No. 610,226. Patented Sept. 6, 1898.

L. P. CARR.

DISK SHARPENER.

(Application filed May 20, 1897.

(No Model.)

Fig 1.

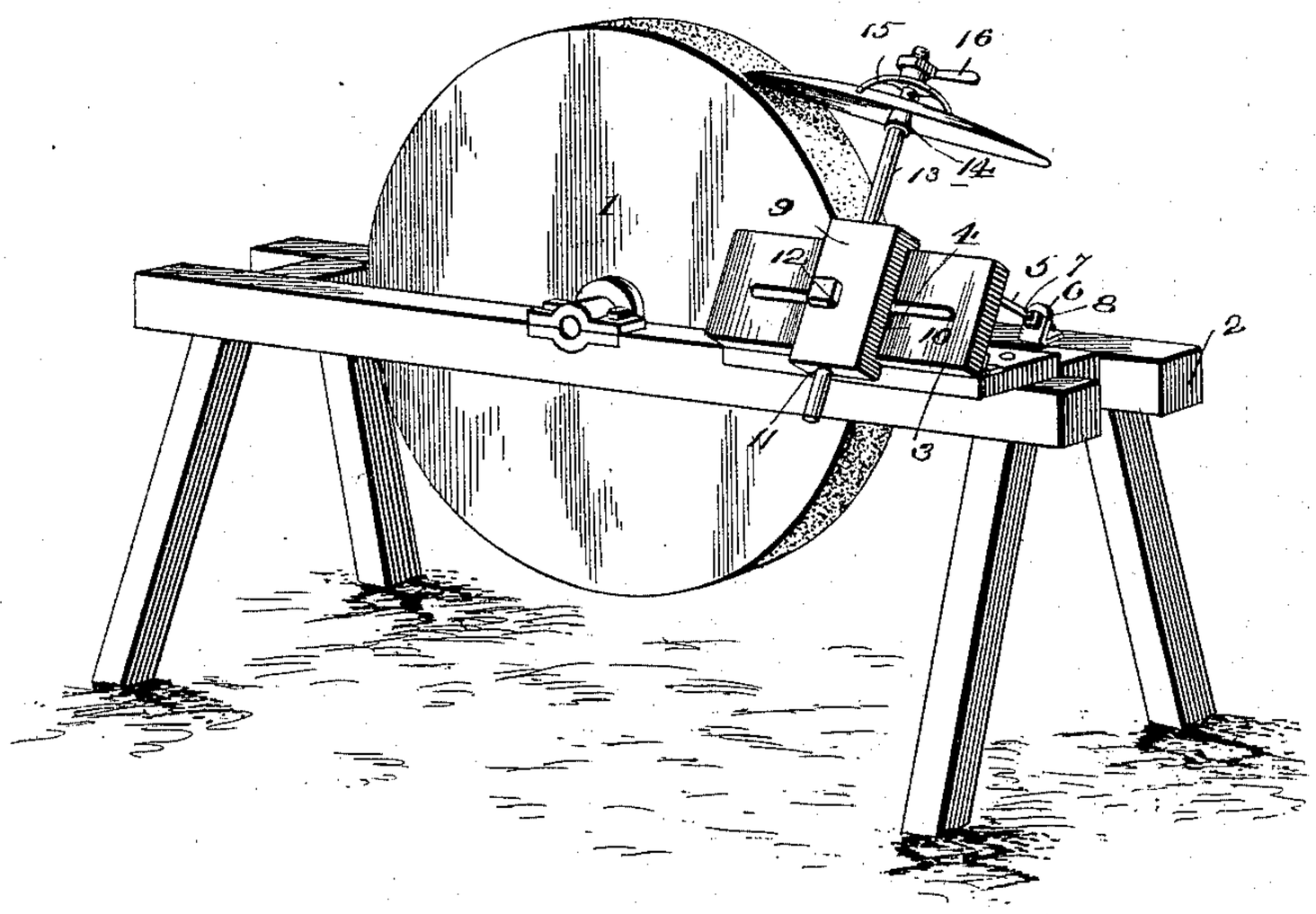


Fig. 2.

