

No. 885,020.

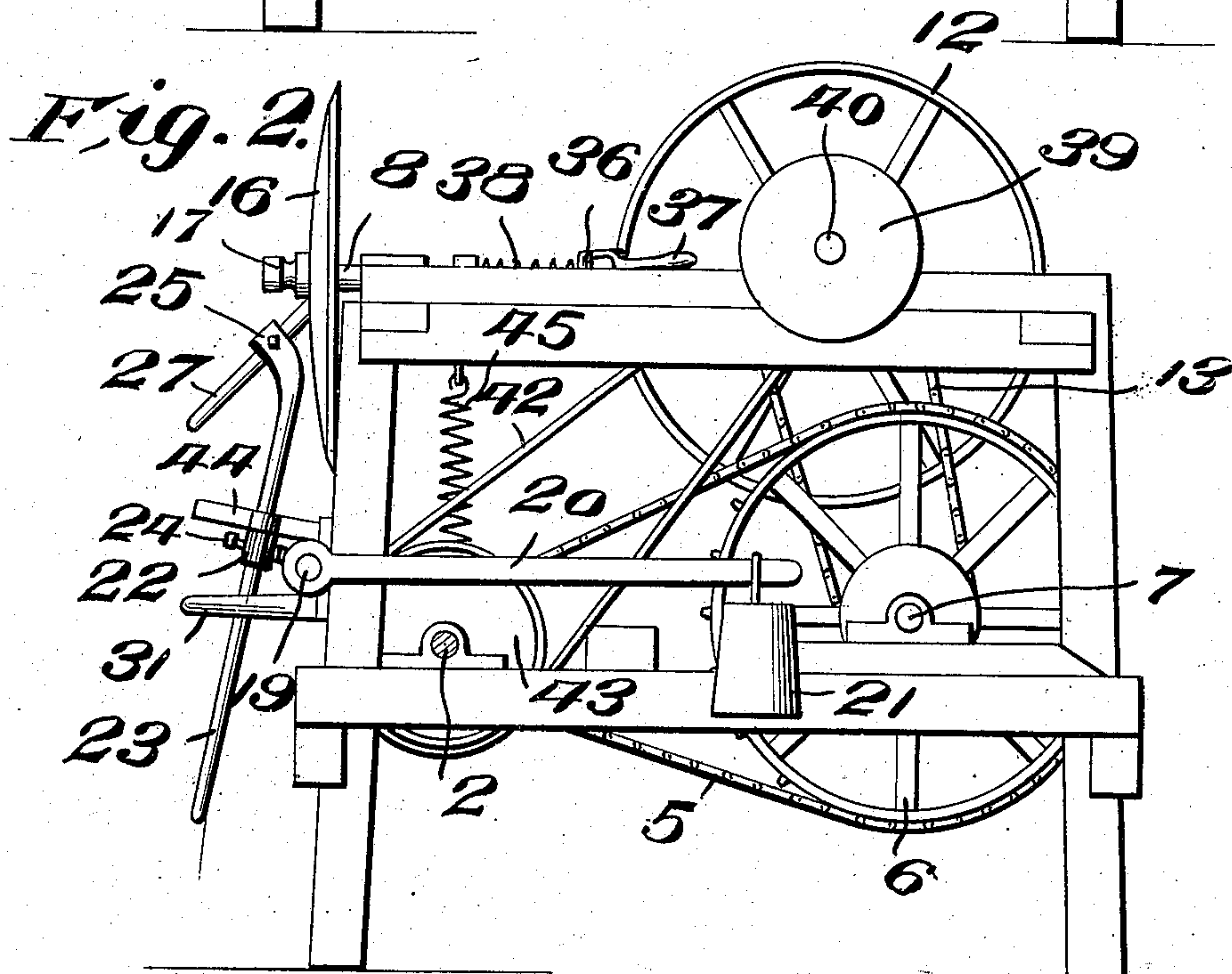
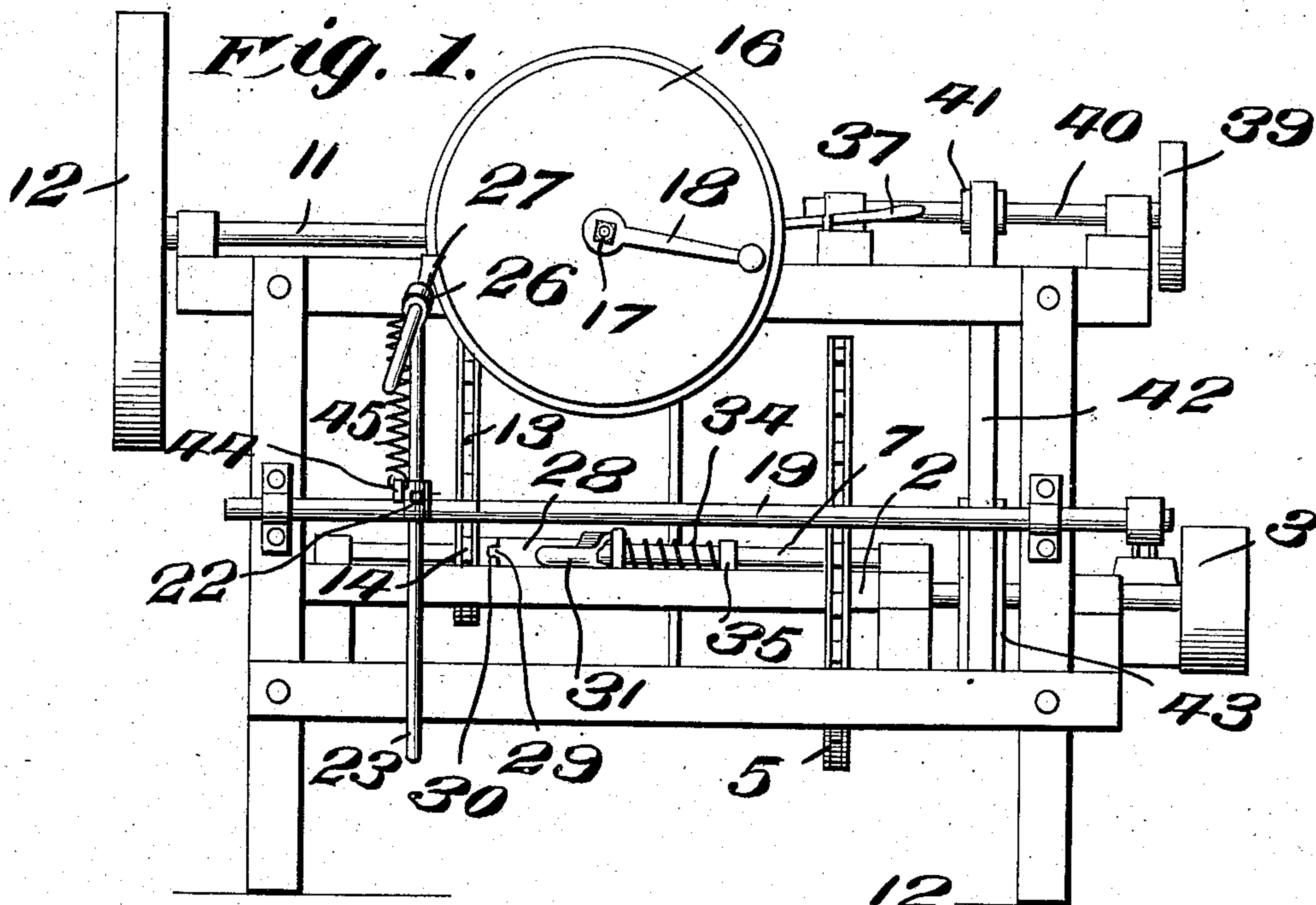
PATENTED APR. 21, 1908.

