

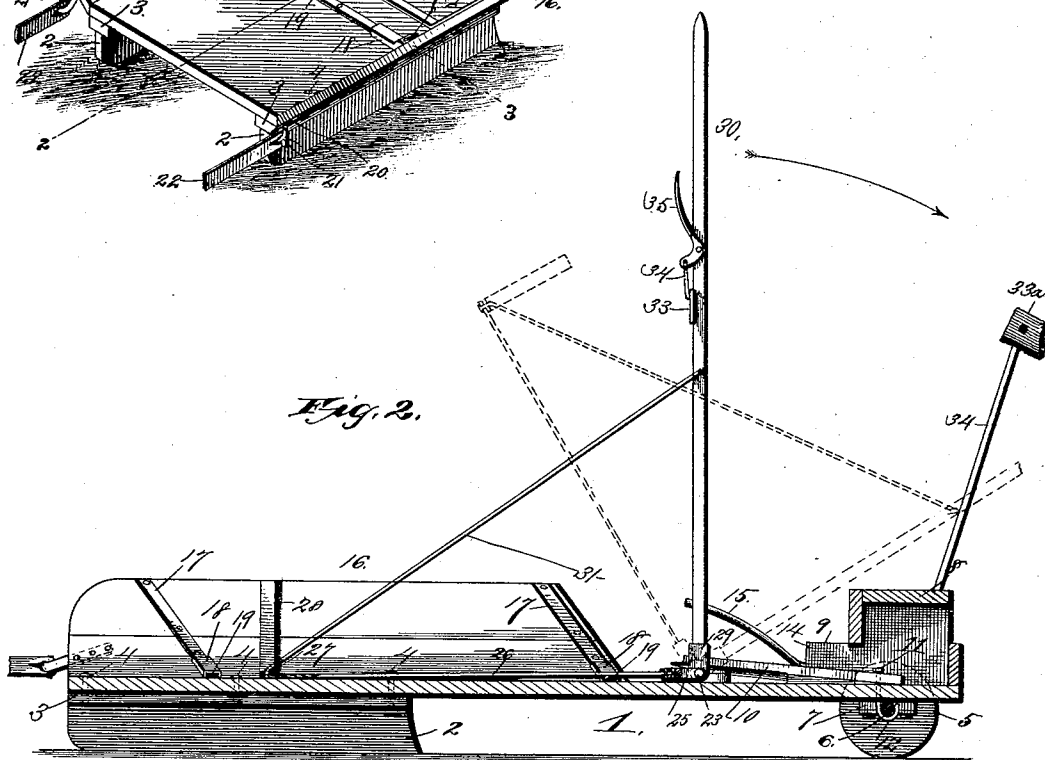
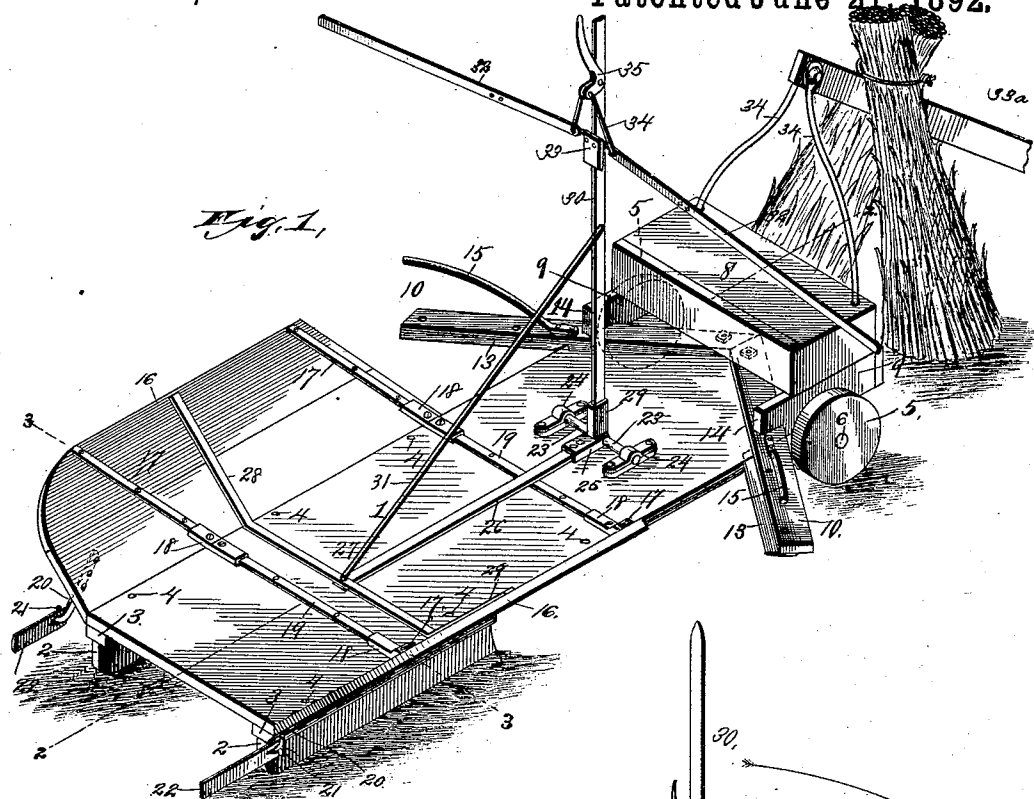
(No Model.)

