

T. R. STEWART.
GRINDING-MACHINE.

No. 189,965.

Patented April 24, 1877.

Fig. 1.

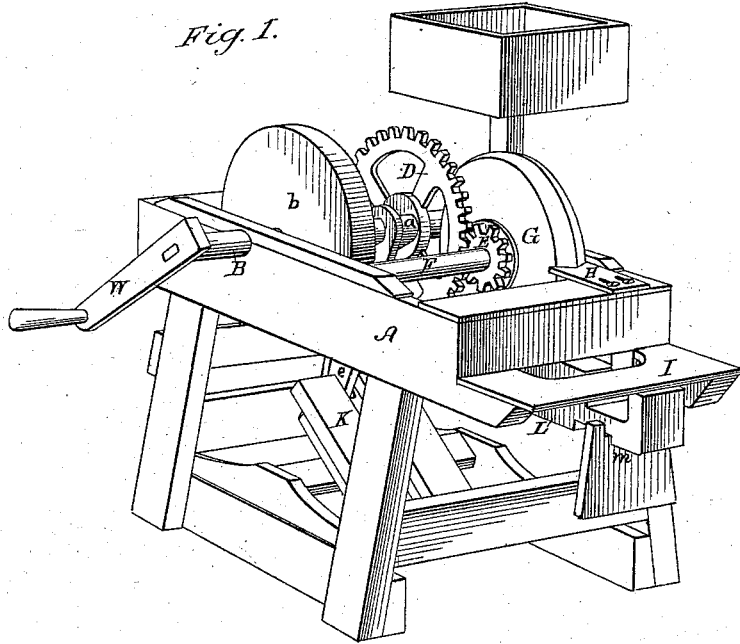
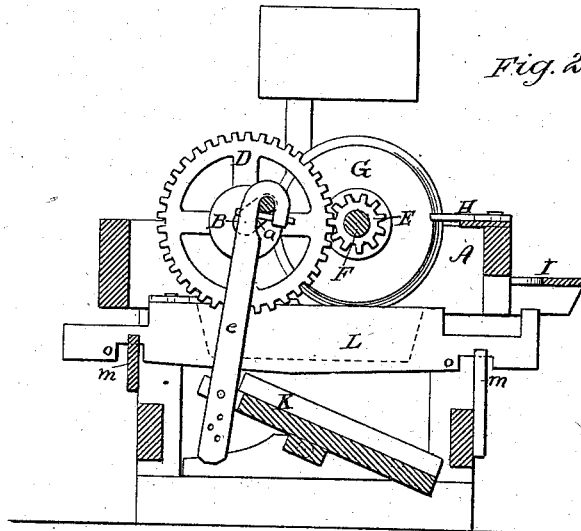


Fig. 2.



Witnesses:

Clarence Poole
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Inventor:

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per atty.
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UNITED STATES PATENT OFFICE.

THOMAS R. STEWART, OF CORINTH, ILLINOIS.

IMPROVEMENT IN GRINDING-MACHINES.

Specification forming part of Letters Patent No. **189,965**, dated April 24, 1877; application filed March 23, 1877.

To all whom it may concern:

Be it known that I, THOMAS R. STEWART, of Corinth, Williamson county, State of Illinois, have invented a new and Improved Machine for Grinding Sickle-Bars of Harvesters; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 is a vertical sectional view.

The object of my invention is to provide a cheap and convenient machine for grinding the blades of sickle-knives of harvesters; and it consists in a certain combination and arrangement of certain devices, as hereinafter described and claimed.

In order that those skilled in the art may make and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A is a frame-work, in which is journaled a shaft, B, on which is a double crank, *a*, a grindstone, *b*, having a plane face, and a cog-wheel, D. The cog-wheel D meshes into a pinion, E, on the shaft F, also journaled in the frame A, and carrying a pyramid-faced grindstone, G, to conform in shape to the angle between the teeth of the sickle-knife, so as to grind the two edges of the blade at the same time. An adjustable rest, H, serves to sustain the blade while being ground, and a seat, I, having means for accommodating the legs of the operator, allows

the machine to be worked through the medium of the treadle K and crank *a*, connected by the pitman *l*. A trough, L, rests on two supports, *m*, and in a line beneath the stone G, so as to furnish water to the stone. At each end of the trough is an offset, *o o*, of such a depth that when the trough is moved longitudinally it drops these offsets over the rests, and the trough is thereby so lowered as to take the water from contact with the stone G.

Thus it will be seen that I have combined and arranged in one machine a bevel-faced stone running at a high velocity, and a plane-faced stone running at a comparatively low velocity, this being the best comparative velocity for the two kinds of work to be performed by the stones. The shaft B may be supplied at its end with a hand-crank, W, to aid in turning the stones.

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

The stone *b*, mounted with a cog-wheel, D, on a crank-shaft, B, and running at a low velocity, in combination with the bevel-faced stone G, running at a higher velocity than stone *b*, and pinion E on shaft F, and frame-work A, all constructed, arranged, and operated as set forth.

THOMAS R. STEWART.

Witnesses:

JAMES WIGGS,
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