# L. E. DENISON.

## Corn Sheller.

No. 972. Patented Oct. 8, 1838.

*Fig. 1.*

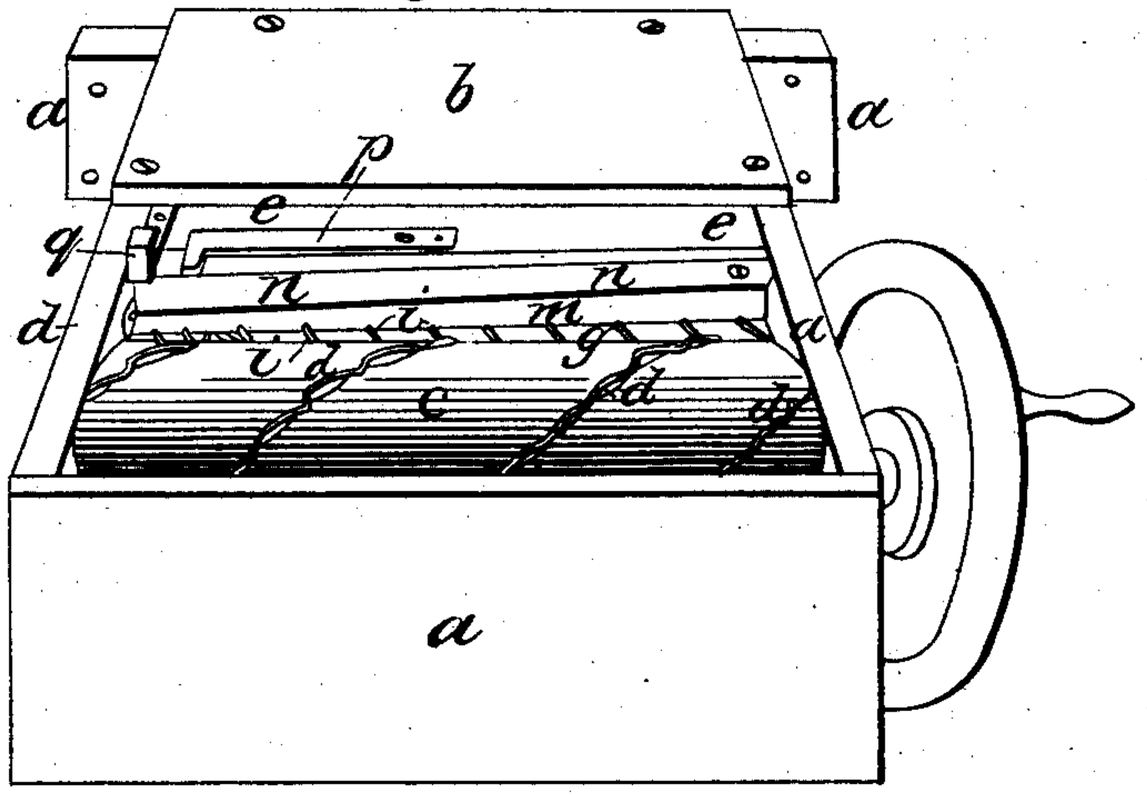



*Fig. 3.*

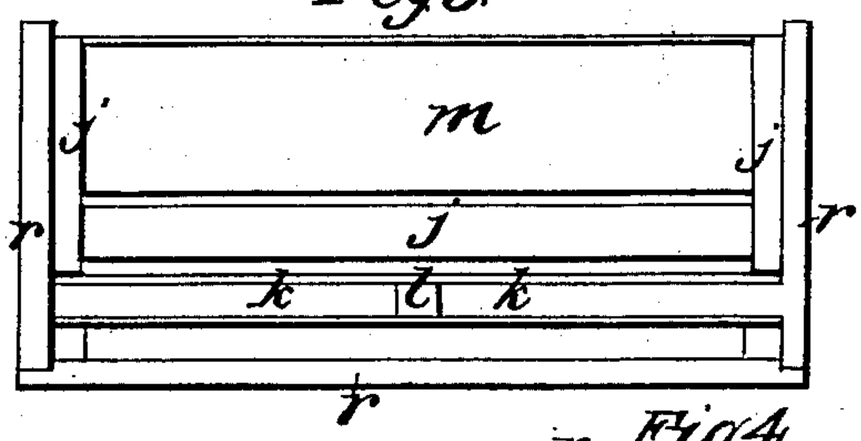



*Fig. 2.*

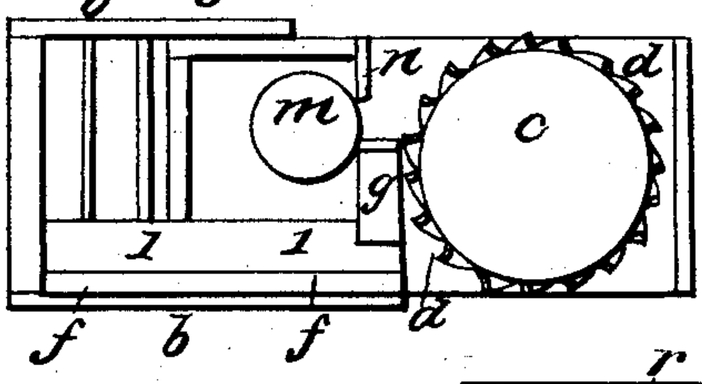



*Fig. 4.*

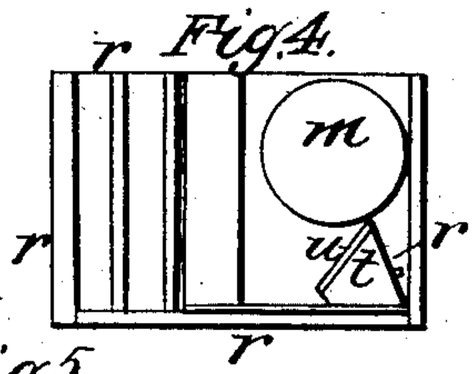



*Fig. 5.*

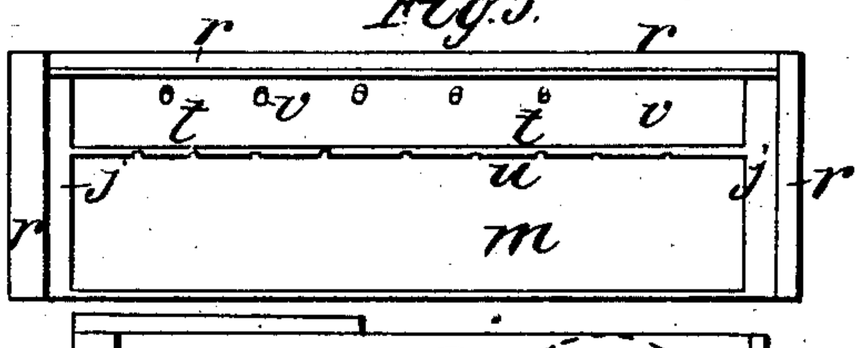
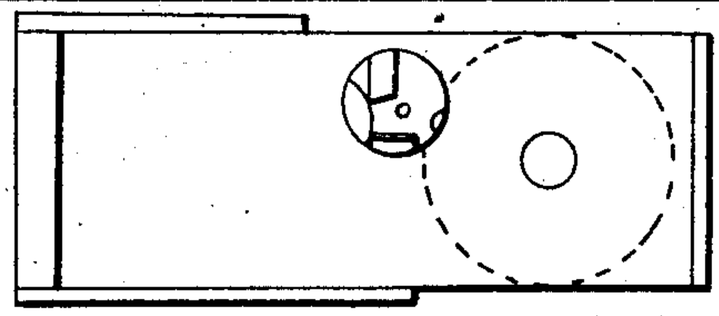



*Fig. 6.*



# UNITED STATES PATENT OFFICE.

LESTER E. DENISON, OF SAYBROOK, CONNECTICUT.

## MACHINE FOR SHELLING CORN.

Specification of Letters Patent No. 972, dated October 8, 1838.

*To all whom it may concern:*

Be it known that I, LESTER E. DENISON, of Saybrook, in the county of Middlesex and State of Connecticut, have invented a new and useful Improvement in Machines for Shelling Corn, of which I do hereby declare the following to be a full and exact description, reference being had to the drawings accompanying and making part of this specification.

Figure 1, represents a perspective view of the machine. Fig. 2, a transverse section. Fig. 3, a longitudinal section of the second apparatus. Fig. 4, transverse section of same. Fig. 5, top view of same. Fig. 6 a section showing the situation of the aperture.

