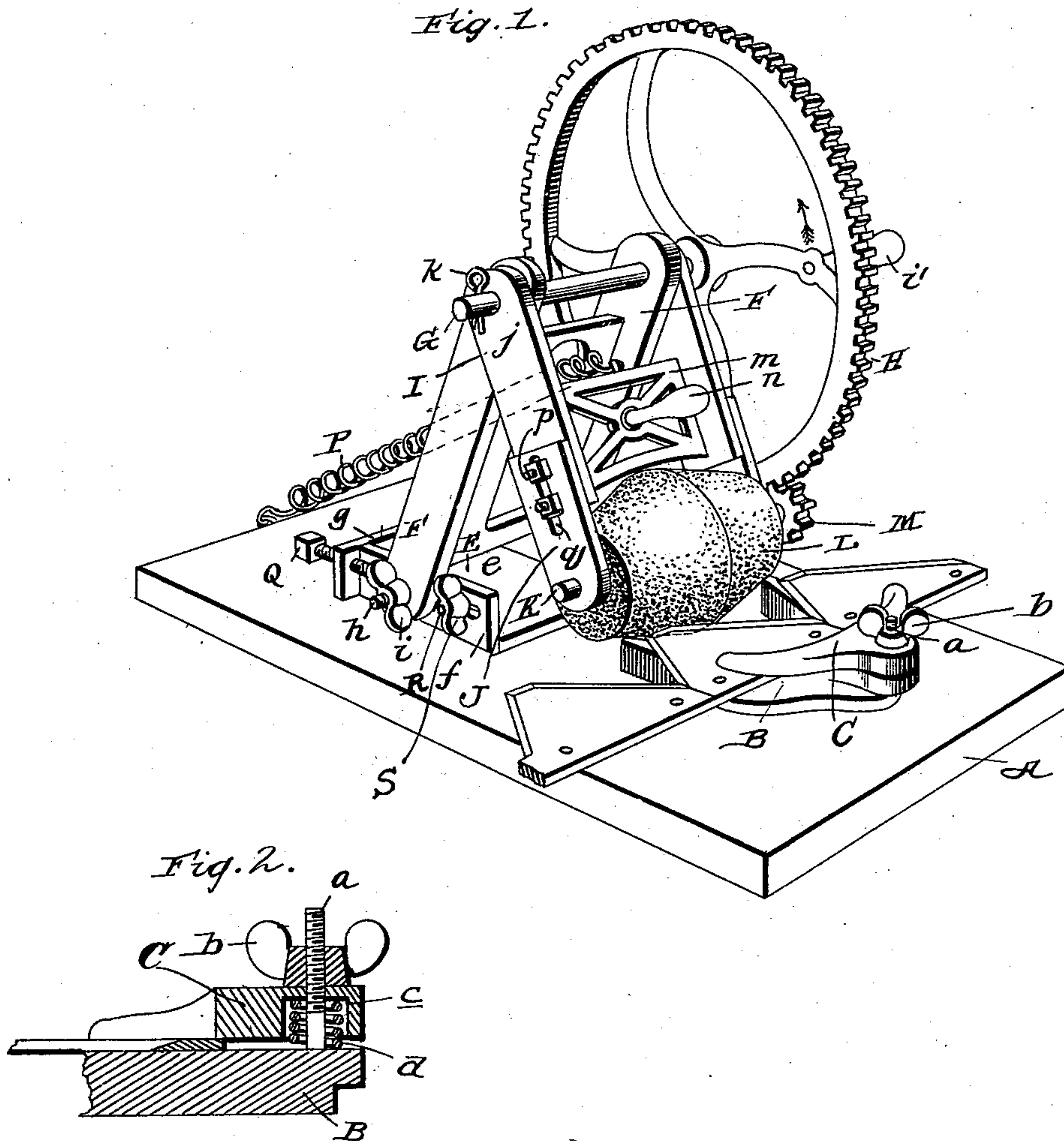


(No Model.)

B. C. ROCKWELL.
SICKLE GRINDER.

No. 558,522.

Patented Apr. 21, 1896.



Witnesses:

G. H. Raeder
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UNITED STATES PATENT OFFICE.

BYRD C. ROCKWELL, OF GOSHEN, INDIANA, ASSIGNOR TO LOUIS B. ROCKWELL, OF SAME PLACE.

SICKLE-GRINDER.

SPECIFICATION forming part of Letters Patent No. 558,522, dated April 21, 1896.

Application filed July 11, 1895. Serial No. 555,629. (No model.)

