2 Sheets—Sheet 1.

C. J. LEGG.

Corn Sheller.

No. 40,052. Patented Sept. 22, 1863.

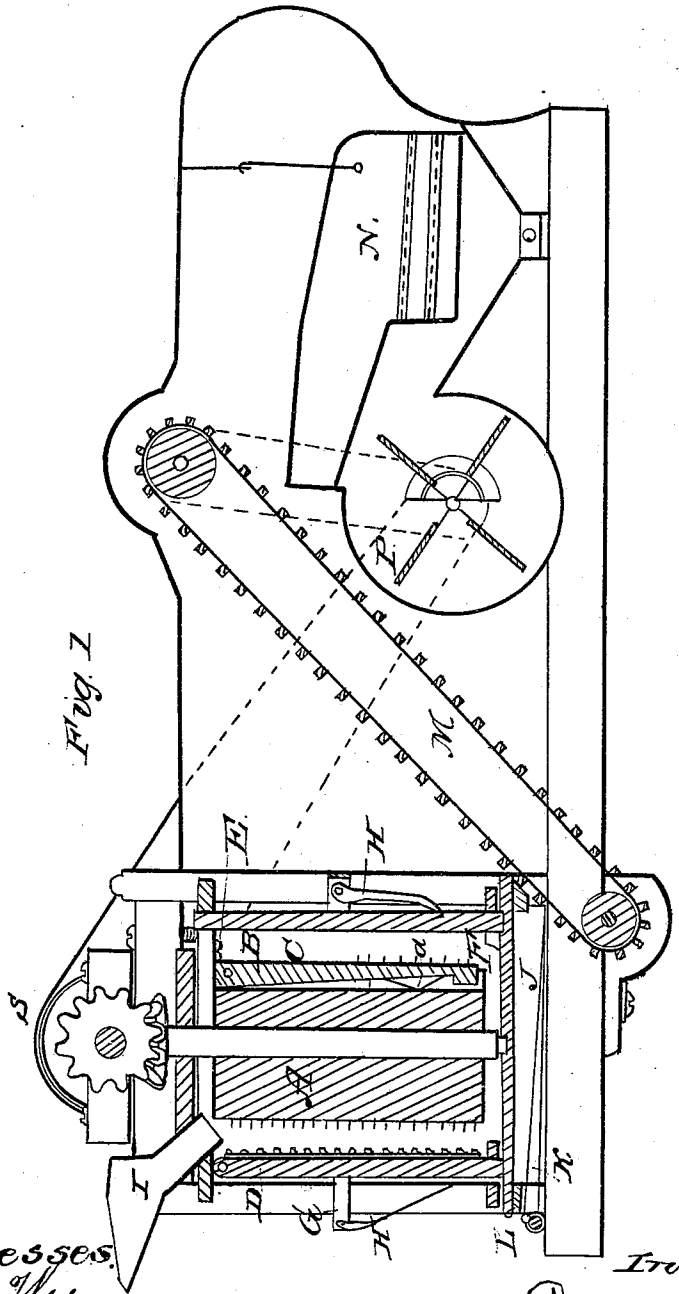

Fig. 1

Witnesses.
Charles Whelan
Wm Constantine

Inventor.
Caleb J. Legg.

2 Sheets—Sheet 2.

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Fig. 3

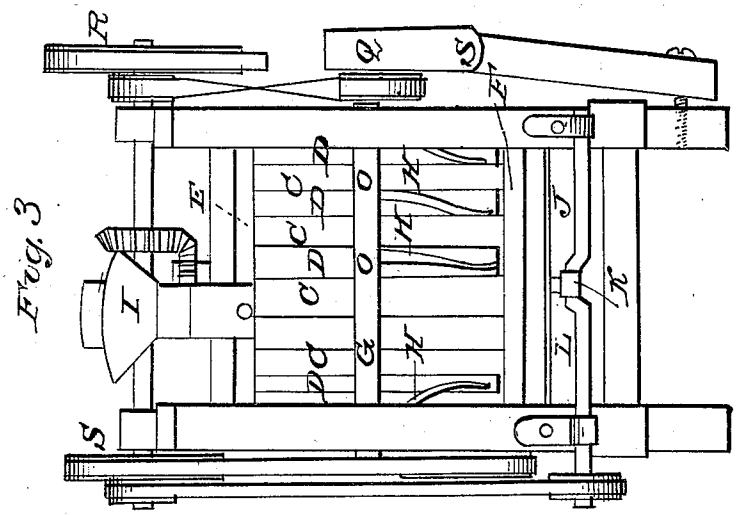

Fig. 2

Witnesses.

Charles Holtzman

Wm Counsell

Inventor.

Carl J. Legg.

UNITED STATES PATENT OFFICE.

CALEB J. LEGG, OF PENN YAN, NEW YORK.

IMPROVEMENT IN CORN-SHELLERS.

Specification forming part of Letters Patent No. **40,052**, dated September 22, 1863.

To all whom it may concern:

Be it known that I, CALEB J. LEGG, of Penn Yan, in the county of Yates and State of New York, have invented a new and useful Machine for Husking, Shelling, Cleaning, and Bagging Corn; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a longitudinal section view. Fig. 2 is a horizontal section view of the husker and thrasher. Fig. 3 is an end elevation of the whole machine.

