P. PETERSON.

RATCHET DRILL.

APPLICATION FILED NOV. 29, 1912.

1,067,672. Patented July 15, 1913.

Fig. 1.

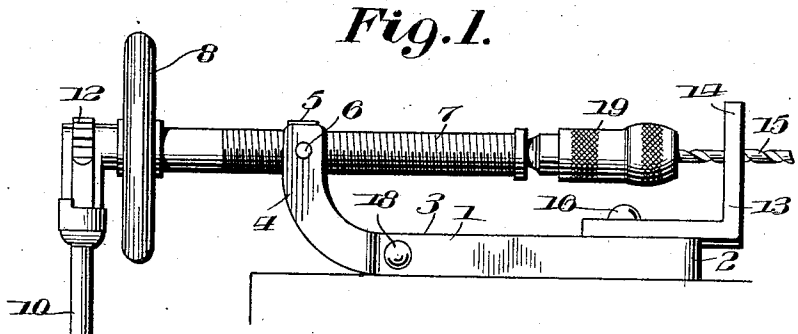


Fig. 2.

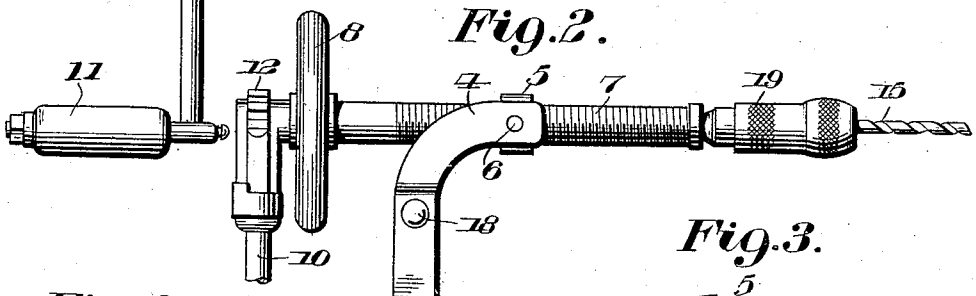


Fig. 3.

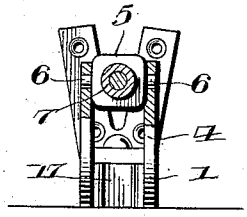
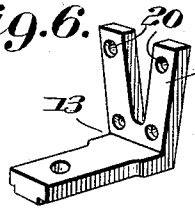


Fig. 6.



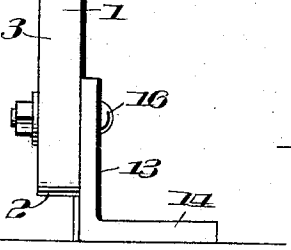


Fig. 4.

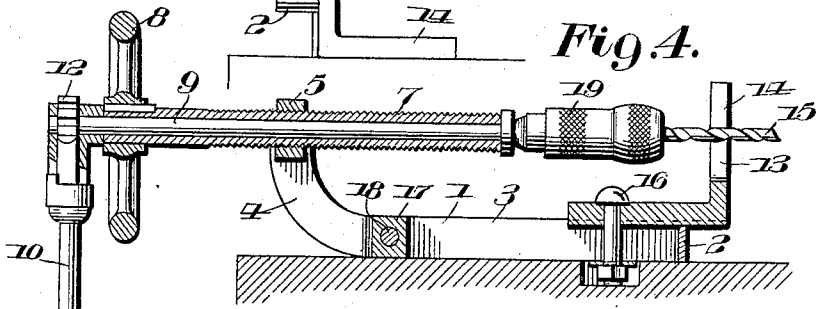
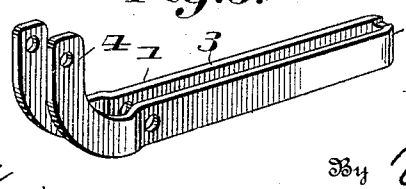


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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RATCHET-DRILL.

1,067,672. Specification of Letters Patent. Patented July 15, 1913.

Application filed November 29, 1912. Serial No. 734,128.

To all whom it may concern:

Be it known that I, PAUL PETERSON, a citizen of the United States, residing at Hudson Heights, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Ratchet-Drills, of which the following is a specification.

This invention relates to ratchet drills, the object in view being to provide a portable drill of the class referred to embodying the novel construction and combination of frame and mounting for the drill shaft, whereby the drill as a whole may be used at various angles, from a vertical to a horizontal, and the drill fed to its work as rapidly as may be desired, the device also embodying an adjustable base, for supporting the work or for enabling the device as a whole to be supported on the work.

With the above and other objects in view, the invention consists in the novel construction, combination and arrangements of parts, hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of the ratchet drill applied showing the same set for horizontal drilling. Fig. 2 is a similar view showing the frame adjusted to a vertical position and secured to a table or support. Fig. 3 is a cross section through the device in line with the nut. Fig. 4 is a longitudinal section through the feed screw and adjacent parts. Fig. 5 is a detail perspective view of the frame. Fig. 6 is a detail perspective view of the base.

The ratchet drill contemplated in this invention comprises essentially a frame 1, which for convenience and strength is formed of a strip of iron or steel bent centrally at 2, and recurved upon itself to form substantially parallel side members 3, while the end portions are bent outward laterally to form the branches 4 of a fork. Mounted pivotally in the fork is a pivoted nut 5 having oppositely extending pintles 6, which are journaled in the branches 4 of the fork, thereby enabling said nut to be turned in any direction for the purpose which will hereinafter appear.

Extending through the nut 5 is a feed screw 7, having a threaded engagement within the nut 5 and provided at one end with a hand-wheel 8, whereby said feed screw may be turned. The feed screw is provided with a central longitudinal bore for the arbor 9, which has mounted thereon an operating crank 10, to the end of which is secured a suitable hand grip 11. The lever 10 is connected to the shaft 9 by ratchet mechanism 12, preferably of the reversible kind to enable the drill arbor or shaft to be actuated either in the right hand or left hand direction, as it becomes necessary.

Secured to the frame 1 is a base 13 provided with a slotted portion or bed-piece 14, through which the drill, shown at 15, may work. This base is secured to the frame 1 by means of a bolt 16 or its equivalent passing between the side members 3 of the frame, and thus providing for adjusting the base lengthwise of the frame.

17 designates a spacing block interposed between the side members 3 of the frame and secured by a bolt or other suitable fastener 18.

The arbor 9 may be equipped at its outer end with any suitable form of chuck 19, within which the drill 15 is mounted and secured in the usual manner.

It will now be understood that the frame 1 may be laid downward on a bench, table or other suitable support, as shown in Fig. 1, or secured thereto in an upright position, as shown in Fig. 2, the bed-piece 14 being provided with holes 20 to receive screws, nails or other fasteners. In either of these positions, the arbor and feed screw of the device may be adjusted to any desired angle by means of the pivoted nut 5, which is free to turn in the fork of the frame.

The device as a whole will be found extremely handy and efficient in use, and may be easily carried from place to place.

Having thus fully described the invention what is claimed as new is:

A ratchet drill comprising a longitudinally slotted frame having a fork, a nut pivoted in the fork, a feed screw adjustable

in the nut, a hand-wheel for turning the feed screw, a ratchet controlled arbor extending lengthwise through the feed screw and carrying a drill chuck, and a base secured to the frame by a bolt adjustable lengthwise of the slot in the frame.

In testimony whereof I affix my signature in presence of two witnesses.

PAUL PETERSON.

Witnesses:

GEORGE B. BARRETT,

MARTIN HIZA.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."