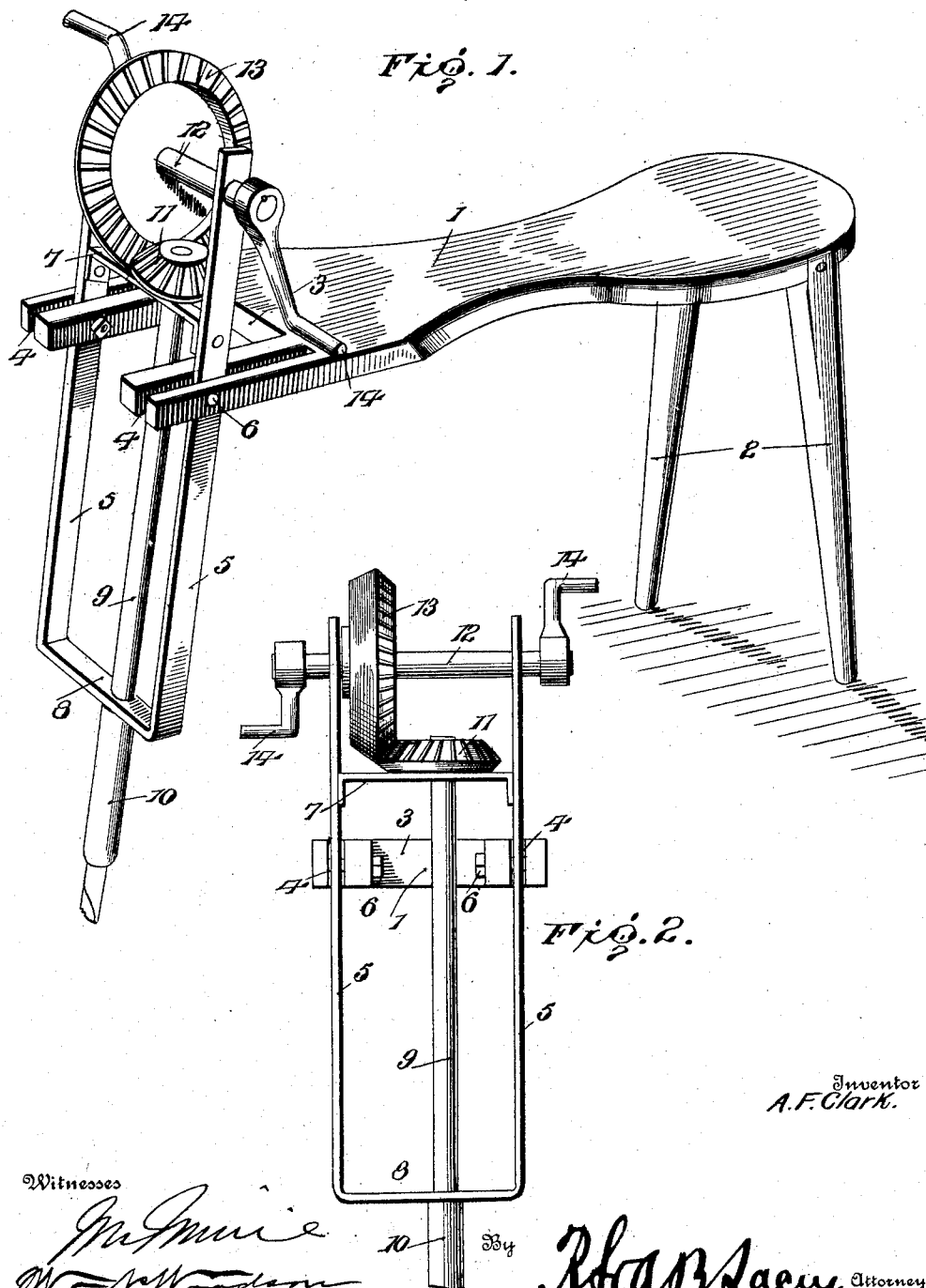


No. 866,110.

PATENTED SEPT. 17, 1907.

A. F. CLARK.
DRILL.

APPLICATION FILED JUNE 21, 1907.



UNITED STATES PATENT OFFICE.

AARON F. CLARK, OF ASHERVILLE, KANSAS.

DRILL.

No. 866,110.

Specification of Letters Patent.

Patented Sept. 17, 1907.

Application filed June 21, 1907. Serial No. 380 180.

