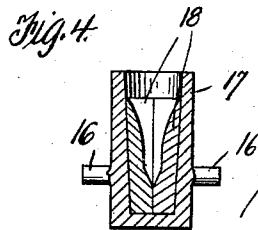
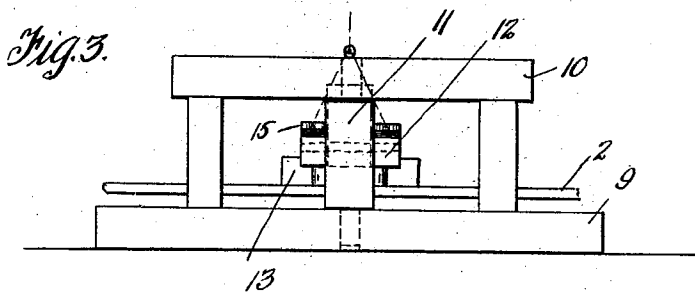
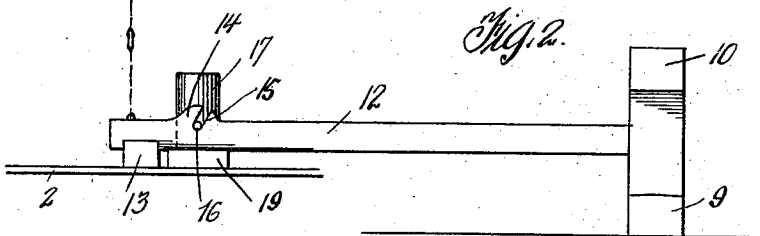
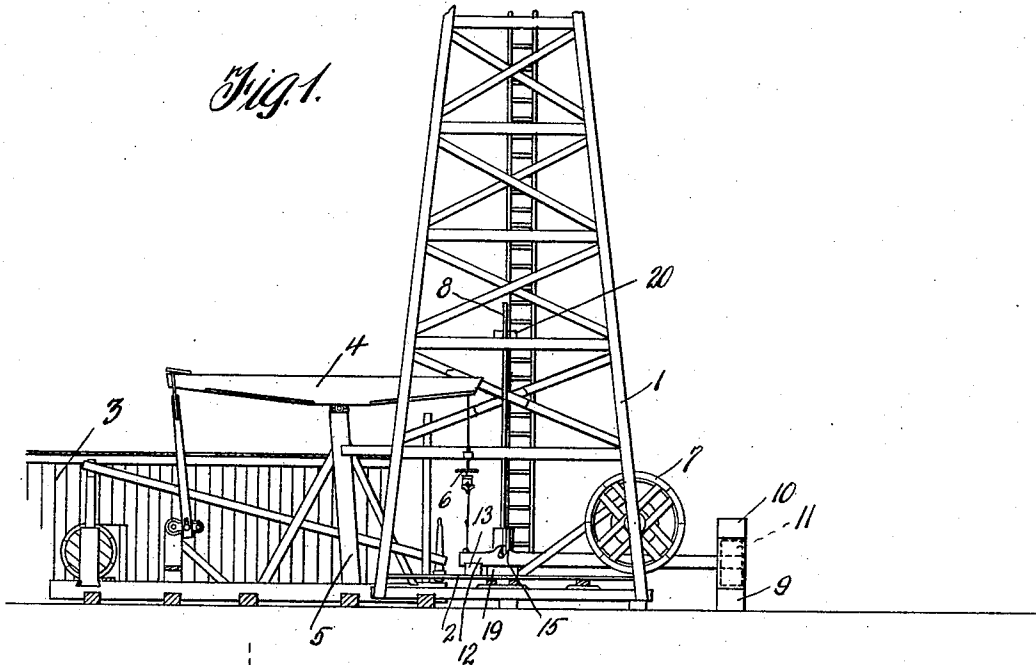


G. W. BURT.
TOOL SHARPENER.
APPLICATION FILED DEC. 26, 1908.

944,943.

Patented Dec. 28, 1909.



Witnesses

Samuel Payne.
A. H. Butler

Inventor
G. W. Burt.

By H. C. Everett
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE WILLIAM BURT, OF OHIOVILLE, PENNSYLVANIA.

TOOL-SHARPENER.

944,943.

Specification of Letters Patent.

Patented Dec. 28, 1909.

Application filed December 26, 1908. Serial No. 469,266.

