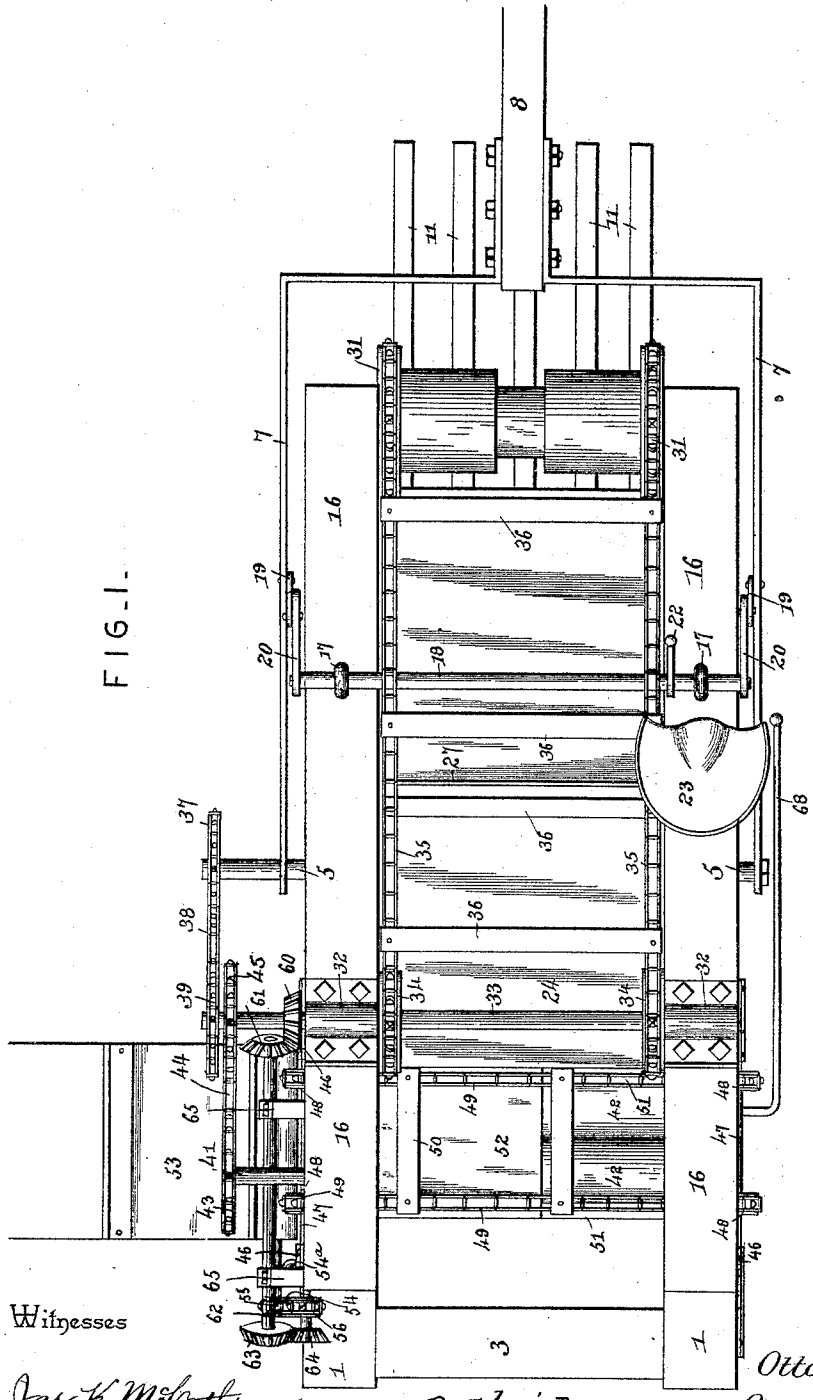
(No Model.) 3 Sheets—Sheet 1.

O. E. & O. BEARDSLEY.

CORN HUSKER.

No. 487,241. Patented Dec. 6, 1892.

FIG. 1.



Witnesses

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FIG. 2.

