

C. N. BARTON.
 BIT FOR MINING MACHINES OF THE CUTTING CHAIN TYPE.
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971,345.

Patented Sept. 27, 1910.

Fig. 1.

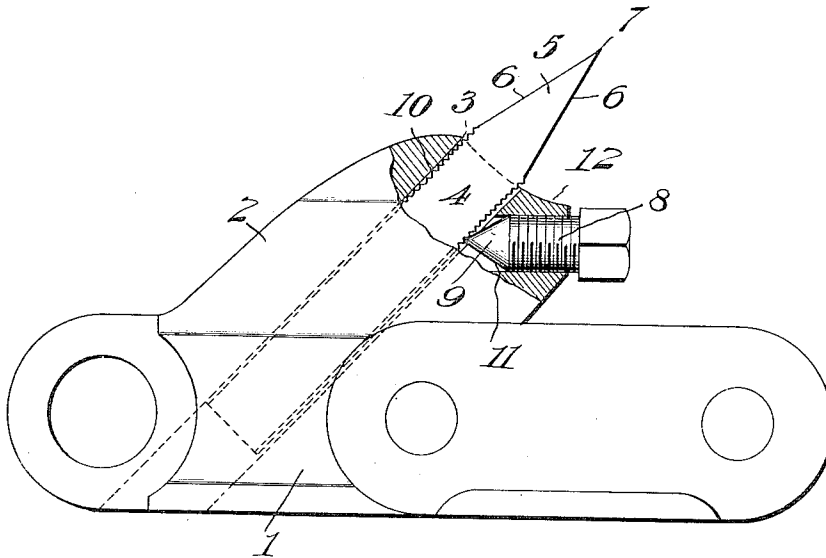
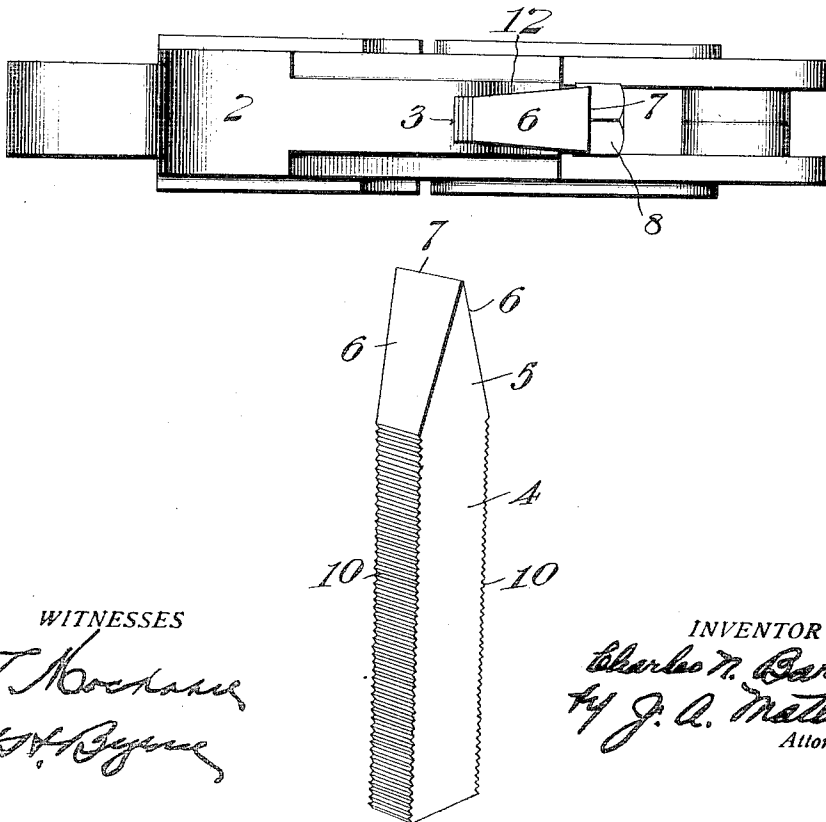


Fig. 2.



WITNESSES

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BIT FOR MINING-MACHINES OF THE CUTTING-CHAIN TYPE.

971,345.

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To all whom it may concern:

Be it known that I, CHARLES N. BARTON, a citizen of the United States, residing at Harrisburg, in the county of Saline and State of Illinois, have invented new and useful Improvements in Bits for Mining-Machines of the Cutting-Chain Type, of which the following is a specification.

The present invention relates to improvements in mining-machines of the cutting chain type, and more particularly to the novel structure of cutting bit or tooth therefor, and has for its purpose to provide a bit which may be reversed in its mounting and perform its function.

In machines of the cutting chain type as now employed, the bits are designed to cut in one direction only, with the result that it is necessary to resharpen the bit or replace the same when the bit has become dull.

The purpose of the present invention is therefore to construct a bit which will subserve its intended function and require only one-half of the sharpening necessary on bits of the aforesaid kind.

The invention further contemplates a novel type of lug, and with designing opposed sides of the bit with corrugations whereby its securement within the lug is rendered more positive and consequently less liable to become loose through the cutting operation.

With the foregoing object in view, the invention is shown in its preferred structure in the accompanying drawing, wherein—

Figure 1 is a side elevation of a chain link, showing the bit in its applied position thereon. Fig. 2 is a top plan view of Fig. 1, and; Fig. 3 is a detail perspective view of the bit.

Referring to the several parts in further detail, and with like characters of reference indicating corresponding parts in the several views shown, 1 designates the chain link having an upward and diagonally disposed shoulder or lug 2, which is formed integrally therewith. Said lug 2 is provided with a slot or key-way 3 which extends through the lug and link structure. Said slot 3 is designed to receive and have se-

cured therein the bit 4, which is of that structure disclosed in Fig. 3.

The bit 4 consists of a spike-like structure, having the usual shank or body portion. The head 5 of the bit is of wedge design whereby to provide a pair of like faces 6 and a cutting edge 7.

By thus constructing the bit, either or both of the faces 6 may be machined when it is desired to sharpen the edge 7, and by reason of thus disposing the said cutting member 7, it will be apparent that the bit is subject to be reversed in its position for its cutting action.

The means for securing the bit in position comprises a clamping or impinging bolt 8 having a conical end 9 designed to engage with teeth 10 formed on opposite faces of the shank of the bit, in that manner shown in Fig. 3. The said bolt 8 has screw threaded connection with the lug 2 through an aperture 11, which aperture has communication with the key-way 3, as shown in Fig. 1. The face 12 of the lug 2 is of slight concave design whereby to give full effect to the cutting tooth or bit when in operation.

From the foregoing description it will be apparent that the cutting head 5 may be reversed when the cutting edge 7 has become worn or deflected and thus affords what is virtually a substitute bit. And it will be further apparent that the life of the bit will be substantially doubled for the reasons stated.

What is claimed is:—

The combination with a chain link of a mining machine having a diagonally disposed and off-standing lug with a diagonally disposed key-way formed therein; of a cutting bit comprising a substantially straight member provided with a cutting edge disposed intermediate opposite sides of the bit and adapted to have its position reversed for the cutting operation, said bit having corrugations formed on opposite sides of the shank portion thereof and adapted to be secured within the diagonally disposed key-way, a screw threaded aperture formed in said lug and communicating with the bit key-way, a screw bolt fitted

within said screw threaded key-way and
having its end constructed to impinge with
the corrugations of the bit shank and hold
the bit in position, and the outer face of
5 the lug through which the cutting end pro-
trudes being recessed whereby to expose the
full cutting point of the bit.

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

CHARLES N. BARTON.

Witnesses:

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RICHD. D. OZMENT, Jr.