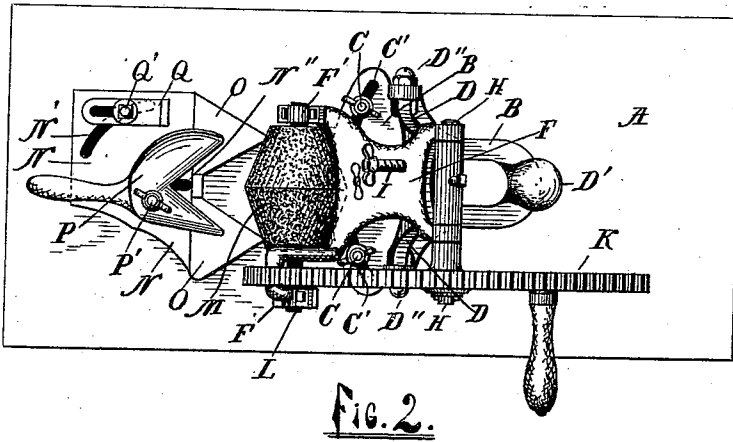
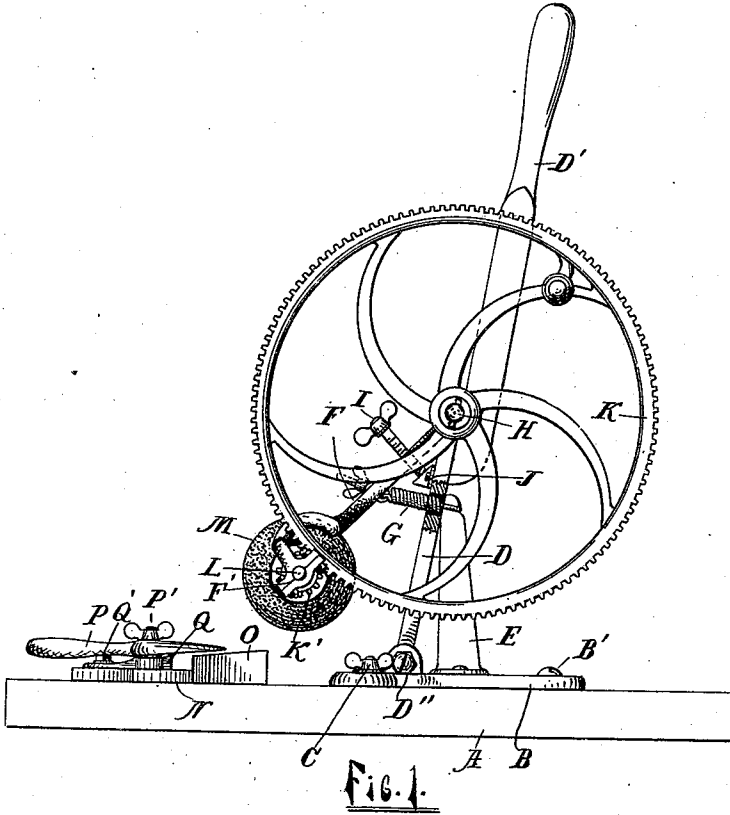


(No Model.)

P. H. CAZIER.
SICKLE GRINDING MACHINE.

No. 552,492.

Patented Dec. 31, 1895.



WITNESSES:

James B. Mills
Charles C. Cary

INVENTOR

Perrot H. Casier

UNITED STATES PATENT OFFICE.

PERRY H. CAZIER, OF NASHVILLE, MICHIGAN, ASSIGNOR TO JEREMIAH VANNOCKER, OF SAME PLACE.

SICKLE-GRINDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 552,492, dated December 31, 1895.

Application filed August 8, 1894. Serial No. 519,768. (No model.)

To all whom it may concern:

Be it known that I, PERRY H. CAZIER, a citizen of the United States, residing at Nashville, Barry county, Michigan, have invented a new and useful Sickle-Grinding Machine, of which the following is a specification.