2 Sheets—Sheet 1.

J. B. TOSH.
CORN HARVESTER.

No. 477,317.

Patented June 21, 1892.



Witnesses,

W. B. Thorpe,
Geo. L. Condon

Inventor:
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(No Model.)

2 Sheets—Sheet 2.

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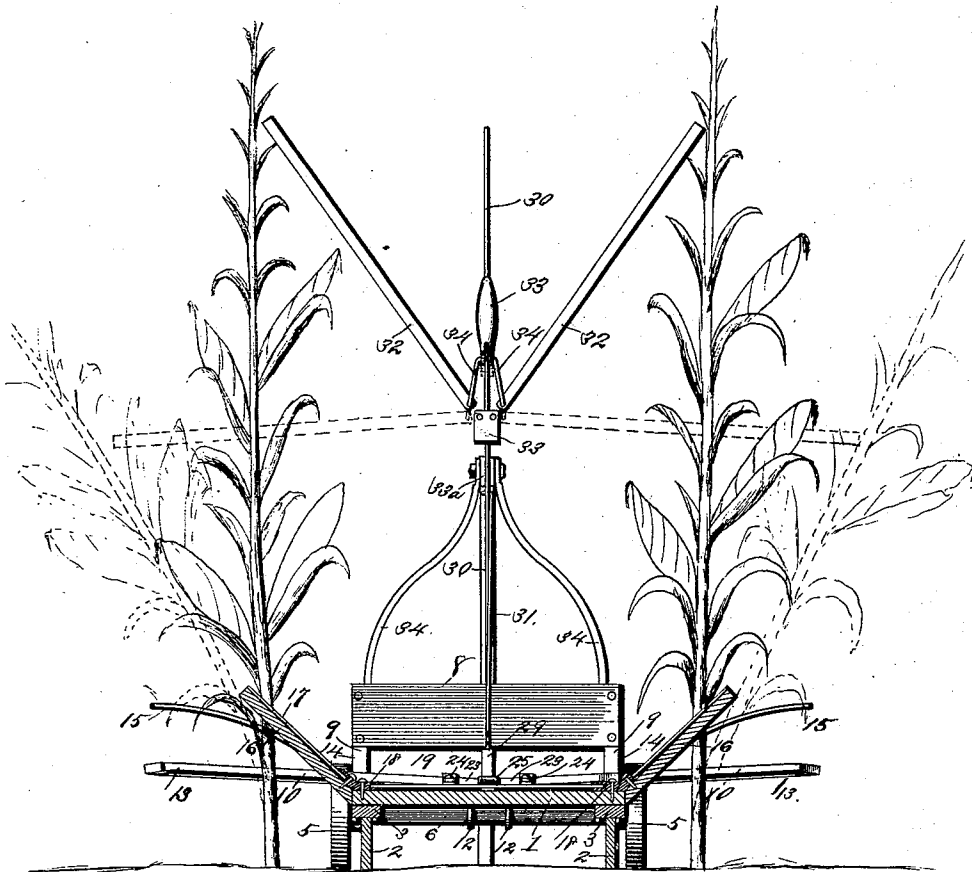


Fig. 3.

