No. 756,028. PATENTED MAR. 29, 1904.

L. K. KOONTZ.

COAL AND ROCK DRILLING MACHINE.

APPLICATION FILED SEPT. 29, 1902.

NO MODEL.

Fig. 2

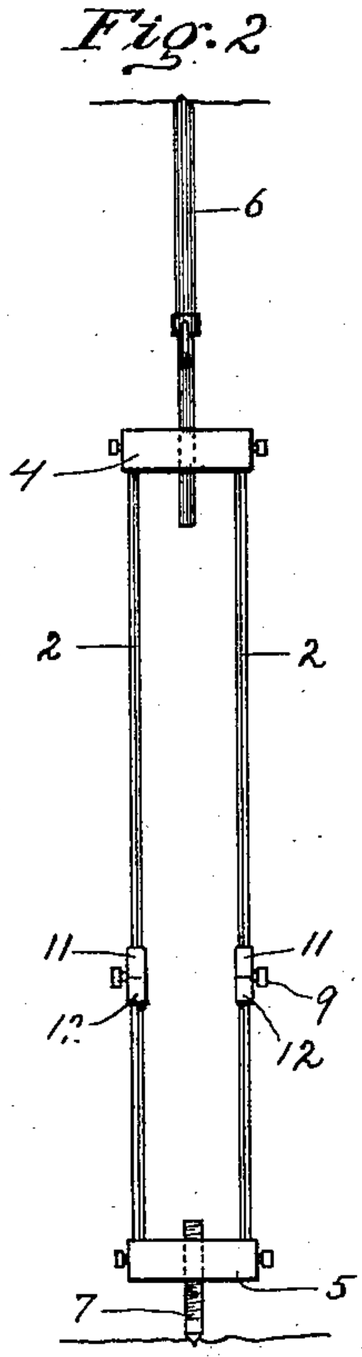
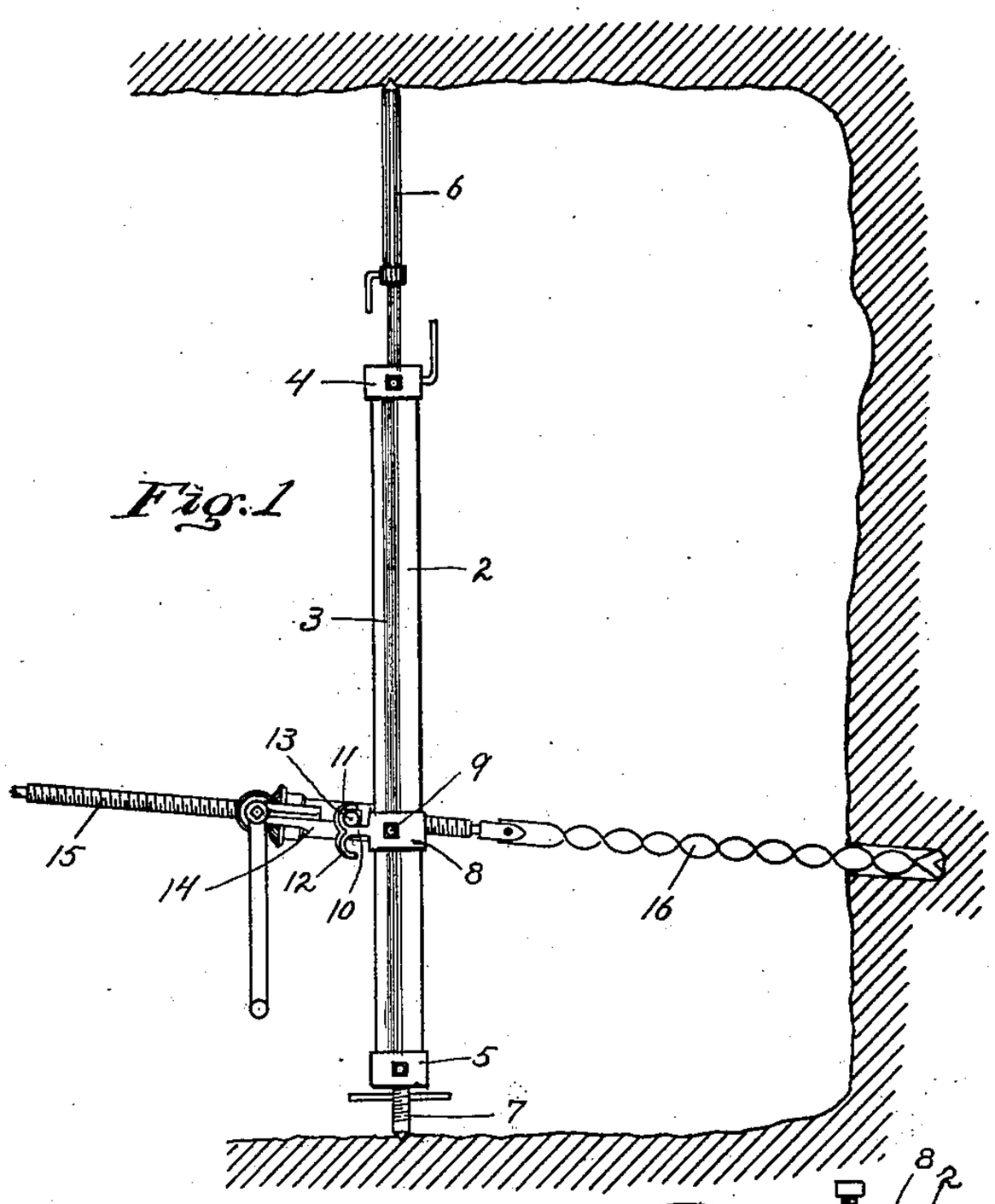


