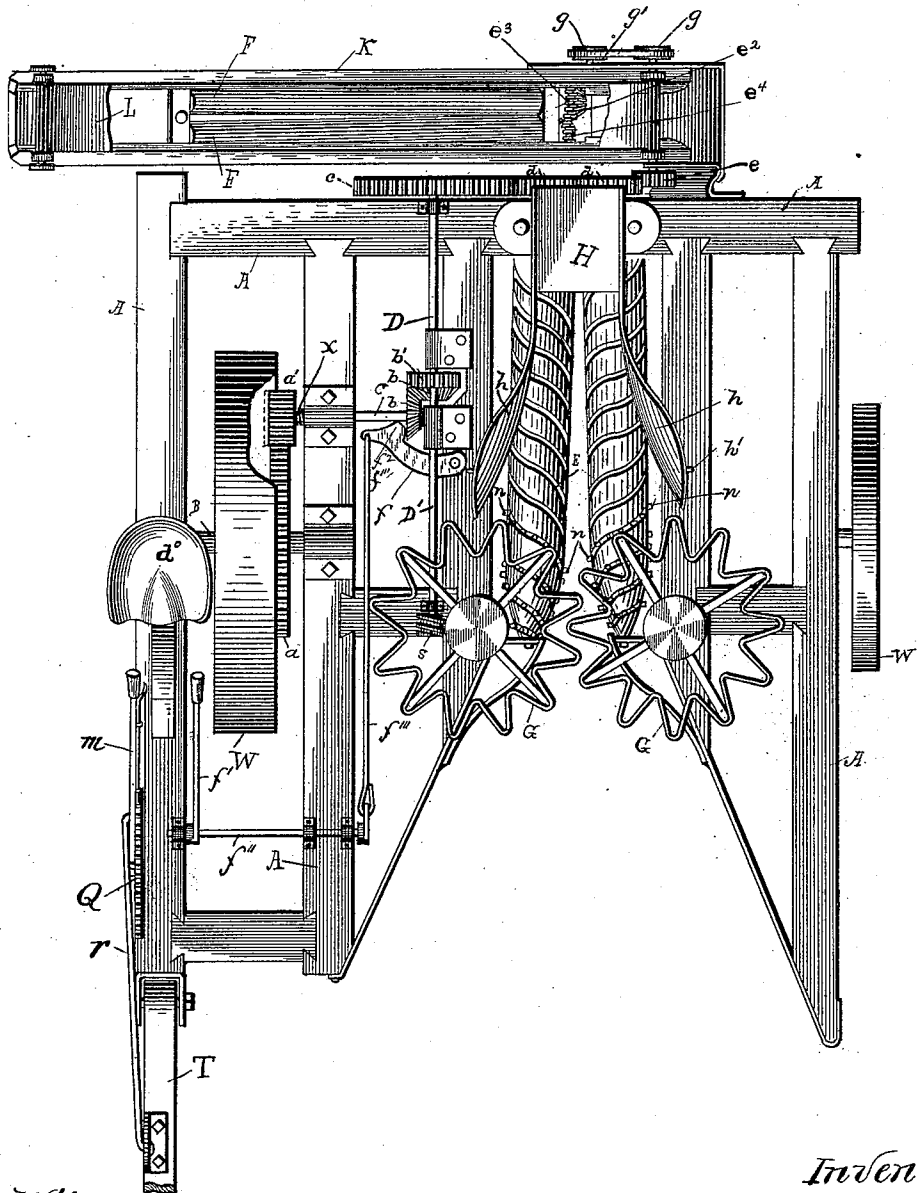


J. D. VAN BUREN.
CORN HARVESTER.

No. 463,975.

Patented Nov. 24, 1891.

Fig. 1.



Witnesses
W. Cornwall
Geo. M. Nichols

Inventor,
J. David Van Buren.
By *Martin Metcalf.*
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Fig. 2.

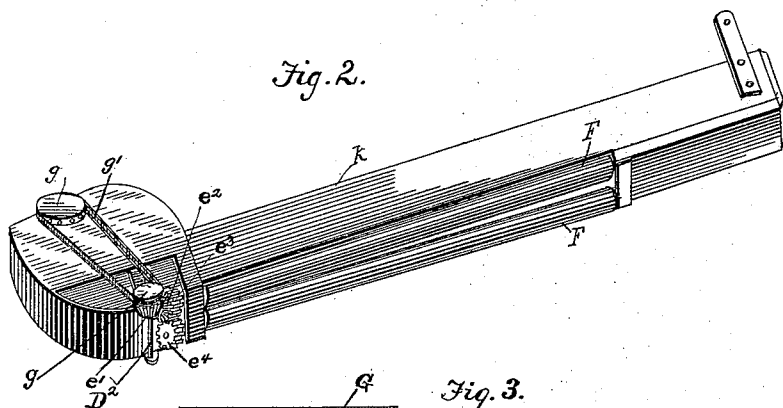


Fig. 3.

