No. 788,712. PATENTED MAY 2, 1905.

C. I. EDDY.

ADJUSTABLE SUPPORT FOR DRILLS.

APPLICATION FILED OCT. 20, 1904.

Fig. 1.

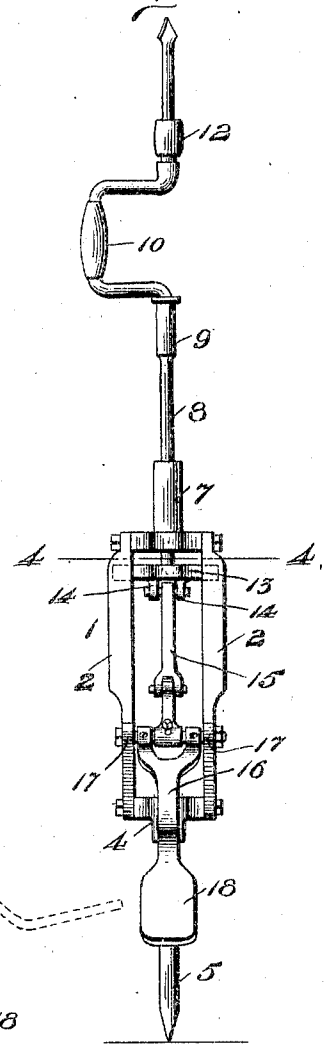


Fig. 2.

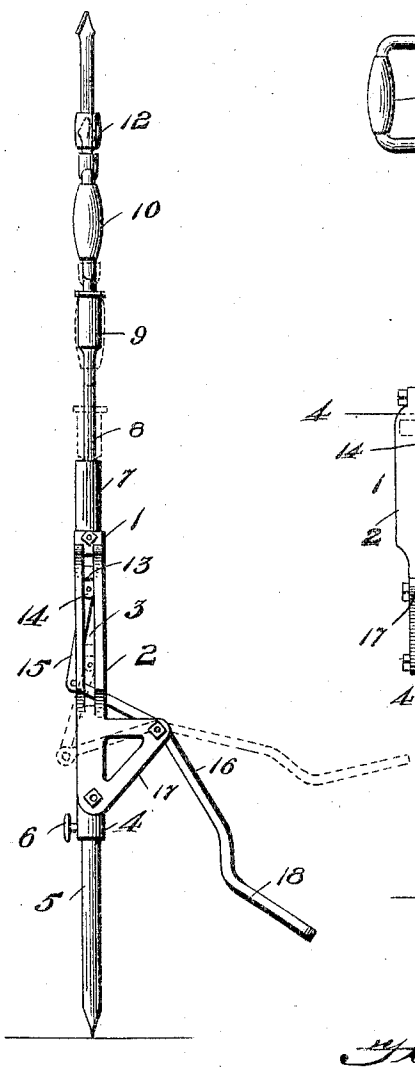


Fig. 3.

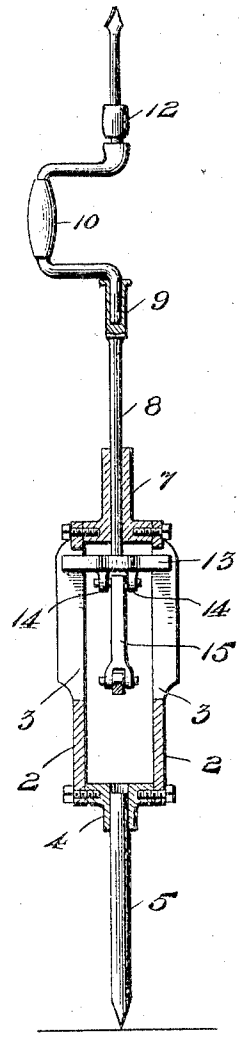
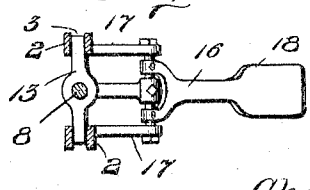


Fig. 4.



Witnesses
B. M. Offutt.
C. H. Griesbauer.

Inventor
Charles Isaac Eddy.
by A. B. Wilson
Attorney

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UNITED STATES PATENT OFFICE.

CHARLES I. EDDY, OF TRIMBLE, OHIO.

ADJUSTABLE SUPPORT FOR DRILLS.

SPECIFICATION forming part of Letters Patent No. 788,712, dated May 2, 1905.

