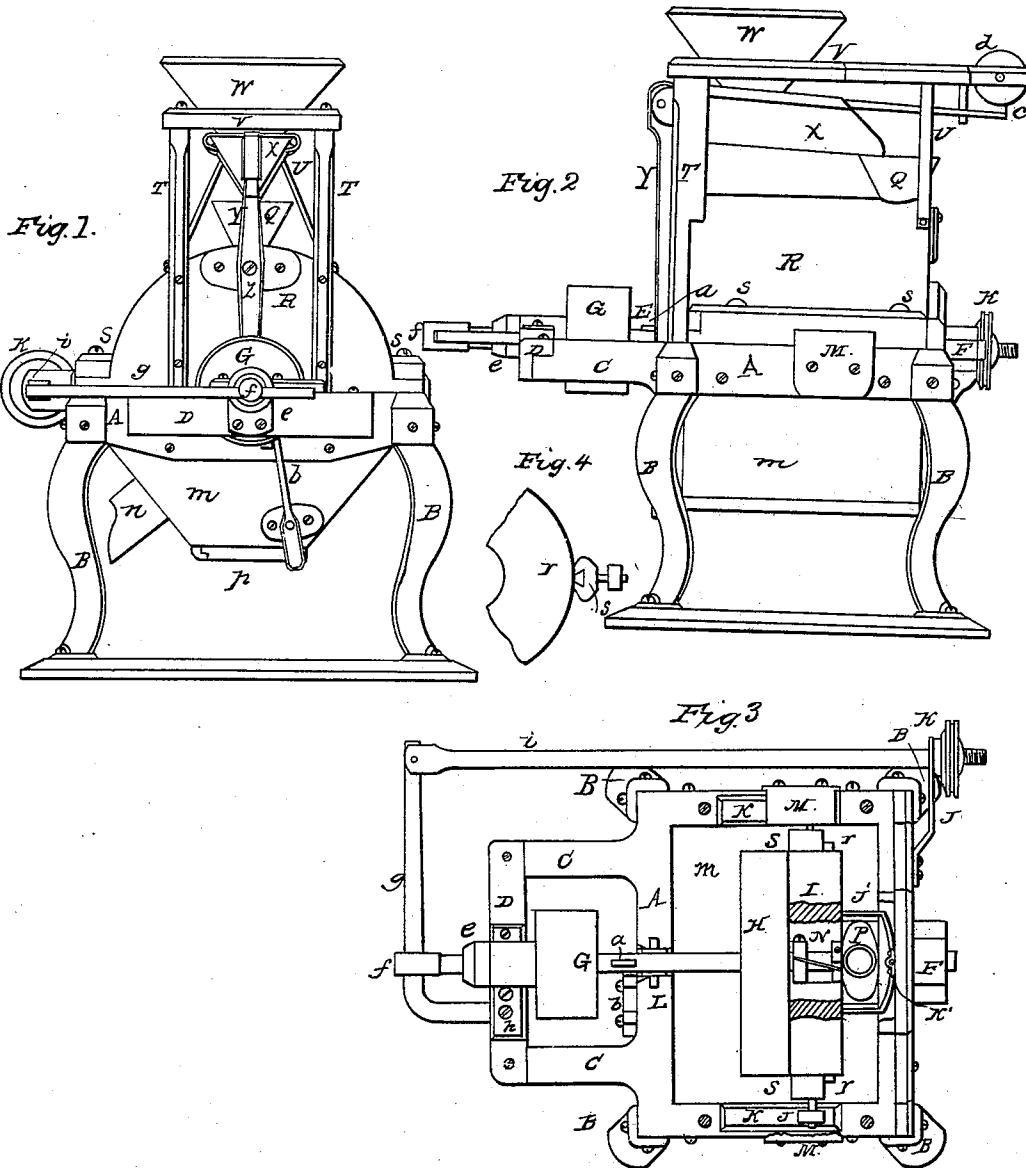


C. & A. KAESTNER.

Grinding Mill.

No. 53,989.

Patented April 17, 1866.



Witnesses
 J. E. Dennis
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Inventors
 Charles & Augustus Kaestner
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UNITED STATES PATENT OFFICE.

CHARLES KAESTNER AND AUGUSTUS KAESTNER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN GRINDING-MILLS.

Specification forming part of Letters Patent No. **53,989**, dated April 17, 1866.