*a*, *a*, *a*, *a*, Fig. 1, represent the frame of the machine made in an oblong form with the back end piece projecting beyond each of the side pieces for the purpose of allowing it to be fastened to any convenient place and when fastened the position of it is horizontal which position being the one in which it is used. That part of the frame which incloses the machinery except the cylinder is covered by other pieces *b*, *b*, Figs. 1 and 2.

The cylinder *c* Figs. 1 and 2, is situated directly in front, and runs in suitable boxes in the two side pieces, parallel with and inside the front piece, and is put in motion by any convenient power. On the periphery of the cylinder, running spirally are metallic projections *d*, Figs. 1 and 2 with notches cut in them, which act on the ear of corn in manner which will be hereafter described.

The intermediate space between the cylinder and rear end is filled with an apparatus which will be hereafter described of which there are two classes. The first as represented in Figs. 2 and 3, consists of a platform *f*, Fig. 2, resting on the bottom piece of the frame to the top of which are attached cross pieces 1 Fig. 2. On that end of these crosspieces nearest the cylinder, and running parallel with it is attached a bed piece *g* Figs. 1 and 2 made tapering and on the top of it (which is in a direct line with the axis of the cylinder) are projections or cutters *i* running diagonally in a direction opposite to the curve of the projections on the periphery of the cylinder. Then in this arrangement or class I place upon the cross pieces back of the bed piece a frame *j* Figs. 2 and 3 consisting of a top and back piece and two end pieces which said end pieces project back beyond the back piece so as to be acted upon by the particular kind of spring which I adopt which, as represented at *k*, Fig. 3 is composed of two pieces of any elastic material parallel with each other and kept apart by a block *l*, of suitable dimensions placed between them at their centers. In Fig. 3 the top piece of the frame is not represented. The friction roller *m*, Figs. 1, 2, 4 and 5, revolves in the two side pieces above mentioned directly back of the bed piece and parallel with it. A movable gage *n* Figs. 1 and 2 is attached to the front end of that one of the side pieces farthest from an aperture *o* Figs. 1 and 5 which will be hereafter mentioned by a screw or bolt which constitutes its fulcrum, and extends to the opposite side with the top of it, in its unemployed position, in a line with the periphery of the cylinder and is kept in that position by a spring *p* Fig. 1, which is attached at one end to near the center of the top piece directly back of the gage and extends in a line with it to the end opposite its fulcrum where it acts upon it. The guard *q* merely serves to govern the upward and downward motion of this end of the gage. When this apparatus is used, the ear of corn is placed in the trough formed by the bed piece and the space between the cylinder and friction roller, parallel with them, being kept down by the movable gage, and in the revolution of the cylinder the spiral form of the projections gives it a proclivity to the opposite end where after being shelled the cob meeting with the aperture *o*, Figs. 1 and 5 which is in the side piece of the frame is discharged, and in the operation the friction roller serves to facilitate, and the movable gage to keep the ear close to the action of the cylinder and bed piece.

The second apparatus as represented at Figs. 3, 4 and 5, is after removing the first, placed in its place. This consists of an outer frame *r*, Figs. 3 and 4 consisting of a top, back, and two end pieces (in Fig. 3 the top piece is off,) and an inner one similar to that of the first, having a bottom, back and two end pieces and as in the other case a friction roller revolves in the two end pieces parallel with the cylinder. Directly above and parallel with the friction roller attached to the inside of the top and two end pieces is a triangular beam *t* with one of its angles verging toward the friction roller. *u u*, are cutters which project crosswise from

the back side of the beam toward the cylinder and roller and combined with the beam constitute a triangular grater. *v v*, metallic points on the front side of the grater which serve to confine the ear of corn in its place in the operation of shelling, during which in this apparatus after one ear has been shelled, another is placed over it and being of larger dimensions forces the cob of the last mentioned through and it drops out on the under side. This likewise is operated upon by a spring similar in construction and situated in a similar place to that of the first mentioned apparatus.

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

In the first mentioned apparatus the combination of the bed piece, friction roller and movable gage, and in the second that of the bed piece and friction roller with the triangular grater in manner and for the purposes substantially as herein set forth and described.

LESTER E. DENISON.

Witnesses:
J. W. HUBBARD,
JACOB B. MONG.