

A. JONES.
 DRILL OR TOOL HOLDER.
 APPLICATION FILED FEB. 11, 1904.

Fig. 1

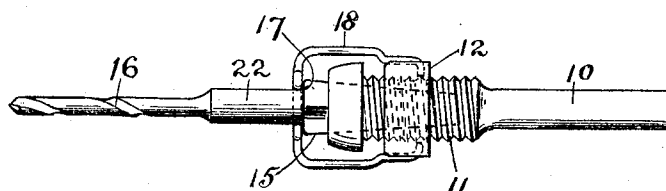


Fig. 3

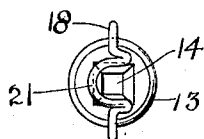


Fig. 2

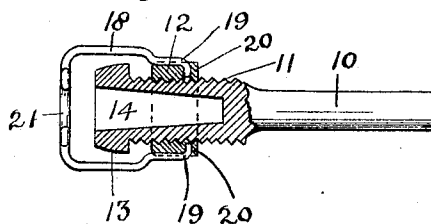


Fig. 4

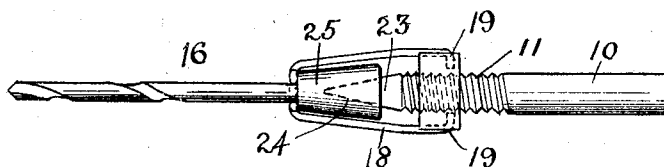
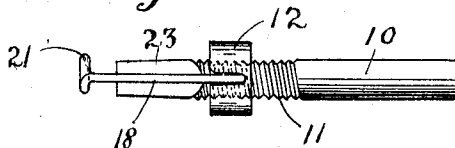


Fig. 5



Witnesses:

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UNITED STATES PATENT OFFICE.

ARTHUR JONES, OF CHICAGO, ILLINOIS.

DRILL OR TOOL HOLDER.

SPECIFICATION forming part of Letters Patent No. 779,084, dated January 3, 1905.

Application filed February 11, 1904. Serial No. 193,167.

To all whom it may concern:

Be it known that I, ARTHUR JONES, a subject of the King of England, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Drill or Tool Holders, of which the following is a specification.

This invention relates to improvements in that class of devices used for securing various types of bits in place on the stock or brace therefor; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The principal object of the invention is to provide a simple, inexpensive, and efficient holder for detachably securing various kinds of tools—such as drill-bits, screw-driver bits, gimlet-bits, auger-bits, and the like—to the stocks used for operating them, whether said stocks are to be operated manually or by power, and which shall be so made that the tool or bit can be quickly inserted and firmly held in place as well as readily removed.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a view in side elevation of a tool-holder embodying one form of my invention and showing a drill-bit held in place thereby on the stock therefor. Fig. 2 is a view, partly in elevation and partly in section, of the holder, showing it in position on the stock. Fig. 3 is an end view thereof. Fig. 4 is a view in side elevation, showing a modification in the construction of the holder and illustrating a drill-bit held in place thereby on the stock; and Fig. 5 is a side view of the holder and a portion of the stock, showing the bit removed.

Like numerals of reference refer to corresponding parts throughout the different views of the drawings.

The reference-numeral 10 represents a por-

tion of a stock or shaft of a drill-brace or other drill-operating device which may be turned by hand or power. As shown in Figs. 1 and 2 of the drawings, the free or front portion of the stock 10 is enlarged and provided with external screw-threads 11 to engage internal threads on the collar 12, which surrounds the screw-threaded portion of the stock, the free end of which is provided with an annular enlargement 13 to prevent the displacement of the collar. Extending inwardly from the free or front end of the stock is an opening 14, which tapers toward its inner end and is angular in cross-section or non-circular to receive the tapered and correspondingly-shaped shank 15 of the bit or tool 16, which may be of any suitable type. As shown in Fig. 1, the outer portion of the tapered shank 15 is enlarged to form a shoulder 17, which the bail 18 engages. This bail is preferably made of a single piece of wire bent to form substantially a rectangular figure and has its ends inturned, as at 19, to fit in openings 20, which are located diametrically opposite each other in the outer surface of the collar 12, which carries and adjusts the bail. As is clearly shown in Fig. 3, the outer or transverse portion of the bail is bent to form a curved loop 21, which embraces the curved or reduced portion 22 of the bit-shank, so that it may rest on the shoulder 17 or enlarged part of the portion 15 of said shank. By again referring to Figs. 2 and 3 of the drawings it will be seen that the side portions of the bail 18 extend forwardly from the collar 12 and then inwardly at about right angles to the side portions and are then bent to form the loop 21, which, as shown, will embrace somewhat more than one-half of the bit-shank; yet the side portions of the bail will be located diametrically opposite each other on each side of said shank.

In Figs. 4 and 5 of the drawings I have shown a modification in the construction of the holder, which consists in omitting the annular enlargement and tapered opening from the free or front portion of the stock 10 and in providing said portion with a flattened and tapered part 23 to fit in a correspondingly-shaped opening 24 in the butt 25 of the bit or

tool 16, which may be of the ordinary or any preferred kind. In this modified form of the holder it is apparent that the beveled or wedge-shaped portion 10 of the stock may be employed as a screw-driver when the tool is not in position thereon by simply turning the bail 18 on its pivoted ends 19, so as to be out of the way. It is also apparent that in this modified construction the bail 18 is substantially of the form shown in Figs. 1 to 3, inclusive, and above described, except that it is somewhat elongated or projects forwardly from the collar 12 farther than in the first-described construction.

15 In order to insert a bit or tool, the bail 18, which, as before stated, is pivotally secured to the collar 12, is turned out of the way, when the tapered portion 15 of the bit-shank, when the construction shown in Fig. 1 and Fig. 2 is employed, may be inserted in the opening 14 therefor, when the bail may be turned so as to embrace the reduced portion of the shank, after which the collar 12, carrying the bail, may be turned so as to draw the transverse or looped portion 21 against the shoulder 17 of the bit-shank, thus firmly securing it in position. When the construction shown in Figs. 4 and 5 is employed, the same operation

is performed, except that the front or free end of the stock is inserted in the opening 24 in the butt of the tool or bit.

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

1. In a tool-holder, the combination with a stock having at its front end means to engage the tool and provided with external screw-threads, of a screw-threaded collar externally mounted on the stock and engaging the screw-threads thereof, and a bail pivotally secured to the outer surface of the collar, substantially as described.

2. A tool-holder consisting of an externally-screw-threaded stock having in its free end an opening and provided with an annular enlargement around on said opening, a screw-threaded collar externally mounted on the stock in engagement with the screw-threads thereof, and a bail pivotally secured at one of its ends to the outer surface of the collar and having its other end formed with a loop to embrace the shank of the tool, substantially as described.

ARTHUR JONES.

Witnesses:

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