Fig. 1



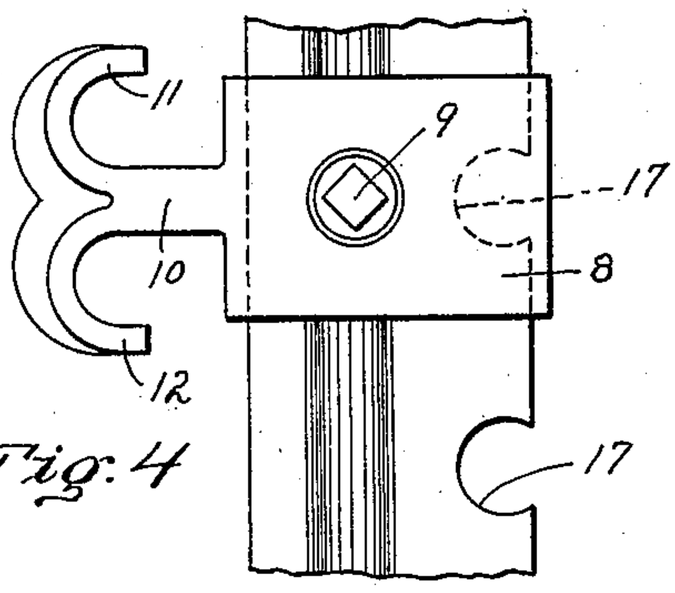


Fig. 4

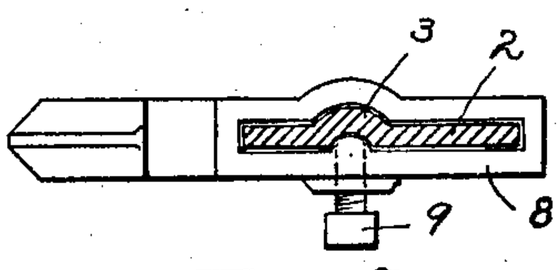


Fig. 5

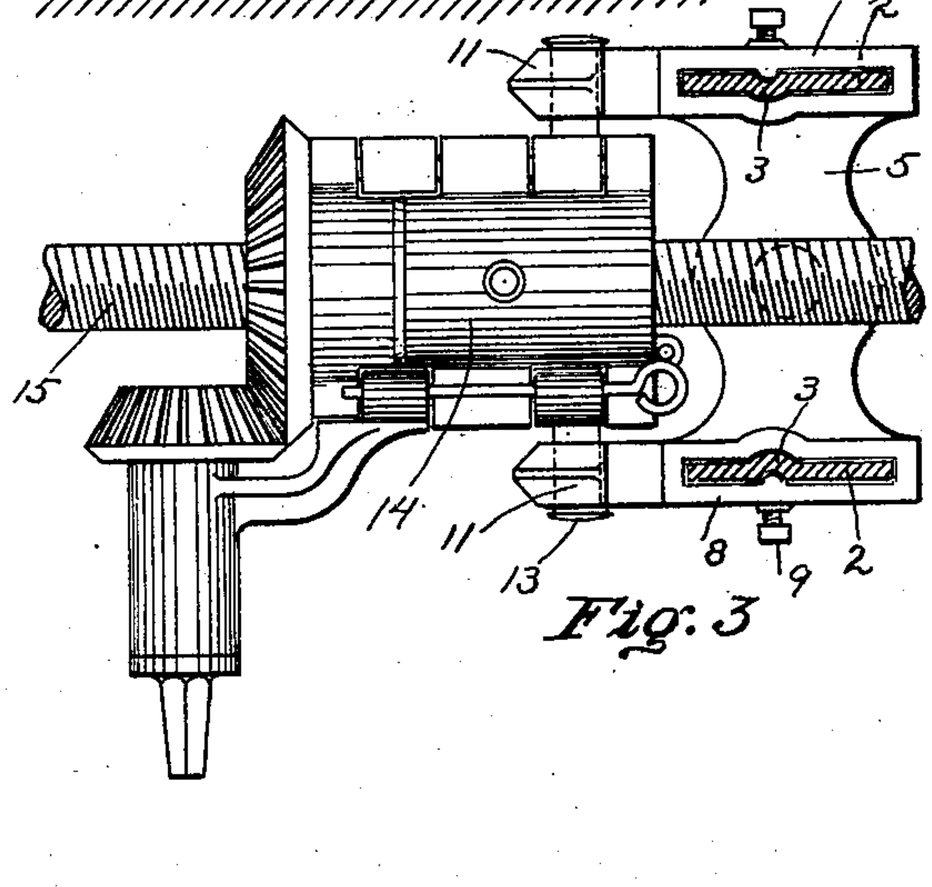


Fig. 3

Witnesses.
Fred A. Lucet.
Alex. D. Mabon.

