

No. 643,716.

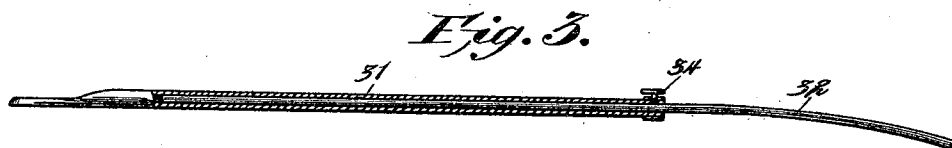
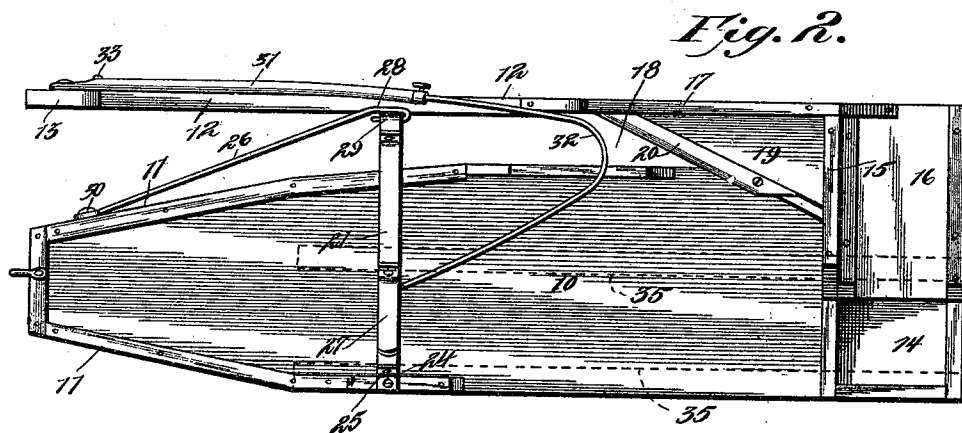
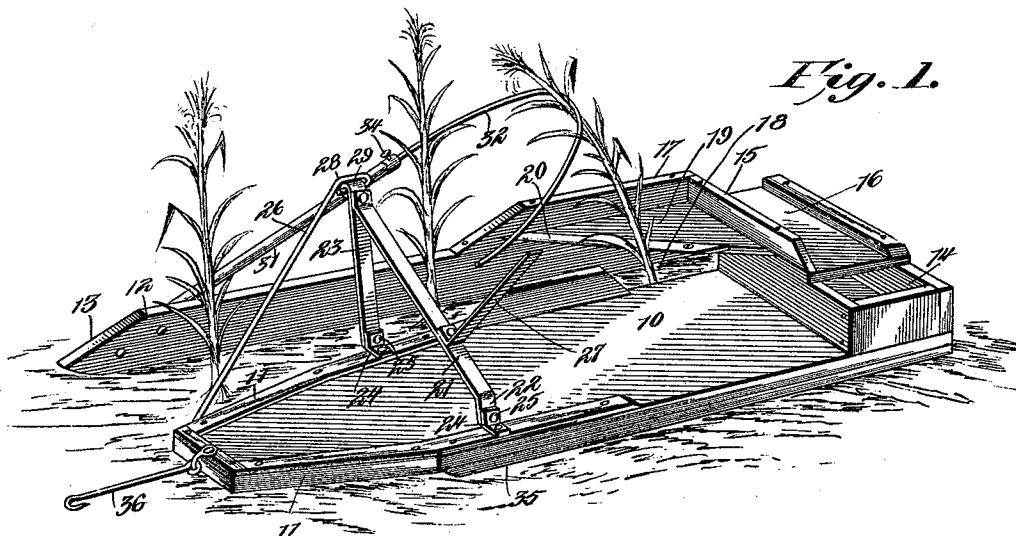
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W. W. GREEN & J. A. COLE.

CORN HARVESTER.

(Application filed Oct. 24, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM W. GREEN, OF OAKLAND, AND JOSIAH A. COLE, OF TOPEKA,
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CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 643,716, dated February 20, 1900.

