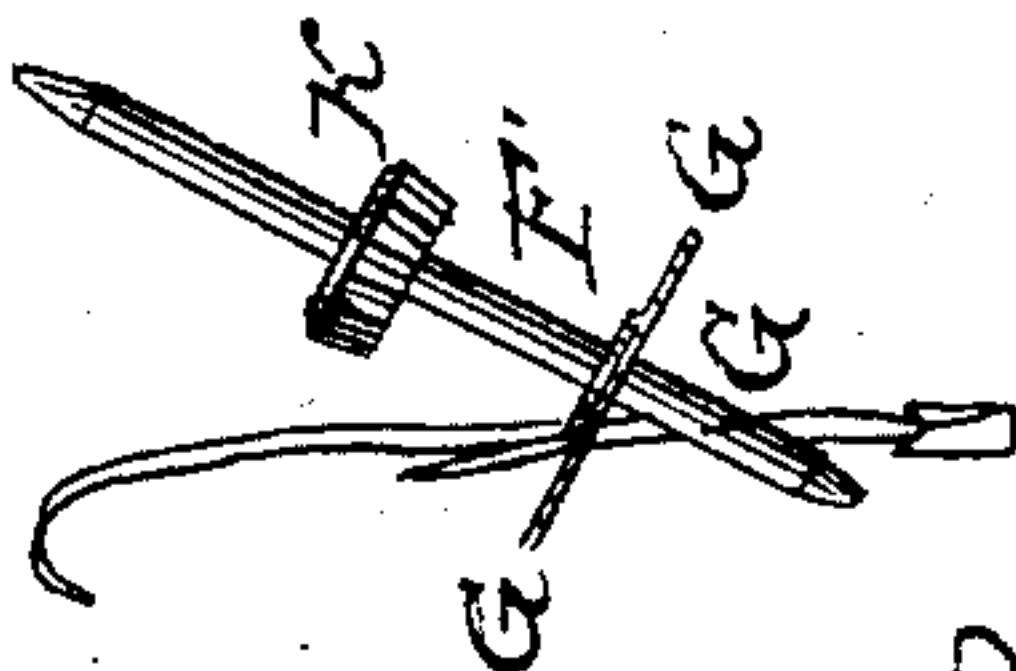


Corn Harvester.

No. 11,595.

Patented Aug. 29, 1854.



UNITED STATES PATENT OFFICE.

GARDNER A. BRUCE, OF MECHANICSBURG, ILLINOIS.

IMPROVEMENT IN MAIZE-HARVESTERS.

Specification forming part of Letters Patent No. **11,595**, dated August 29, 1854.

To all whom it may concern:

Be it known that I, GARDNER A. BRUCE, of Mechanicsburg, in the county of Sangamon and State of Illinois, have invented a new and useful Improvement in Cornstalk Cutters and Gatherers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective or bird's-eye view of the machine complete and ready for operating. Fig. 2 is a detached view of one of the angular-set cylinders of revolving knives.

Similar letters of reference in each of the several figures indicate corresponding parts.

The nature of my invention consists in a novel combination and arrangement of devices for constituting a machine which is capable of cutting down and depositing cornstalks into a proper receiver, said combination consisting of revolving oblique cutters, revolving bending and holding arms, inclined directing-shafts, and inclined guides.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the main frame, constructed of wood in any suitable manner. This frame should always rest in a horizontal position when the machine is in operation.

B B are the propelling-wheels, hung loosely and turning on the short axles C C. These axles extend from either side of the frame A, as shown in the drawings, and are employed as substitutes for the long axle, which passes entirely across the frame.

D D are the shafts, hung loosely to the frame at *a*. E is the set-screw for adjusting them to suit different-sized beasts of draft.

F F' are the inclined revolving shafts which carry the radial cutters G G. The shaft F is arranged on one side and F' on the other side of the machine, a little in front of the axles C C, as shown in Fig. 1. The cutters, which may be four in number, are set so as to cut upward as they revolve, each one cutting down a hill of stalks, the upward cut given to the blades being necessary to effect the object desired, it being discovered from long experience in cut-

ting with the knife in hand that by cutting at an angle in any upward direction the stalks can be more effectually and rapidly cut down.

H I are bevel-wheels for driving the cutter-shafts, the wheel H being on the shaft F and I on F'. They gear into the bevel-wheels J K on the inner faces of the propelling-wheels, as shown in Fig. 1. The inclined position and manner in which the cutters operate cause the cornstalks, as soon as they are cut, to have a direction toward the center of the machine.

L M represent the inclined shafts which carry the bending and holding arms N O, one of said shafts being on each side of the machine. The arms N O, of which there may be four or more for each shaft, are placed a little out of a horizontal line and revolve with the shafts L M the inclination of the shafts and position of the arms causing the stalks to be thrown to the center of the machine. These shafts and arms are driven by the bevel-wheels P Q, which also gear into the large bevel-wheels J K on the inner faces of the propelling-wheels, as shown in Fig. 1. The shafts of the cutters and bending and holding arms have their upper ends secured in an adjustable frame, R, as shown in the drawings. This frame serves for throwing the gearing of said shafts out of connection with the gear-wheels of the propelling-wheels when bending and cutting operations are not being performed.

S S represent two revolving shafts with arms *d d*, for receiving, bundling, and discharging the stalks. These shafts are placed or hung longitudinally in the main frame, as shown in Fig. 1, they occupying the space between the propelling-wheels, and having their bearing in the pieces *e e* and *f*. On the front end of each a spur-wheel, T is secured fast. These spur-wheels gear into each other and turn with the shafts as the cornstalks are discharged, the weight of the stalks causing them to revolve.

U is the spring-catch for locking the shafts S and wheels T and preventing them revolving and discharging the stalks until the desired sized bundle has been collected. This catch is placed on top of the cross-piece *f*, and is operated by the driver when necessary, it being drawn out of contact with the wheel T

when it is desired to discharge, and sprung into connection, as shown in Fig. 4, while gathering.

g g are inclined directors for causing the stalks to fall evenly into the receiver.

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

The combination and arrangement of the ob-

lique revolving cutters *G G*, revolving inclined directing shafts *L M*, bending and holding arms *N O*, and inclined guides *g g*, substantially as and for the purposes set forth.

GARDNER A. BRUCE.

Witnesses:

JACOB MORGAN,

THOMAS LUCKETT.