

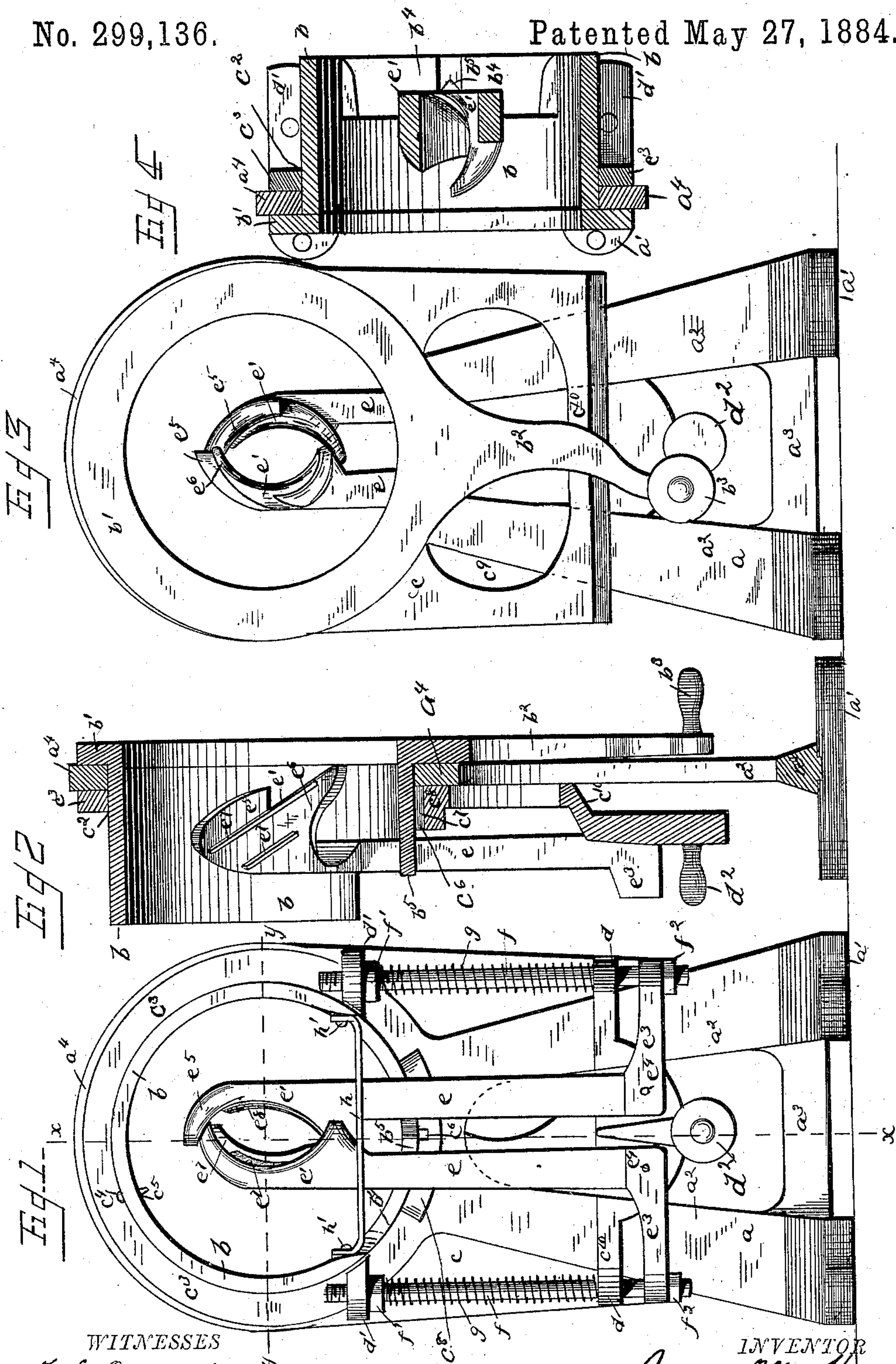
(No Model.)

J. M. HAWLEY.

CORN SHELLER.

