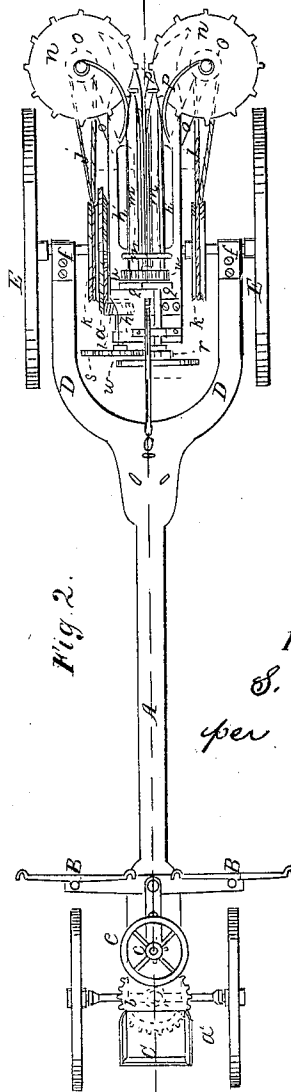
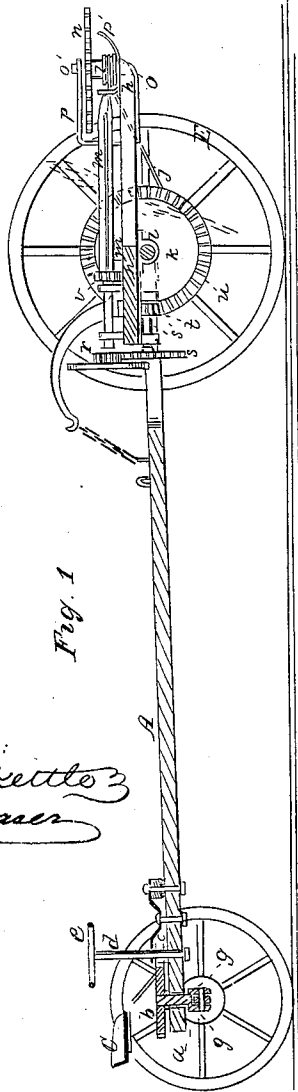
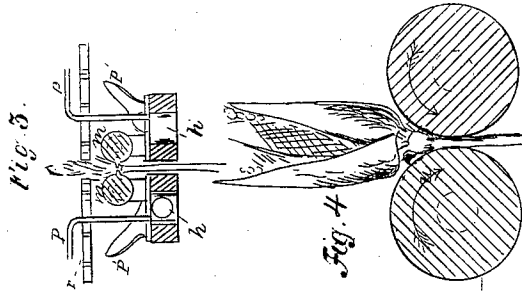


*S. Patton.  
Corn Harvester.*

*No. 81202*

*Patented Aug. 18. 1868.*



*Witnesses:  
W. C. Ashketto  
J. A. Fraser*

*Inventor:  
S. Patton  
per Minniford  
Attorneys.*

# UNITED STATES PATENT OFFICE.

SAMUEL PATTON, OF CHATSWORTH, ILLINOIS.

## IMPROVEMENT IN CORN-HARVESTERS.

Specification forming part of Letters Patent No. **81,202**, dated August 18, 1868.

*To all whom it may concern:*

Be it known that I, SAMUEL PATTON, of Chatsworth, in the county of Livingston, in the State of Illinois, have invented a new and Improved Corn-Husking Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a central vertical section of my machine through the line *x x*, Fig. 2. Fig. 2 is a plan view of the machine. Fig. 3 is a cross-section taken through the line *y y*, Fig. 2, showing the position of the ribs after the ear has been broken from the stalk. Fig. 4 is an enlarged section, showing the position of the ribs in breaking the ear from the stalk and husks.

Similar letters of reference indicate corresponding parts.

The object of this invention is to husk corn as it stands in the row in the field; and consists of the mechanism set forth in the following: The husking mechanism is borne at the front end of the running-gear, which shall be first described.

The front and rear axles are connected by a coupling-pole, *A*, of sufficient length to allow a pair of horses to work between the said axles, the double-trees and whiffletrees for which are shown at *B B*, and are attached to the pole in the usual manner.

In order to steer the machine, and keep it headed against the row of corn, a rear axle works on a pivot-bolt, *a*, which latter passes through a hole or bearing in the rear end of the coupling-pole *A*, as shown. The bolt *a* bears a cogged wheel, *b*, which engages with a pinion, *c*, keyed on the shaft *d* of the steering-wheel *e*, as shown. By this device the rear wheels are turned to the right or left, which will throw the front of the machine to the left or right as it moves forward.

The driver sits upon the seat *C*, and the steering-wheel is thus conveniently in front of him. The reach-pole is bifurcated, as shown at *D D*.

