

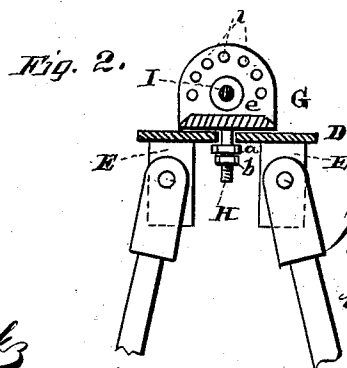
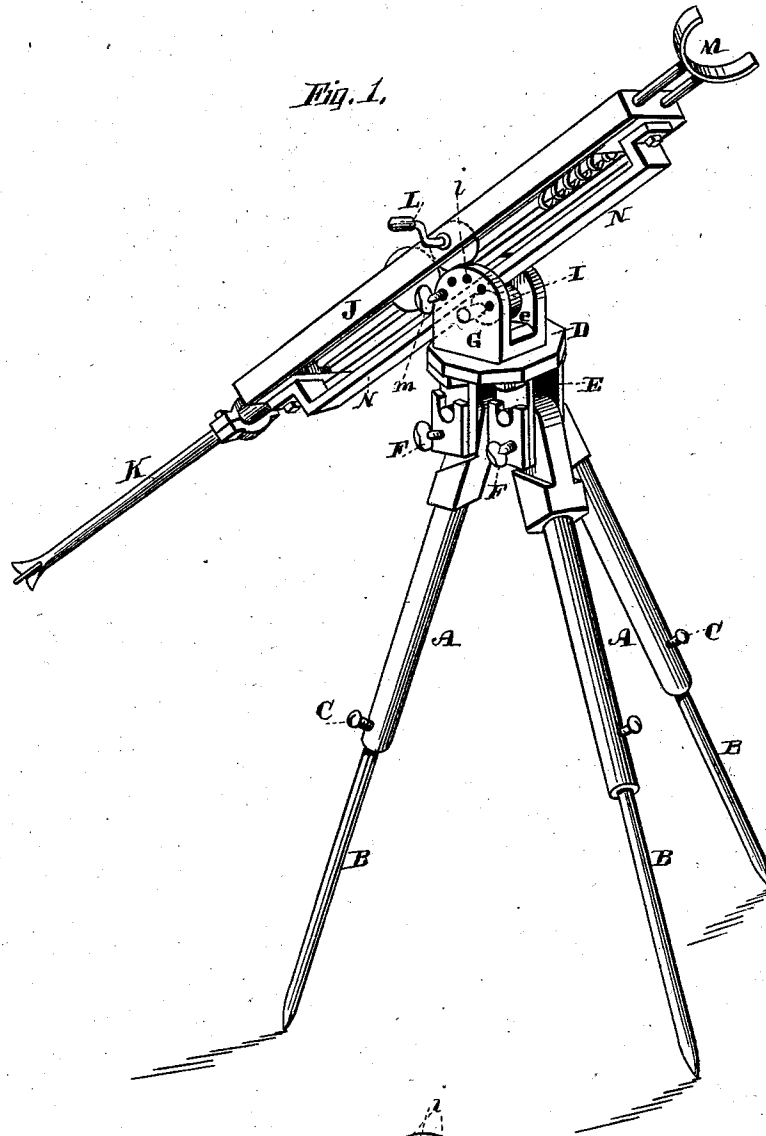
(No Model.)

W. T. BROWNE.

ADJUSTABLE REST FOR ROCK DRILLS.

No. 256,540.

Patented Apr. 18, 1882.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM T. BROWNE, OF STOCKTON, CALIFORNIA, ASSIGNOR OF ONE-HALF TO THEODORE W. STERLING.

ADJUSTABLE REST FOR ROCK-DRILLS.

SPECIFICATION forming part of Letters Patent No. 256,540, dated April 18, 1882.

Application filed August 31, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. BROWNE, of Stockton, in the county of San Joaquin and State of California, have invented an Adjustable Rest for Rock-Drills; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to certain improvements in machine rock-drills, and more especially to an adjustable rest or support therefor, and to the adaptation thereto of said drills.

It consists in a tripod surmounted by a bearing-block swiveled thereto, said block having a notch or slot with a friction-roller, in which is fitted a strap or rod secured to the under side of the frame of the rock-drill, thus affording a support or rest to the drill, and allowing it to be moved forward, while by the swiveling or turning of the block it may be directed or adjusted in any desired position.