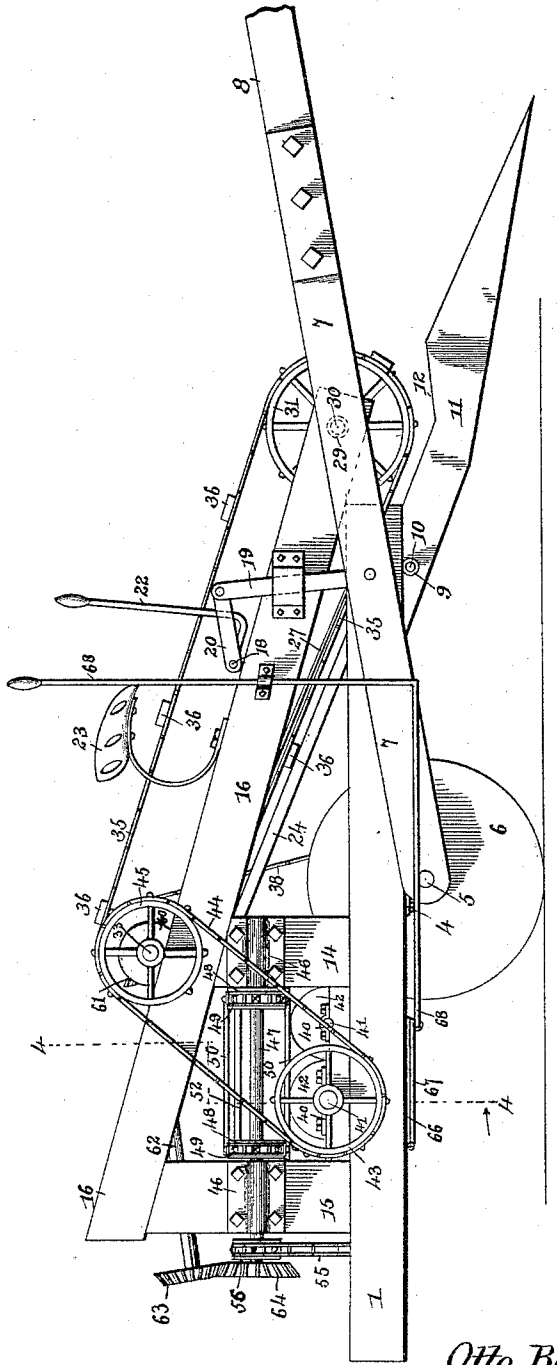

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FIG. 3.

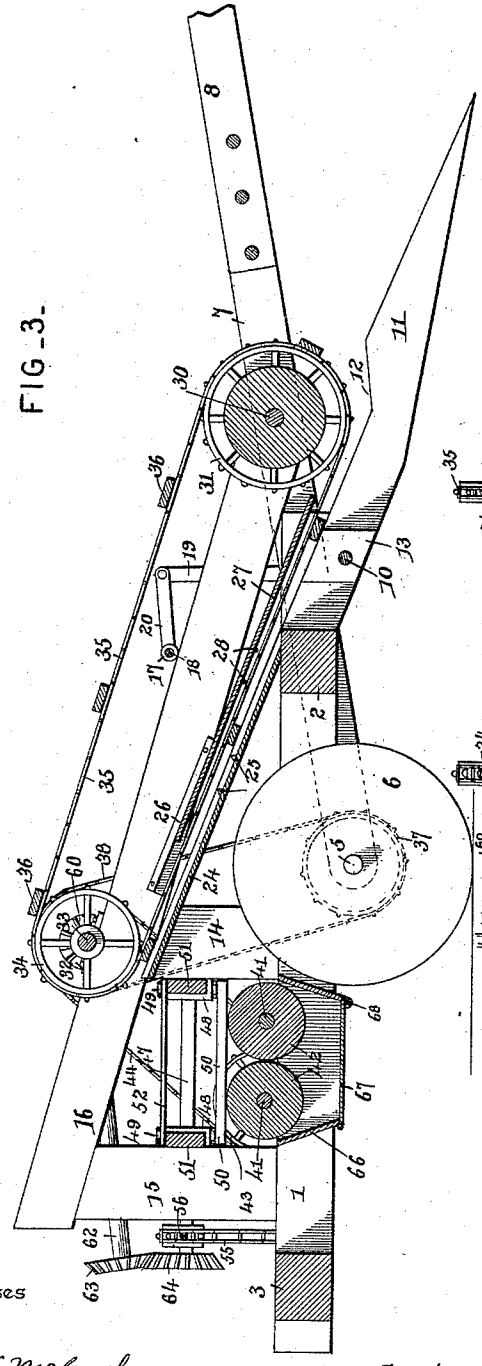


FIG. 5.

