(No Model.)

J. M. REPLOGLE.

GRINDING MILL.

No. 263,220. Patented Aug. 22, 1882.

Fig. 1.

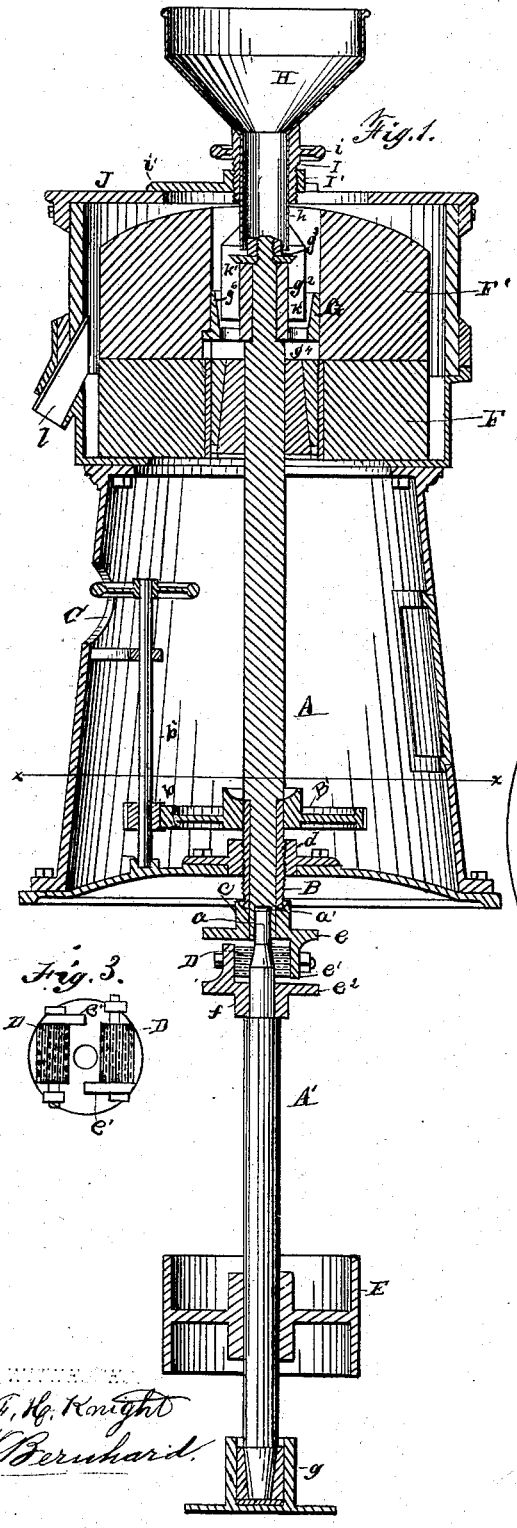

Fig. 4.

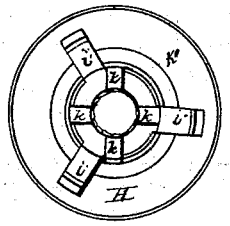

Fig. 5.

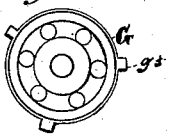

Fig. h.

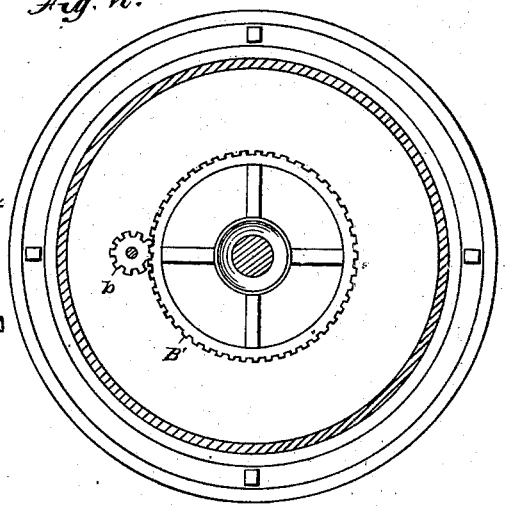

Fig. 3.

WITNESSES:
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UNITED STATES PATENT OFFICE.

JACOB M. REPLOGLE, OF FARRAGUT, IOWA.

GRINDING-MILL.

SPECIFICATION forming part of Letters Patent No. 263,220, dated August 22, 1882.