My invention relates to sickle-grinding machines, and its object is to provide a machine of this character in which the frame carrying the grinding-wheel is so constructed and arranged as to be adjustable and freely movable in such a manner as to enable the work of grinding to be properly, easily and quickly performed.

To this end my invention consists in the construction and arrangement substantially as herein described, and particularly defined in the claims.

In the drawings, Figure 1 is a vertical side view of the entire machine. Fig. 2 is a top view thereof.

The base-plate B E is adjustably secured to any proper support A by means of the pivot B' and the slot C' C' and binding-screws C C. To this base is pivoted, as at D' D'', the upright D. A suitable handle D' is secured to this upright D by which it is controlled.

To the upper extremity of the upright D is pivoted the frame F, carrying the grinding-wheel M. The geared driving-wheel K is sleeved in the upper extremity of the upright D and its shaft H serves as the pivot upon which the frame F swings and by which said frame is connected to the said upright D.

The frame F is forked at its lower end and a grinding-wheel M of any suitable material is journaled in the arms of said fork. A small gear-wheel K' is sleeved upon the shaft of the grinding-wheel and meshes with the driving-gear.

An adjusting-screw I, threaded through the frame F, bears upon a small projection J formed on the upright D and permits the proper adjustment of the frame F and consequently the grinding-wheel to the work.

A tension-spring G secured to the base-plate passes through an opening in the upright D and is suitably connected with the frame F. Suitable means is provided for regulating the tension of said spring G. This construction

and arrangement regulates the pressure of the grinding-wheel upon the work while in operation and holds said wheel out of the way while not in use.

A plate N is adjustably secured to the support A by means of a pivot-screw passed through the countersunk hole N² and the bolt Q' and slot N'.

The portion O of the plate N which projects under the grinding-wheel is provided with a V-shaped notch and is beveled upon its upper surface so as to provide a proper slant to the sickle while being ground.

The plate N is provided with a lever P eccentrically pivoted thereto, so as to hold the sickle-bar in its proper position on the said plate while being ground. The pivot-screw P' of said lever is provided with a binding-nut. The plate N is also provided with a small slide Q that works over the slot N', and is adapted to be held in its proper position by means of the bolt Q' and a binding-nut thereon. The said slide Q is intended to steady the sickle-bar while being placed in the position to be ground.

The base B E and the plate N having been properly adjusted with relation to each other, the work to be ground is placed upon the plate N and clamped in proper position by the lever P. The operator then advances the frame carrying the grinder with one hand by means of the handle D', while with the other hand the driving-gear is operated, thus rotating the grinding-wheel.

What I claim as my invention is—

1. In a sickle grinding machine, the combination with a base plate of an upright pivoted thereto and provided with an opening, a frame pivoted to said upright, a grinding wheel journaled in said frame, a gear sleeved upon the shaft of the grinding wheel and provided with a collar, a driving gear meshing with said gear whereby the grinding wheel is actuated, a tension spring carried by said frame, extended through the opening in the upright and secured to said base plate, means for regulating the tension of said spring and an adjusting screw threaded through the frame and bearing upon the upright, whereby the pressure of the grinding wheel is regulated when

in operation and the grinding wheel held out of the way when not in use, substantially as described.

2. In a sickle grinding machine, the combination with a suitable support, a grinding mechanism carried thereby of a work supporting plate adjustably secured to said support, means whereby said plate is locked in its adjusted position, said plate being provided with a beveled upper face intersected by a V-shaped notch, an eccentrically pivoted clamping lever operatively secured to said plate, means for

locking said lever in its operative position, an adjustable guide carried by said plate and means whereby said guide is locked in its operative position, the construction and arrangement being such that the work is firmly held to the grinding wheel and the operator free to rotate said wheel. 15

PERRY H. CAZIER.

In presence of—

JAMES B. MILLS,
CHARLES C. GAGE.