L. CORY.

SHARPENING OR CUTTING MACHINE.

APPLICATION FILED MAY 22, 1907.

2 SHEETS—SHEET 1.



Inventor

L. Cory

Witnesses

Thos. Riley  
G. F. Head.

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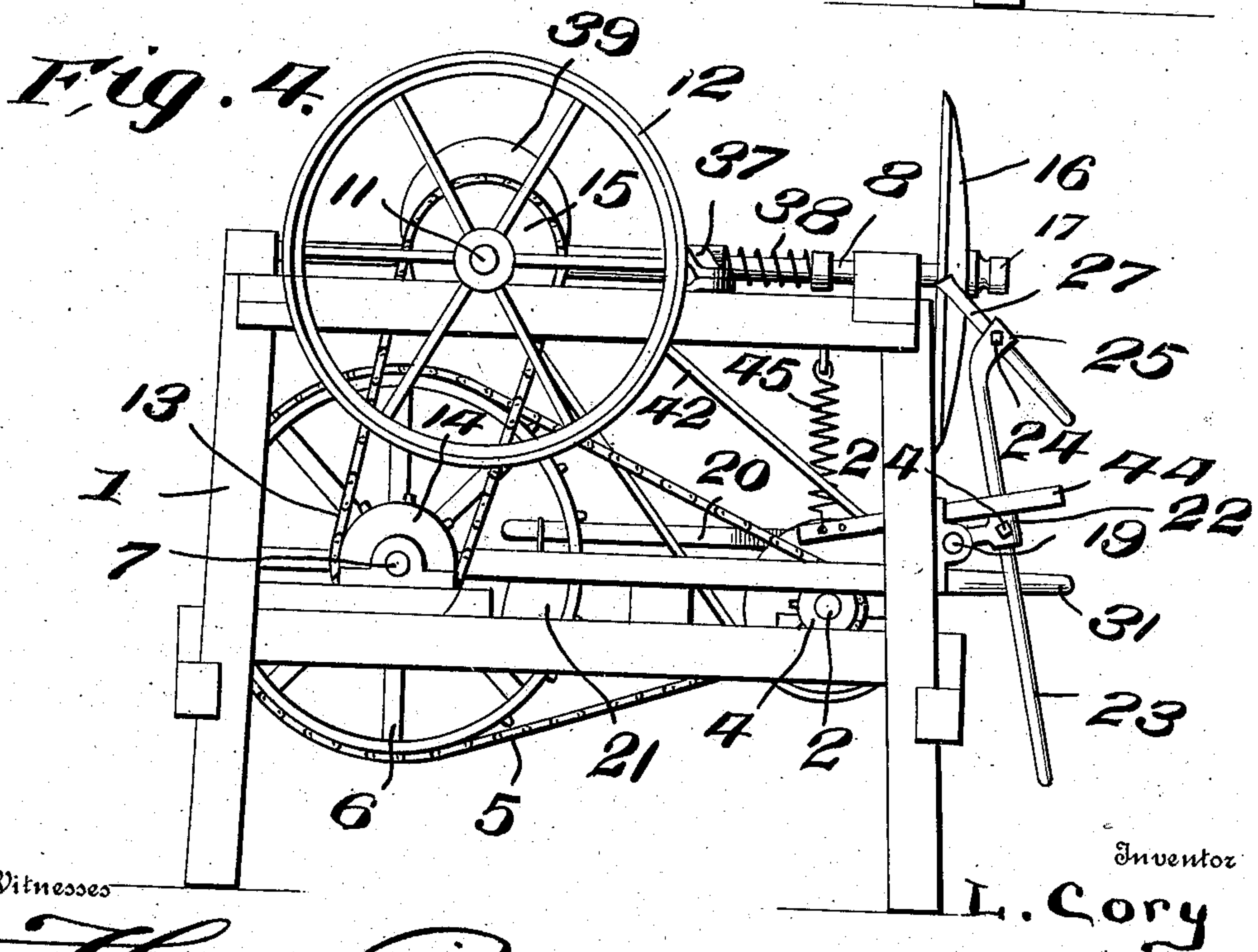
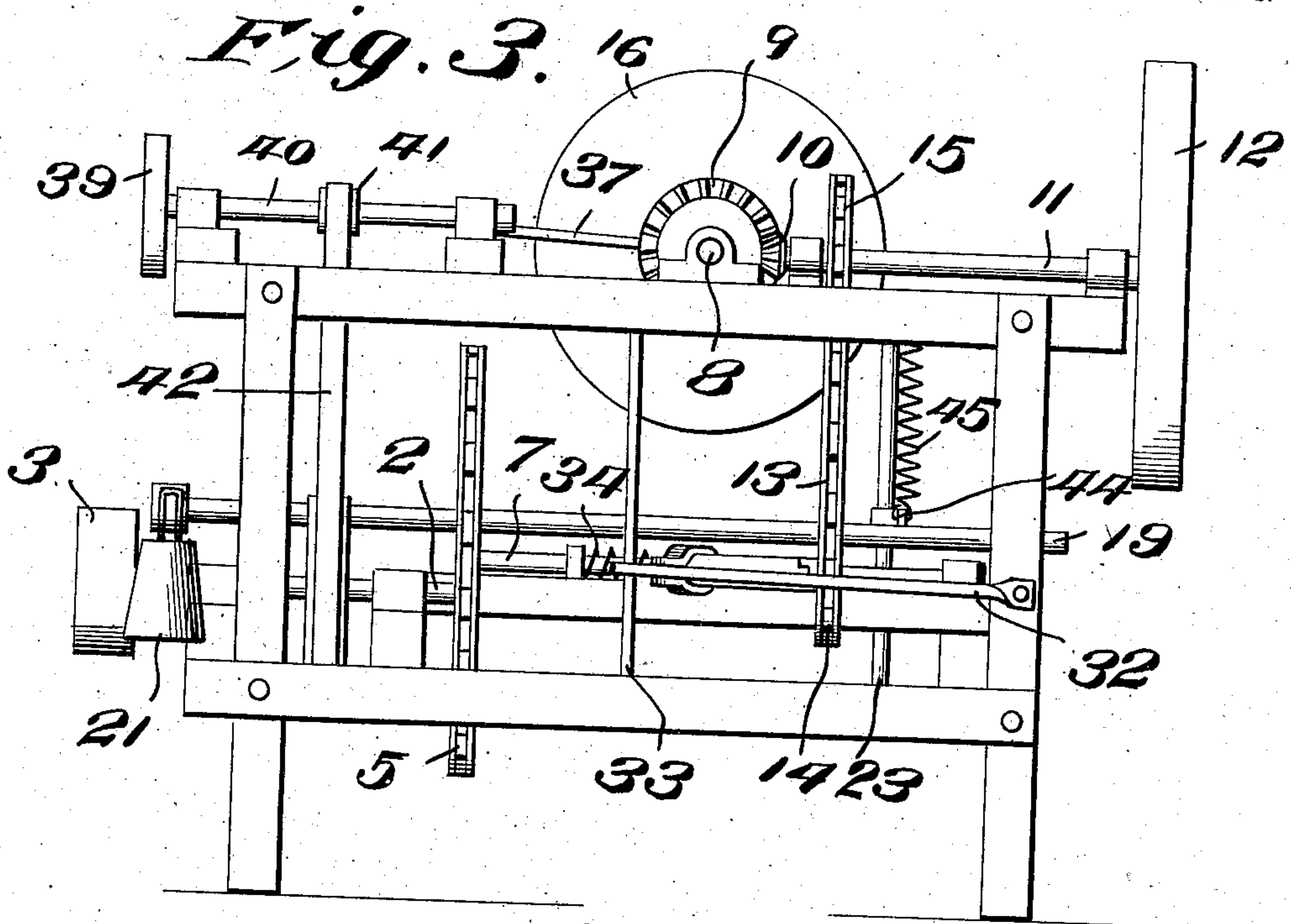
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Witnesses