To all whom it may concern:

Be it known that I, GEORGE WILLIAM BURT, a citizen of the United States of America, residing at Ohioville, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Tool-Sharpener, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a tool sharpener for oil wells, and the objects of my invention are, first, to provide a novel sharpening device for large tools and bits, as used in connection with the string or drilling tools employed for drilling a well; second, to provide a sharpening device that can be operated by the walking beam of a drilling machine to give the sharpening device blows similar to those rendered by the use of sledge hammers; third, to provide a sharpening device that will permit of exceedingly long tools being used for drilling a well and thereby eliminate the expense and labor heretofore incurred by using jointed tools; and fourth, to provide a simple and durable sharpening device that can be used in connection with a well rigging for sharpening drilling tools of various sizes and shapes.

The above objects are attained by arranging in the derrick or rigging floor of a well a pivoted and swiveled device that can be actuated by the walking beam of the well drilling machinery.

Referring to the drawings:—Figure 1 is an elevation of a portion of an oil well rigging, Fig. 2 is a side elevation of the tool sharpener, Fig. 3 is a rear elevation of the same, and Fig. 4 is a vertical sectional view of a die holder forming part of the sharpener.

In the accompanying drawings, 1 designates an oil well rigging or derrick having a floor 2 located above an oil well hole.

3 designates an engine house containing suitable mechanism for oscillating a walking beam 4 pivotally mounted upon a samson post 5.

6 designates a temper screw carried by the free end of the walking beam 4, this temper screw being ordinarily attached to the drilling cable (not shown) attached to a bull wheel 7 and to a tool or string of tools 8.

To put my invention into practice, I locate a foundation frame 9 and a superimposed frame 10 adjacent to the derrick floor 2. Swiveled between the frames 9 and 10 is a

vertical bearing block 11 provided with pivoted parallel side arms 12, extending over the floor 2 of the derrick, the free ends of said arms being connected by a transverse bar 13. The side arms 12 adjacent to the bar 13 are provided with enlargements 14 having angularly disposed slots 15 formed therein for the oppositely disposed trunnions 16 of a die holder 17. The die holder 17 conforms to a cup adapted to contain two detachable dies 18 for sharpening the lower end of the tool 8. In order that the dies 18 can be easily removed from the holder 17, the interior of the holder is tapered.

Beneath the holder and upon the derrick floor 2 is located an anvil block 19, the object of which will presently appear.

In operation, the tool 8 is elevated and the arms 12 swung to position the die holder 17 beneath the tool 8. After suitable dies have been placed within the holder, the tool 8 is lowered to rest in the holder. The temper screw 6 which has been previously detached from the hoisting cable of the tool 8 is now connected to the outer ends of the arms 12, whereby when the walking beam 4 is oscillated, the outer ends of the arms 12 will be raised and lowered to cause the die holder 17 to strike the anvil block 19 and through the medium of the dies 18 sharpen the end of the tool 8. To guide and steady the upper end of the tool 8 while said tool is vertically reciprocated, the derrick 1 is provided with transverse braces 20 for maintaining said tool in a vertical position. After the tool 8 has been sharpened, said tool can be elevated, the temper screw 6 detached from the arms 12, and said arms swung to clear the derrick floor or that portion of the floor adjacent to the well hole. The anvil block can then be removed and the tool 8 lowered into the well hole.

It is thought that the operation and utility of my tool sharpening device is apparent from the foregoing description, and while in the drawings forming a part of this application there is illustrated a preferred embodiment of my invention, I would have it understood that the same can be varied or changed as to shape, proportion and manner of assemblage without departing from the spirit of the invention.

Having now described my invention what I claim as new, is:—

1. In a tool sharpener, an anvil block, frames located adjacent to said block, a

bearing block swiveled between said frames, parallel arms pivotally connected to said block and extending over said anvil block, a die holder trunnioned upon said arms
5 above said block, sharpening dies carried by said holder, and means located adjacent to said anvil block for reciprocating said arms to cause said die holder to strike said anvil block, substantially as described.
10 2. In a tool sharpener, die supporting means pivotally mounted for vertical reciprocation and also mounted to swing laterally to and from operative position, a die holder carried by said supporting means,

sharpening dies removably-mounted in said 15 holder, an anvil block on which the die holder rests when in operative position, and means including a rocking beam for imparting vertical reciprocation to the die holder supporting means to cause the die holder to 20 strike the anvil block, as and for the purpose described.

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

GEORGE WILLIAM BURT.

Witnesses:

MAX H. SROLOVITZ.

C. V. BROOKS.

*