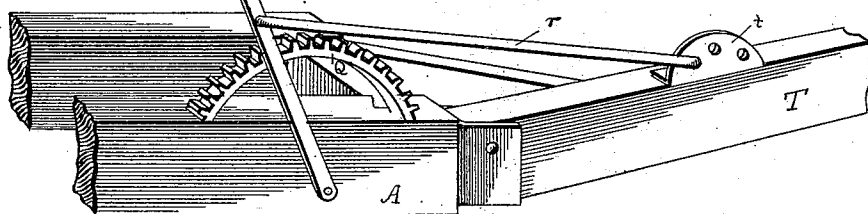
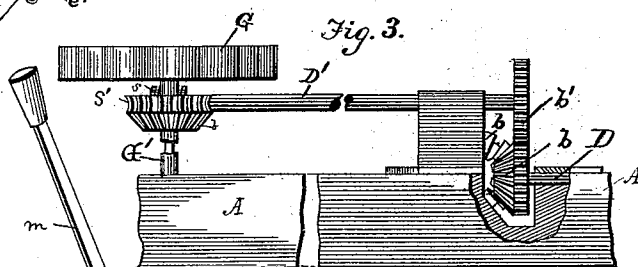


Fig. 4.

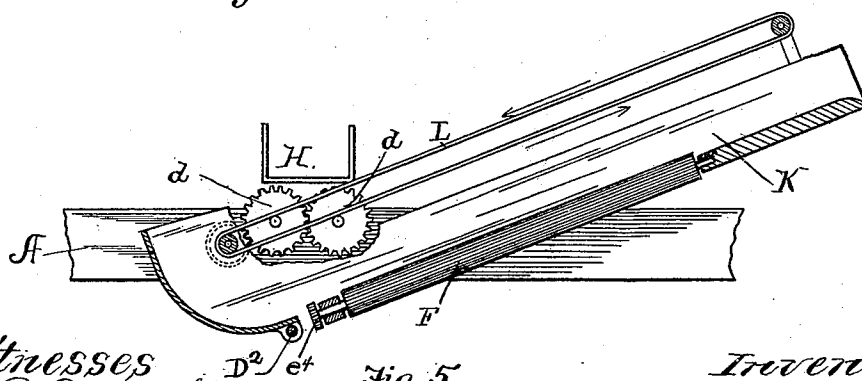


Fig. 5.

Witnesses
A. Cornwall
Geo. Nichols.

Inventor
J. David Van Buren.
By Martin Metcalf.
Atty.

UNITED STATES PATENT OFFICE.

JUDSON DAVID VAN BUREN, OF SIOUX CITY, IOWA.

CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 463,975, dated November 24, 1891.

Application filed December 29, 1890. Serial No. 376,101. (No model.)

To all whom it may concern:

Be it known that I, JUDSON DAVID VAN BUREN, a citizen of the United States, residing at Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Corn-Husking Machines, of which the following is a specification, reference being had to the accompanying drawings, forming part and parcel thereof.

The principal object I have in view is to provide a compact and effective machine that may be made to traverse the fields of corn, pluck the ears from the stalks, and then husk and deliver the same into a receptacle drawn alongside of or attached thereto; or the machine may be used as a stationary corn-husker, if desired.

Referring to the drawings, wherein similar letters designate like parts in all the views, Figure 1 represents a plan view of my new corn-husking machine. Figs. 2, 3, and 4 show parts of the machine broken away, detached, and enlarged. Fig. 5 is a longitudinal sectional view through the trough at the rear end of the machine.

Those skilled in the art to which this invention appertains will comprehend the essential features and mode of operation of my invention from a careful scrutiny and consideration of the drawings, in which—

The letter A designates the main frame.

B is the driving-shaft, provided with suitable supporting-bearings fixed in said main frame and carrying the traction-wheel W adjacent to the driver's seat *d*, while the opposite side of said main frame A is supported by the wheel W' in the usual manner.

Suitably situated between the main wheel W and oppositely-placed supporting-wheel W' are the slightly rearwardly-converging rollers E, and adjacent to the rearward end and running at a right angle to said rearwardly-converging longitudinal rollers E are the transverse rollers F. The rollers E are provided with suitable end bearings fixed to the supporting transverse timbers of the frame A and have spiral grooves running outwardly and rearward from end to end thereof, and the forward conical ends of said rollers E are provided with spirally-situated spikes or teeth *n*, corresponding with the spirals of the rollers.

Situated adjacent to and immediately above the forward end of the husking-rollers E are the corn-gathering gears or reels G, which, as shown in the drawings, intermesh slightly, so that the motion of one will be transmitted to the other, thereby obviating the necessity of providing supplemental mechanisms for operating the left-hand reel, and suitably above the rearward ends of said husking-rollers is the fixed guard and guide H, provided with the recurved outwardly-spreading wings *h*, suitably held in place by means of securing-pins *h'* or in any suitable manner.