Application filed October 20, 1904. Serial No. 229,319.

To all whom it may concern:

Be it known that I, CHARLES ISAAC EDDY, a citizen of the United States, residing at Trimble, in the county of Athens and State of Ohio, have invented certain new and useful Improvements in Adjustable Supports for Drills; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in adjustable supports for coal-drills and the like.

The object of the invention is to provide a drill-support of this character whereby holes may be easily bored in overhead walls of coal and whereby the drill may be readily removed from the bore after the same has been drilled.

A further object is to provide a device of this character which will be simple, strong, and durable in construction and which may be easily operated by one man and is well adapted to the purpose for which it is designed.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a front elevation of a drill-support constructed in accordance with the invention. Fig. 2 is a side elevation of the same, showing in full lines the parts in elevated or working position and in dotted lines the parts lowered or inoperative position. Fig. 3 is a central vertical sectional view of the same, and Fig. 4 is a horizontal sectional view taken on the line 4 4 of Fig. 1.

Referring more particularly to the drawings, 1 denotes an open frame, in the side bars 2 of which are formed vertically-disposed guide slots or passages 3. In the lower end of the frame is formed a vertically-disposed bearing 4, in which is adjustably mounted a leg or foot piece 5, having a pointed lower end. Said foot-piece is held in its adjusted positions in said bearing by means of a set-screw 6. On the upper end of the frame is arranged a vertically-disposed upwardly-projecting guide-sleeve 7, in which is slidably mounted a brace-holding bar 8, on the upper end of which is arranged a socket 9. The socket 9 is adapted to rotatably support the handle end of a drill-brace 10, on the opposite end of which is arranged a drill-chuck 12. The brace 10 may be of any suitable construction, but is here shown as a hand-operated crank-brace.

The lower end of the brace-holding bar 8 is connected to a cross-head 13, the ends of which are slidably mounted in the guide slots or passages 3 of the side bars 2 of the frame. On the under side of the cross-head 13 is formed downwardly-projecting apertured parallel lugs 14, between which is pivotally connected the upper end of a pitman rod or link 15, the lower end of which is pivotally connected to the inner end of an angularly-formed foot-lever 16. Said lever is pivotally mounted in laterally-projecting bearing-brackets 17, formed on the side of said frame adjacent to the lower end of the same. On the outer end of the lever 16 is secured a foot piece or treadle 18 to receive the foot of the operator.

In operation the support is arranged in position with the drill-brace in the socket of the holding-bar, the foot-piece or leg is then adjusted to bring the drill into engagement with the surface to be bored. The supporting-frame is now steadied with one hand while the brace and drill are revolved with the other. One foot of the operator is now engaged with the foot-lever 16 and by pressing the same downwardly the brace-holding bar is raised, thereby forcing and feeding the drill upwardly as the hole is bored. The pressure of the drill is thus regulated by the foot-lever at the will of the operator. When the hole has been bored to the desired depth, the foot-lever will be released, thereby allowing the brace-holding bar to drop, bringing with it the brace and drill, and thus removing the drill from the hole.

A drill-support of this character may be advantageously used for boring holes in various substances and in different positions; but it is particularly designed for drilling holes in the upper wall or ceilings of coal-shafts or mine-rifts.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. In a drill-support of the character described, the combination with a frame, of a foot-piece adjustably mounted in the lower end thereof, a guide-sleeve arranged on the upper end of the same, a brace-holding bar slidably mounted in said sleeve, a cross-head slidably mounted in said frame to which the lower end of said brace-holding bar is connected, a pivotally-mounted foot-lever, and a pitman connected to said foot-lever and to the brace-holding bar, substantially as described.

2. In a drill-support of the character described, the combination with an open frame having vertical guide-slots formed in the side pieces of the same and a vertically-disposed passage formed in its lower end, of a foot-piece adjustably mounted therein, a set-screw adapted to hold said foot-piece in its adjusted positions, a guide-sleeve arranged on the upper end of said frame, a brace-holding bar slidably mounted in said sleeve, a cross-head secured to the lower end of said brace-holding bar, the ends of said cross-head being slidably mounted in the guide-slots of said frame, a foot-lever pivotally mounted in bearing-bracket formed on the frame, and a link connecting the inner end of said lever with said cross-head, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES I. EDDY.

Witnesses:
L. A. KOONS,
C. H. SLAUGHTER.