

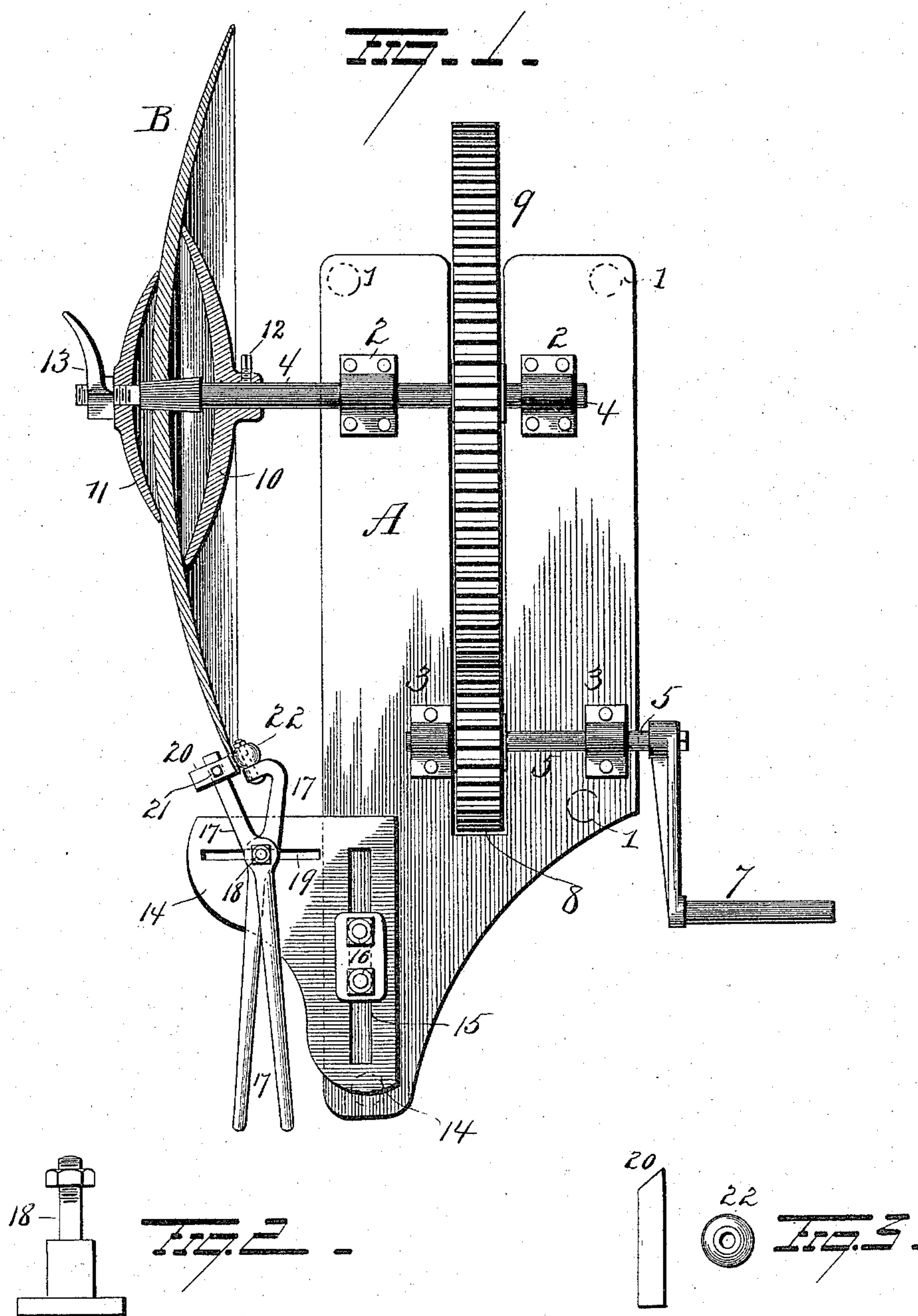
(No Model.)

J. DURKEE, Jr.

PORTABLE AND ADJUSTABLE DISK SHARPENER.

No. 580,385.

Patented Apr. 13, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN DURKEE, JR., OF FREMONT, NEBRASKA.

PORTABLE AND ADJUSTABLE DISK-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 580,385, dated April 13, 1897.

Application filed June 6, 1896. Serial No. 594,550. (No model.)

To all whom it may concern:

Be it known that I, JOHN DURKEE, JR., of Fremont, in the county of Dodge and State of Nebraska, have invented certain new and useful Improvements in Portable and Adjustable 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.

My invention relates to an improvement in portable and adjustable disk-sharpeners, the object being to provide a simple and economically-constructed machine for sharpening the edges of disks used in cultivating, so that every farmer can equip himself for sharpening these disks without the necessity of carrying them off to a blacksmith or using them when they are so dull as to have lost their efficiency.

With this end in view my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view. Figs. 2 and 3 are detail views.

A represents the table of my improved machine. This table may be variously supported, as, for instance, on legs 1 1. Revolvably supported in bearings 2 2 and 3 3, respectively, on this table are the shafts 4 and 5, the former of which is adapted to receive the disk B to be sharpened and the latter a crank or other driving means 7, by which power is applied to it. This drive-shaft 5 has a small pinion 8 keyed thereon, and the disk-carrying shaft 4 has a large gear-wheel 9 keyed upon it, which receives its motion from the pinion with which its teeth mesh.

As a convenient means for securing the disk on the disk-carrying shaft the two clamp-plates 10 and 11 have been employed, one being constructed to clamp on each side of the disk, one clamp being held by means of a set-screw 12 on the shaft and a tail-nut or similar device 13 being adapted to screw on the outer end of the shaft to hold the disk and clamps securely in place on the shaft. This much of machine, then, is used for rotating the disk.

The sharpening mechanism will now be described. An extension 14 projects out laterally from one side of the table forward of the disk. This extension is preferably provided with an elongated slot 15, and bolts or screws 16 16, extending through this slot into the ta-

ble, admit of its adjustment toward or away from the edge of the disk to be sharpened. A pair of tongs 17 17 are pivoted by means of a bolt 18 together and to the extension, said bolt 18 passing through an elongated transverse slot 19 in the extension, whereby it is permitted to play back and forth to follow the edge of the disk as the latter turns. One of these tongs is provided with the steel sharpener 20, secured in place by bolt 21, and the other carries an antifriction-roller 22, which bears on one side of the disk to prevent friction and to hold the disk in place while the steel sharpener is at work on the opposite side sharpening the edge of the disk.

In operation the operator turns the crank with the right hand and holds the handles of the tongs together with the left, the extension being of course set in position and the disk secured on its shaft.

It is evident that slight changes might be made in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with means for carrying and rotating a disk, of a pair of tongs pivoted together, one carrying an antifriction-roller and the other a sharpener and both having sliding pivotal connection with the frame of the machine, substantially as set forth.

2. The combination with means for carrying and rotating a disk, of a slotted support, a pair of tongs, one carrying a sharpener and the other adapted to hold the disk against the sharpener, and a bolt extending through the tongs whereby to pivotally connect them together and through the slot whereby to admit of lateral play therein, substantially as set forth.

3. The combination with means for carrying and turning a harrow-disk, of an adjustable support, and a pair of tongs having sliding connection therewith, substantially as set forth.

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

JOHN DURKEE, JR.

Witnesses:

CLYDE E. PALMER,
CHAS. T. DURKEE.