(Model.)

G. ANDREWS.

DEVICE FOR ROUGHENING GRINDSTONES.

No. 272,615. Patented Feb. 20, 1883.

Fig 1

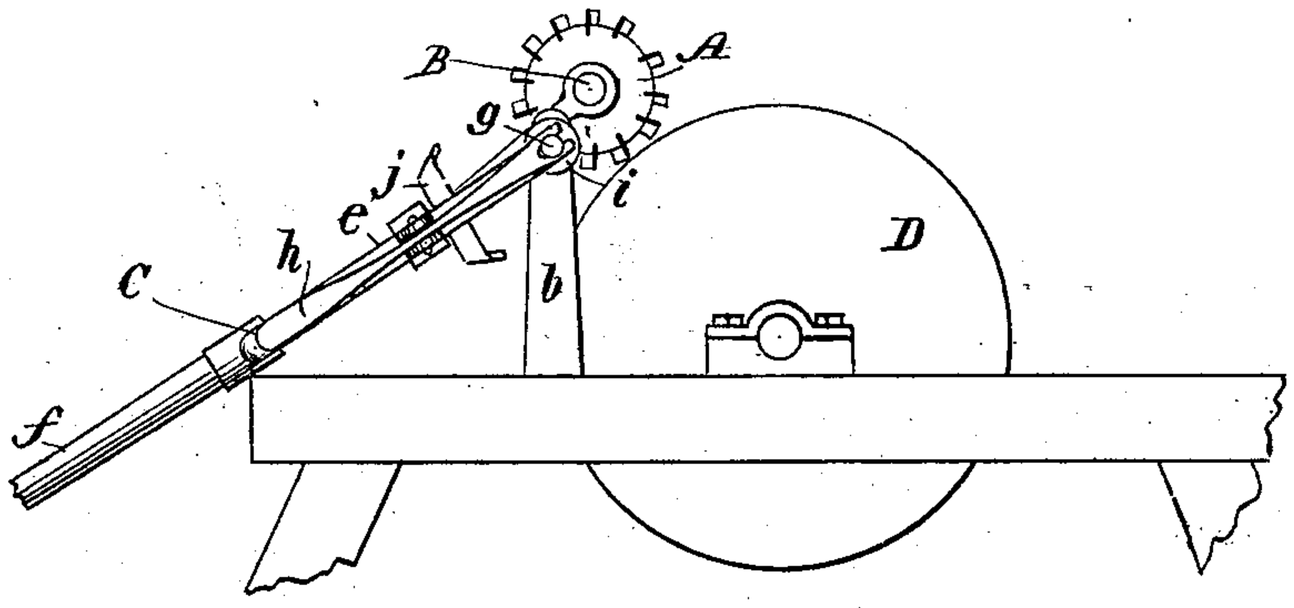
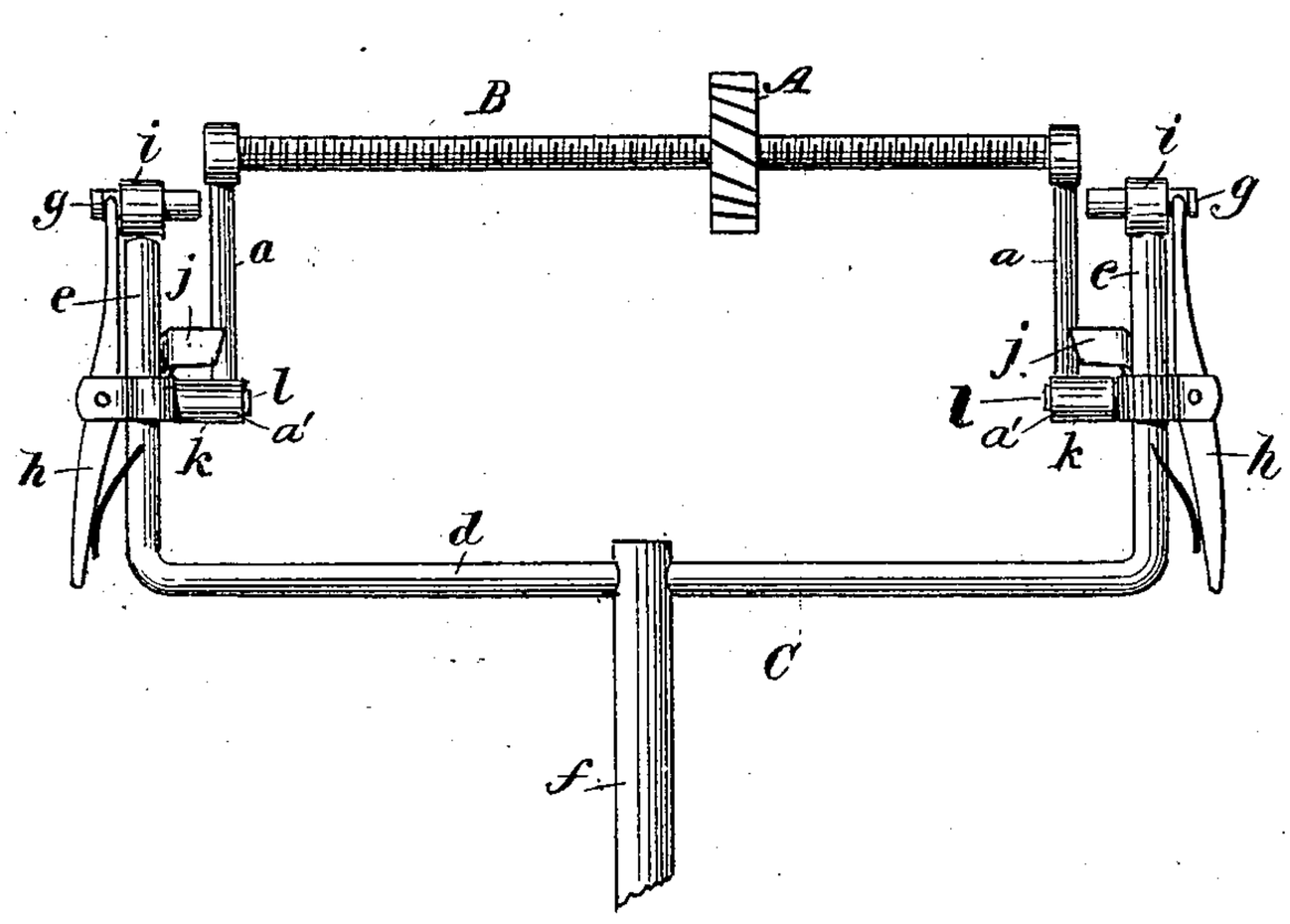


