J. K. Leedy,

Forming Mill.

No. 108,036. Patented Oct. 4. 1870.

Fig. 1.

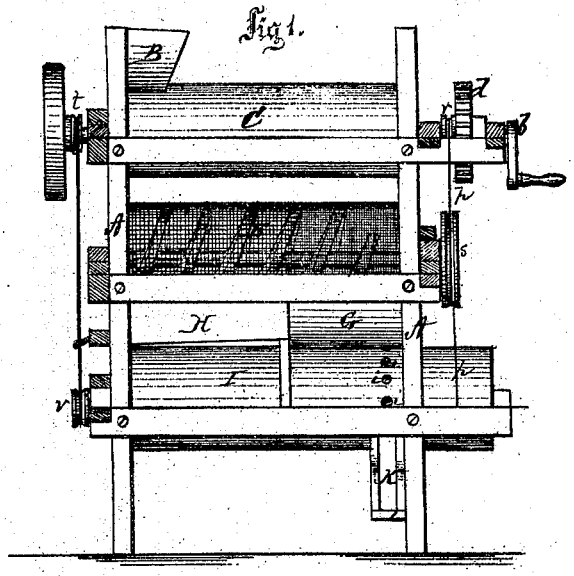


Fig. 3.

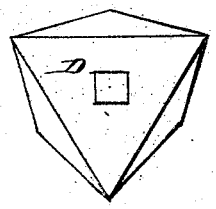


Fig. 2.

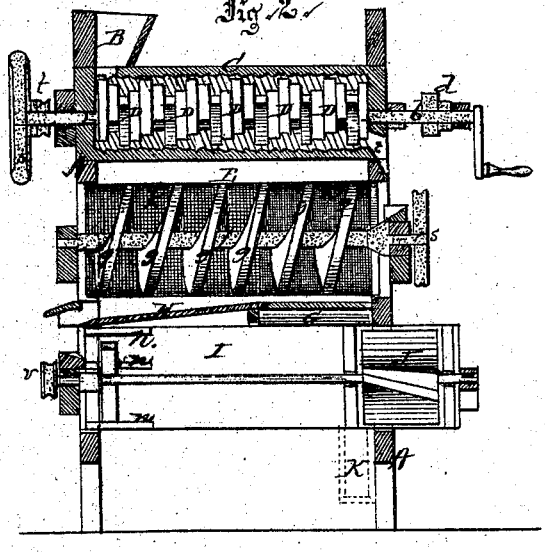
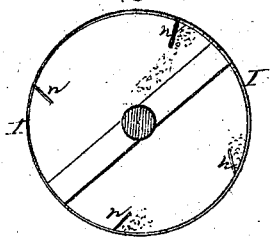


Fig. 4.



Witnesses:
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United States Patent Office.

JOHN K. LEEDY, OF MAURERTOWN, VIRGINIA.

Letters Patent No. 108,036, dated October 4, 1870.

IMPROVEMENT IN HOMINY-MILLS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN K. LEEDY, of Maurertown, in the county of Shenandoah and in the State of Virginia, have invented certain new and useful Improvements in Hominy-Mills; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a "hominy-mill," as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side view, and

Figure 2, a longitudinal vertical section of my machine.

Figure 3 is an enlarged side view of one of the knives which cut the corn, and

Figure 4 is an enlarged cross-section or end view of the cylinder in which the revolving fan is placed.

A represents the frame of my machine, in the upper part of which is the hopper B.

The corn is fed through this hopper into the cylinder C, placed lengthwise in the frame A.

The inner surface of this cylinder is grooved or corrugated diagonally, as shown in fig. 2, so as to form a series of diagonal or winding sharp ridges, against which the corn will be cut by the knives D D. Those knives are triangular in shape, with a slight hexagonal rise on the side, as shown in fig. 3, and have a square hole through the center. They are placed upon a square revolving shaft, *a*, which receives its motion from a crank-shaft, *b*, having a cog-wheel, *d*, which gears with a pinion upon the end of the shaft *a*.

By the action of the revolving knives D D on the corn against the ridges on the inside of the cylinder, the corn passes out of said cylinder in the shape of hulled hominy through the aperture *e*, and falls into the revolving screen E, placed below and parallel with the cylinder.

The screen E is composed of a shaft, *f*, provided with a winding auger-shaped flange, *g*, around which is stretched the wire-cloth *h k*.

That portion, *h*, (nearly one-half,) of the wire-cloth nearest the end where the hulled hominy enters the screen is so fine that only the meal and hominy which is too fine for use will pass through the same, and be carried off on the inclined board G; while the other portion, *k*, of the wire-cloth is coarser, allowing the hominy which is to be used to pass through and fall upon the inclined hopper-shaped conductor H.

The hulls and other substances in the corn passes out through the end of the screen over the shoot-board *m*.

The hominy passes from the conductor H into the revolving cylinder I, within which, at the opposite end, is an independently-revolving fan, J.

The corn, or rather the hominy, entering the cylinder I, is caught by the side buckets *n n*, and carried upward, and then poured down through the center of the blast from the fan, driving the fine hulls and dust, which necessarily accompany the hominy, through the screen, out of the end of the cylinder, while the hominy passes toward the wing of the fan, and out through the holes *i i* in the cylinder, and falls in the spout K completely finished.

The screen E and cylinder I are revolved by means of a belt, *p*, passing around a pulley, *r*, on the crank-shaft *b*, and around the cylinder, it being also turned once around a pulley, *s*, on the end of the shaft *f* of the revolving screen.

The fan J is revolved independently by a belt, connecting a pulley, *t*, on the shaft *a*, with a pulley, *v*, on the end of the fan-shaft. This fan-shaft has its bearings and revolves in suitable journal-boxes in the frame A, while the cylinder I has its bearings and revolves upon the fan-shaft.

The cylinder and fan may be revolved in the same or in opposite directions, as may be deemed most advantageous.

Having thus fully described my invention,

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

1. The triangular knives D, when provided with a hexagonal rise on the sides, and central openings, substantially as set forth.

2. The combination of the cylinder C, having on its inner surface a series of sharp, diagonal, or winding ridges, and the triangular knives D, constructed as described, revolving upon one shaft, all substantially as and for the purposes herein set forth.

3. The revolving cylinder I, provided with with the buckets *n n* and holes *i i*, in combination with the fan J, revolving within and independently of the cylinder, substantially as and for the purposes herein set forth.

4. The combination of the cylinder C, knives D, screen E, cylinder I, and fan J, all constructed and arranged as described, to operate substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 12th day of July, 1870.

JOHN K. LEEDY.

Witnesses:

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WILLIAM H. KELLER.