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# UNITED STATES PATENT OFFICE.

LURENE CORY, OF GILMAN CITY, MISSOURI.

## SHARPENING OR CUTTING MACHINE.

No. 885,020.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed May 22, 1907. Serial No. 375,084.

*To all whom it may concern:*

Be it known that I, LURENE CORY, a citizen of the United States, residing at Gilman City, in the county of Harrison and State of Missouri, have invented certain new and useful Improvements in Sharpening or Cutting Machines; 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 new and useful improvements in cutting machines, and more particularly to that class adapted to be employed for cutting tools and the like, and my object is to provide a machine of this class whereby the tools may be sharpened, or parts thereof cut away to form cutting edges.

A further object is to provide means for holding the cutting device in engagement with the tool being sharpened, and a still further object is to provide means for disconnecting the driving mechanism from the cutting mechanism.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings which are made a part of this application, Figure 1 is a front elevation of my improved sharpening or cutting mechanism. Fig. 2 is an end elevation thereof. Fig. 3 is a rear elevation, and, Fig. 4 is an elevation of the opposite end of the machine from that shown in Fig. 2.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the frame of my improved sharpening or cutting mechanism, upon which is rotatably mounted a driving shaft 2, said shaft having secured thereto a belt pulley 3, by which means power is transmitted from any suitable source to the driving shaft.

Fixed to the shaft 2 is a sprocket wheel 4, around which takes a sprocket chain 5, also encompassing a driving sprocket wheel 6 on an auxiliary driving shaft 7, said shaft also being rotatably mounted upon the frame 1.

In sharpening disks, such as are used in connection with harrows, plows, drills, and the like, it is preferable to cut away portions of the metal around the periphery of the disk, and to this end, I provide a shaft 8, which is rotatably mounted on the upper portion of the frame 1, and is provided at its inner end with

a bevel gear 19, with which is adapted to mesh a bevel pinion 10, carried by a shaft 11, said shaft being directed at right angles to the shaft 8, and is provided at its outer end with a balance wheel 12.