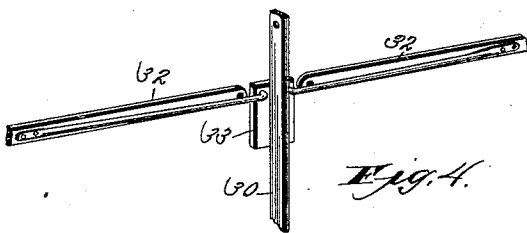


Fig. 4.

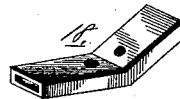


Fig. 5.

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UNITED STATES PATENT OFFICE.

JAMES B. TOSH, OF VALLEY FALLS, KANSAS.

CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 477,317, dated June 21, 1892.

Application filed October 3, 1891. Serial No. 407,639. (No model.)

To all whom it may concern:

Be it known that I, JAMES B. TOSH, of Valley Falls, Jefferson county, Kansas, have invented certain new and useful Improvements in Corn-Harvesters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to machines for harvesting cornstalks; and the objects of my invention are to produce a cornstalk-harvester which shall be simple, strong, durable, and inexpensive in construction and of light draft and which shall also operate to quickly sever the stalks from their butts and by means of which the cut stalks can be quickly bundled for shocking.

To the above purposes my invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a cornstalk-harvester constructed in accordance with my invention. Fig. 2 is a central vertical longitudinal section of the same on the line 2 2 of Fig. 1. Fig. 3 is a transverse vertical section of the same on the line 3 3 of Fig. 1. Figs. 4 and 5 are detached perspective views of certain details of construction hereinafter described.

In the said drawings, 1 designates the body portion or platform of my improved harvester, said body or platform being of oblong rectangular form and of any suitable or preferred length, and, furthermore, of such width as to enable the machine to be drawn between two rows of standing stalks, the sides of the body portion passing close to the two opposite rows of stalks. The front end of this body portion or platform is supported upon two runners 2, which are located at opposite sides of the said body portion or platform, the said runners being secured to the platform by means of suitable bolts 4, which extend downwardly through the platform and also through beams 3, one of which is suitably secured longitudinally upon the top of each of said runners. The rear end of the body portion or

platform 1 is supported by two carrying-wheels 5, which are mounted upon the opposite ends of an axle 6, said axle extending transversely beneath the rear end of the body or platform and being retained in position by suitable bearings 7, which are pendent from said under portion of the platform or body 1. Upon the rear end of the body or platform 1 is mounted a seat 8, which extends transversely of the platform and the ends of which rest upon and are suitably secured to two vertical supports 9, rising from opposite sides of the platform. Upon the rear end of this platform or body 1 are mounted two cutter-carriers 10, the inner ends of said carriers being secured in position by bolts 11, which pass downwardly through said inner ends of the carriers and also through the platform 1, and the lower ends of which are preferably curved rearwardly and upwardly, as shown at 12, so as to embrace the axle 6 from beneath. These carriers 10 extend obliquely outward and forward, so as to project laterally from opposite sides of the platform 1, and said carriers also extend transversely and obliquely upward and forward for a purpose to be hereinafter explained. To the front side of the outer portion of each carrier 10 is secured an elongated cutter or blade 13, and said carriers 10 are also retained in position by overlapping extensions 14 of the seat-supports 9. The described oblique positions of the carriers 10 cause the blades or cutters to assume corresponding oblique positions, and consequently the cutters operate upon the stalks both with a horizontal oblique movement and an upward thrust, thus insuring quick and clean cutting of the stalks from their butts. Upon each carrier 10 is also secured a guard-arm 15, which extends obliquely upward and outward longitudinally of the carrier, and these guard-arms serve to insure the tipping of the stalks forward and inward upon the platform 1, as hereinafter more fully described. Upon the front end of the body or platform 1, at opposite sides thereof, are located two upwardly and outwardly inclined guides 16, each of said guides being of substantially oblong rectangular form, but each being preferably curved upwardly and rearwardly at its front end, as shown. Each of the guides 16 is provided with two transverse