To all whom it may concern:

Be it known that I, BYRD C. ROCKWELL, a citizen of the United States, residing at Goshen, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Sickle-Grinders; and I do 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 improvements in sickle-grinders; and its novelty and advantages will be fully understood from the following description and claims, when taken in connection with the annexed drawings, in which—

Figure 1 is a perspective view illustrating my improved sickle-grinder with a sickle-bar in position to be ground, and Fig. 2 is an enlarged detail section taken through the sickle-bar support and clamp.

Referring by letter to said drawings, A indicates the base of my improved grinder.

B indicates the sickle-bar support, which is suitably secured upon the base and is of a general V shape, so as to permit the grindstone to enter between its branches and engage the edges of a sickle-bar, and C indicates the sickle-bar clamp, which is preferably of the form shown, so as to securely hold the sickle-bar and yet not interfere with the operation of the grindstone. This clamp C is loosely mounted upon a threaded post *a*, rising from the support B, and it is adjustably secured on said post and against a sickle-bar by the thumb-nut *b*, and is provided in its under side with a recess *c* to receive a coil-spring *d*, which surrounds the post *a*, as illustrated.

In using the construction thus far described to secure a sickle-bar in position to have its knives ground the bar is placed upon the support B and beneath the clamp C, and the said clamp is then tightened against the bar by the nut *b*. Then the sickle-bar will be securely held in position and will not be liable to casual movement. When the grinding of the bar is completed, the nut is loosened, when the spring *d* will raise the clamp C, so as to permit of a ready removal of the bar.

E indicates a frame which is secured on the

base A, and preferably comprises the bottom plate *e*, side plates *f*, and back plate *g*, which is preferably extended beyond the side plates, as shown.

F indicates standards which are connected to the side plates *f* of frame E, preferably by screws *h*, provided with thumb-nuts *i*.

G indicates a shaft which is journaled in the standards adjacent to the upper end thereof and is provided at one end with a crank and gear-wheel H, having a handle *i'*, and I indicates a frame which comprises side bars *j*, which are loosely mounted on the shaft G and secured by pins *k* or other suitable means, and a connecting-bar *m*, which is provided with a suitable handle *n*, as illustrated, for a purpose presently described.

The side bars *j* of the frame I are provided with two or more bolts *p*, and these bolts, which have suitable nuts, are designed to take through longitudinal slots *q* in bars J and thereby adjustably fix the same with respect to the frame I. The bars J carry the shaft K, on which the peculiar-shaped grindstone L and pinion M are fixed, and by reason of the said bars being adjustable with respect to the frame I it will be seen that the pinion M may be suitably adjusted with respect to the gear-wheel H, with which it meshes, as illustrated.

P indicates a coiled spring, which is connected to the frame I and base A and is designed to draw and hold the grindstone away from the sickle-knives when the wheel H is released by the operator.

Q indicates screws which take through the extended portions of the back bar *g* of frame E and engage the rear edge of the standards F and are adapted to limit the backward movement of said standards; and R indicates screws which take through slots in the side bars *f* and are provided with thumb-nuts S.

The screws R may be adjustably fixed at various points in the length of the slots by tightening the nuts S, and the said nuts when thus adjustably fixed are designed to serve as stops to limit the forward movement of the standards F and hold the same in a forwardly-inclined position, as clearly shown in Fig. 1.

In the practical operation of my improved grinder the sickle-bar is clamped in position

in the manner before described, and after the standards F are suitably adjusted the wheel H is turned in the direction indicated by arrow in Fig. 1. Said wheel engaging the pinion M will rotate said pinion and the grindstone and at the same time will hold the grindstone against the knives of the sickle-bar, so as to insure the proper grinding thereof.

Having described my invention, what I claim is—

The sickle-grinder described comprising the base, a device for holding the sickle-bar, the frame E, mounted on the base and having the laterally-extended rear bar *g*, and the side bars *f*, provided with longitudinal slots, the standards F, connected to the frame, a shaft journaled in the standards F, adjacent to the upper ends thereof and carrying a crank and gear-wheel at one end, the bars I, connected

together and loosely connected to the shaft, a coiled spring connecting said bars I, and the base, bars J, adjustably connected to the bars I, a shaft journaled in said bars J, and carrying a grindstone, and also a pinion meshing with the gear-wheel, the adjusting-screws Q, carried by the extended portions of the rear bar *g*, of frame E, and engaging the rear edges of the standards F, and screws taking through the slots in the side bars *f*, of frame E, and having nuts adapted to engage the forward edge of the standards, all substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

BYRD C. ROCKWELL.

Witnesses:

L. B. ROCKWELL,

WILLIAM W. WICKHAM.