The transverse rollers F have their fixed supporting-bearings in the elevator-trough K and are inclosed therein. A traveling belt or apron L, situated above the rollers F, serves for elevating and delivering the husked corn into a convenient truck or receptacle at the delivery side of the machine, as indicated in Fig. 1. This belt is shown in said figure broken away to disclose said rollers, and the corn is preferably fed onto its upper side near its rear end through the fixed guard and guide H, and by said belt is carried to the bottom of the trough and through said trough to the receptacle provided for the husked corn. It is obvious, however, that if deemed desirable the rear end of the fixed guard and guide may be placed in such relation to the trough as to itself direct the corn into the same at a point adjacent to the rear end of the elevating-rollers, in which case the belt will merely assist the rollers in elevating the corn from the trough into the receptacle.

The running height of the gathering-gears is adjustably regulated by means of the hand-lever M and quadrant Q, said lever being connected with the tongue T, which is pivoted to the forward end of the frame by a rod *r*, the forward end of which is secured to a plate *t*, attached to the upper surface of said tongue and projecting upward therefrom.

The mode of operation is as follows: Motion is imparted to the husking machinery through the driving or traction wheel W, power-shaft B, gear-wheel *a*, and engaging pinion *a'* to the transverse shaft C, coaxing with other suitable bevel-gears, shafts, and pinions as follows: The shaft C has a slight sliding movement in its bearings in the frame A, whereby the husking machinery may be

thrown out of or into gear, as seen. One means for accomplishing the throwing into and out of gear of the husking machinery is shown in the drawings; but I do not wish to be understood as limiting myself to this particular means, as any suitable means for this purpose may be adopted without departing from the spirit of my invention. Said means consists of a lever f' , secured at one end to one end of a shaft f'' , the opposite end of which shaft is connected with a latch f by means of a rod f''' , said latch having, as shown, a projection f^2 , which engages the side of the bevel gear-wheel b , which is on the shaft C. The shaft C is encircled by a coil-spring X, which tends to keep the said bevel-gear out of engagement with the other. From the above it will be readily seen that if the husking machinery is in gear and it is desired to throw it out of gear all that is necessary is to move the lever f' in a certain direction to cause the latch f to be disengaged from the bevel-gear b , when the spring X will draw said shaft toward it sufficiently to disengage said bevel-gear from the other bevel-gear b , and when it is desired to throw the husking machinery into gear it is only necessary to move said lever in the opposite direction, when the latch will be caused to engage said bevel-gear on the shaft C, overcome the tension of the spring on said shaft, and move said bevel-gear into engagement with the other. Bevel-gears b communicate motion to the rearwardly-running shaft D and to the corn stripping and husking rollers E by means of the gear-wheel c and pinions d , fixed on the rear ends of said shaft and rollers, respectively, while a pinion e , fixed on the forward end of the lower shaft D^2 of the elevator, meshes with the adjacent pinion d and gives proper motion to the twin elevator-rollers F and elevator-apron L through the engaging gears e' , e^2 , e^3 , and e^4 and sprocket-wheels and chain g g' , respectively. A longitudinally-reaching shaft D' runs forwardly directly above and in a right line with the shaft D, and is provided with a pinion b on its rear end, corresponding with an equal engaging pinion of the said shaft D, (see Fig. 3,) whereby motion is given to the

gathering-wheels or intermeshing right and left reels G of the upright shafts G' through the worm s , fixed to the forward end of said shaft D' and worm-engaging wheel s' of said upright shaft. The gathering-wheels, the husking-rollers, the elevator-rolls, apron, and other moving mechanisms are given motion by means of the main wheel and traveling parts, as shown; but the machine may remain stationary and the operative parts propelled by means of a belt or shaft deriving its power from any form or kind of motive power at hand, as is evident.

Other variations or modifications of my invention may be applied by those skilled in the art, and hence I do not design to confine myself to the precise construction shown; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In a corn-husking machine, the intermeshing gathering-reels G G, mounted upon vertical shafts, and rearwardly-converging spirally-grooved husking and stripping rolls E, extending longitudinally of the machine and provided at their forward ends with spirally-arranged teeth, in combination with a trough at the rear end of the machine, elevating and delivering rolls in said trough, an elevating-belt above said rolls, and means for operating said parts.

2. In a corn-husking machine, the intermeshing gathering-reels G G, mounted upon vertical shafts, spirally-grooved husking and stripping rollers E, and a fixed guard and guide secured to the rear end of the machine and having forwardly-projecting wings located on opposite sides of the opening between said rollers, in combination with a trough at the rear end of the machine, elevating and delivering rolls in said trough, an elevating-belt above said rolls, and means for operating said parts.

In testimony whereof I hereunto affix my hand and signature, in the presence of two witnesses, this 27th day of October, A. D. 1890.

J. DAVID VAN BUREN.

Attest:

W. T. PALMER,
C. A. LADD.