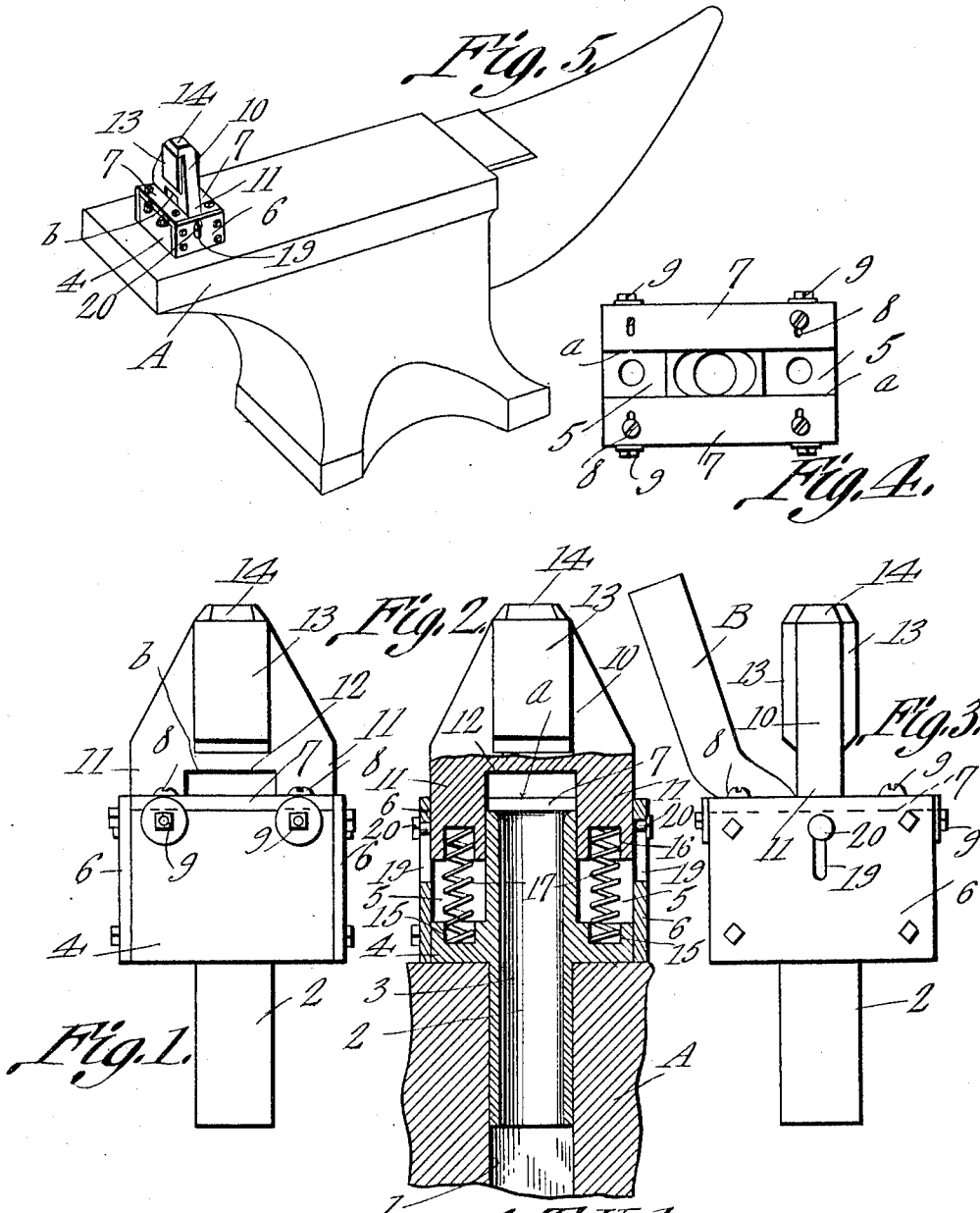


A. T. UPTON.
 COAL BIT SHARPENER.
 APPLICATION FILED AUG. 5, 1912.

1,061,149.

Patented May 6, 1913.



Witnesses

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ALVA T. UPTON, OF MOUNT VERNON, ILLINOIS.

COAL-BIT SHARPENER.

1,061,149.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed August 5, 1912. Serial No. 713,424.

To all whom it may concern:

Be it known that I, ALVA T. UPTON, a citizen of the United States, residing at Mount Vernon, in the county of Jefferson and State of Illinois, have invented a new and useful Coal-Bit Sharpener, of which the following is a specification.

The present invention relates to improvements in coal bit sharpeners, the primary object of the present invention being the provision of a device adapted to be readily attached to an anvil and especially adapted for sharpening the ends of a coal bit when in heated condition, such bit being especially adapted for use in connection with electric chain coal cutting machines of usual type.