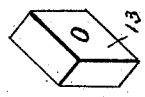
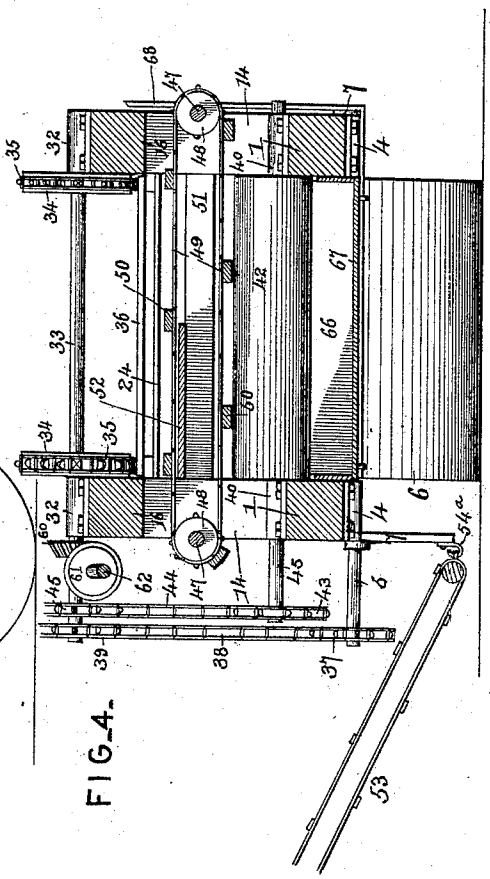


FIG. 4.



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UNITED STATES PATENT OFFICE.

OSCAR E. BEARDSLEY AND OTTO BEARDSLEY, OF TREMPEALEAU, WISCONSIN.

CORN-HUSKER.

SPECIFICATION forming part of Letters Patent No. 487,241, dated December 6, 1892.

Application filed April 11, 1892. Serial No. 428,687. (No model.)

To all whom it may concern:

Be it known that we, OSCAR E. BEARDSLEY and OTTO BEARDSLEY, citizens of the United States, residing at Trempealeau, in the county of Trempealeau and State of Wisconsin, have invented a new and useful Corn-Husker, of which the following is a specification.

Our invention relates to a combined corn harvester and husker, the objects in view being to provide a machine of cheap and simple construction adapted to strip the ears from the stalks, leaving the latter standing, remove the husks from the ears, to provide means for dumping the husks at intervals, and to provide means for delivering the ears after being husked.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a plan view of a corn-husker constructed in accordance with our invention. Fig. 2 is a side elevation thereof. Fig. 3 is a vertical longitudinal section of the same. Fig. 4 is a transverse section through the husking-rolls. Fig. 5 is a detail view of one of the spacing-blocks to maintain the proper intervals between the picker-bars.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates the opposite side sills of the machine, and the same are connected near their front ends by a cross-sill 2 and near their rear ends by a cross-sill 3. Bearings 4 are formed on the under sides of the sills 1, and for rotation therein there is mounted a transverse axle 5, which extends to opposite sides of its bearings. Between the bearings 4 a ground-roller 6 is mounted fixedly upon the axle, and from the opposite ends of the axle, outside the bearings 4, extend forwardly-disposed hounds 7, the front ends of which are inwardly bent and embrace and are bolted to a draft-pole 8.

In bearing-eyes 9, depending from the under sides of the sills 1, near the front ends of the latter, there is mounted a transverse shaft 10, and the same also passes through a series of forwardly-disposed downwardly-inclined picker-bars 11, the upper sides of which, near their middles and toward their rear ends, are cut out or curved, as at 12. The rear ends of the picker-bars are flat and rest against the front face of the cross-sill 2, whereby they are practically immovable. These bars are spaced apart by space-blocks 13, also perforated for the passage of the shaft 10.