Inventor.
L. K. Koontz.
By Jas. W. Norbit.
Attorney.

No. 756,028. Patented March 29, 1904.

UNITED STATES PATENT OFFICE.

LOUIS K. KOONTZ, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR TO MARTIN HARDSOCG MANUFACTURING COMPANY, LIMITED, OF ALLEGHENY, PENNSYLVANIA.

COAL AND ROCK DRILLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 756,028, dated March 29, 1904.

Application filed September 29, 1902. Serial No. 125,140. (No model.)

To all whom it may concern:

Be it known that I, LOUIS K. KOONTZ, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Coal and Rock Drilling Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to coal and rock drilling machines, and has particular reference to improved means for supporting the drilling mechanism on that type of post embodying two parallel uprights between which the drilling mechanism is operatively sustained.

The object of the invention is to provide a support for the drilling mechanism composed of separate and distinct support members independently adjustable on the post-uprights, whereby adjustment of the support is not impeded by lateral deflection or distortion of one or both of the post members, as is the case with an integral or one-piece sliding support of the character shown in Patent to Martin Hardsocg, No. 484,425, October 18, 1892.

A further object is to provide a support having reversely-disposed sustaining-points for the drilling mechanism, whereby the latter may be properly held without regard to which end of the post is uppermost.

In the accompanying drawings, Figure 1 is a view in side elevation of a machine equipped with my improvement. Fig. 2 is a rear elevation of the post with the drilling mechanism removed. Fig. 3 is a sectional plan view enlarged. Figs. 4 and 5 are detail views of one of the adjustable supporting devices in connection with a portion of one of the post members.

Referring to the drawings, 2 designates the parallel post-uprights, formed, preferably, of metallic bars corrugated longitudinally at 3 and united at the ends by top and bottom heads 4 and 5, and adjustable longitudinally in the latter, respectively, are the pointed pipe or boot 6 and jack-screw 7 for engaging the roof and floor of the mine and securing the post in proper position, as is old and well known in the art.

Completely embracing and slidable vertically on post-uprights 2 are support members 8, the interior of each member being shaped to conform to the section of the upright around which it snugly fits, whereby when said parts are drawn tightly together by clamping-screw 9 large areas thereof are in frictional engagement, thus securely maintaining the adjustment.

Projecting horizontally from the rear end of slide 8 is an arm 10, which forms the back or base for the upwardly-opening hook 11 and downwardly-opening hook 12, and with slides 8, positioned opposite each other on uprights 2. The uppermost hooks form bearings for trunnions 13 of feed-box 14, through which operates feed-bar 15 of drill 16 in usual manner. The hooks securely sustain the drilling mechanism, however great the back pressure thereon, when the drill is in operation.

A usual practice is to invert the post when it is desired to drill near the roof, in which position the trunnioned box is sustained by hooks 12, so that the support is equally efficient for both high and low drilling.

With the trunnion-sustaining points or bearings projected rearward from the post feed-box 14 is supported outside of the post, and therefore very accessible.

In many machines as at present constructed the post-uprights are notched on their forward edges, as at 17, Fig. 4, to form bearings for the feed-box trunnions, which not only gives the major portion of the feed-box position between the uprights, and therefore inconveniently accessible, but also when the drilling mechanism is to be removed from the post said construction necessitates a half-turn of the feed-box and actuating mechanism after the trunnions are removed from notches 17 in order to place the trunnions in the vertical position necessary for their backward passage through the post. With my improvement such manipulation is unnecessary, as the trunnions are at the rear of the post and it is

only requisite to lift them from their supports to entirely free the drilling mechanism. My improved support may be used on either notched or unnotched posts, an example of the former being shown in Fig. 4.

With a separate support member on each of the post-uprights adjustment thereof is not dependent on the parallel relation of the uprights nor is it prevented by lateral deflection of one or both uprights, whereas when the support or that portion slidable on the post is in one place, as in the Hardsocg patent above referred to, if the normal parallel position of the uprights is disturbed adjustment of the support is obviously hindered, if not entirely precluded. Also with my improvement if one of the support members is broken or becomes worn it may be replaced without providing an entire new support.

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

1. Supporting means for drilling mechanism comprising a vertically-reversible support, and drilling-mechanism-sustaining means thereon having upwardly and downwardly disposed hook-shaped supporting-points.

2. Supporting means for drilling mechanism comprising a vertically-reversible post having separated uprights, and disconnected drilling-mechanism-sustaining devices—one on each post-upright, each of said devices having reversely-disposed sustaining-points.

3. Supporting means for drilling mechanism comprising a vertically-reversible post having separated uprights, and disconnected drilling-mechanism-sustaining devices vertically adjustable on the post-uprights, each of said devices having reversely-disposed sustaining-points.

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

LOUIS K. KOONTZ.

Witnesses:

J. M. NESBIT,

ALEX. S. MABON.