M. L. MOWRER.

TOOL-GRINDING MACHINE.

No. 169,829. Patented Nov. 9, 1875.

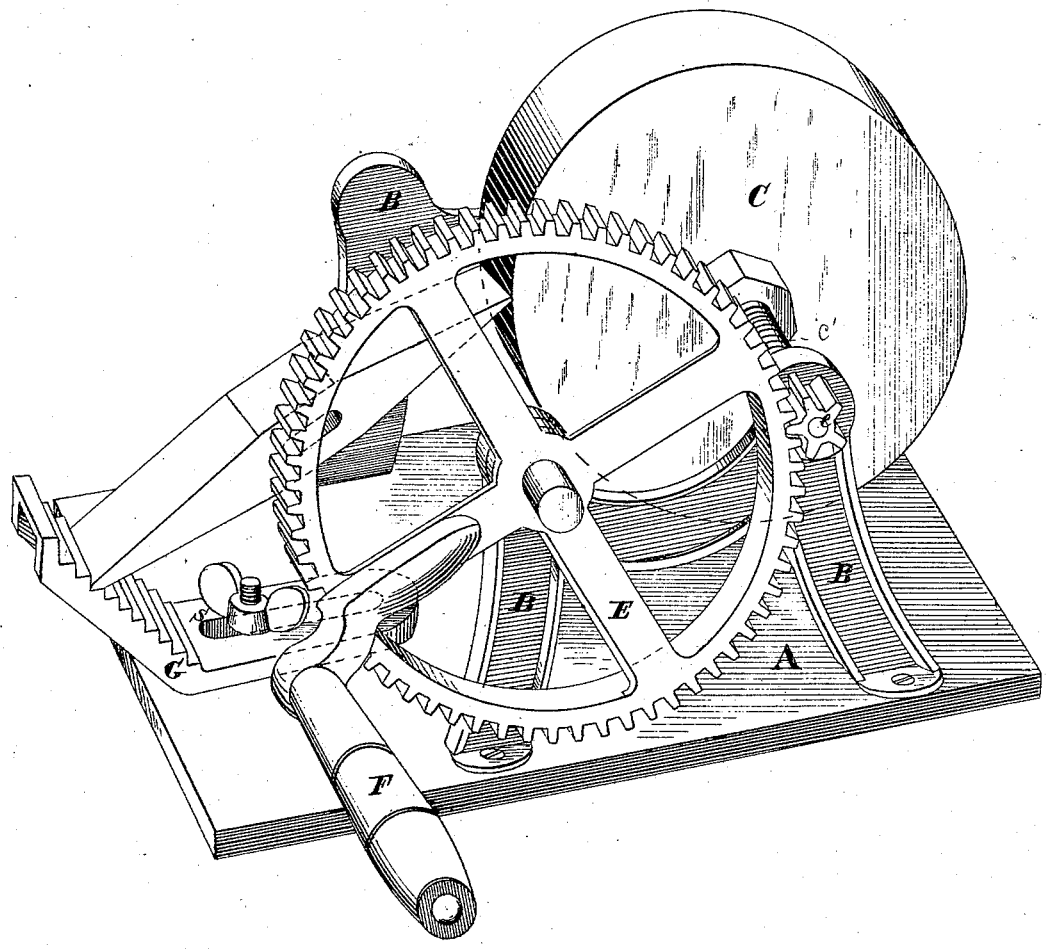

Fig. 1

Attest
E. C. Wood
John O'Gara

Inventor.
Martin L. Mowrer
by his Attorneys
Young & Gottschall

UNITED STATES PATENT OFFICE

MARTIN L. MOWRER, OF DAYTON, OHIO.

IMPROVEMENT IN TOOL-GRINDING MACHINES.

Specification forming part of Letters Patent No. **169,829**, dated November 9, 1875; application filed June 28, 1875.

To all whom it may concern:

Be it known that I, MARTIN L. MOWRER, of the city of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Grinding-Machines, of which the following is a specification:

My invention relates to an improvement in the method of grinding tools, the object of which is to furnish means whereby any tool can be ground at any desired bevel. It consists in providing an adjustable angle and gage plate attached to the frame of the guides, so that it may be set to grind tools of different lengths, with almost any desired bevel to the edge of the tool.

It is here represented as employed to grind mill-picks.

Figure I is a perspective view of my improvement combined with a mill-pick grinder.

A represents the base of a grinding-machine; B B, standards, upon which is mounted the grinding mechanism, which, in this case, consists of an emery-wheel, C, mounted on arbor *c'*, which is revolved by means of spur-gear E *e*, turned by the handle F by the hand of the operator. G represents the angle gage-plate, which has a series of angle-teeth placed in the oblique face fronting the emery-wheel, as shown in the drawing. S represents a slot, made in the shank of the gage, through which a set-screw passes to fasten it to the grinding-frame. This slot allows the gage-plate to be set nearer to or farther from the grinder, to accommodate the machine to tools of different lengths.

Angular steps in the oblique front face of the gage-plate G are for the bottom end of the tool to rest in, and the tool is ground with the desired bevel, according to the angle of inclination at which it is held. Each different step grinds the bevel in a different angle, and it may always be ground at the same angle. The number of steps and different degrees of inclination may, of course, be varied at pleasure.

I claim as my invention—

In combination with the frame A and wheel C, the adjustable slotted angle-plate G, and the screw rod and nut S, said angle-plate being provided with a series of angle-teeth in which one end of the tool is adapted to set in such position as to present its other end to the stone C at any desired angle, substantially as described.

In testimony whereof I have hereunto set my hand this 1st day of June, 1875.

MARTIN L. MOWRER.

Witnesses:

GEO. M. YOUNG,

M. J. FINCH.