Rising vertically from the sills 1 in rear of the centers of the same are opposite pairs of standards 14 and 15, the latter being in rear of the former and slightly longer. The upper ends of these standards 14 and 15 are beveled or inclined toward the front, and each opposite pair is surmounted by an inclined sill 16, which extends at their front ends slightly beyond the side sills 1, before described. Bearing-eyes 17 are formed in the upper sides of the sills 16, and a transverse rock-shaft 18 is mounted for rotation in the eyes. Rock-arms 20 are fixed to the ends of the rock-shaft outside the sills 16, and links 19 are pivoted at their upper ends to the rock-arms and at their lower ends to the hounds. A shaft-operating lever is mounted on the rock-shaft 18 and designated as 22, the upper end of the lever being within easy reach of a driver perched upon the seat 23, placed upon the right-hand sill 16 for his accommodation. By operating the lever in the manner described it will be seen that the front end of the machine, at which the picker-bars are located, may be raised and lowered.

24 designates an inclined board, which is located between the sills 16 and is supported by the front pair of standards 14, and at its lower end by the sills 1, toward which it declines. This board has its upper surface covered with a series of spurs 25. Above the board to the opposite inner sides of the sills 16 cleats 26 are secured, said cleats being inclined to the same degree as is the board 24, and to these cleats are secured the opposite edges of the upper inclined board 27, the lower face of which is like the upper face of the board 24, studded with spurs 28. The lower ends of the side sills 16 are arranged vertically above the curved or cut-out edges of the before-mentioned picker-bars and are provided with transversely-opposite bearings 29, in which is mounted a shaft 30. This shaft is provided with opposite loose sprocket-pulleys 31. Near their upper ends the sills 16 are surmounted by transversely-opposite

bearings 32, and in the same a transverse shaft is rotatably mounted, the ends of the shaft projecting beyond the bearings. Between its bearings the shaft 33 is provided with a pair of fixed sprocket-pulleys 34, and endless chains 35 connect the pulleys 34 and 31 and pass between the boards 24 and 27. The chains are connected by cross-bars 36, the whole constituting an endless carrier running in close contact with the upper sides of the picker-bars and inner sides or surfaces of the inclined boards 24 and 27.

The axle 5 is provided with a sprocket-pulley 37, and the same is connected by an endless chain 38 with a similar sprocket-pulley 39, located upon the stubble end of the transverse shaft 33, so that motion is conveyed from the axle 5 to the shaft 33 and endless carrier.

Between the standards 14 and 15 in transversely-opposite bearings 40 a pair of parallel shafts 41 are journaled, and each shaft has rigidly mounted thereon a pair of contacting husking-rolls 42. The rear shaft is extended beyond its bearing at the right side of the machine and carries a sprocket-pulley 43, which by a sprocket-belt 44 is engaged with and driven by a sprocket-pulley 45, mounted on the corresponding end of the shaft 33.

Above the rolls 42 the front and rear pairs of standards 13 and 14 are provided with longitudinally-opposite bearings 46, and in the same short longitudinal shafts 47 are mounted. Each of these shafts carries a small pair of sprocket-wheels 48, and they are connected by sprocket-chains 49, which at intervals are connected by cross-bars 50, the bars and chains constituting an endless carrier. A pair of transverse bars 51 connect the front standards to each other and rear standards to each other between the belt just mentioned, and at the left side of the machine these bars are connected for about half their length by a platform 52.

Opposite the left end of the husking-rolls a pair of hooks or brackets 54^a project from the sill 1. These brackets removably engage with an endless inclined elevator or carrier 53, having the usual drive-wheel 54, which is connected by a chain 55 with a sprocket-pulley 56, located on one of the shafts 47.

This completes the construction of the machine, and its operation is as follows: The machine moving toward the standing corn, the stalks thereof are gathered between the picker-bars 11 and coming in contact with the cross-bar 9 or shaft upon which the bars are supported are bent down toward the ground. At this moment the ground-roller 6 reaches the stalks and serves to hold them, rolling along thereover while the ears which are too large to pass between the picker-bars are stripped rapidly from the stalks. As they are stripped they are received in the upper recessed edges of the picker-bars and are prevented from falling therefrom by the curvature given the bars. At this point they are caught by the cross-bars 36 of the endless carrier and carried between the boards 24 and 27, where their husks are materially loosened. After passing through the boards they are delivered by the endless belt over the rear end thereof upon the platform 52, where they are caught by the cross-bars 50 of the transverse endless belt and dropped from the right-hand edge of the platform upon the husking-rolls 42. The same belt that delivers them to the husking-rolls also carries them over the rolls, which, revolving inwardly, tear the husks from the ears, and as thus husked they are delivered by the aforesaid belt to the inclined endless carrier, heretofore described, located at the side of the machine, and by the latter are elevated and delivered into a wagon or other receptacle secured to the upper end of the carrier or following thereafter.

