

E. FAHRNEY.
Hominy Machine.

No. 12,860.

Patented May 15, 1855.

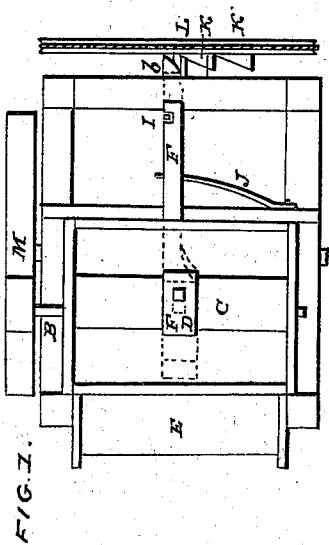


FIG. 3.

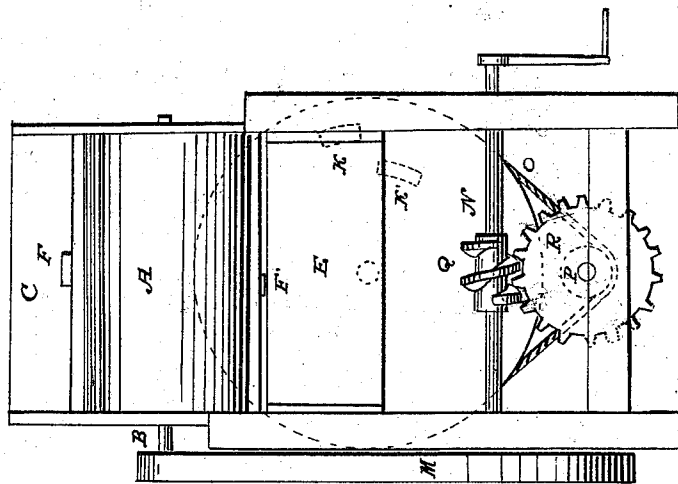
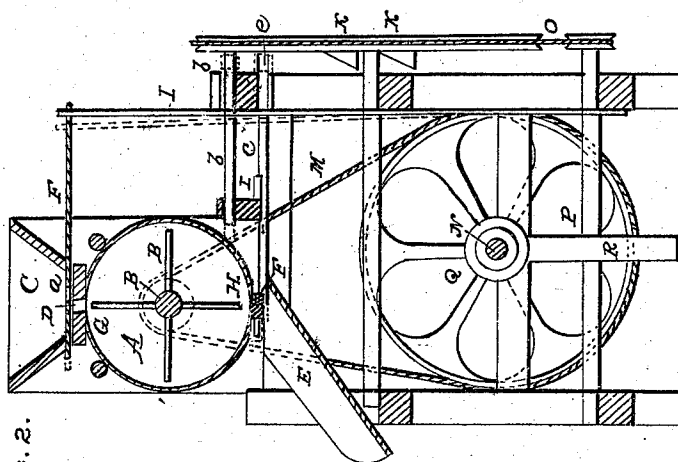


FIG. 2.



UNITED STATES PATENT OFFICE.

EZRA FAHRNEY, OF MOUNT MORRIS, ILLINOIS.

HOMINY-MACHINE.

Specification of Letters Patent No. 12,860, dated May 15, 1855.

To all whom it may concern:

Be it known that I, EZRA FAHRNEY, of Mount Morris, in the county of Ogle and State of Illinois, have invented a new and useful Improvement in Hominy-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a plan or top view of a hominy machine constructed with my improvement. Fig. 2, is a vertical transverse section of the same. Fig. 3, is a front view of the same.

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

My improvement relates particularly to that description of machine which employs a revolving shaft of radial beaters within a stationary cylinder.

The object of said improvement is to render such machines capable of self feeding and self discharging, and for retaining within them for a definite time a certain quantity of corn to be crushed or beaten into grains of a uniform size.