The letters of reference refer to the same parts in each figure.

A is the thrashing-cylinder. It is fastened to a vertical shaft that has a bevel or miter wheel at the upper end, and that is driven by another bevel or miter wheel upon the main horizontal shaft. The cylinder-shaft is held by journal-boxes at each end of the cylinder. These boxes are supported by timbers that are placed across the frame that supports the husking and thrashing device. The cylinder is made of wood, and of any desirable size or length. An end view may be seen in Fig. 2. It is made with grooves in the outer surface that are made to receive the staves B. The cylinder is toothed, and the teeth are set in lines spirally, so that the lower end of the lines will pass over the lower end of the staves B. These lines should incline downward and backward in relation to the direction of the cylinder. The cylinder should be smallest at the upper end, or have a less number of teeth, to facilitate the entrance of the corn, if not husked.

B is one of a series of staves fitted into the grooves of the cylinder so that springs *a* may be placed behind them and leave a space for the staves to recede from the face of the cylinder, when force is applied to the face of the lower end of the stave. The upper ends of the staves are pivoted, so as to hold them, and allow the lower end to move inward and outward. The lower end is held out to its place by the springs *a*, and it is prevented from getting out too far by means of the band around the lower end of the cylinder, which passes over the lower end of the staves. The teeth are set spirally, so that the ends of the rows will terminate in the staves. One of these staves is shown in Fig. 1.

C and D are staves placed alternately around the cylinder in a circle. The staves C have a tenon at each end that enters mortises in the plates E and F, by which they are held. These staves should be covered with sheet-iron to prevent them being worn. The staves D have a tenon at the lower end that enters a mortise in the plate F. This mortise is made longer than the tenon to allow the lower end of the staves D to be forced out of the circle. The upper ends of the staves D are pivoted to the staves C, so that the lower ends may move outward and inward freely. These staves are provided with cast-iron plates that have tooth-like prominences on them, for the purpose of tearing the husks from the corn, and shelling the corn from the cob.

E and F are annular plates. They are supported by the thrasher-frame, and they may be made of wood or iron. Their use is to hold the staves C and D.

G is an iron band. It is fastened to the posts of the thrasher-frame. It is used to hold the springs H.

H is one of a series of springs. They are held in position by the band G. The lower end of these springs rests against the lower end of the staves D. Their use is to hold the lower end of the staves D in position, and allow them to recede when large ears of corn are being husked and thrashed or shelled.

I is the hopper through which the corn is fed to the sheller. It should be made as large as convenient, when the machine is used for husking and shelling.

J is a reciprocating chute, placed underneath the cylinder. It is made of wood or iron, and is held in an inclined position by grooves, in which it moves. Motion is given to it by means of the connection K. Its use is to convey the corn, cobs, and husks to the conveyer M.

K is a connection from the crank-shaft L to the chute.

L is a crank-shaft. It is placed across the forward part of the machine, and is driven by means of a pulley at the outer end, that carries a band from a pulley on the horizontal driving-shaft, as shown in Fig. 3.

M is a conveyer, of any ordinary construction. Its use is to convey the corn, husks,

and cobs to the cleaner. It is driven by a belt around a pulley on the axle of the upper roller, and the pulley on the fan-axle, by which it is driven.

N is the winnower. It is provided with sieves that separate the husks and cobs from the corn, and by means of the fan P the chaff is separated from the corn, and the corn falls into the spout O, thence into the conveyer Q, and by it carried up and put into a bag or any other receptacle.

O is a conveying-spout to receive the cleaned corn. It is placed in an inclined position, or has an inclined bottom to cause the corn to run out freely.

P is the fanner, and may be made as shown in Fig. 1, or any other equivalent manner. It is driven by a pulley at one end of the axle, that receives a belt from the pulley S. At the other end of the axle is a pulley that drives the roller of the conveyer M.

Q is a conveyer or elevator. It is made to receive the cleaned corn and convey it into bags. It is of the ordinary construction, and is actuated by a belt from a pulley on the main horizontal shaft, or it may be driven by any other portion of the machine, if desired.

R is the driving-pulley, on which the power belt is applied. When the sheller is made to be used by hand power, a winch may be put on in place of this pulley.

S is a pulley at the other end of the horizontal shaft. It is used to actuate the various portions of the cleaner.

To use my invention, put it in order as above specified, and apply power of any kind sufficient to drive it, and, when in motion, put in the unhusked or husked corn into the hopper, and you may receive the husked and shelled corn in a bag by placing one at the upper end of the conveyer or elevator Q.

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

1. The shelling and husking cylinder A, constructed with hinged, radially-vibrating staves B B, controlled by springs *a a*, and with teeth arranged spirally both upon the staves and intermediate portions of the cylinder, substantially as herein specified.

2. The combined construction and arrangement of the fixed staves C C and hinged radially-vibrating staves D D, controlled by springs H H, together composing the concave to the shelling-cylinder, substantially as herein set forth.

Witnesses: CALEB J. LEGG.

CHARLES KETCHUM,

WM. COMSTOCK.