No. 299,136.

Patented May 27, 1884.



WITNESSES
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JAMES M. HAWLEY, OF ODIN, ILLINOIS.

CORN-SHELLER.

SPECIFICATION forming part of Letters Patent No. 299,136, dated May 27, 1884.

Application filed March 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. HAWLEY, a citizen of the United States, residing at Odin, in the county of Marion and State of Illinois, have invented a new and useful Corn-Shell-
5 of which the following is a specification, reference being had to the accompanying drawings.

This invention has relation to hand corn-shellers; and it consists in the construction and
10 novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims appended.

Figure 1 is a front elevation of a hand corn-sheller embodying the improvements of my
15 invention. Fig. 2 is a vertical sectional view on the line *x x* in Fig. 1. Fig. 3 is a rear elevation; and Fig. 4 is a horizontal sectional view on the line *y y* in Fig. 1.

Referring by letter to the accompanying
20 drawings, *a* designates the cast-iron standard of the machine, consisting of the perforated base-lugs *a' a'*, through which the securing-screws are passed into the bench or other
25 place of support, from which rise the inwardly-inclined legs *a² a²*, connected at their lower ends by the cross-bar *a³*, and surmounted by the annular vertical rim *a⁴*, the whole being cast in a single piece. An annular shell,
30 *b*, is provided at its rear edge with a vertically-arranged annular flange, *b¹*, which is provided at one edge with a crank-arm, *b²*, having a handle, *b³*, near its end. The annular shell *b* has a portion cut away at its front edge, which
35 leaves a space, *b⁴*, and at the middle of the space *b⁴* a projection, *b⁵*, triangular in plan view, extends forward from the metal of the shell *b* into the space *b⁴*, for a purpose hereinafter explained. This annular shell *b*, its rear
40 flange, the crank-arm, and projection *d⁵* are also cast integral. The annular shell *b* fits into and turns in the vertical annular rim *a⁴*, which forms its bearing when the machine is operated. A flat casting or plate, *c*, is provided in its upper portion with an opening, *c²*,
45 bounded by an annular rim, *c³*, which slips upon the annular shell *b* when in position, and is held in place by a pin, *c⁴*, passed through a perforation, *c⁵*, in the annular shell *b*, as one fastening, and further by a key, *c⁶*, which fits
50 in a recess, *c⁷*, in a curved projecting rib, *c⁸*, cast upon the annular rim, front side, above the opening *c²* in the plate *c*, said key *c⁶* press-

ing against the outer face of the triangular-shaped projection *b⁵* to cause the plate *c* to rotate with the shell *b* when the machine is
55 operated. The casting or plate *c* is provided with a laterally-extending flange, *c¹⁰*, at its straight end, which is provided at its ends with laterally-projecting perforated lugs *d d*, and
60 above these the straight sides of the casting *c* are provided with other laterally-projecting lugs *d' d'*, also perforated. These four lugs are on the front face of the casting *c*, and the casting, its
65 flange, its curved projecting rib, and its lateral lugs are all cast integral, as is also the crank-handle *d²* upon the under edge of the flange *c¹⁰*—i. e., the under edge—when the machine is in its normal position—viz., at rest.

The arms *e e*, which carry the shelling-jaws
70 *e' e'* at their upper ends, are provided at their lower ends with short integral arms *e³ e³* at right angles to the arms *e e*, and extending toward the outer edges of the casting *c*. These
75 arms *e e e³ e³* are secured to the horizontal flange *c¹⁰* by pivot-bolts *e⁴ e⁴*. The shelling-jaws *e' e'* are semicircular in vertical section, and are provided with two teeth, *e⁵ e⁶*, each, by which the corn is removed from the cob.
80 The inner faces of the curved jaws *e' e'* are provided with two or more diagonal and oppositely-inclined cutting-ribs or screw-threads, *e⁷ e⁷ e⁸ e⁸*, cast solid therewith, which, when
85 the machine is operated, are pressed into the corn-cob, and cause it to travel through the jaws at a uniform speed. The outer ends of the short arms *e³ e³* are provided, near their outer
90 ends, with perforations, which are in line with the perforations of the lugs above and below them. Through these perforations, one at each side of the casting *c*, are passed loosely
95 spring-rods *f f*, threaded near their upper and lower ends for the reception of nuts *f' f' f² f²*, the former being below the upper lugs, and the latter below the lower lugs, as shown.

