

No. 888,923.

PATENTED DEC. 18, 1906.

A. WALKER.
DRILLING MACHINE.
APPLICATION FILED MAR. 9, 1906.

Fig. 1.

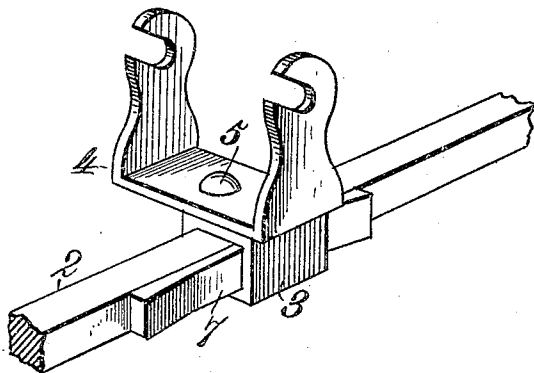


Fig. 2.

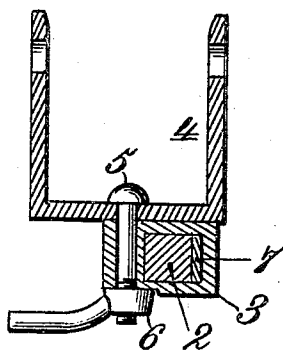
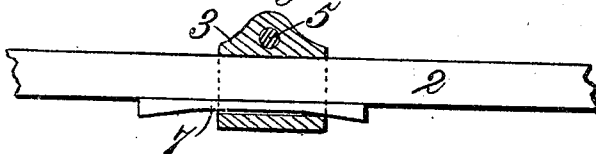


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALEXANDER WALKER, OF WHAT CHEER, IOWA, ASSIGNOR TO WHAT
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DRILLING-MACHINE.

No. 838,923.

Specification of Letters Patent.

Patented Dec. 18, 1906.

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To all whom it may concern:

Be it known that I, ALEXANDER WALKER, a citizen of the United States, residing at What Cheer, in the county of Keokuk and State of Iowa, have invented new and useful Improvements in Drilling-Machines, of which the following is a specification.

This invention relates to drilling-machines.

My invention involves a grip-bar, a slide on the grip-bar, and a chair carried by the slide, the drill being mounted upon the chair.

It is one of the objects of my invention to provide for the turning of the chair to shift the position of the drill without removing the slide from the grip-bar or even loosening it.

In the drawings accompanying and forming a part of this specification I show in detail a simple form of embodiment of the invention, which to enable those skilled in the art to practice said invention I will set forth fully in the following description, while the novelty of the invention will be included in the claims succeeding said description. In these drawings the slide is adapted to be locked to the grip-bar by a double wedge, while the chair is swiveled to the slide by a bolt-and-nut connection. By screwing up on the nut the chair can be locked firmly to the slide, and by loosening the nut the chair can be turned to any desirable extent, and this result can be accomplished without operating the slide-holding wedge. As the wedge is of double form, it may be operated from either side of the slide, and there is no possibility of the wedge being lost when the parts are in assembled relation.

Referring to said drawings, Figure 1 is a perspective view of a drilling-machine involving my invention. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a horizontal sectional view.

Like characters refer to like parts throughout the several figures.

In the drawings I have shown what is known as a "grip-bar," the same being denoted by 2 and which constitutes a support for the mechanism of the drill. One end of this grip-bar is adapted to be introduced into a hole made in the face of a rock or coal.

Upon the grip-bar is mounted a slide, as 3. This slide may be of any suitable character, although it is represented as consisting of a collar. The chair, which directly sustains

the drill, is denoted by 4. The drill itself may be of any suitable kind, and the same applies to the operating means therefor. As the drill and its operating means constitute no part of the present invention, I deem it unnecessary to illustrate the same in the drawings. These parts may be associated with the chair in the customary manner.

The chair is of the usual shape—that is, it is of yoke form, the cross-bar fitting against the upper side of the slide 3. The chair is swiveled to the slide, for which purpose a bolt, as 5, and its nut 6 may be provided, the bolt extending downward through the cross-bar of the chair and vertically through the slide 3. The nut 6 is fitted to the lower threaded end of the bolt, and it is provided with a hand-piece or wing to provide for its easy manipulation. It will be understood that the bolt 5 projects downward through the slide 3 at one side of the grip-bar 2. By tightening up the nut 6 the bolt serves to draw the chair 4 solidly against the slide 3. By loosening up the nut the chair can be turned so as to change the relation of the drill with respect to the work.

The slide 3 is shown as held in fixed relation with the grip 2 in the present case by a double wedge, as 7, this wedge fitting in the space between the grip-bar and the slide and having opposing beveled faces arranged at opposite angles which converge inward. In other words, the wedge tapers inward from the opposite ends thereof toward the intermediate or central portion thereof. In the present case the opposite ends of the wedge are thicker than the space between the slide and the grip-bar, so that when the slide is on the grip-bar there is no possibility of the wedge being pushed from place. As the wedge is of double form, it can be manipulated to release the slide from either side of the latter, which is of advantage.

It will be understood that I provide independent means for holding the slide to the grip-bar and the chair to the slide, the means which hold the chair to the slide being in the present case of a form to permit turning motion of the chair. It therefore follows that when the slide is held solidly to the grip-bar that the chair can be turned at any time by loosening up the nut 6 without moving the wedge.

The mechanism hereinbefore described is

of a simple character and is effective in operation. It can be readily and inexpensively produced and is capable of easy operation.

What I claim is—

- 5 1. The combination of a grip-bar, a slide on the grip-bar, a chair, means for clamping the chair to the slide, said means involving a pivot upon which the chair may turn when the clamping means frees said chair, and a
10 double wedge between the slide and the grip-bar for holding the sleeve in fixed relation to said grip-bar, independently of said clamping means.
- 15 2. In a drilling-machine, the combination of a grip-bar, a slide on the grip-bar, a double wedge for holding the slide to the grip-bar, and a chair supported for turning motion by the slide.
- 20 3. In a drilling-machine, the combination of a grip-bar, a slide consisting of a sleeve on the grip-bar, a double wedge between the slide and the grip-bar for clamping the slide to said grip-bar, a chair on the slide, a bolt extending through the chair and slide, and a
25 nut on the bolt to draw the chair in clamping relation with the slide.
- 30 4. In a drilling-machine, the combination of a grip-bar, a slide consisting of a sleeve on the grip-bar, a double wedge between the slide and the grip-bar for clamping the slide to said grip-bar, a chair on the slide, a bolt

extending through the chair and slide at one side of said grip-bar and a nut on the bolt to draw the chair in clamping relation with the slide.

- 35 5. In a drilling-machine, the combination of a grip-bar, a slide consisting of a sleeve surrounding the grip-bar, a chair, a bolt extending through the chair and grip-bar at one side of the grip-bar, a double wedge be-
40 tween the grip-bar and slide at the opposite side of the former, and a nut on the bolt to draw the chair in clamping relation with the slide.

- 45 6. In a drilling-machine, the combination of a grip-bar, a slide consisting of a sleeve surrounding the grip-bar, a chair, a bolt extending through the chair and slide at one side of the grip-bar, a double wedge between the
50 grip-bar and slide at the opposite side of the former, the inner face of the wedge being flat and being contiguous to said grip-bar, and a nut on the bolt to draw said chair in clamping relation with the slide.

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

ALEXANDER WALKER.

Witnesses:

ALFRED JOSHUAY WALDEN,
PETER LEONARD.