To all whom it may concern:

Be it known that we, CHARLES KAESTNER and AUGUSTUS KAESTNER, both of Chicago, Cook county, and State of Illinois, have invented certain new and useful Improvements in Grinding-Mills; and we do hereby declare that the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use our said invention or improvements without further invention or experiment.

The nature of our invention and improvements consists in the peculiar construction and arrangement of devices hereinafter described and claimed in the following specification.

In the accompanying drawings, Figure 1 is an elevation of one end of a mill with our improvements. Fig. 2 is an elevation of one side, and Fig. 3 a plan or top view with the hopper and top casing removed.

In these drawings, A is a rectangular frame, supported by four legs, B B B B. This frame and legs we make of cast-iron, in the form shown in the drawings—that is, the rectangular frame has two arms, C C, projecting from it, to which arms the bar D is bolted, which has a box on or in it for the journal of the shaft E, and the journal at the opposite end of said shaft turns in box F on the frame A.

The shaft E has the pulley G fastened to it for a band from some moving power to turn the mill. The rotating stone H is fastened to this shaft E, and is carried by it. The shaft E turns in the stationary stone I, which stone is hung on radial pivots provided with rollers, one of which is shown at J, Fig. 3, which rollers J traverse in the grooves K K when the stone and shaft are removed for the purpose of picking and sharpening. There is also a roller, L, in the frame A, right under the shaft E, as shown in Fig. 3, to support the shaft when the bar D and journal-box are removed and the shaft drawn out of the box F, so that the shaft and stones may be removed and turned with their faces upward to be picked without turning up the frame or running any risk of breaking the frame or legs.

There are some caps, M M, fastened to the frame A to cover the rollers J, one of which is broken off to show the roller in the drawings.

The top of the stationary stone I is broken

out to show the feeding-fan N, fastened to the shaft E, which fan is made spiral or inclined to the face of the running stone to carry the grain from the stationary toward the running stone and deliver it between them.

P is a pipe fitted to the opening in the stone I, and extending up to receive the end of the funnel Q, supported by the casing R, which covers the stones.

The two-armed bracket J' has a hole in it for the shaft E, and is hung to the frame A by two pivots, one above and the other below the shaft, (see K', Fig. 3,) so as to rock freely on the pivots K' and press the stationary stone uniformly against the running stone, the ends of the bracket being rounded to let the stone rock in either direction.

The top casing, R, is made in the form shown in the drawings, and fastened to the frame A by the bolts S S, and to this casing the standards T T are fastened, and the bracket U to support the top piece, V, which holds the hopper W, into which the grain is fed to be ground, and passes from the hopper into the shoe X, which conveys it to the funnel Q, above mentioned. The rear end of the shoe is supported by the lever Y, which vibrates on a screw, Z, in the case R, and is vibrated by the tappet *a* in the shaft E, (shown in Fig. 3,) and by the spring *b*, fastened to the casing under the stones. The frame of the shoe X extends across the funnel, and is suspended by the cord *c* to the axis of the hand-wheel *d*, which turns in the top piece, V, to adjust the shoe to feed fast or slow, as desired.

To press the running against the stationary stone, we fasten the stand *e* to the bar D, to support the traversing-pin *f*, which has a mortise in it for the lever *g*, which lever has its fulcrum on the screw *h* in the bar D.

The lever *g* is connected to the rod *i*, which runs by the side of the frame and through the bracket *j*, and has a screw-thread upon it fitted to the hand-wheel *k*, which may be turned to adjust the running to the stationary stone to grind fine or coarse, as required. The stones are covered under the frame by the case *m*, which is provided with a spout *n*, for the meal to pass out, and the bottom board, *p*, is fitted with tongue and groove *q*, so that it may be slipped out to clean the case.

To make the pivots of the stationary stone

movable to adjust or balance the stone on the pivots, we fasten some dovetailing pieces *r* to the stone, (see Fig. 4,) and fit a block, *s*, to traverse on them, with a female screw in the block to which the pivot is fitted to serve as a set-screw to hold the block in place and as a pivot for the stone.

We claim—

1. The adjustable radial pivots provided with rollers *J*, working in grooves on the frame to support the stationary stone, in combina-

tion with the pivoted bracket *J'*, arranged as described, for the purposes set forth.

2. Making the pivots adjustable on the edge of the stationary stone, substantially as described, for the purpose of balancing the stone.

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