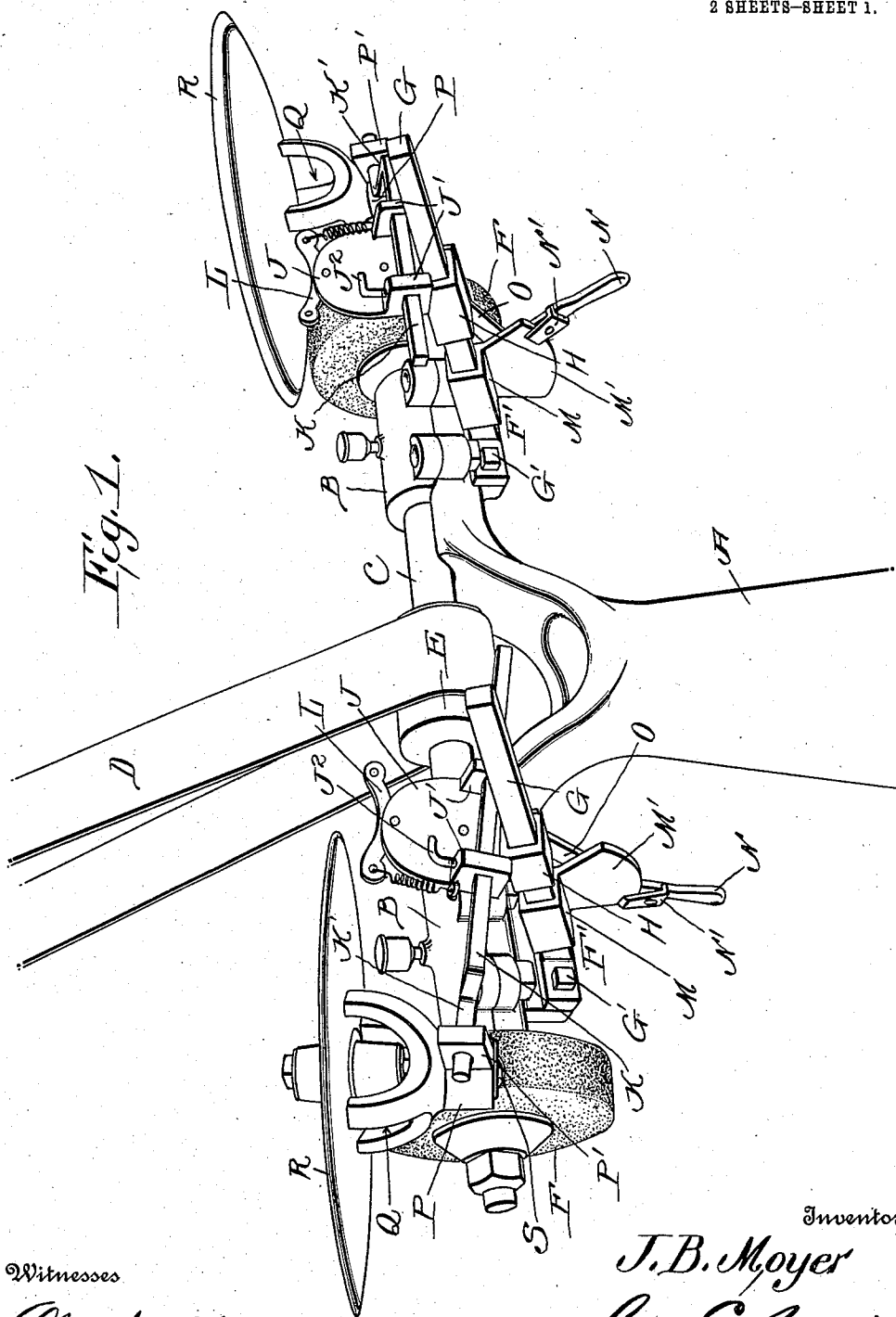


J. B. MOYER.
DISK SHARPENER.
APPLICATION FILED SEPT. 28, 1910.

1,028,252.

Patented June 4, 1912.