Fig 2



WITNESSES:

J. D. Garfield

C. Sedgwick

INVENTOR:

G. Andrews

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE ANDREWS, OF BELLOWS FALLS, VERMONT.

DEVICE FOR ROUGHENING GRINDSTONES.

SPECIFICATION forming part of Letters Patent No. 272,615, dated February 20, 1883.

Application filed May 31, 1882. (Model.)

To all whom it may concern:

Be it known that I, GEORGE ANDREWS, of Bellows Falls, in the county of Windham and State of Vermont, have invented a new and Improved Device for Roughening Grindstones, of which the following is a full, clear, and exact description.

My invention consists of a device or machine for pecking grindstones for giving to the stone a new and sharp or roughened surface. The device is more especially intended for grindstones used for grinding wood for making paper-pulp.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of a grindstone, showing my roughening device applied thereto; and Fig. 2 is a plan view of the device.

A represents a bladed internally-screw-threaded wheel for running in contact with the surface of the stone D for cutting and pecking the same. The wheel is placed upon the screw-rod B, and is adapted, when the rod and wheel are applied to the stone, to travel upon the rod from one edge of the stone to the other, the wheel being revolved by the stone as the stone revolves.

The wheel and screw-rod may be applied to the stone in various ways. The means I prefer to employ consists of the frame C, adapted to be attached to the uprights *b b* of the frame of the grindstone, in which frame C the screw-rod is hinged to swing vertically on inwardly-projecting studs *l*, passing through sleeves *k* on the ends of rods *a*, as shown.

The frame C is composed of the rod *d*, bent to form the parallel arms *e e*, and of the handle *f*, attached to the rod *d*, for handling the device. The outer ends of the arms *e e* are formed with the sleeves *i i*, in which are placed the sliding pins *g g*, which are adapted to enter suitable orifices made in the upper ends of the uprights *b b* for holding the frame in place.

h h are spring-supported levers pivoted to the outside of the arms *e e*, for operating the sliding pins for attaching and detaching the device in position for use.

In use the wheel A is to be turned until it reaches one end of the screw-rod B. The device is then to be attached to the uprights *b b*, as shown in Fig. 1, in which position the blades of the wheel A will rest in contact with the grinding-surface of the stone. As the stone revolves the wheel A will be turned upon the rod, which will cause it to gradually traverse the width of the stone, pecking and sharpening the stone as it goes. When the wheel shall have traversed the width of the stone the frame C has simply to be detached and reversed, which will bring the wheel A again into position upon the same side of the stone from whence it started for repeating the operation.

j j represent stop-plates secured to the arms *e e*, which serve to prevent the wheel and screw-rod getting out of position in the frame C while the device is being reversed or when not in use.

The blades in the wheel A may be made straight across the periphery of the wheel or diagonally across, as found most expedient.

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

1. The frame consisting of the handle *f*, cross-piece *d*, side arms, *e*, and the inward projecting studs *l* thereon, in combination with the internally-screw-threaded wheel A on the screw-rod B, the arms *a*, fixed to said screw, and the sleeves *k*, secured to said arms *a*, and oscillating upon said studs *l*, as shown and described.

2. The frame C, provided with the sliding pins *g g*, and the spring-supported levers *h h* for operating the pins, in combination with the screw-rod B, arms *a a*, and the wheel A, substantially as described.

3. The combination, with the roughening-wheel A, provided with the screw B, arms *a*, and sleeves *k*, of the handle or bail C *d e f*, provided with studs *l*, of the stop-plates *j*, secured to the bail or handle described beyond said stud *l* from the handle C, as and for the purpose specified.

4. The device for roughening grindstones, made substantially as herein shown and described, consisting of the screw-rod B and bladed wheel A, hinged in the frame C, the said frame being provided with the stops *j*, spring-supported levers *h*, and the sliding pins *g*, as set forth.

GEORGE ANDREWS.

Witnesses:
CHARLES E. HOWARD,
ERNEST C. HOWARD.