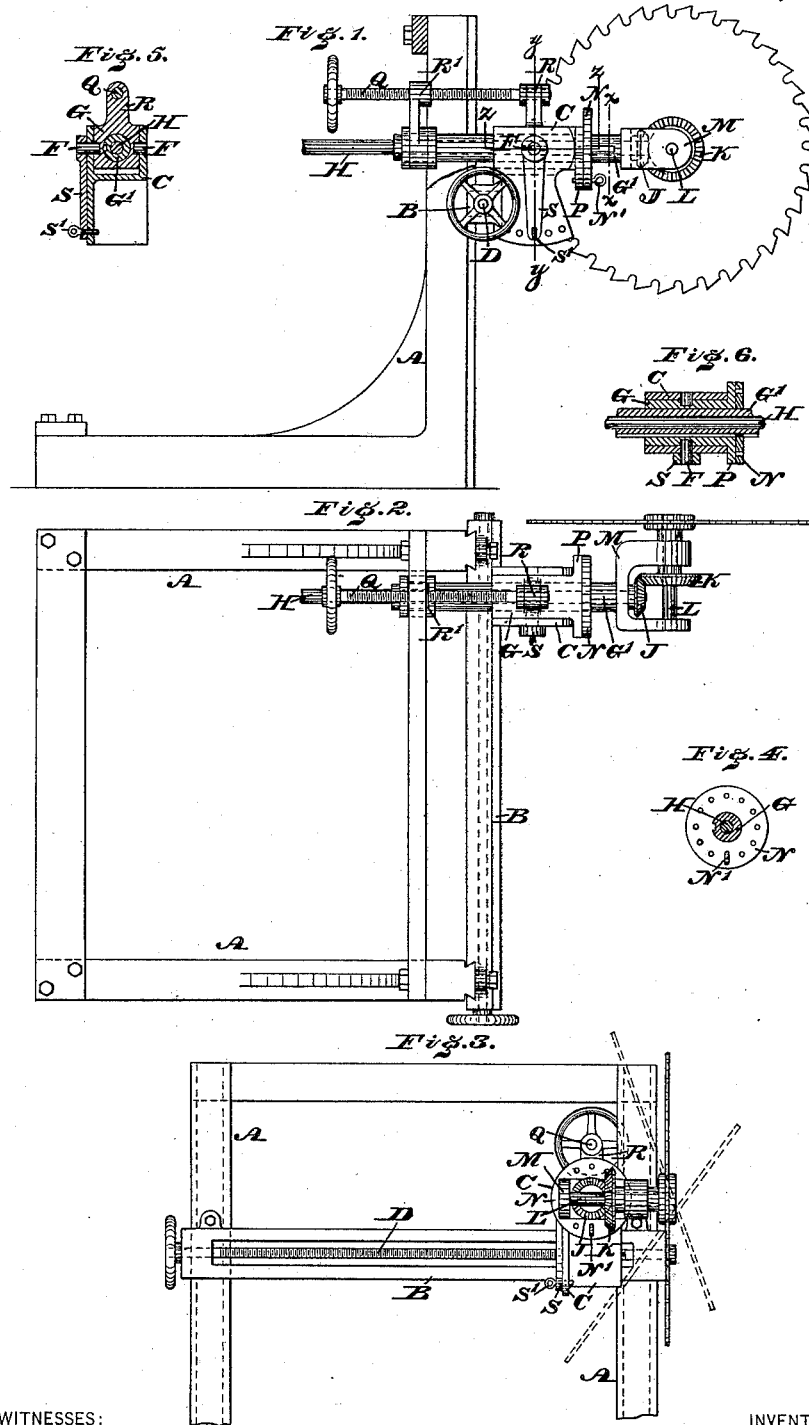


(No Model.)

W. A. WRIGHT.  
COAL MINING MACHINE.

No. 344,610.

Patented June 29, 1886.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM A. WRIGHT, OF CENTRETON, NEW JERSEY, ASSIGNOR TO WILLIAM M. STEWART, TRUSTEE, OF PHILADELPHIA, PENNSYLVANIA.

## COAL-MINING MACHINE.

SPECIFICATION forming part of Letters Patent No. 344,610, dated June 29, 1886.

Application filed March 16, 1886. Serial No. 195,407. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. WRIGHT, a citizen of the United States, residing at Centreton, in the county of Burlington, State of New Jersey, have invented a new and useful Improvement in Coal or Stone Cutting Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a side elevation of a stone-cutting machine embodying my invention. Fig. 2 represents a top or plan view thereof. Fig. 3 represents a front view thereof. Figs. 4 and 5 represent vertical sections of portions, respectively, in lines *xxyy*, Fig. 1. Fig. 6 represents a horizontal section of a portion in line *zz*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a saw which is so mounted that it may be adjusted in various directions, as will be hereinafter fully set forth.