A further object of the present invention is the provision of a supporting element adapted to be connected to an anvil and having disposed therein a movable cutting member normally held in projected position by means of springs and disposed to be thrown in active position by means of a sledge or hammer when the heated coal bit is placed in and held in the position to be struck, the waste being fed through the main support of the device and through an aperture in the anvil.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a front elevation of the complete device. Fig. 2 is a sectional view through the supporting medium, and a portion of the anvil, the upper portion of the movable blade being shown in elevation. Fig. 3 is an end elevation of the complete device with a bit in the position for sharpening. Fig. 4 is a top plan view of a portion of the carrier showing adjustable blades. Fig. 5 is a perspective view of an anvil with the device placed in operable relation thereto.

Referring to the drawings, the numeral 1 designates an aperture formed through the anvil A and leading from the upper surface thereof and squared for the reception of the rectangular supporting shank 2 which is provided with the waste directing bore 3

throughout the length thereof. Formed integral with the shank 2 is the main frame 4 which as clearly shown in Fig. 2, is provided with the oppositely disposed parallel recesses or sockets 5 open at the opposite sides and sealed by means of the removable plates 6.

Mounted upon the upper ends of the carrier 4 are the two adjustable stationary blades 7 which are held in proper adjusted relation by means of the pin and slot connection 8 and the clamping devices 9. By this means the forward cutting edges *a* of the respective blades are properly positioned relatively to the movable blade 12 which is carried by the spring elevated member 10. This member 10, as clearly shown, is provided with the spaced terminals 11 which fit within the respective recesses 5, the movable member 10 being provided with the reinforced portion 13 and with the head 14, whereby the said movable member may be depressed into cutting position by the striking of a sledge upon the head 14 to cause one cutting edge *b* of the plate 12 to co-act with its respective cutting edge *a* of one of the blades 7. By this means the coal bit B may be cut from either side of the device and the chipped portion will be directed into the upper end of the bore 3 and finally out of the lower end of the aperture 1 of the anvil.

In order to properly retain the movable member 10 elevated, each terminal 11 is provided with a socket 16, while the sockets 15 are provided in the carrier 4 for the reception of the respective coiled springs 17. In order to limit the upward movement of the movable member 10, each plate is provided with a slot 19 while passing through the slot and connected to the respective terminal 11 is the headed stud or pin 20.

From the foregoing description it is evident that the movable plate or carrying member 10 is normally in bit receiving position and held in such position by means of the two springs 17, and that a party operating the same after the proper forming of the lower cutting edge of the bit B, may while holding said bit with the usual tongs, insert the cutting edge, as clearly shown in Fig. 3, above one of the cutting blades 7 with the surplus edge to be cut projected above the upper end of the bore 3, and while thus held the operator may use a sledge or hammer to impart a blow to the head 14

of the frame 10 so as to move the cutting blade 12 in co-active relation with the respective blades 7, thus shearing the surplus from the bit and producing the desired cutting edge upon the bit. It is also evident that a device of this character may be readily attached to any anvil and provides a means whereby the bit may be inserted at opposite points so that should either pair of cutting edges become dull, the device may be removed from the anvil and reversed, or the operator may stand in an opposite position to use the other pair of cutting edges.

What is claimed is:

1. A coal bit sharpener, comprising a support, a spring elevated member slidably mounted in the support to be depressed by a blow, blades carried by the support and member respectively, and for co-action when the member is depressed by a blow, said support being provided with a bore therethrough to receive the cut portion of the bit and direct it away from the sharpener.

2. A coal bit sharpener, comprising a support provided with a reduced portion for connection to an anvil, said support being provided with a bore therethrough for the reception of the cut from the bit, a spring slidable elevated member mounted within the support to be depressed by a blow, and blades carried by the support and elevated member and in co-active relation to each other.

3. A coal bit sharpener, comprising a hollow supporting shank, a casing carried thereby, a stationary blade attached to the casing with its cutting edge above the upper end of the hollow shank, a spring elevated member mounted in the casing and

disposed to be depressed by a blow, and a blade carried thereby for co-action with the blade of the casing.

4. A coal bit sharpener, comprising a hollow supporting shank, a casing carried thereby, a stationary blade attached to the casing with its cutting edge above the upper end of the hollow shank, said casing being provided with two oppositely disposed open-ended recesses therein, a movable member having two spaced terminals mounted within the recesses of the casing carried thereby, a spring to each terminal disposed within the casing for holding the movable member elevated, means for limiting the upward movement of said movable member, and a blade carried by said movable member for co-action with the blade of the casing.

5. A coal bit sharpener, comprising a hollow supporting shank, a casing carried thereby, a stationary blade attached to the upper portion of the shank and in opposed relation to each other, the respective cutting blades being adjacent to the end of the hollow portion of the shank, a spring elevated movable member mounted in the casing to be depressed by a blow, and a blade having two cutting edges carried by the movable member, said cutting edges being disposed for co-action with the respective cutting edges of the blades of the casing.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ALVA T. UPTON.

Witnesses:

WILLIAM G. ANDERSON,
CHAS. P. PUCKETT.