Application filed June 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, JACOB M. REPLOGLE, a citizen of the United States, residing at Farragut, in the county of Fremont and State of Iowa, have invented certain new and useful Improvements in Grinding-Mills; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention consists in the combination of parts, as also in their construction, substantially as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a sectional elevation of my improved grinding-mill. Fig. 2 is a section on line *x x* of Fig. 1. Figs. 3, 4, and 5 are detailed views of parts of my mill.

In carrying out my invention I mount the mill-spindle A adjustably upon the driving-shaft A′, which has a pintle, *a*, entering a socket, *a′*, in the lower end of the spindle. The adjustability of the spindle which carries the running-stone, whose relative adjustment with the fixed or lower stone is effected thereby, is obtained by means of a screw-threaded sleeve, B, fitted around a reduced portion of the spindle, and carrying a toothed wheel, B′, gearing with a pinion, *b*, on a hand-wheel shaft, *b′*. The hand-wheel of said shaft is reached through a case, C, inclosing the latter-named parts. The shaft *b′* is suitably stepped in the bottom of the inclosure C. A door is provided in the opposite side of the case for the removal of husks from it which may fall therein. The sleeve B has its lower end resting in a collar, *c*, provided with an annular lubricant-channel to lubricate said end. The screw or sleeve B works in a screw-threaded collar, *d*, bolted to the bottom of the case or inclosure C. The collar *c* at the lower end of spindle A has a flange, *e*, depending from which are plates *e′*, arranged out of the same plane. Similarly-arranged plates e^2 e^2 are affixed to the upper surface of a similar collar, *f*, resting upon a shoulder on the shaft A′. This provides for the arrangement of an elastic cushion or spring, D, on each side of the shaft A′ and permits the coupling together yieldingly of the spindle A and said shaft, whereby a flexible joint is obtained between the driving-pulley and the spindles. The elastic cushions are secured upon or have passed through them bolts inserted each in one of the plates of the upper collar, *c*, and one of the plates of the lower collar, *f*, as seen in Figs. 1 and 3.

E is the driving-pulley, secured upon the shaft A′ contiguously to the bearing or step *g* of its lower end. Notwithstanding the strain of the driving-belt which drives the pulley and its shaft may cause the uneven wear of said step or bearing, which will tend to deflect or careen the shaft, such declination or deflection will be prevented from being transmitted to and interfering with the verticality of the spindle.

F F′ are the stones or burrs, one fixed or bolted to the annular bottom of the curb, and fitted, as against the entrance of grain, at its eye around the spindle A, passing through it, as shown. The upper running-stone, F′, is hung by means of the bail and driver G upon the spindle A. The bail and driver G consists of the sleeve g^2, fitted and nutted, as at g^3, upon the upper reduced end of the spindle, with its lower end, which rests upon a shoulder of said spindle, provided with an annular apertured flange, g^4. This flange has horizontal projections or studs g^5, fitted into recesses in the stone F′ to support it, and also an upwardly-projecting rim or annulus, g^6, fitting against the walls of the eye of the stone, as clearly seen in Fig. 1.

H is the hopper, provided around its neck *h*, which passes down into the eye of the stone F′, with an exteriorly-screw-threaded sleeve, I. This sleeve has a hand wheel or disk, *i*, and works in a screw-threaded collar, I′, having arms *i′*, connecting it to the curb J. The curb J surrounds the stones and has its lower half bolted to the annular top of the case C. The purpose of the screw-threaded sleeve, with its adjuncts just described, is to enable the relative adjustment of the hopper with the stone F and its bail or driver as occasion may require. The neck or tubular portion of the hopper is connected by oblique arms *k* to tube *k′* of greater diameter, which reaches down into the driver, as seen in Figs. 1 and 4. This arrangement, while permitting a thorough circulation of air-currents through the feeding grain in the burrs, prevents, in connection with the apertured

bail and driver, the grain obtaining sufficient lodgment to arrest its proper feeding—an annoyance hitherto experienced. The scoured or ground grain passes out of the curb through its spout *l*.

The parts shown and described, but not claimed, are not of my present invention, but are simply embodied in the case as useful to a full understanding of the mill in its completeness.

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

1. The combination, with the hopper having a depending tube, *h*, a tube, *h'*, of greater diameter than tube *h*, and the burrs or stones, of the spindle and bail or driver having the annular apertured flange provided with an upwardly-projecting rim, substantially as and for the purpose set forth.

2. In a grinding-mill, the combination, with the casing, the mill-spindle, the screw-threaded sleeve, and a screw-threaded collar, of the toothed wheel and hand or lever shaft having a pinion gearing with said wheel, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB M. REPLOGLE.

Witnesses:

GEO. C. FLEMING,

BENJAMIN CLARE.