2 SHEETS—SHEET 1.



Witnesses

Oliver H. Holmes
Ben. Olmsted

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J. B. Moyer

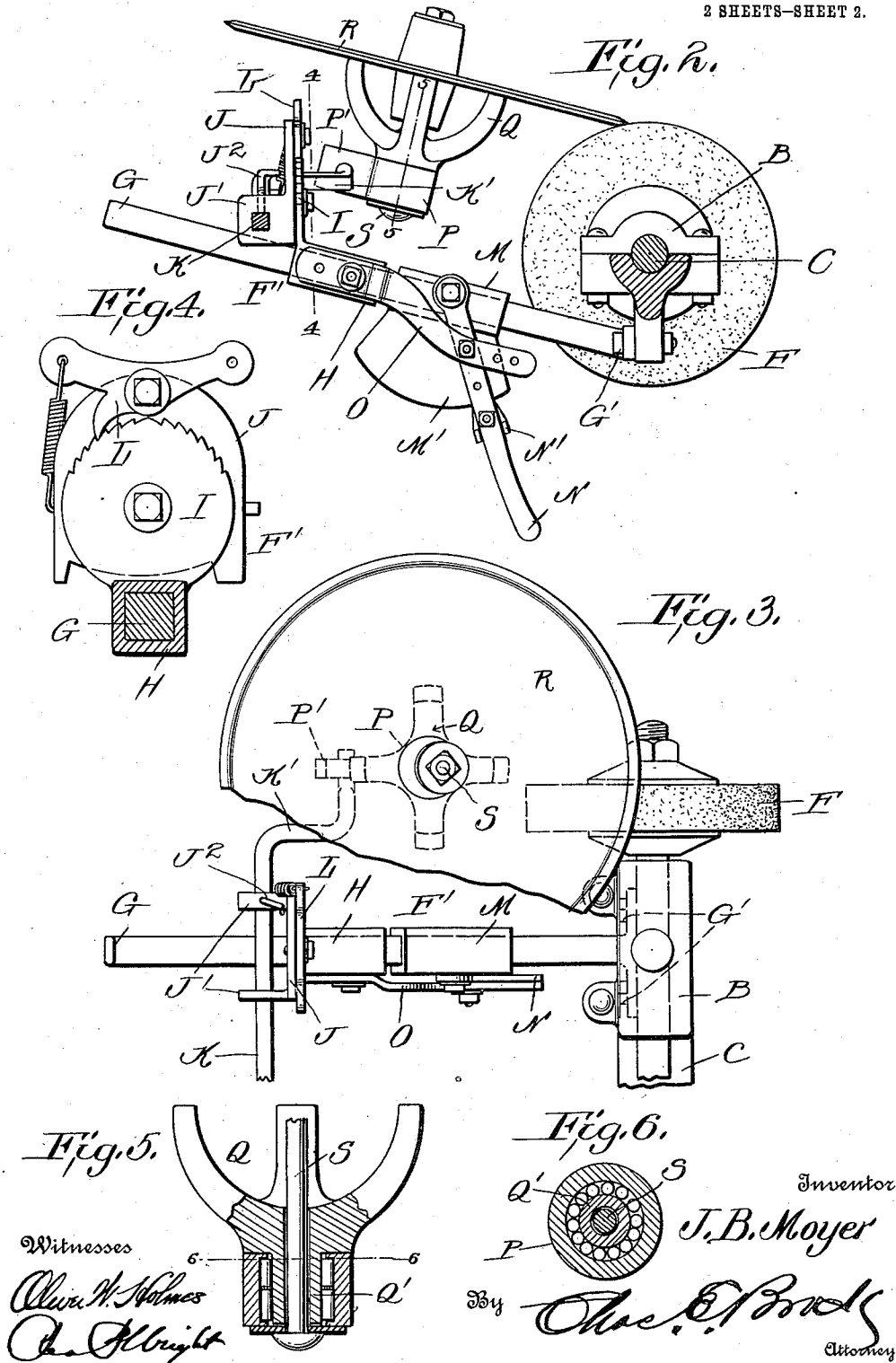
By

Chas. E. Brock
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2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

JOHN B. MOYER, OF LUCAS, SOUTH DAKOTA.

DISK-SHARPENER.

1,028,252.

Specification of Letters Patent.

Patented June 4, 1912.

Application filed September 28, 1910. Serial No. 584,244.

To all whom it may concern:

Be it known that I, JOHN B. MOYER, a citizen of the United States, residing at Lucas, in the county of Gregory and State of South Dakota, have invented a new and useful Improvement in Disk-Sharpeners, of which the following is a specification.

This invention relates to certain new and useful improvements in disk sharpeners for sharpening cultivator disks of all kinds, the object being to provide a machine whereby a pair of disks can be easily and quickly sharpened, and in such a manner that all danger of the disks becoming out of true is prevented.

