C. HAMILTON.

STEEL EXTRACTING DEVICE.

APPLICATION FILED JULY 10, 1915.

1,174,858. Patented Mar. 7, 1916.

Fig. 1.

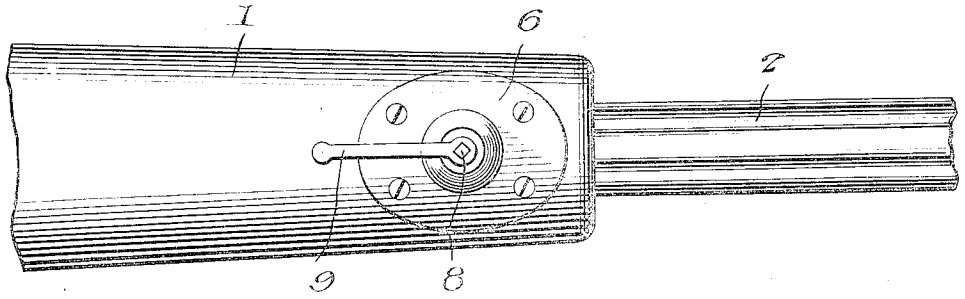


Fig. 2.

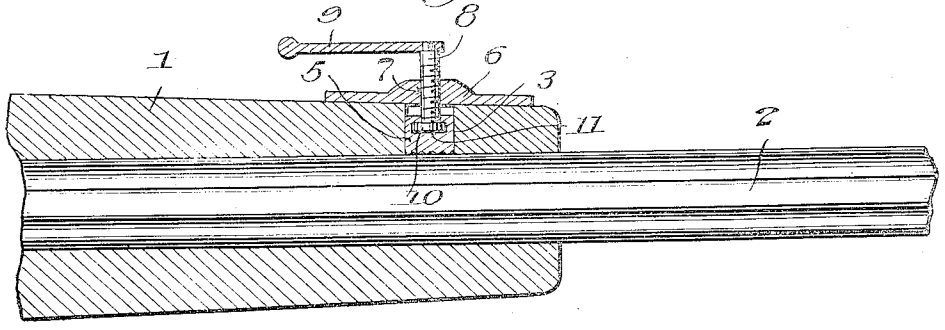
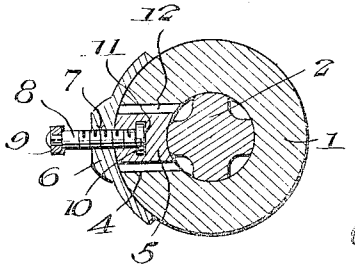


Fig. 3.



Witnesses

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STEEL-EXTRACTING DEVICE.

1,174,858. Specification of Letters Patent. Patented Mar. 7, 1916.

Application filed July 10, 1915. Serial No. 39,167.

To all whom it may concern:

Be it known that I, CARL HAMILTON, a citizen of the United States residing at Lowell, in the county of Cochise and State of Arizona, have invented new and useful Improvements in Steel-Extracting Devices, of which the following is a specification.

This invention relates to steel extracting devices and more particularly to drill steel extractors used on stoping machines.

The principal object of the invention is to provide a simple and efficient device of this character which may be cheaply constructed and which may be applied conveniently to any type of stoping machine.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing which forms a part of this application, and in which:—

Figure 1 is an elevation showing the application of the device to the head of a stoping machine. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view.

Referring more particularly to the drawing, 1 represents the head of the stoping machine such as an Engersoll, Sullivan, Waugh or other similar type of stoping machine in which the drill steel 2 is reciprocally mounted. In applying my device to the head of a machine, the head is transversely bored as shown at 3, the bore having opposite key ways communicating therewith and indicated at 4. This bore extends from the outside of the head to the central opening and has slidably mounted therein a steel gripping member 5 which is corrugated upon its inner face or otherwise suitably formed to properly grip the steel when forced in engagement therewith, as will be hereinafter described.

Covering the bore 3 and secured to the head is a bearing plate 6 having a centrally positioned threaded opening 7 in which is screwed the clamping bolt 8. This clamping bolt is squared upon its outer end to receive a lever 9 and has a head 10 at its inner end fitted within a slot 11 formed in the clamping member 5 and arranged to turn freely therein, as will be readily understood. The clamping bolt 8 being threaded in the bearing plate 6, a partial movement of the lever 9 in the proper direction will cause the release of the clamping member 5 or its engagement with the steel, thus when the steel is run up or stuck fast in sticky or moist ground, the steel may be conveniently clamped to the head and the head moved away from the ground in the usual manner so as to withdraw the steel therefrom. The clamping device, as shown, is provided with oppositely extending keys 12 which fit the slide in the key ways 4 so as to prevent rotation of the clamping member with the clamping bolt.

What is claimed is:—

1. In a steel extractor for stoping machines, the combination with a transversely apertured machine head, a steel clamping member slidably mounted in the aperture, a mounting plate secured to the head, and a lever actuated screw threaded in the mounting plate and connected to the clamping device to positively move the same in opposite directions.

2. In a steel extracting device for stoping machines the combination with a transversely apertured head, key ways communicating with the aperture, a clamping member slidably mounted in the aperture and having a roughened steel engaging face and keys engaged with the key ways, said clamping device having a transverse slot open at the upper end of the device, a mounting plate secured to the head and having a centrally threaded aperture, a lever actuated bolt threaded in the aperture and a head on the bolt swiveled in the slot, said bolt adapted to positively actuate the clamping bolt in either direction.

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

CARL HAMILTON.

Witnesses:
L. T. WOLFE,
T. C. COLLINS.