs. 1 and 3, where they are represented in their closed and opened position. The sleeve is not made entirely cylindrical, but of a concave cylindrical form on its exterior and a convex cylindrical form in the interior, and fitting over the split sleeve there is a slip-ring, *f*, for closing and opening it.

On the interior of each of the sections of the split-sleeve there is cut a sectional screw-thread, as seen at *g*, Fig. 4, so that the sleeve may readily connect and disconnect its screw-thread with that of the socket as the jaws are closed or opened by the slipping out or in of the ring.

The convexity of the interior of the split jaws is essential, in connection with the internal sectional screw-threads, so that the jaws can tip or open to release the tool or thing held by it.

The shanks of tools, though of nearly uniform size, are not always exactly so, and may become worn by use, and a solid socket and split jaws might not alone firmly hold such shanks; but all shanks have a shoulder upon them, and a similar shoulder, *i*, is made in the split sleeve to catch over said shanks and when the split sleeve is run down upon the socket it makes an additional holding device, which draws the shank into or toward the socket. If, therefore, the socket and split jaws do not of themselves hold the bit, tool, or other thing sufficiently firm, the jaws, after being closed by the slip-ring, can then be run down as a nut upon the socket, and thus cause a firm holding of the tool or other thing in the socket.

The milling at *h* is for working the sleeve on the screw-thread, and a turn or two is generally all that is required to compensate for any irregularity of size in the shanks.

This device may be, and I intend applying it to auger-handles, spindles, chucks, or any other holders, and claim such application of it as embraced in my invention.

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

In combination with a solid socket and split sleeve and its tightening-ring, which of themselves form an independent bit or tool holder, the additional holding devices, composed of the screw-thread on the socket and the sectional screw-threads in the sleeve, substantially as and for the purpose described.

M. V. NOBLES.

Witnesses:
A. B. STOUGHTON,
EDM. F. BROWN.