To all whom it may concern:

Be it known that I, AARON F. CLARK, a citizen of the United States, residing at Asherville, in the county of Mitchell and State of Kansas, have invented certain new and useful Improvements in Drills, of which the following is a specification.

The present invention relates to certain new and useful improvements in rock drills such as are used in quarrying, and more particularly to a novel method of mounting the drill whereby the weight of the operator tends to force the drill bit downwardly and hold it to its work.

In general the invention comprises a seat bar provided at one end with supporting legs and having a frame loosely connected to its opposite end, a drill mechanism being mounted upon the frame and held thereby in such a position as to be readily manipulated by a person upon the seat bar.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a drill embodying the invention. Fig. 2 is a face view of the frame and drill mechanism.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the invention the numeral 1 designates the seat bar which is provided at one end with a suitable support such as the legs 2, the drill frame being loosely connected to the opposite end of the said seat bar. The portion of the seat bar carrying the drill frame is bifurcated as indicated at 3, the two arms of the bifurcation being slotted at 4 to receive the side pieces 5 of the drill frame, the said side pieces being pivotally mounted upon the bolts 6.

It will be observed that the drill frame has an approximately U formation, the side pieces 5 being connected at an intermediate point by the cross bar 7 and at their lower extremities by the cross bar 8. The drill shaft 9 is journaled upon the cross bars 7 and 8 and extends through the bifurcated portion 3 of the seat bar, the lower portion of the drill shaft being provided with a socket 10 for the reception of the shank of the drill bit, while the upper end of the shank carries a beveled pinion 11. A transverse shaft 12 is journaled between the upper ends of the side pieces 5 of the drill frame and carries a beveled pinion 13 meshing with the before mentioned pinion 11 and preferably being somewhat larger than the same. The two ends of the transverse shaft 12 are extended beyond the sides of the frame and have the crank handles 14 applied thereto, the said crank handles constituting a means whereby the trans-

verse shaft and drill shaft can be readily rotated by a person upon the seat bar 1.

Owing to the fact that the drill frame is pivotally mounted upon the bolts 6 it will be readily apparent that the same can be turned to throw the drill bit at any angle as may be required.

It will also be apparent that the weight of a person upon the seat bar will be sustained partly by the supporting legs 2 and partly by the drill, the latter portion serving to hold the drill to its work.

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

1. In a device of the character described, the combination of a seat bar, a support for one end of the seat bar, and a drill carried by the opposite end of the seat bar, and serving as a support for the same.

2. In a device of the character described, the combination of a seat bar, a support for one end of the seat bar, a frame carried by the opposite end of the seat bar, and a drill mechanism mounted upon the frame, the drill bit aiding in the support of the seat bar.

3. In a device of the character described, the combination of a seat bar, a support for one end of the seat bar, a frame pivotally connected to the opposite end of the seat bar, and a drill mechanism mounted upon the frame, the drill bit being forced downwardly by a weight upon the seat bar.

4. In a device of the character described, the combination of a seat bar, a support for one end of the seat bar, the opposite end thereof being bifurcated, a frame pivotally connected to the arms of the bifurcation, a drill shaft journaled on the frame, and means carried by the frame for operating the drill shaft, the drill being held to its work by a weight upon the seat bar.

5. In a device of the character described, the combination of a seat bar having one end thereof bifurcated, the two arms of the bifurcation being slotted, a support for the opposite end of the seat bar, a frame comprising side pieces received within the slots in the arms of the bifurcation, a drill shaft journaled on the frame, and means for operating the drill shaft, the drill being held to its work by a weight upon the seat bar.

6. In a device of the character described, the combination of a seat bar having one end thereof bifurcated and the two arms of the bifurcation being slotted, a support for the opposite end of the seat bar, a frame comprising side pieces pivotally mounted upon the arms of the bifurcation and received within the slots therein, the said sides being connected by an intermediate cross bar, a drill shaft journaled upon the cross bars and carrying a pinion, a transverse shaft journaled between the side pieces of the frame and carrying a pinion meshing with the before mentioned pinion, and handles applied to the said transverse shaft, the drill being held to its work by a weight upon the seat bar.

7. In a device of the character described, the combination of a seat bar, and a drill mounted upon the seat bar and serving as a partial support for the same.

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

AARON F. CLARK. [L. S.]

Witnesses:

C. W. CLARK,
L. E. CLARK.