The nature of the same consists in providing the cylinder in which the corn is cracked, with two self adjusting slides, one arranged over the inlet or feed passage and the other under the outlet or discharge passage in the bottom of the cylinder, said slides being arranged in such relation to two cams arranged a short distance apart on the face of a wheel which has a slower motion than the beater shaft, that at every revolution of said wheel they are both operated and caused to open said feed and discharge passages one after the other, the discharge passage being opened first by the forward cam, and owing to the slow motion of the wheel on which said cam is arranged is kept open until the contents of the cylinder have escaped, when or as soon as the cam escapes by the slide, it will, by the action of a spring on the slide, be closed whereupon the feed passage will be opened by the rear cam and owing to the slow motion of the wheel on which this cam is arranged will be kept open sufficiently long to allow the proper quantity of corn to be cracked at one operation, to pass into the cylinder, as soon as which occurs, the cam escapes by the slide and allows it to adjust itself and cut off the feed.

By this improvement, the necessity of employing an attendant, to watch the machine and feed it at proper intervals and also discharge the hominy as fast as prepared, is avoided. It only being necessary to provide a large hopper filled with corn, above a machine with my improvement and set the machine in motion and it will feed and discharge itself at proper intervals in a more perfect and regular manner than when attended by a person.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, represents the cracking or breaking cylinder. B, the shaft of radial beaters arranged within the same. C, the hopper placed over the cylinder and having a hole D, in its bottom; and E, the inclined discharge spout.

F, F', are the slides and G, H, the feed and discharge passages in the cylinder, the slide F, serves for opening and closing the feed passage G, and F', the discharge passage H, which extends along the entire length of the cylinder; this slide is provided with a passage corresponding to H, and is connected directly to a spring I, which is attached at *m*, to an arm *b*, as shown, and the slide F', is made solid and is also connected through an arm *c*, to a spring J. The springs I, J, render the slides self adjusting.

K, K', are the cams on the face of the wheel L; these cams are placed out of line with one another so as to be in line with the slides or arms, *b*, *c*, by which the slides are operated, and behind each other so as to come alternately in contact with the arms of the slides as shown in Figs. 1, 2 and 3.

M, represents a band leading from a pulley on the driving shaft N, for giving a rapid motion to the shaft of breakers or beaters, and O, a band running from a pulley on a screw wheel shaft P, for giving a slow motion to the cam wheel L. Q is a worm on the driving shaft for giving motion through the screw wheel R, to the cam wheel shaft P, as will be evident from the drawing.

The operation of the slides is as follows: The hopper is filled with corn and the machine set in motion. As soon as the cam wheel makes one or a part of a revolution according to the positions of the cams, the cam K, comes in contact with the slide F, and gradually forces it from the position

shown in black to the position shown in red in Fig. 2, and thereby opens the discharge and lets out whatever may be in the cylinder, this being done, in a few seconds the cam escapes by the slide and allows it by the aid of the spring J, to adjust itself to its original position and thereby close the discharge; the cam K', now comes in contact with the slide E, and opens it in a similar manner as illustrated in red in Figs. 1 and 2, and allows a sufficient supply of corn from the hopper to be cracked at one operation to pass into the cylinder; by the time the proper quantity has been fed into the cylinder, the cam escapes by the slide and allows it to assume its original position and consequently to shut off the feed. The corn fed into the cylinder is operated upon until the cams again come in contact with the slides which does not occur until the corn has been sufficiently cracked, owing to the cam wheel being driven by a screw which turns it very slowly. When the cams do again come into operative position, K, opens the discharge first, and lets out the hominy and then

escapes and allows the slide to adjust itself and close the discharge, and K' next opens the feed passage and lets in a fresh supply of corn and then escapes and allows the slide to adjust itself and shut off the feed; thus the operation proceeds, in the most perfect and regular manner without requiring an attendant.

I do not claim the self acting slides, E, F, separately nor the wheel L, with cams for operating the same as these devices are well known as the feed movement of grain mills, seed planters, etc., etc. But

What I do claim as my invention and desire to secure by Letters Patent, is—

The employment of the two self adjusting slides E, F, with the two cams K, K', arranged a short distance apart on a wheel having a slower motion than the beater shaft essentially as shown and described, and for the purpose as set forth.

EZRA FAHRNEY.

Witnesses:

HENRY NEWCOMER,
JOHN DONALDSON.