J. SOHACKI & G. W. COOK.

DRILL BIT.

APPLICATION FILED JULY 19, 1911.

1,026,530.

Patented May 14, 1912

Fig. 1.

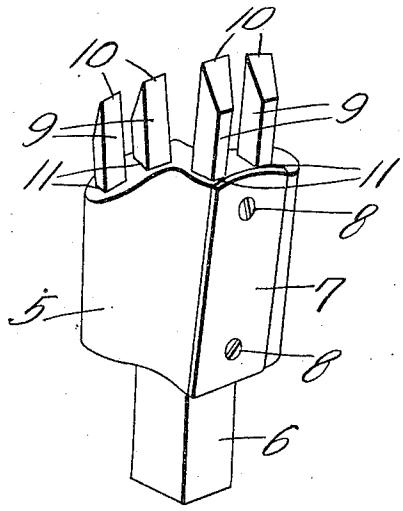


Fig. 2.

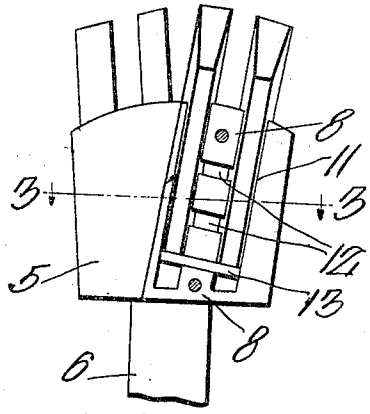


Fig. 3.

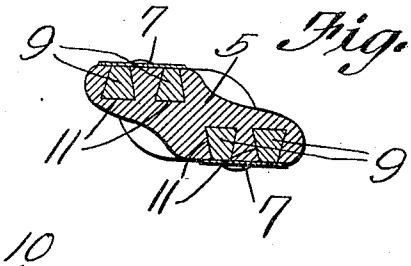
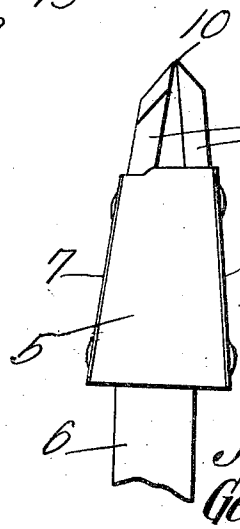


Fig. 4.



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UNITED STATES PATENT OFFICE.

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DRILL-BIT.

1,026,530. Specification of Letters Patent. Patented May 14, 1912.

Application filed July 19, 1911. Serial No. 639,404.

To all whom it may concern:

Be it known that we, JOHN SOHACKI and GEORGE W. COOK, citizens of the United States, residing at Larksville, in the county of Luzerne, State of Pennsylvania, have invented a new and useful Drill-Bit, of which the following is a specification.

This invention relates to drill bits and particularly to drill bits used in coal mining.

The object of this invention is to provide an improved device of this character which will be efficient in use, cheap to manufacture and simple in construction.

A further object is to provide novel means for adjusting the prongs of the bit as they become worn.

With the above and other objects in view this invention is embodied in a novel construction, arrangement and combination of parts as hereinafter described and shown in the accompanying drawings in which similar reference characters indicate similar parts, and in which:—

Figure 1 is a perspective view of the drill bit. Fig. 2 is a face view thereof. Fig. 3 is a sectional view on the line 3—3 of Fig. 2. Fig. 4 is a side elevation.

Referring specifically to the drawings, 5 designates the body of the bit, which is integral, and 6 the shank thereof by which it is secured to the drilling machine or any other mechanism. This body 5 is provided with a pair of parallel and contiguous dove-tailed channels 11 in each face thereof which channels diverge upwardly in one direction when looking toward the faces thereof and converge upwardly in another direction or when looking at the side thereof. These channels extend to the upper or outer end of the body and are closed at their lower ends, that is, they do not project to the lower end of the body, and in their upper ends are inserted the prongs 9 which are dove-tail shaped in cross section to fit snugly within the channels.

The upper edges 10 or the noses of the prongs are arranged in an approximate common vertical plane when looking in the direction of the side of the body, and the pairs of prongs are oppositely arranged at each side of the center of the body to form a proper drilling action as the body is revolved.

The body has a series of cross slots 12 in and extending through the portions separating the channels and a bar 13 fits in a cross slot of each series to have its ends project into the respective channels thus forming seats for the prongs. A plate 7 for the front and rear face of the body serves as a means to cover the notches therein to retain the bars in position and also serves as a closure for the channels. These plates are removably secured to the body 5 by means of screws 8.

As the drill bit is used the prongs become rapidly worn and by removing the plates 7 the bars 13 can be set up one notch after the prongs have been slid outwardly slightly to raise the seats for the said prongs. In this manner the prongs can be extended from time to time and new prongs can be substituted from time to time as the old prongs give out as will be apparent. The plates 7 being removably secured to the body form convenient means for holding the bars 13 in position and to also conveniently adjust the prongs whenever it is desired.

The plates 7 which are arranged over the respective channels and cross slots in being drawn inwardly by the screws 8 clamp the prongs 10 and the bars 13 in position, thereby preventing the prongs from working out of the body.

This device is effective in its use and it will be seen that the objects aimed at have been attained in an efficient manner.

Having described the invention what is claimed as new is:—

1. A drill bit comprising an integral body having a pair of parallel and contiguous channels in one face and extending to one end thereof and having a series of cross slots in and extending through the portion separating the channels, prongs slidable in the channels and projecting therefrom, a member fitting in one of the said cross slots to have its ends projecting into the channels to form seats for the prongs, and means on the said face of the body to clamp the prongs and retain the said member in position.

2. A drill bit, comprising a body having a pair of parallel and contiguous channels in opposite faces and extending to one end thereof, which channels converge toward their upper ends in one direction and diverge toward their upper ends in another direction, the said body having a series of cross slots in and extending through the portions separating the channels, prongs slidable in the channels and projecting

therefrom, a bar fitting in a cross slot of each series to have its ends project into the respective channels to form seats for the said prongs, and a cover plate removably secured on each face of the body to clamp the said prongs and retain the said bars in position.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

JOHN SOHACKI.
GEORGE W. COOK.

Witnesses:
H. H. DAVENPORT,
ROBT. J. BLAIR.