2 Sheets—Sheet 1.

J. W. MILLER.

Corn-Shellers.

No. 204,161. **Patented May 28, 1878.**

Fig. 1.

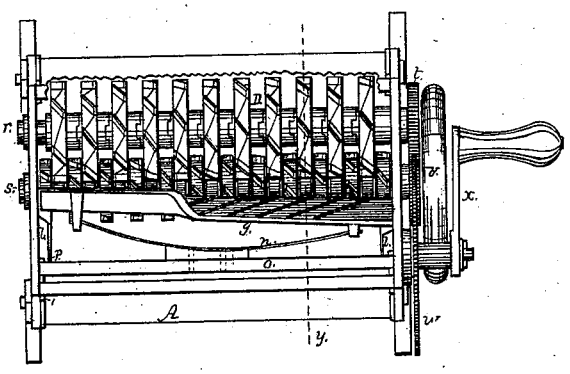


Fig. 2.

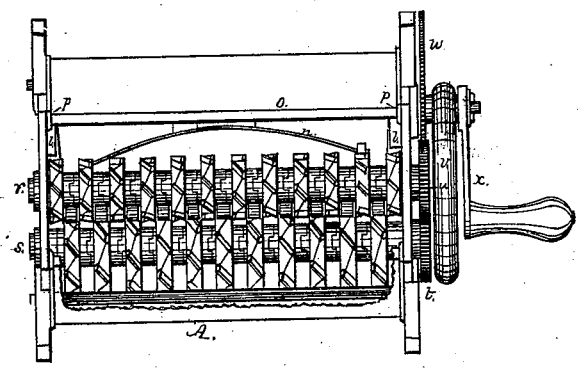
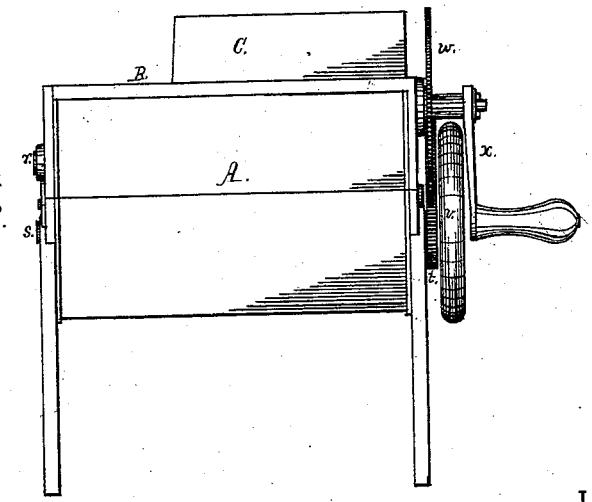


Fig. 3.



Witnesses

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A. le Johnston

Inventor

John W. Miller

2 Sheets—Sheet 2.

J. W. MILLER.
Corn-Shellers.

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Fig. 4.

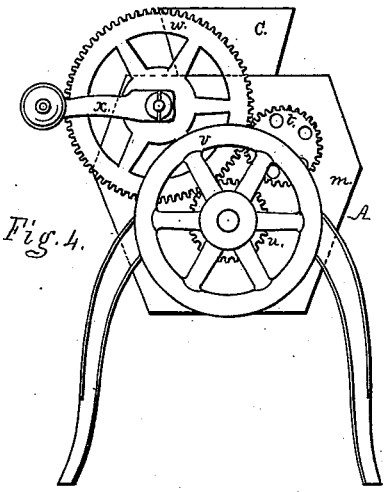


Fig. 5.

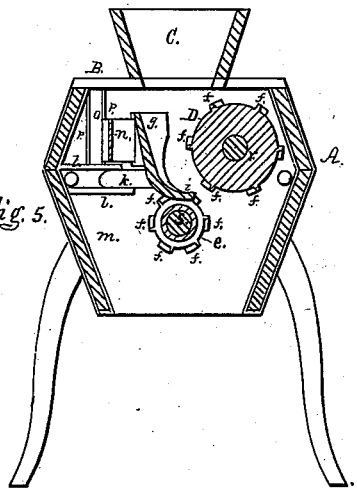


Fig. 6.

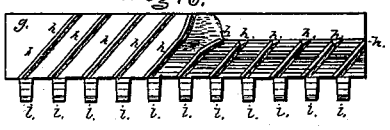


Fig. 7.

Fig. 8.

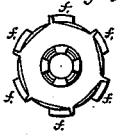
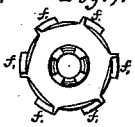


Fig. 9.



Witnesses

L. L. Johnston

A. C. Johnston

Inventor

John W. Miller

UNITED STATES PATENT OFFICE.

JOHN W. MILLER, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES M. MILLER, OF SAME PLACE.

IMPROVEMENT IN CORN-SHELLERS.

Specification forming part of Letters Patent No. **204,161**, dated May 28, 1878; application filed March 18, 1878.