Another object of my invention is to provide a machine in which the disk to be sharpened is revolubly mounted in such a manner that the same will be rotated by the grinding wheel, in order to bring the grinding wheel into engagement with the edge of the disk in such a position that the same will be sharpened easily and quickly.

Another object of my invention is to provide means for supporting the disk in such a manner that it can be thrown into engagement with the grinding wheel at any angle desired.

With these objects in view, the invention consists in the novel features of construction, combination and arrangement of parts, fully described and pointed out in the claims.

In the drawing forming a part of this specification:—Figure 1 is a perspective view of my improved disk sharpener. Fig. 2 is a vertical section showing the sharpening mechanism in elevation. Fig. 3 is a top plan view of a portion of the sharpener. Fig. 4 is a section taken on line 4—4 of Fig. 2. Fig. 5 is a detail view partly in section illustrating the mounting of a disk holding member. Fig. 6 is a section on the line 6—6 of Fig. 5.

In carrying out my improved invention, I employ a standard A having a formed upper end carrying bearings B, in which is mounted a shaft C driven by a drive belt D which passes over a pulley E fixed centrally thereon. The shaft C carries emery wheels F at its ends which are secured thereon in the ordinary manner.

Connected to each of the bearings B is one of my improved disk sharpening mechanisms F', a description of one being suffi-

cient for both as they are formed exactly alike.

The mechanism F' comprises a guide bar G which is secured to the bearing B by bolts G' as clearly shown, and projects upwardly therefrom at a slight angle. Slidably mounted on the bar G is a square sleeve H carrying a segmental rack I on the face of which is mounted a casting J which is provided with spaced outwardly projecting apertured guide lugs J', in which is slidably mounted a bar K having an angled end K'. The casting J carries a spring actuated dog L adapted to engage the segmental rack I for locking the same in its adjusted position as will be later described. One of the lugs J' is provided with a set screw J² for locking the bar K in its adjusted position within the same, and it will be seen that by this manner the bar K can be thrown at any angle desired.

For operating the sleeve H on the bar G, I provide the bar with a fixed sleeve M which has a plate portion M' which is engaged by a clamp N' carried by a lever N, which is connected to the sleeve H by a link O, whereby the sleeve can be moved up and down on the bar, in order to adjust the position of the casting as will be later described.

Mounted on the angled end K' of the bar I is the apertured lug P' of a bearing P, which is preferably formed with bearings, and in which is revolubly mounted the stem Q' of a spider Q forming a disk holder on which is adapted to be placed a disk R of any size or shape. The disk is secured on the holder by a bolt S passing through the bearing and spindle and hub of the disk as shown, so as to clamp the disk firmly in position thereon. When the disk is in this position, the edge of the same will be brought into engagement with the emery wheel F in such a manner that when the wheel is rotated the edges of the disk will be sharpened, and at the same time the disk will be rotated by the frictional contact therewith. The journal of the disk being to one side of the emery wheel.

From the foregoing description, it will be seen that I have provided means for supporting a disk of any size in respect to the grinding wheel, so that the same will be sharpened and rotated so as to bring the entire cutting edge of the disk into engage-

ment with the grinding wheel, whereby all danger of the wheel being ground lopsided is prevented. By adjusting the sleeve on the bar, the casting carrying the bar provided with the disk holder will be adjusted in respect to the grinding wheel to suit the size of the disk being ground, and it will be seen that the bar carrying the disk holder is so supported that the same can be moved in order to bring the disk into engagement with the grinding wheel at the angle desired, in such a manner that it will be held in that position when in operation.

What I claim is:—

15 1. In a device of the kind described, the combination with a grinding wheel, of a rotatable bar having a crank portion in advance of and transverse to the periphery of the grinding wheel, said crank portion be-

ing adapted to swing vertically, and said bar being movable in a straight line toward and away from the grinding wheel, a bearing carried by said crank portion, and a disk holder rotatably mounted on said bearing.

25 2. In a machine of the kind described, the combination with a grinding wheel of a guide bar, a sleeve adjustably mounted on said guide bar carrying a rack, a casting pivotally mounted on said rack carrying a pawl for engaging said rack, a bar adjustably mounted in said casting, and a revoluble disk holder carried by said bar.

JOHN B. MOYER.

Witnesses:

W. A. DAVISON,
FRANK MULLEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."