No. 704,567.

Patented July 15, 1902.

T. E. O'BRIEN.

DRILLING MACHINE.

(Application filed Oct. 25, 1901.)

(No Model.)

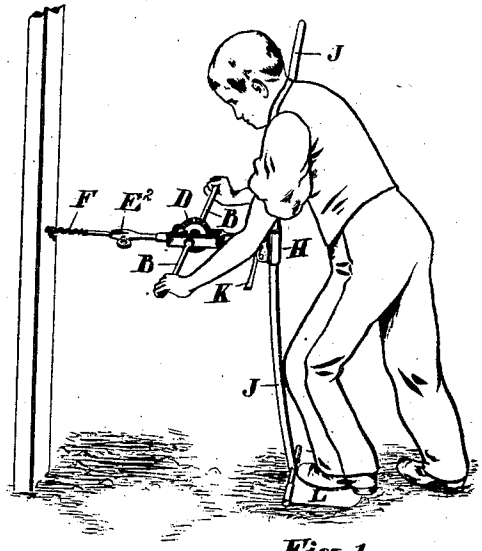


Fig. 1.

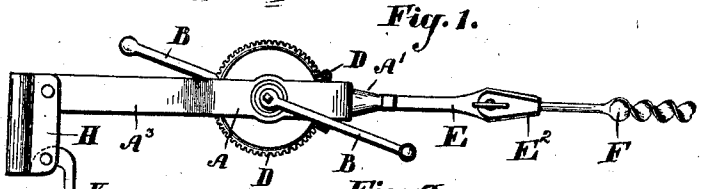


Fig. 2.

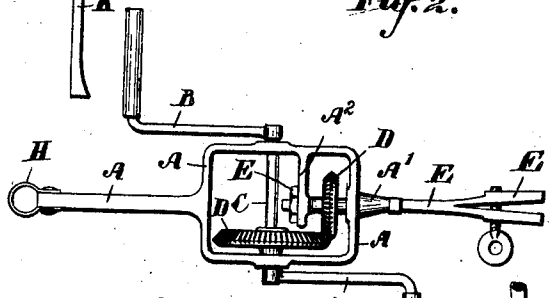


Fig. 3.

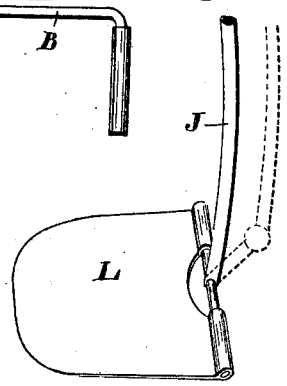


Fig. 4.

Witnesses.
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THOMAS EDWARD O'BRIEN, OF NARRABRI WEST, NEW SOUTH WALES, AUSTRALIA.

DRILLING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 704,567, dated July 15, 1902.

Application filed October 25, 1901. Serial No. 79,935. (No model.)

To all whom it may concern:

Be it known that I, THOMAS EDWARD O'BRIEN, blacksmith, a subject of the King of Great Britain and Ireland, residing at Narrabri West, in the State of New South Wales, in the Commonwealth of Australia, have invented certain new and useful Improvements in Drilling-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to use the same.

My invention refers more particularly to those drilling-machines which are used for boring holes to receive the wires in fencing-posts.

The object of my invention is to provide a machine so constructed that both hands of the operator are free to work the mechanism and whereby the auger or drill can be readily withdrawn from the hole.

In the accompanying drawings, Figure 1 is a sketch showing my machine in operation. Fig. 2 is a side elevation of my drilling-machine. Fig. 3 is a plan of same. Fig. 4 is a hinged support and foot-plate.

A is a metal frame, in the sides of which are the bearings carrying the working mechanism.

B B are handles keyed to the ends of the shaft C, by means of which the miter-wheels D D are revolved and the spindle E, carrying the drill or auger, is rotated.

A′ is forward extended bearing, and A^2 rearward bearing carrying the spindle E.

E′ is retaining-nut on end of spindle.

E^2 shows a simple form of auger-grip on end of spindle.

A^3 is a rearward extension of the frame, to the end of which is pivotally connected a sleeve H, which fits over and is adjustable on the hinged support J. This sleeve is held in any desired position on the support J by means of the eccentric grip K. The support J consists of a slightly rearwardly bent bar (preferably constructed of metal tubing) hinged at its lower end to a light metal foot-plate L.

The method of operating my invention is clearly shown in Fig. 1.

The sleeve H on the end of the drilling-machine is adjusted on the support J and secured by the grip K in the desired position, the point of the auger being pressed into the post at the spot into which it is desired to bore. The operator then places one or both feet on the foot-plate and, leaning forward, presses his shoulder against the support J and operates the handles with both his hands.

In practice I have found it advantageous to give the support J a rearward curve, as shown, as otherwise when boring in some positions—say near the bottom of a post—the top of the support might come into contact with the post before the auger had penetrated the desired distance. When the hole has been bored through, the operator steps back, still retaining one foot on the plate, and grips the top of the support J, when a straight rearward pull easily withdraws the auger and clears the hole. Although the primary use of my machine is the boring of fencing-posts, there are many other purposes for which it will be found useful. In such cases when it is required to bore holes of considerable depth or at any angle—as, for instance, in the boring of shot-holes in a coal-seam—it will be found necessary to joint the upright, as shown in the dotted lines, Fig. 4. This joint would preferably be a universal joint. It would also be advisable in such cases to connect the sleeve to the machine-frame by a universal joint.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

In a drilling apparatus, the combination with the drill-frame of a sleeve connected therewith, an upright adjustably held in said sleeve and a footpiece pivotally connected to the lower end of said upright, the upper portion of said upright extending up freely above the sleeve for contact with the shoulder of the operator, substantially as described.

In witness whereof I have hereunto affixed my signature, this 28th day of August, 1901, in the presence of two witnesses.

THOMAS EDWARD O'BRIEN.

Witnesses:

T. C. ALLEN,

WALTER SIGMONT.