From the foregoing description it will be seen that we have provided a machine of great simplicity and composed of few and simple parts and which is adapted to thoroughly gather and strip the ears of corn from the stalks and in such manner as to prevent pulling up of the latter, which will thoroughly loosen or slit the husks, and finally deliver them in such condition to the husking rolls, whereby their operation is facilitated and completed. By reason of the roller 6 it will be seen that the cornstalks will be held down against being removed from the ground as the ears are removed therefrom. A beveled pinion 60 is mounted on the end of the shaft 33 at the side of the sprocket-pulley 45, and the same drives through the medium of a second beveled gear 61 a shaft 62, carrying at its lower end a beveled pinion 63, which engages and operates the gear 64 on the end of shaft 47. This shaft 62 is mounted in suitable bearings 65.

If desired, I may locate under the sills 1 and below the husking-rollers a receptacle 66, having a hinged bottom 67, which may be opened downwardly by a lever 68, extending up within easy reach of the operator. In this manner the husks may be delivered at intervals.

Having described our invention, what we claim is—

1. In a corn-husker, the combination, with a supporting-frame having a front cross-beam, the husking-rolls, and the traveling carrier extending from the front of the frame to said rolls, of picker-bars arranged at their rear ends in contact with said cross-beam, the transverse bolt extending through registering perforations in said bars, and spacing-blocks arranged upon said bolt between the bars, substantially as specified.

2. In a corn-husker, the combination, with the rectangular frame, the superimposed inclined frame, the rotary husking-rolls, means for operating the same, the superimposed platform open at one end of the rolls, the endless open belt passing over the platform and rolls, and means for operating said belt, of picker

mechanism located at the front end of the frame, a pair of inclined spaced-apart boards having their inner faces studded with spurs, and an endless belt located above and passing between the boards and extending from the picker mechanism and terminating over the platform, substantially as specified.

3. In a corn-husker, the combination, with the rectangular frame, the axle journaled in the under side thereof, the superimposed inclined frame, and the roller mounted on the axle, of the forwardly and inwardly disposed hounds, the draft-pole clamped by the front ends of the hounds, the rear ends of the hounds being loosely connected with the axle, the transversely-opposite bearings in the inclined frame, the rock-shaft journaled in the bearings and provided with rock-arms, links pivotally connected at their upper ends to the rock-arms and at their lower ends to the hounds, and a lever mounted upon and adapted to operate the rock-shaft, substantially as specified.

4. In a corn-husker, the combination, with the framework, the superimposed inclined frame, the upper and lower transverse shafts journaled therein, the endless belt or carrier mounted therein, and means for moving the same, of a transverse bolt located below the rectangular frame and in front of the cross-bar thereof, the series of inclined picker-bars perforated to receive the bolt and below the lower end of the carrier recessed to receive the latter, substantially as specified.

5. In a corn-husker, the combination, with a supporting-frame, of picker-bars 11, husking-rolls 42, an upwardly and rearwardly inclined platform 24, an upper parallel platform 27, said platforms having spurs upon their facing-surfaces and terminating above the said rolls, an endless open belt 35 passing between said parallel platforms, and means for operating said belt and rolls, substantially as specified.

6. In combination, the supporting-frame, the picker-bars carried by said frame, the roller 6, the parallel spurred boards 24 and 27, the sprocket 34, connected by chain to said roller, the open endless belt 35, traveling over said sprocket and passing between the adjacent spurred faces of said boards, the husking-rolls located beneath the rear ends of said boards and geared together, and the chain connecting one of these rolls to said sprocket, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

OSCAR E. BEARDSLEY.
OTTO BEARDSLEY.

Witnesses:
J. C. BUTTON,
B. F. ROBINSON.