Application filed October 24, 1899. Serial No. 734,646. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM W. GREEN, residing at Oakland, and JOSIAH A. COLE, residing at Topeka, in the county of Shawnee and State of Kansas, citizens of the United States, have invented a new and useful Corn-Harvester, of which the following is a specification.

Our invention relates to improvements in corn-harvesters of that class which employ a platform and a stationary knife in connection with a guide-runner which produces a gathering-throat between itself and the platform.

One object is to provide an improved construction for assembling the stalks into a bunch subsequent to or during the process of cutting the same and to dispose the cut stalks so as to facilitate removal thereof from the platform.

A further object is to provide means which serve the twofold purpose of bending the stalks to the action of the cutter and of deflecting the stalks upon the bunching appliance, said bending contrivance having an adjustable member which may be thrown out of the way of the operator in the act of gathering the stalks.

With these ends in view the invention consists in the novel combination, construction, and arrangement of parts, as will be hereinafter fully described and claimed.

To enable others to understand the invention, we have illustrated the same in the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a perspective view of a corn-harvester embodying our invention. Fig. 2 is a plan view thereof. Fig. 3 is a detail sectional view of the extensible and adjustable bending contrivance.

Like numerals of reference indicate like and corresponding parts in each of the several figures of the drawings.

In carrying our invention into practice we employ a substantially-horizontal platform 10, which is generally rectangular in form and is provided at its front end, on one or both sides, with an inclined edge 11. A runner-

guide 12 is arranged alongside the platform in substantially parallel relation with the straight edge thereof and on the grain side of the machine. This runner-guide has its rear end joined firmly to the rear part of the machine, the front end of said runner-guide being beveled at 13 to make the guide serve the purpose of lifting stalks which may be bent or blown over. The runner-guide is in spaced relation to the grain edge of the platform, so as to form a throat or space adapted to receive the rows of standing stalks on the advancement of the machine across the field, and these stalks are directed into this throat or space by the inclined edge 11 of the platform and by the guide-runner.

At the rear end of the machine is a transverse tool-box 14, which is firmly secured to the platform and the guide-runner, and a strip 15 is secured to the top of this tool-box, flush with the front wall thereof, so as to serve in conjunction with the front wall as a butt-board against which the cut or butt ends of the stalks may press or bear for the purpose of assembling them into a bunch. An auxiliary platform 16 is provided on the tool-box, and a stop-cleat 17 is made fast with the rear part of the guide-runner, said cleat 17 lying at right angles to the strip 15. A cutter-table 19, of triangular form, is secured in the angle between the tool-box and the guide-runner. This cutter-table is arranged below the strip 15 and the cleat 17, and said table overhangs the rear end portion of the throat or space 18, so as to present its front edge in a position diagonally or obliquely across the line of the space or throat. A knife-blade 20 is secured firmly to the inclined edge of the cutter-table which lies above the platform, and this knife is thus presented in an inclined position to the line of progress of the machine, whereby the inclined cutter is advanced to sever the stalks with a draw or shear cut.

One of the novel features of our improved machine is a bunching appliance carried by the platform 10 in advance of the cutter mechanism and is so related thereto that the stalks may lodge or rest upon the bunching appli-

ance for the purpose of accumulating therein to form the bunch. This bunching appliance has one element thereof in the form of an inclined bar 21, which is arranged transversely across the platform, and one end of this bar is bent to form the angular foot 22. The inner end of the bar fits laterally against one side of an upright 23, so that the upright and said inner end of the inclined bar may be joined pivotally and firmly together. A pair of brackets 24 are secured firmly to the platform 10, at opposite edges thereof, and the bar and the upright are attached to these brackets by the bolts 25, whereby the parts are joined firmly or pivotally together. The inclined bar and the post of the bunching appliance are held in their proper positions by a brace-rod 26, and to the inclined bar 21 is firmly secured an arm 27. This arm is fastened to the bar at a point intermediate of its length, and it is inclined outwardly away from the bar, so as to form therewith a crotch or space, into which the head ends of the stalks are adapted to drop after the said stalks shall have been severed by the cutter apparatus. As one means for fastening the brace-rod to the bunching appliance we have shown the rod as having the hook 28 fitting in an eye-formed end 29 of the post, the other end of said rod being attached to the platform, as at 30.