The front axle revolves in the iron straps *f f*, which are bolted to the branches *D D*, as

shown. The front wheels *E E* are keyed rigidly upon the axle, by which means the husking mechanism is driven, as will be shown.

The rear axle is not affixed rigidly to the bolt *a*, but is pivoted within the jaws *g* of the said bolt, as shown, whereby the axle is permitted a vertical vibration, which enables the machine to pass over the inequalities of the surface of the ground without twisting the coupling-pole or straining the bolt *a*, and the wheels of both axles keep in contact with the ground.

The frame of the husking mechanism is shown at *h*, and vibrates upon the front axle by means of the bearing-plates *i*, to which it is bolted, and which plates encircle the shaft.

This arrangement of the frame enables the husking-rollers *m m* and gathering-wheels *n n* to be adjusted to the different angles requisite for high or low corn, and also to allow these parts a certain freedom or angular play, which conduces to the perfect operation of the machine.

The gathering-wheels *n n* are for the purpose of drawing or gathering in the stalks of the corn, being provided with projections or points for that object, as shown. These wheels are driven by belts *j* from the pulleys *k k'*, keyed on the front axle. These belts pass around the small pulleys *l*, forming part of the sleeves or hubs of the gathering-wheels, which latter revolve on vertical spindles *o'*, rising from the arms *o*, affixed to the frame *h*.

Curved bars *p*, formed and affixed to the frame *h*, as shown, serve to free the teeth or projections of the gathering-wheels from any stalks or blades that may adhere thereto.

The rollers *m m* are long pointed spindles, arranged parallel to each other, and nearly in contact. Each roller is provided with one or more longitudinal ribs, so that as the rollers move, the ribs will approach each other and close on or immediately under the butt of the ears of corn, pulling or crowding the stem from the ear, and freeing the latter from its husks.

I have experimented with smooth rollers, and find that they do not retain their hold upon the ears, but allow the latter to slip between them unhusked and unbroken from the stalk. Spiral flanges or corrugations upon the rollers, while they sever the ear from the stalk,

are objectionable, for the reason that their continued action shells the corn from the ear. The rear ends of these rollers are reduced to fit in bearings *q*, and one of the reduced ends is prolonged to form a shaft for the pinion *r*, keyed thereon, as shown, which said pinion engages with the gear-wheels *s* on the counter-shaft *s'*, which latter bears a pinion, *t*, which engages with a toothed rim, *u*, on the side of the pulley *k'*, keyed on the front axle, as before mentioned. By this train of gearing, both husking-rollers *m m* are revolved, for each roller has a pinion, *v v*, which engage with each other, as shown, and thus cause the simultaneous revolution of the rollers. *u* is a fly-wheel, for the common purpose of such wheels.

The rod *m'*, bent over and above the rollers, as shown, is for the purpose of preventing the stalks or ears from getting back into the pinions of the rollers. The hooked arm *b* and chain *b'* serve to keep the frame *h* in an inclined position when the machine is in operation.

In practice, the rollers are fluted, corrugated, or toothed, so that the stalk will be firmly seized.

The operation of the husking mechanism is as follows: The wheels *n n* sweep the stalks in between the rollers, which latter, revolving with suitable speed, draw down the stalk, bringing the butts of the ears thereon in contact with the rollers, when the stem of the husk breaks from the cob, and the husked ear falls over the rollers, and down through the slots *h'* in the frame, as shown. The smooth surface of the rollers *m m* holds the stalk in position, while the ribs *n*, closing on the stem, punch the ear loose from it above the point where the husk joins the stem, the husks re-

maining on the stalk. The stalk and husks pass on through and fall to the ground.

The ears may be caught in a web of canvas suspended beneath the frame *h*, or an endless canvas apron on rollers may be provided to convey the husked ears back to some receptacle in rear of the husking mechanism.

*p p'* are horns projecting from the frame *h*, for the purpose of conducting the stalks into rollers. These horns are bent upward at their outer ends, in close proximity to the under side *s* of the wheels *n n*, and prevent weeds or refuse matter from collecting on the under side of said disks and around their shafts. The inner ends of the horns are turned up to furnish bearings for the forward ends of the ribbed rollers *m m*.

A full-sized machine constructed upon the above principle has been used practically in the field, and has thus been proven to work satisfactorily and economically in every respect.

I claim as new and desire to secure by Letters Patent—

1. The rollers *m m*, arranged, as described, out of contact with each other, and provided with longitudinal ribs *n*, all operating in the manner and for the purpose specified.

2. The curved projecting horns *p' p'* upon the front of the frame *h*, arranged in relation with the wheels *n n* and rollers *m m*, for the purpose of preventing the accumulation of refuse matter beneath said wheels, and furnishing bearings for the forward ends of the rollers *m m*, as herein shown and described.

SAMUEL PATTON.

Witnesses:

W. W. SEARS,  
BENJ. L. YATES.