E. P. TERRELL

Saw-Grinder.

No. 197,298. Patented Nov. 20, 1877.

Fig. 1.

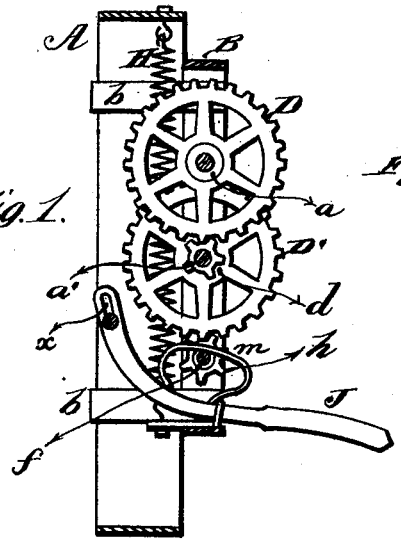
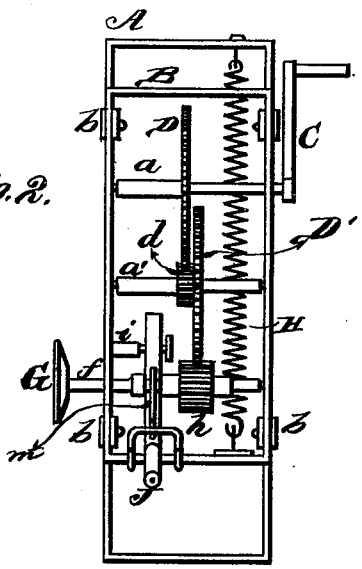



Fig. 2.




WITNESSES

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# UNITED STATES PATENT OFFICE.

ENOCH P. TERRELL, OF BELLEFONTAINE, OHIO.

## IMPROVEMENT IN SAW-GRINDERS.

Specification forming part of Letters Patent No. **197,298**, dated November 20, 1877; application filed September 15, 1877.

*To all whom it may concern:*

Be it known that I, ENOCH P. TERRELL, of Bellefontaine, in the county of Logan and State of Ohio, have invented a new and valuable Improvement in Saw-Grinders; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a part sectional side view of my saw-grinder, and Fig. 2 a front view thereof.

The nature of my invention consists in the construction and arrangement of a machine for grinding saws, and is particularly adapted to the grinding of circular saws, as will be hereinafter more fully set forth.

The annexed drawings, to which reference is made, fully illustrate my invention.

A represents the main frame of my saw-grinder, on the front of which is a movable frame, B, held thereto by means of hooked arms *b b*, in such manner that it cannot become detached, while at the same time it is free to move up and down, as required. In the upper part of the movable frame B is a shaft, *a*, provided on one end with a crank, C; and within the frame, on said shaft, is secured a cog-wheel, D, which meshes with a pinion, *d*, upon a second shaft, *a'*. On this latter shaft is secured a second cog-wheel, D', which meshes with an elongated pinion, *h*, upon a laterally-movable shaft, *f*. One end of this shaft projects beyond the frames, and has upon its end the grinding-wheel G.

The movable frame B thus carries the entire operating mechanism, and it is held in an elevated position by means of a spiral spring, H. This frame is lowered so as to bring the wheel G down to the work by means of a lever, J, having a slot, *x*, in its inner or rear end, which passes over a stud, *i*, projecting inward from the main frame A. This lever is also provided with a staple, *m*, which passes over the shaft *f* in a circumferential groove thereon.

The operator taking hold of the lever J with the left hand, the frames A and B being held vertically, presses down the frame B until the wheel G comes in contact with the saw, while with the right hand he turns the crank C, so as to rapidly rotate the grinding-wheel. As soon as he relieves the pressure on the lever J the spring H at once raises the frame, bringing the wheel away from the saw.

By means of the lever J the shaft *f* may be moved laterally, so as to bring the grinding-wheel on either side.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a stationary main frame, A, of a frame, B, sliding thereon, and connected therewith by a spring, H, and hooked arms *b b*, and carrying the shaft *f* of the grinding-wheel, the gear-wheels D D, *d h*, and the lever J and crank C, substantially as described, and for the purpose set forth.

2. The combination, with a stationary frame, A, and sliding frame B, constructed as set forth, and connected with the frame A by a spring, H, and hooked arms *b b*, of the gear-wheels D D' *d h*, laterally-movable grooved shaft *f*, carrying the grinding-wheel G, and lever J, having the staple *m*, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ENOCH P. TERRELL.

Witnesses:
JOS. H. LAWRENCE,
E. J. HOWENSTINE.