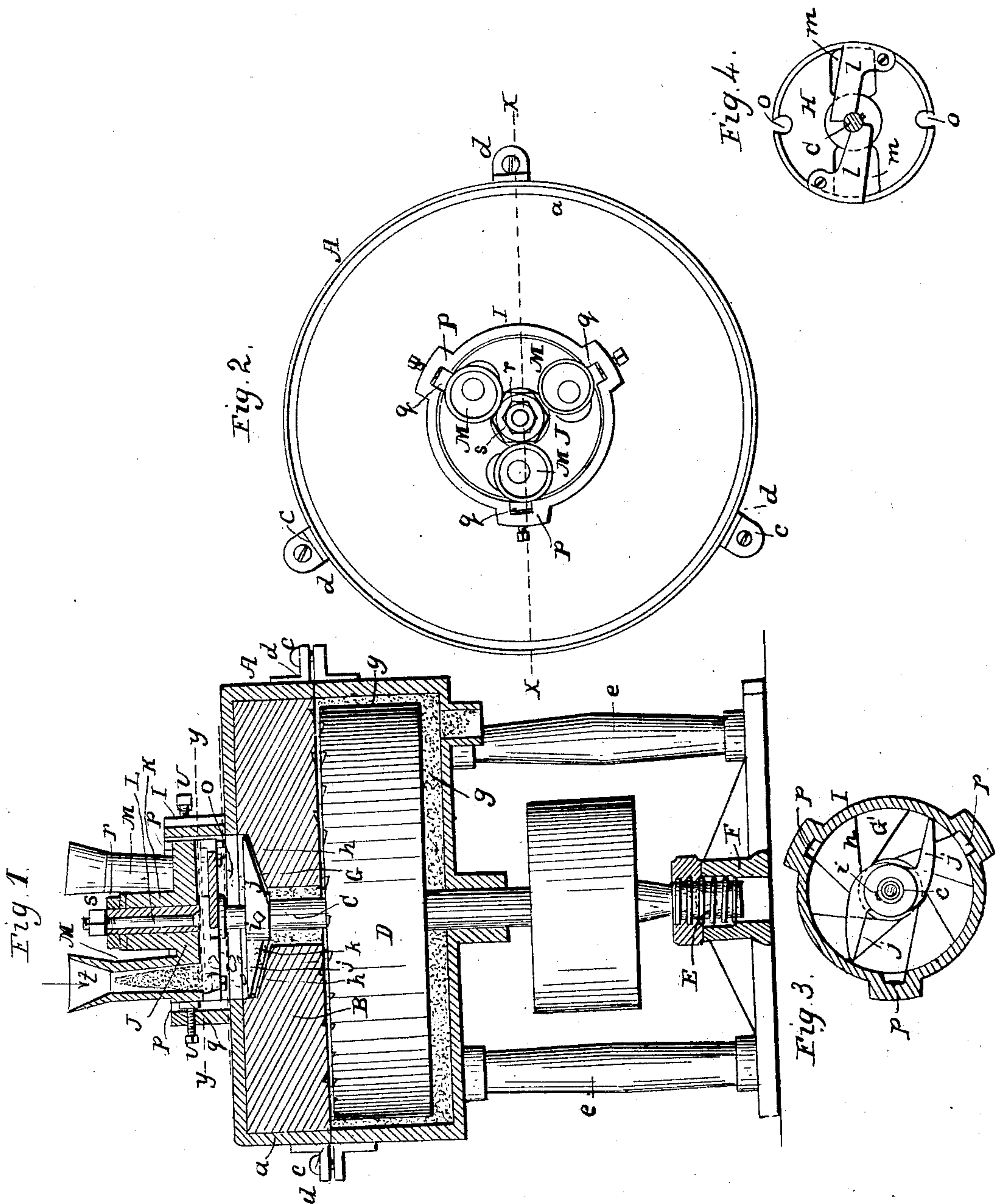


C. W. SHEDD.  
Grinding Mill.

No. 30,552.

Patented Oct. 30, 1860.



Witnesses:

J. W. Combs  
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Attorneys



# UNITED STATES PATENT OFFICE.

C. W. SHEDD, OF ADDISON, ALABAMA, ASSIGNOR TO HIMSELF, AND R. JAMISON, JR., OF TUSCALOOSA, ALABAMA.

## GRINDING-MILL.

Specification of Letters Patent No. 30,552, dated October 30, 1860.