The harvester of our invention is equipped with a bending contrivance arranged to overhang the gathering throat or space 18 and to lie in close relation to the bunching appliance, so that the bending contrivance will operate to bend the stalks to the action of the cutter and also to deflect the stalks upon the inclined bar of the bunching appliance. This bending contrivance consists of a tubular member 31 and a curved member 32. The tubular member is connected to the guide-runner 12 by any suitable means at 33 to extend upwardly therefrom in an inclined direction. The curved member 32 is bent into the form of a yoke or bow, one end of which is fitted in the free end of the tubular member, so that it may be held in place therein by any suitable contrivance, such as a binding-screw 34. The curved member of the bending contrivance is made from a rod or bar of metal of a diameter proper to fit within the tubular member, and any suitable means other than the set-screw may be employed to retain said member in position either fast or loose. The curved element of the bending contrivance is supported by the tubular member over the gathering throat or space 18 and between the cutter appliance and the bunching appliance, (see Fig. 2;) but this curved member may be adjusted lengthwise within the tubular member, so as to vary its relation to the cutter and the bunching appliance.

Our harvester is shown as supported on the runners 35, which, in connection with the guide-runner, serve to support the machine

substantially in a level condition; but it is evident that the platform may be mounted on wheels in a manner familiar to those skilled in the art. A draft appliance 36 is connected to the front end of the platform for hitching the machine to a team of draft-animals.

We have found that the bending contrivance serves efficiently to bend over the standing stalks and present them in that condition to the cutter, said cutter acting with great efficiency on the stalks when bent. The severed or butt ends of the stalks lodge upon the cutter-table, and as the stalks are inclined by the bending contrivance the head ends thereof lodge upon the inclined bar. The stalks have a tendency to travel along the bar until arrested by the arm 27, while the butt-ends of the stalks bear against the butt-wall formed by the tool-box and the strip 15. The stalks are thus gathered into a bunch and assembled in proper order by the machine. The bunching contrivance supports the stalks above the platform, so that the operator may readily gather the bunch for removing the same from the machine. The curved member of the bending appliance may be adjusted or moved out of the way of the operator when engaged in removing the bunch of cut stalks from the machine.

Changes may be made in the form and proportion of some of the parts, while their essential features are retained and the spirit of the invention embodied. Hence we do not desire to be limited to the precise form of all the parts as shown, reserving the right to vary therefrom.

Having thus described the invention, what we claim is—

1. A corn-harvester comprising a platform provided with a butt-wall in rear of a cutter, a bunching appliance fast with the platform in front of the butt-wall and having an inclined element disposed transversely of the platform, and a sectional bending contrivance overhanging the platform between the cutter and the bunching appliance, said bending contrivance having a stalk-deflecting bow-shaped member which is rotatably and longitudinally adjustable to assume different positions with relation to the cutter and the bunching appliance, substantially as described.

2. In a corn-harvester, a bunching appliance mounted on the harvester-platform comprising an inclined bar disposed transversely of the platform and fastened at its lower end thereto, a post secured to the platform and the elevated end of the bar, and an arm extending upwardly from the inclined bar at a point intermediate of its length, combined with a cutter, and a bending appliance having a stalk-deflecting element between the cutter and said bunching appliance, substantially as described.

3. A corn-harvester having its platform and guide-runner arranged to form an intermedi-

ate throat, a cutter across said throat, and a
bending appliance comprising one member
supported on the guide-runner and a second
bow-shaped member clamped to the first mem-
5 ber, the second member being rotatably and
longitudinally adjustable with respect to the
first member.

In testimony that we claim the foregoing

as our own we have hereto affixed our signa-
tures in the presence of two witnesses.

WILLIAM W. GREEN.
JOSIAH A. COLE.

Witnesses:

F. G. WILLARD,
O. F. WHITMER.