Referring to the drawings, A represents a frame or stand, and B represents a cross-bar which is connected with upright portions of said frame by dovetailed or other joints, whereby it may be raised and lowered.

Fitted to the bar B by a dovetailed or other joint is a head, C, which, by means of a screw, D, is adapted to be moved horizontally to the right or left. Located within said head, and connected therewith by means of pivots F, is a block, G, within which is a sleeve, G', through which passes the driving-shaft H, power being communicated to the latter in any suitable manner. To said shaft is secured a bevel-wheel, J, which meshes with a bevel-wheel, K, the latter being mounted on the saw-arbor L, whose bearings are on a bracket, M, which is connected with the sleeve G', the latter carrying at one end a disk, N, which bears against a disk, P, formed on the end of the block G.

Q represents a screw which extends parallel with the shaft H, and is mounted in bearings R R', one of which is connected with the block G, and the other is swiveled on the sleeve G', it being noticed that the disk N is connected with the sleeve G' by a feather, so that both rotary and sliding motions may be imparted to said sleeve and the saw set at different angles.

In the disk N is a row of openings arranged

in curvilinear order, and in the disk P is an opening which may register with either of the openings in the disk N. A key or pin, N', is inserted into the proper opening of the disk N, and enters the opening in the disk P, thus locking the disk N and holding the sleeve G', and consequently retaining the saw in its angular adjustment. One of the pivots F has secured to it a lever, S, and the adjacent portion of the head C has a number of openings arranged in curvilinear order, whereby said head, and consequently the sleeve G', may be turned on the pivots F, by which provision the saw may be raised and lowered, the shaft H and connected parts assuming the angle imparted to the sleeve, said lever being held by the pin or bolt S'.

Owing to the screw Q, the sleeve G' may be moved in opposite directions, so that the saw may advance against the stone or rock to be sawed or cut and returned therefrom, it being evident that the saw may also be raised and lowered both by the cross-bar B and the block G, and further moved in lateral directions and set angularly relatively to the position or requirements of the material to be cut by the same.

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

1. In a stone or coal cutting machine, the frame A, in combination with vertically-adjustable bar B, the laterally-adjustable head C, the block G, and the sleeve G', provided with a saw having its journal bearing in a bracket attached to said sleeve, all substantially as described.

2. The frame A, in combination with vertically-adjustable bar B, the head C, and screw D, the block G, pivotally secured within the head C, the sleeve G', passing through said block G, the bracket M, secured to said sleeve G', and having suitably journaled therein a shaft carrying a saw, and means, substantially as described, for securing the angular adjustment of said block G, all substantially as and for the purpose set forth.

3. In a stone or coal cutting machine, the head C, with a series of openings therein, in combination with the block G, pivotally secured within said head C, the sleeve G', pass-

ing through said block G, the bracket M, forming suitable bearings for the shaft L, carrying a saw, the lever S, secured to one of the pivots of said block G, and pin S', all substantially as and for the purpose set forth.

4. In a stone or coal cutting machine, the head C, in combination with block G, with disks P, having openings therein, sleeve G', passing through said block and provided with disk N, having openings therein coinciding with the openings in the head C, the pin N', and the bracket M, attached to said sleeve G' and carrying an arbor having a saw thereon, all substantially as and for the purpose set forth.

5. In a stone or coal cutting machine, the head C, in combination with the block G within the same, the sleeve G', passing through the block G and provided with brackets M, having an arbor carrying a saw, and means, substantially as described, for longitudinally adjusting said sleeve G', all substantially as described.

6. In a stone or coal cutting machine, the head C, with block G within the same, the sleeve G', passing through the said block G and connected to the bracket M, the arbor L, carrying a saw, the screw Q, having bearing R, connected to the block G, and bearing R', swiveled on the sleeve G', all substantially as and for the purpose set forth.

7. In a stone or coal cutting machine, the frame A, in combination with the head C, means, substantially as described, for vertically and laterally adjusting the said head, a sleeve passing through a block in said head and provided with a bracket forming a bearing for the saw-arbor, and means, substantially as described, for longitudinally adjusting said sleeve, all substantially as and for the purpose set forth.

8. In a stone or coal cutting machine, the head C, with a series of openings, in combination with the pivoted block G, having the disk P, with a series of openings in the same, the sleeve G', provided with the disk N, slidably mounted thereon, the bracket M, carrying the shaft L, having a saw thereon, the lever S, secured to one of the pivots of the block G, and having the pin S', the pin N', adapted to bind together the disks P and N, and means, substantially as described, for longitudinally adjusting said sleeve G', all substantially as and for the purpose set forth.

WM. A. WRIGHT.

Witnesses:

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