No. 672,162. Patented Apr. 16, 1901.

D. W. BURDIC & G. A. ZILLAFRO.

WRENCH FOR DRILLING TOOLS.

(No Model.) (Application filed Nov. 13, 1900.)

Fig. 1.

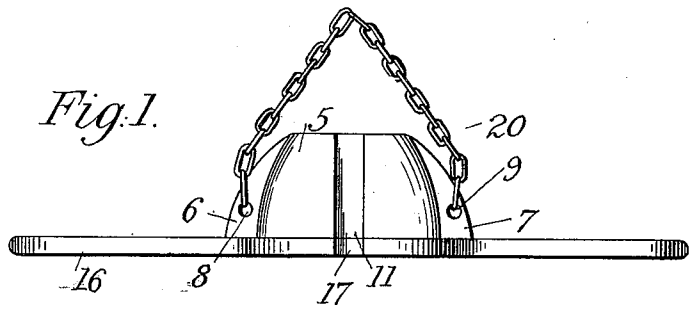


Fig. 2.

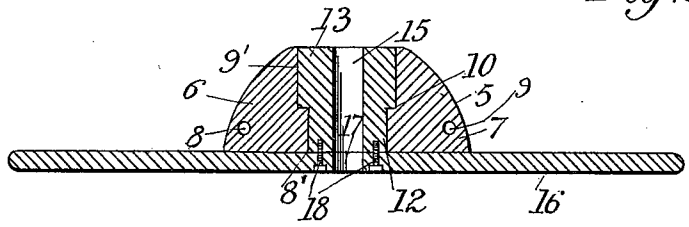
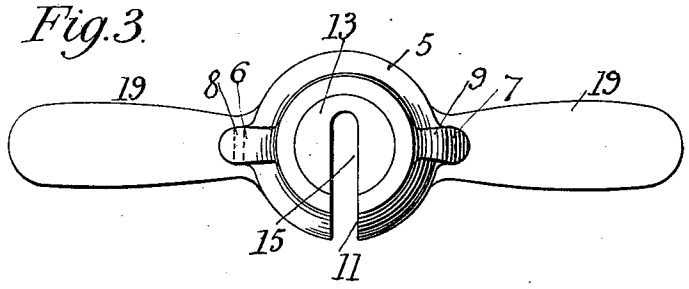


Fig. 3.



Witnesses:
J. S. Bowen
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UNITED STATES PATENT OFFICE.

DANIEL W. BURDIC AND GEORGE A. ZILLAFRO, OF RIXFORD, PENNSYLVANIA.

WRENCH FOR DRILLING-TOOLS.

SPECIFICATION forming part of Letters Patent No. 672,162, dated April 16, 1901.

Application filed November 13, 1900. Serial No. 36,425. (No model.)

To all whom it may concern:

Be it known that we, DANIEL W. BURDIC and GEORGE A. ZILLAFRO, citizens of the United States, residing at Rixford, in the county of McKean and State of Pennsylvania, have invented a new and useful Wrench for Drilling-Tools, of which the following is a specification.

This invention relates to appliances for handling well-drilling tools; and it has for one object to provide a wrench which may be swung from a derrick and which may be utilized for unscrewing a drill from the shaft, for holding it while it is being carried to a forge and during the sharpening operation, and for holding it with its threaded end in the socket of the stem and for rotating it into engagement.

A further object of the invention is to provide a construction which will be cheap, simple, and efficient.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the wrench. Fig. 2 is a central vertical section of the wrench, taken longitudinally thereof. Fig. 3 is a top plan view of the wrench.

Referring now to the drawings, the present wrench consists of a dome-shaped body portion 5, at diametrically opposite points of which are formed ears 6 and 7, through which are perforations 8 and 9 for a purpose to be presently explained. Axially through the body portion 5 is formed an annular passage including a lower portion 8′ and an upper broadened portion 9′, resulting in the formation of a shoulder 10. Through the side of the body 5 and in a direction at right angles to the line of the ears 6 and 7 is formed a slot 11, which opens into the passage through the body.

A core is provided for the body and includes a lower cylindrical stem 12, which fits snugly, but rotatably, the lower contracted portion of the passage of the body, and an upper annular head 13, which fits also snugly, but rotatably, the upper enlarged portion of the passage through the body. The upper end of the head of the core lies flush with the upper end of the body, while the lower end of the stem of the core lies flush with the lower end of the body, which latter is flat.

Through one side of the core and passing slightly beyond the center thereof is a slot 15, which is adapted to register with the slot 11 and is of equal width therewith, and upon the lower end of the core is disposed a plate 16, having also a slot 17, registering with the slot 15 and adapted for registration with slot 11, this plate being held to the core by means of screws 18 or in any other suitable manner. At diametrically opposite points of the plate 16 are extensions 19, which form handles to be grasped in order to rotate the plate, and therewith the core, with respect to the body 5.

This wrench is to be suspended from a derrick, and for this purpose a chain 20 is provided and has its ends engaged with the perforations of the ears of the body.

The operation of this device is as follows: When a drill is to be engaged with a stem suspended in a derrick, this wrench is lowered and the flattened portion of the drill-bit, below the threaded butt-end thereof, is engaged in the slot of the core of the body 5, and by manipulation of the handles the core is rotated to take the slot of the core from the slot of the body, so that the drill-bit is held securely from dislodgment from the core. The wrench is then raised by proper tackle to lift the drill-bit and hold its threaded end in the socket of the drill-stem. The core may be then rotated in the body 5 to screw the bit into the socket of the stem. After the bit is in place the wrench may be manipulated to register the slots, and the wrench may be then removed. When the bit is to be removed, the operation is repeated for engagement of the wrench with the bit, after which the bit may be carried in the wrench to a forge for sharpening and returned and again screwed into place.

It will be understood that in practice modifications of the specific construction shown may be made and that any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. A device of the class described com-

prising a body portion having a passage therethrough, one end of which is of greater diameter than the other end to form a shoulder, and having a slot in its side opening into the passage, a core fitted rotatably in the passage and having a slot adapted to aline with the slot of the body, a plate secured to the minor end of the core and provided with handles, said plate being adapted to hold the core against longitudinal displacement in one direction, and a sling engaged with the body.

2. A device of the class described comprising a body portion having a passage therethrough one end of which is of greater diameter than the other to form a shoulder, said body having a slot through its side opening into said passage, a core fitted rotatably into the passage and having a slot for registration with the slot of the body and adapted to receive a bit passed through said slot, ears upon the body, a sling engaged with the ears, and means connected with the core for rotating it.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

DANIEL W. BURDIC.
GEORGE A. ZILLAFRO.

Witnesses:
RALPH BURDIC,
DAVID B. ZILLAFRO.