*To all whom it may concern:*

Be it known that I, C. W. SHEDD, of Addison, in the county of Tuscaloosa and State of Alabama, have invented a new and Improved Grinding-Mill; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a vertical central section of my invention taken in the line  $x, x$ , Fig. 2. Fig. 2, a plan or top view of the same. Fig. 3, a plan or top view of the primary crushing device. Fig. 4, a detached plan or top view of the cutters.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improved mill of that class which is designed for grinding corn and cobs in the husk.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents a metallic case which is formed of two parts  $a, b$ , connected by screws or bolts  $c$ , which pass through lugs  $d$ , attached to the case. The case A, is supported at a suitable height by legs  $e$ , or any proper framing, and in the upper part  $a$ , of the case there is secured a stone B, which entirely fills said part of the case.

The stone B, is provided with a central eye or opening  $f$ , through which a vertical shaft C, passes, said shaft having a stone D, secured to it, which is somewhat smaller than the part  $b$ , of the case so as to leave a space  $g$ , all around the stone as shown plainly in Fig. 1.

The lower end of the shaft C, is fitted in an adjustable step E, so as to be capable of being raised and lowered for the purpose of regulating the stone D, according to the degree of fineness the stuff is required to be ground.

The upper part of the eye  $f$ , of the stationary stone B, is scooped out to form a basin or concave G, which is provided with furrows or a dress  $h$ , as shown in Fig. 3.

On the shaft C, above the stone B, there is secured a hub  $i$ , which has two arms  $j, j$ , projecting from it, the lower surfaces of which are inclined longitudinally to conform to the concave G, as shown clearly in Fig. 1. The arms  $j$ , are also beveled transversely so as to form a sort of knife edge  $k$ .

H, is a circular disk or plate which has two knives or cutters  $l, l$ , attached said cutters being directly over openings or throats  $m, m$ , in the disk or plate see Fig. 4. The disk or plate H, is fitted on the shaft C, and rests on a shoulder thereon, the cutters being on the upper surface of the disk. The disk is notched at two points  $o, o$ , at opposite sides of its periphery, said notches having inclined sides, so that the upper edges may be angular or somewhat sharp.

On the top of the part  $a$ , of the case A, there is a circular flanch I, which has three vertical grooves  $p$ , in its inner side and J, is a circular plate into the periphery of which pins  $q$ , are driven, said pins fitting in the grooves  $p$ . The plate J, rests on the cutters  $l, l$ , and the plate has a tube K, attached centrally to it in which a sleeve L, is placed. This sleeve L, is fitted on the shaft C, and it has a screw thread on its upper end on which a nut  $r$  is fitted. On the upper end of shaft C, there is a nut  $s$ .

To the plate J, there are attached three inclined tubes M, the upper parts of which are of inverted conical form as shown at  $t$ . The lower parts of said tubes are also of slightly conical form as shown at  $u$ , the parts  $u$ , being made longer than the parts  $t$ . Set screws  $v$ , pass through the flanch I, and bear against the ends of the pins  $q$ .

The operation of the mill is as follows: The shaft C, is rotated by any convenient power, and the ears of corn with the husks upon them are placed in the tubes M, and the ears are cut by the rotation of the cutters  $l, l$ . The cut portions of the ears pass down through the throats  $m, m$ , in the disk H, and are crushed by the action of the arms  $j, j$ , and the dress  $h$ , and the crushed portions pass down through the eye  $f$ , between the two stones, and are reduced or ground by the rotation of the stone D.

It will be seen that the shaft C, may be raised and lowered without affecting in the least the cutting operation as the plate J, and disk H, rise and fall with the shaft.

The disk H, to which the cutters  $l, l$ , are attached is kept firmly in place by the sleeve L, said sleeve resting or bearing on the inner ends of the cutters and also keeping them in proper position. By adjusting the nut on the sleeve L, the plate J, is kept snugly in contact with the cutters  $l, l$ , all wear being thereby readily compensated for.



By having the tubes M, made internally of conical form as shown, the ears are readily fed into the tubes, and the ears are prevented from sticking or wedging in the tubes. The notches *o, o*, in the cutter disk H, serve as clearers, and feed portions of husks which might have a tendency to clog the space around said disk, down below the disk.

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

1. The arrangement of the plate J, tubes M, tube K, sleeve L, provided with nut *r*, and the cutter disk H, essentially as and for the purpose set forth. 15

2. The notches *o, o*, in the cutter disk H, when used in connection with the cutters *l, l*, and the plate J, provided with the tubes M, for the purpose specified.

C. W. SHEDD.

Witnesses:

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