To all whom it may concern:

Be it known that I, JOHN W. MILLER, of Pittsburg, county of Allegheny, State of Pennsylvania, have invented a new and useful Improvement in Corn-Shellers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in corn-shellers; and consists in the combination of two shelling-drums, constructed of a series of sections, each section provided with teeth arranged at an acute angle to the axis of each section and the drum, so that the teeth of the several sections form a series of sections, resembling the sections of a series of independent screw-threads upon the same cylindrical body. The hubs of each section are provided with four recesses on one end and four projections on the other end, corresponding in size to each other, whereby the teeth of the several sections may be arranged spirally in the operation of placing the sections upon the shafts or axis for forming the shelling-drums; and in combination with the said shelling-drums a spring-plate, the face of which is provided with projecting ribs arranged at an inclination to the base of the plate furnished with a series of fingers projecting between the several sections of the lower and smaller shelling-drums.

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

In the accompanying drawings, which form part of my specification, Figure 1 is a top view of my improvement in corn-shellers, representing the lid removed and a portion of one side of the frame broken away for the purpose of exposing the larger shelling-drum. Fig. 2 is an inverted view of the same. Fig. 3 is a side elevation of my improvement in corn-shellers. Fig. 4 is an end elevation of the same. Fig. 5 is a transverse section at line *y* of Fig. 1. Fig. 6 is a face view of the spring-plate. Fig. 7 is an edge view of two sections used in forming the shelling-drums, representing them arranged in juxtaposition. Figs. 8 and 9 are face views of the sections represented in Fig. 7.

In the accompanying drawings, A represents the frame of the machine; B, the detachable lid, provided with a hopper, C. D represents the larger shelling-cylinder; *e*, the smaller shelling-cylinder. The cylinders D and *e* are formed of a series of sections, such as represented in Figs. 8 and 9, and are provided with teeth *f*, arranged at an inclination to the axes of the shelling-drums, so that when the several sections are placed together upon shafts *r s* for forming the shelling-cylinders D *e*, (represented in Figs. 1 and 2,) said teeth *f* form a series of spirally-arranged teeth resembling sections of a series of independent screw-threads upon the same cylinder or shelling-drum. The several sections are secured on the shafts *r s* by their hubs interlocking, or by means of a pin passing through the hub of the first and last section of each drum.

g represents a spring-plate having a series of projecting ribs, *h*, arranged at an inclination to the fingers *i* at the base of the plate, which fingers project in between the several sections which form the smaller shelling-drum, which ribs are used for preventing the too rapid travel and discharge of the cob from the sheller.

On the rear of the spring-plate *g* are projecting arms *k*, which move in guides *l*, secured to the inner walls of the ends *m* of the frame A. In rear of the spring-plate *g* is a spring, *n*, secured to a board, *o*, which is held in guides *p* on the inner walls of the ends *m* of the frame A. This board, to which the spring is attached, is arranged in the guides *p*, so that it may be removed and replaced at pleasure.

Upon one end of shaft *r* is secured a gear-wheel, *t*, and on the shaft *s* is secured a gear-wheel, *u*, and balance-wheel *v*. To one end of the frame A is pivoted a driving-wheel, *w*, provided with a crank, *x*. The driving-wheel *w* meshes into the wheels *t* and *u*, so that the revolving of the wheel *w* will cause the wheels *t* and *u* and the shelling-cylinders D *e* to revolve in the same direction.

The operation of my improvement is as follows: The corn is thrown into the hopper C, and the revolving of the cylinders will strip the corn from off the cob by means of the teeth *f*, causing the ear to revolve and travel along on the fingers *g*, discharging the cob at the end

of the sheller, the shelled corn dropping into a suitable receptacle placed under the sheller.

Having thus described my improvement, what I claim as of my invention is—

1. In a machine for shelling corn, the combination of the herein-described two shelling-drums, each composed of a series of sections formed with teeth arranged at an inclination to the axes of the sections and the drum, and so that the teeth of the said sections resemble the sections of independent screw-threads upon the same cylindrical body, as herein shown and set forth, and for the purposes specified.

2. In a corn-sheller, the herein-described shelling-drums, composed each of a series of sections formed with teeth arranged at an inclination to the axes of the sections, each section being formed with several projections upon one side of its hub and corresponding recesses upon the other side thereof, whereby the sections are coupled together and the teeth arranged in a spiral line around the drums, as shown and described, and for the purposes specified.

3. In combination with the two shelling-drums, composed of series of sections, with teeth arranged at an inclination to the axes of the sections, and also in spiral lines around the drums, substantially as described, the spring-plate *g*, having upon its face a series of projecting ribs, *h*, arranged at acute angles to the base of the plate, substantially as shown and specified, and for the purposes set forth.

J. W. MILLER.

Witnesses:
JAMES J. JOHNSTON,
B. L. JOHNSTON.