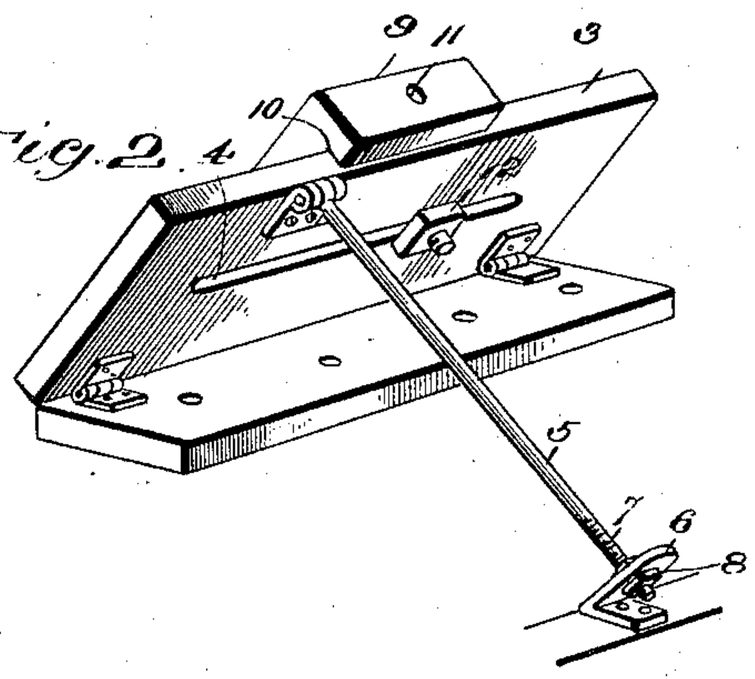
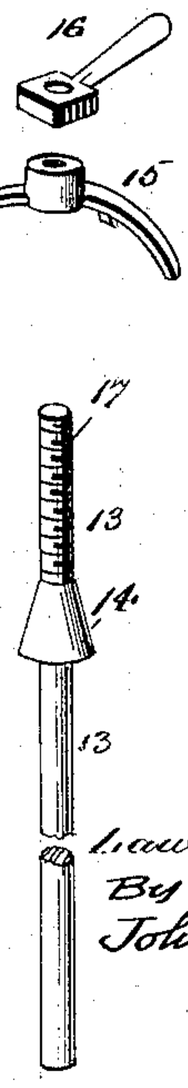


Fig. 3.



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UNITED STATES PATENT OFFICE.

LAWRENCE P. CARR, OF CONCORDIA, KANSAS, ASSIGNOR OF ONE-THIRD TO ROBERT HANSON, OF SAME PLACE.

DISK-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 610,226, dated September 6, 1898.

Application filed May 20, 1897. Serial No. 637,343. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE P. CARR, of Concordia, in the county of Cloud and State of Kansas, have invented certain new and useful Improvements in Disk-Sharpeners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to disk-sharpening attachments for grindstones; and it consists, essentially, of an adjustable shaft for supporting a disk mounted in a slide and carried by an adjustable support.

The invention further consists of the details of construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a grindstone, showing the improved attachment applied thereto. Fig. 2 is a similar view of the attachment disconnected. Fig. 3 is a detail perspective view of the disk-supporting shaft.

Referring to the drawings, wherein similar numerals of reference are employed to indicate corresponding parts in the several views, the numeral 1 designates a grindstone of any preferred form of construction and rotatably supported in a suitable frame 2. On one side of the said frame, adjacent to the stone, is hinged a support 3, which is longitudinally slotted, as at 4. The said support 3 has movably attached to the upper edge thereof an adjustable rod 5, which engages an angularly-disposed ear 6, attached to the opposite portion of the frame 2, and is formed with a series of screw-threads 7. The said rod 5 is held in its adjusted position by suitable nuts 8, engaging the same, and it operates to hold the support 3 at a proper angle of inclination relatively to the grindstone 1. Movably mounted on the support 3 is a slide 9, which has an inner recess 10 to fit over the said support and is provided also with an aperture 11. Extending through the slide 9 is a set-bolt 12, which also passes through the slot of the support 3, and in the aperture 11 is mounted a shaft 13, which is movably mounted in said slide and has an upper shoulder 14 and an arched spider 15, movable on the said upper end above the shoulder 14 and held in position by a nut 16, which is secured thereto and engages the upper screw-threaded end 17 of said shaft.

The disk to be sharpened is placed over the upper end of the shaft 13 and bears against the angular reduced portion which is formed above the shoulder 14. The arched spider is then placed in position over the end of the shaft and the nut 16 mounted on the upper screw-threaded end 17 to hold the said spider tightly against the disk. The shaft 13 is then properly adjusted in the slide 9 relatively to the grindstone, and the said slide is then moved in the support 3 to position the disk at a proper point on the grindstone, and the said support is arranged at such angle through the rod 5 as to accommodate the formation of the desired bevel by the grindstone on the disk. When the grindstone is rotated, the disk carried by the shaft 13 will be automatically turned, and a fine grinding operation is thereby secured in an automatic manner. Any size of disk can be ground and beveled by adjusting the several parts of the device to conform thereto.

The device set forth may be used in connection with grindstones or emery-wheels and be employed for sharpening disks, rolling colters, and the like. The degree of bevel may also be regulated by the adjustment of the several devices, and the weight of the disk together with the parts securing the same on the shaft 13 serve to hold the said disk against the grindstone or emery-wheel. Furthermore, if the stone is uneven the disk automatically conforms to the irregular surface by rising and falling. This operation prevents the formation of ridges in the sharpened edge of the disk.

It is obviously apparent that many minor changes in the details of construction and arrangement of the several parts might be made and substituted for those shown and described without in the least departing from the nature or spirit of the invention.

Having thus described the invention, what is claimed as new is—

1. In a disk-sharpening device, the combination of a grindstone, an adjustable support,

a rod movably attached to said support, a slide adjustably mounted on the support, and a gravitating shaft carried by said slide and adapted to support a disk relatively to the said grindstone, substantially as and for the purposes specified.

2. In a disk-sharpening device, the combination of an adjustably-mounted support, an apertured slide movably carried by said support, a gravitating shaft mounted in said slide, and a clamping-spider on the said shaft adapted to hold the disk, substantially as and for the purposes specified.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

LAWRENCE P. CARR.

Witnesses:

ROBERT HANSON,

WM. M. PECK.