Around the spring-rods *f f*, and between the
upper nuts, *f' f'*, and the upper faces of the
100 short arms *e³ e³* are the spiral tension-springs *g g*, by which the compression-power is imparted to the shelling-jaws through their arms, to cause them to remove the corn from the cob. The tension of the springs is regulated by tightening or loosening these nuts, so that the jaws may be fitted to all sizes of ears of corn from the largest to the smallest size.

In order to prevent lateral or vertical strain upon the pivot-bolts $e^4 e^4$, I provide a cross-bar, h , in front of the arms $e e$, and this bar is secured by rivets $h' h'$, passed through it and into the annular shell b . The triangular projection b^5 , when the cob has been removed, stops the jaws always in the center of the annular shell b .

The operation of the machine is very simple, and is as follows: The ear of corn is entered between the shelling-jaws from the rear side, and is held by one hand, while the other hand is used to turn one of the cranks, of which there are two, until the corn has been shelled for one-half or more of the length of the cob, when the other hand is used to hold the cob, and the hand that formerly held the ear is used to turn the other crank until the cob passes through the jaws from the rear to the front.

The advantages of the invention are numerous. It is light, cheap, and durable. It possesses great speed, is simple in construction, and will not get out of order. It is neat and attractive in appearance, and is efficient for the purposes for which it is intended.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a hand corn-sheller, the annular shell b , provided with the cut-away portion b^4 , the central triangular projection, b^5 , the rear flange, b' , and the crank-arm b^2 , all cast in one piece, substantially as specified.

2. In a hand corn-sheller, the flat plate or casting c , provided with the opening c^2 in its upper portion, surrounded by the annular rim c^3 , provided with the curved projecting rib c^8 above the lower opening, c^9 , the lugs $d d'$, horizontal flange c^{10} , and crank-handle d^2 , all cast in one piece, substantially as specified.

3. In a hand corn-sheller, the combination of the standards $a^2 a^2$, having the vertical an-

nular rim a^4 , the annular shell b , having the cut-away portion b^4 and the triangular projection b^5 , the cross-bar h over the space b^4 , the rear flange, b' , and the crank-handle b^2 , and the flat casting c , having the openings c^2 for the annular shell b , the projecting rib c^8 , perforated lugs $d d'$, the shelling-jaws $e' e'$, the arms $e e$, and perforated angular extensions $e^3 e^3$ at their lower ends, the spring-rods $f f$, springs $g g$, and regulating-nuts $f' f^2$, substantially as specified.

4. In a hand corn-sheller, the combination, with the flat casting having the openings c^2 for the annular shell b , and the perforated lugs $d d'$ on its front face, of the pivoted angular arms $e e e^3 e^3$, carrying the shelling-jaws at their upper ends, the spring-rods, spiral springs, and regulating-nuts, substantially as specified.

5. In a hand corn-sheller, the combination, with the pivoted angular arms $e e e^3 e^3$, the casting c , having the horizontal flange c^{10} , the spring-rods, spiral springs, and regulating-nuts, of the curved shelling-jaws provided with two teeth, $e^5 e^6$, each, and provided on their inner faces, and cast solid therewith, with two screw-threads, $e^7 e^8$, arranged diagonally of the jaw-faces and in directions opposite on opposite faces, substantially as specified.

6. In a hand corn-sheller, the combination, with the pivoted angular arms $e e e^3 e^3$, carrying the shelling-jaws $e' e'$, of the standards $a^2 a^2$, flat casting c , and the annular shell b , provided with the triangular projection b^5 between the pivoted arms, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES M. HAWLEY.

Witnesses:

JOHN PULESTON,
A. A. NORTON.