Motion is imparted to the shaft 11 through the medium of a sprocket chain 13, which is passed around sprocket wheels 14 and 15 on the shafts 7 and 11, respectively. The shaft 8 extends beyond one end of the frame 1, and the extended end thereof is adapted to receive a disk 16, and the disk is held in position on the shaft 8 by means of a binding nut 17, said nut being threaded onto the end of the shaft, and is operated by means of a wrench 18, and it will be seen that by providing the form of wrench shown, the nut can be quickly directed onto or off of the shaft.

Pivotally mounted at one end of the frame 1 is a rocking shaft 19, to one end of which is fixed an arm 20, upon which is slidably mounted a weight 21. The shaft 19 has fixed thereto, and adjacent its opposite end, a socket 22, through which is disposed a bar 23, said bar being adjustably held in the socket by means of a bolt 24, the upper end of said bar being curved outwardly and upwardly to form a head 25, said head having a bore 26 therethrough, in which is seated a cutting tool 27, the cutting edge of which is so disposed as to engage the peripheral edge of the disk, the weight 21, when properly disposed on the arm 20, holding the edge of the cutting tool 27, in engagement with the edge of the disk.

If at any time it should become necessary to disconnect the driving mechanism from the cutting mechanism, a suitable clutch 28 is rotatably fixed to the shaft 7, and slidably mounted thereon, and is provided at one end with teeth 29, which are adapted to enter notches 30 in the face of the hub of the sprocket wheel 14.

The clutch 28 is moved into or out of engagement with the hub of the sprocket 14 by means of a lever 31, one end of which is bifurcated to receive therebetween one end of the clutch 28, and this end of the lever is pivotally secured to a strap 32, one end of which is fixed to the frame 1, and the opposite end thereof to a rod 33, and it will be seen that the clutch may be quickly moved out of engagement with the sprocket 14 by operating the handle portion of the lever 31, and returned into engagement with the sprocket



14, by disposing a spring 34 between a collar 35 on the shaft 7 and the free end of the clutch 28, the spring normally holding the clutch in engagement with the sprocket. 5 The shaft 8 is also provided with a clutch 36, which is operated by a lever 37 to release the clutch and thereby stop the rotation of the shaft 8, a spring 38 being employed to normally hold the clutch in its closed position. 10 When edge tools, such as axes, chisels, or the like, are to be sharpened, I provide an emery wheel, or the like, 39 which is mounted upon a shaft 40 carried by the upper end of the frame 1, and in order to drive said 15 shaft, a pulley 41 is secured thereto, around which passes a belt 42, also encompassing a pulley 43 carried by the driving shaft 2, and when the emery wheel is not to be used, the belt 42 is removed from the pulley 43, thereby 20 by allowing the emery wheel to remain idle. After the disk 16 has been properly sharpened, the weight 21 is moved inwardly towards the shaft 19 or entirely removed from the arm 20 as best suited to the operation, thereby allowing the shaft 19 to rock 25 and remove the tool 27 from engagement with the disk 16 and in order to facilitate this result, a shank 44 is secured to the bar 23 immediately above the socket 22 and has 30 secured to its inner end a spring 45 which is in turn secured to the frame 1 above the shank 44, and it will be seen that as soon as the weight has been removed from the outer end of the arm 20, the spring 45 will contract and

move the tool 27 out of engagement with the disk. 35

The shank 44 may also be extended beyond the bar 23 so that the same may be grasped and the tool 27 manually removed from engagement with the disk. 40

It will thus be seen that I have provided a very convenient form of device for sharpening various tools, and it will further be seen that the power may be readily disconnected from the cutting portions of the device when 45 desired.

What I claim is:

A machine of the character described, comprising a rock-shaft provided with a socket-equipped arm and means for the retention therein of a tool-carrying member, a 50 fulcrumed member or lever adapted to engage the socket of said arm from above, laterally of the tool-carrying member, said rock-shaft having extending therefrom a 55 downwardly pressed arm, and a resilient member connected to, and adapted to pull upwardly upon said fulcrumed member or lever for causing the latter to press downwardly upon said socket. 60

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

LURENE CORY.

Witnesses:

R. S. ALSBURY,  
GEO. S. GUSEWELLE.