bars 17, which are bolted or otherwise suitably secured to its upper side, the one at the front end and the other near the rear end of the guide. The inner end of each of these bars 17 is inserted into the outer end of an elongated V-shaped socket 18, said inserted portions of the bars 17 being bolted or otherwise removably secured within said sockets. Into the inner ends of these sockets 18 are inserted the outer ends of two cross-bars 19, which are bolted or otherwise suitably secured to the upper side of the platform 1 at the front part thereof, the said outer ends of these cross-bars being bolted or otherwise suitably secured within the inner ends of the sockets, and the arrangement being such that the guides 16 are readily detachable from the platform, if desired. To the front end of each guide 16 is secured an arm 20, the outer end of which is formed or provided with hook 21, which enters an eye in the rear end of one of two traces 22, to which the draft-animal is harnessed. It will thus be seen that as the harvester is drawn along over the ground the cutters sever the stalks and that the stalks are immediately thrown forward by the guard-arms 15. As the stalks are thus thrown forward they are deflected upon the front part of the platform 1 by the oblique guides 16, and all wasting of the stalks is thus avoided.

Upon the platform 1, just in front of the driver's seat 8, is located a horizontal rock-shaft 23, the ends of which are journaled in bearings 24, also mounted upon the platform, the said rock-shaft extending transversely of the platform. To this rock-shaft, about midway of the length thereof, is secured a socket-piece 25, into which is inserted the rear end of an elongated bar 26, which normally extends horizontally forward longitudinally of the platform 1 and midway between the two oblique guides 16. To the front end of this bar 26 is secured a cross-bar 27, which is provided at its ends with oblique upwardly-extending arms 28, the cross-bar 27 lying normally upon the platform 1 and the oblique arms 28 extending normally upward upon the inner sides of the guides 16. Into a second socket-piece 29, which normally extends vertically upward from the rock-shaft 23, is inserted the lower end of a bar or standard 30, an oblique brace 31 connecting the bar 26 with the bar or standard 30.

32 designates two arms, the inner ends of which are pivotally connected to a plate 33, which is bolted or otherwise secured to the upper part of the bar or standard 30, and which bars 32 normally extend horizontally beyond the opposite sides of the platform 1. Upon the upper part of the bar or standard 30 is pivotally secured an L-shaped grip-lever 35, to the lower end of which are attached two links 34. These links are connected at their lower ends to the inner parts of the bars 32 just outside of their inner pivoted ends. Normally the

bar or standard 30 stands in vertical position, as shown in solid lines in the drawings, and the bars 32 extend horizontally outward, as also shown in solid lines. As the harvester is drawn along the arms 32 strike the tops of the stalks and assist the guards 15 to throw the stalks forward after said stalks have been severed. When a suitable number of stalks have thus been severed and thrown upon the platform 1, the driver draws the bar or standard 30 backward, and the cross-bar 27 is thus raised, as shown in dotted lines in Fig. 2, causing the stalks to form a bundle for shocking. When not in use, the arms 32 are raised, as shown in solid lines in Fig. 3, this being accomplished by moving the gripping-lever 33 backward, and the arms 32 are then caused to clear the stalks which are not to be harvested. The harvester-body is, as before stated, of such width that the sides of the body portion shall pass very close to the opposite rows of stalks, the guides 16 thus extending outward beyond the rows of stalks. It will be seen that the guides 16 first move the stalks outward as the harvester is drawn forward between the rows of stalks, and then allow the stalks to spring inward past the rear ends of the guides and to move forcibly directly against the cutters, the latter movement insuring the immediate severance of the stalks from their stubs, and also insuring the throwing of the stalks directly upon the body of the machine.

33^a designates a bar, the front end of which is pivotally connected to the upper ends of two legs or standards 34, which are preferably of metal, and the lower ends of which are inserted into openings in the top of the seat of the harvester. As the machine is drawn along the bar 33^a trails behind the machine, and after the machine has received a load the stalks are separated into two parts, these two parts being placed in standing position at opposite sides of the bar 33^a. These standing stalks are then shocked, and when the machine is again started the bar 33^a is drawn easily from the shock.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

A cornstalk-harvester comprising a suitable body portion or platform, a rock-shaft mounted thereon, a bar or standard extending normally upward from said rock-shaft, a pair of stalk-throwing arms pivoted to the standard, a grip-lever also pivoted to the standard, and the links connecting the grip-lever with the inner portions of the throwing-arms, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES B. TOSH.

Witnesses:

JNO. L. CONDRON,
H. E. PRICE.