The device may be adapted to almost any form of machine rock-drill, whether operated by steam or by hand, but is more particularly designed to be applied to hand rock-drills. These, on account of their lightness, are frequently intended to be supported by the operator, and in some cases are designed to be supported from the shoulders by suitable straps and the recoil resisted by the body. By this means the drill may be operated in various directions. The difficulty of providing a suitable rest or support for these machines has been because of the necessity of advancing the drill as it works forward and of drilling in various directions. To stop each time and regulate or adjust the support would be too inconvenient. A two-legged device has been used, the principle of which is to advance by leaning forward, its base remaining stationary, while its upper end describes an arc of a circle. It is obvious that this is objectionable because of changing the inclination of the drill, while the hole in which it works remains the same, so that it must necessarily cramp or bind.

Having now set forth the necessities of the case and the state of the art as far as I am at present aware, I will describe the construction and principle of my invention.

Referring to the accompanying drawings,

Figure 1 is a perspective of my drill and stand. 50
Fig. 2 is a detail in section.

Let A represent the three legs or props of the device. These are made of tubular iron, and have pieces B inserted in their ends and adapted to slide therein for the purpose of lengthening or shortening the props, so that the device above may be raised or lowered vertically. The end pieces, B, are secured, when adjusted, by means of set-screws C. This construction simply shows a means for providing a vertical adjustment; any other means known to those skilled in such matters would answer as well. 60

D represents a top plate having downwardly-extending open sockets E, into which the upper ends or heads of the props A are fitted. They are pivoted therein by suitable pins or shafts, so that they may vary their inclination by opening out to stand firmly, or closing up to permit easy transportation, &c. Thumb-screws F secure them, when adjusted, at any angle. 70

Upon top of the plate D is a block, G, having a spindle, shaft, or pivot-screw, H, in its base, and passing down loosely through the said top plate, D. This pivot-screw has upon its end a nut, *a*, which screws up as tightly as may be desirable against the under side of the plate D, and thus secures the block G. A lock-nut, *b*, holds the nut *a* in place. The block G is given play enough to allow it to freely revolve, and though I have here described a particular construction for securing and journaling the block G, I do not confine myself thereto, for any construction which will allow the block G to swivel will here answer. In the top of the block G is a deep notch, slot, or groove, *e*, in which is journaled a roller, I. 80 85

Let J represent the frame of a rock-drill, K the drill, L the operating-cranks, and M the end which is held against the body. Under the frame J is bolted or otherwise secured a strap or rod, N, running longitudinally. This rod or strap is fitted into the groove *e* of the swiveling bearing-block G, and rests upon the roller I. When the drill is in operation the whole frame may be advanced, the strap N traveling upon the roller I and being support-

ed thereby. Its lateral inclination may be changed readily because of the swiveling bearing-block G, while its vertical inclination may be varied by elevating or depressing its end. Its vertical position is adjusted by means of the extensible legs or props A. The rest or support remains level all the time and the drill-frame kept horizontal, so that it will not cramp.

I may find it desirable, instead of using a central supporting or sliding strap, N, and a single bearing-block, G, to use a strap or rod on each side of the center of the frame and use two swiveling bearings. When the vertical inclination of the drill must be changed by depressing or elevating the rear end there should be some means of holding it in position. For this purpose I provide the bearing-block G with a number of holes, *i*, passing through each side of the slot *e*. When the rod N is in the slot and the drill adjusted a pin, *m*, is passed through one of the holes over the rod, and thus holds it in position.

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

1. In combination with a rock-drill having a supporting strap or rod, N, the swiveling bearing-block G, having a slot or groove, *e*, said

block G being supported by the pivoted legs or props A, substantially as herein described. 30

2. The extensible legs or props A, the top plate, D, with its sockets E, and the swiveled bearing-block G, with its slot or groove *e*, having a friction-roller, I, in combination with a rock-drill having a supporting strap or rod, N, substantially as herein described. 35

3. The bearing-block G, having a groove or slot, *e*, with a friction-roller, I, said block being journaled, pivoted, or swiveled upon a top plate, D, by means of the staple, screw, or pivot H, and supported by adjustable and extensible legs or props A, in combination with a rock-drill having a strap or rod, N, substantially as and for the purpose herein described. 40

4. The adjustable support for machine rock-drills, consisting of the extensible props or legs A, pivoted to a top plate, D, and surmounted by the swiveling bearing-block G, with its adjusting-holes *i* and pin *m*, and having a groove or slot, *e*, with a friction-roller, I, substantially as herein described. 45

In witness whereof I have hereunto set my hand.

Witnesses:

WILLIAM T. BROWNE.

A. G. LAWRENCE,

DAVID PORTER,

F. BENAIMA.

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