

UNITED STATES PATENT OFFICE.

RICHARD B. ROBBINS, OF ADRIAN, MICHIGAN.

CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 734,614, dated July 28, 1903.

Application filed December 22, 1902. Serial No. 136,257. (No model.)

To all whom it may concern:

Be it known that I, RICHARD B. ROBBINS, a citizen of the United States, residing at Adrian, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Corn-Harvesters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the class of harvesters adapted to cut and shock one or two rows of corn or other stalk growths, and has for its special object to provide a very simple and inexpensive but very substantial machine embodying novel means of adjustment of height of cut and locking device for the retaining-frames. For the accomplishment of said objects I employ the novel construction fully and clearly set forth in the annexed specification and drawings.

In the drawings, Figure 1 is a perspective view of my improved machine. Fig. 2 is a plan view of the same. Fig. 3 is a perspective view of a portion of my adjusting construction. Fig. 4 is a perspective view of my improved locking device for the retaining-frames.

In the several views like letters of reference represent similar parts.

A in the drawings represents a main portion or platform of suitable size provided with the lateral extensions A' A', which are provided with the forwardly-converging edges a' a' at suitable angles to platform A.

B B are suitable knives properly mounted on the edges a' a', respectively.

C C are wheels or rollers rotatably mounted in the extensions A' A', respectively, preferably at a point about half-way between the front and rear ends of said extensions.

D D are two upright standards connected at their lower ends by the cross-piece d, which is securely fastened to the front of the platform A, and at their upper ends by the cross-piece d', to the inner side of which is attached a suitable curved safety-guard d², while d³ is a tool-box attached to D D. The ends of this guard are curved and extend backwardly, so as to permit the operators to stand within this guard. The outer end of the guard is then between each of the operators and the

knife at his side of the machine and prevents him from being thrown off in front of the knife and also supports him in his gathering of the stalks as the knife approaches it.

D' D' are stirrups of suitable size longitudinally mounted on the uprights D D, respectively, at suitable points on the same.

E E are ordinary shafts provided with the curved portions e e, which are passed through the stirrups D' D', respectively, and hinged to the extensions A' A', respectively, at suitable points e' e'.

F F are retaining-frames of suitable size, each being preferably provided with semi-circular bases f, uprights f' f' f², suitably secured to said base, the upright f² being nearest the platform A when the frames are in their normal position, as shown in the drawings, and is provided with extending handles, also the horizontal curved pieces f³ f³ f³, suitably fastened to the uprights f' f' f², and the horizontal piece f⁴, secured to the straight edge of base.

F' F' are pivotally mounted at a suitable point in their bases to the extensions A' A' by the pins F' F'.

G is a cross-piece or latch of suitable length having one end attached to one of the uprights f² at a suitable point by the longitudinal hinge g, while the other end is preferably provided with an enlargement g'.

G' is a keeper of suitable size and shape to receive the enlargement g' of the cross-piece G and is attached to a suitable point on the other upright f² in such a position that as G is raised or lowered the part g' may be correspondingly placed in or released from the socket G', by which construction it is obvious that the frames F F may be held rigidly in position.

Having clearly described my invention, its operation is as follows: When the machine has been placed in the proper position to cut the desired number of rows, the operators take their respective positions on it. Since by construction the wheels or rollers C C are placed at about the center of the extensions A' A', and as the shafts E E are hinged to said extensions and loosely mounted on the uprights D D, it follows that the height of the cut may be regulated at will by changing the position of the operators—as, for instance,

it follows that if a low cut is desired the operators should stand in front of the wheels or rollers C C, thus depressing the forward end of the platform A of extensions A' A' and the knives, while if a higher cut is desired it may be obtained by the operators moving to the rear of the wheels C C, thus elevating the forward end of the extensions and the knives. Hence it is evident that, according to the length of the stirrup, numerous degrees of variation of height of cut may be secured by the operators taking the proper position on the platform. The operators having taken their positions, the machine is moved forward, forcing the knives against the stalks, while the operators catch them as they fall and deposit them in the retaining-frames F F, the safety-guard d^2 being provided for the operators to lean against while reaching for the stalks which they were unable to prevent from falling to the ground. This operation is carried on until the retaining-frames F F are filled, when the machine is stopped, the latch G raised, and the retaining-frames F F turned a quarter of a revolution until they face each other, thus allowing a passage-way for the operators to the rear of the machine. When the operators have dismounted, they turn the frames F F another quarter of a revolution until they face the rear of the machine and then remove the stalks and shock them, after which the frames are returned to their normal position for receiving the stalks.

From the foregoing description it is certainly evident that I attain my desired results with the simplest and most inexpensive as well as substantial machinery.

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

1. A harvester of the class described comprising supporting wheels or rollers, a main portion or platform pivotally mounted on said wheels or rollers, having cutting devices secured thereto and pivotally-connected draft devices, said draft devices and main portion or platform being at all times free to move vertically in respect to each other, whereby the shifting of the weight on the main body or platform will move the same to change the height of the cutting devices, substantially as described.

2. A harvester of the class described comprising a main portion, the shafts or platform provided with lateral extensions, uprights secured to said main portion, devices on the uprights adapted to engage the shafts and permit but limit the vertical movement of the main body and extensions in respect to said shafts, the supporting wheels or rollers and the pivotally-secured shafts, substantially as described.

3. A harvester of the class designated, comprising a main portion or platform provided with lateral extensions, cutting apparatus secured to said extensions and rotatable supports, the shafts and uprights secured to said main portion, devices on said uprights adapt-

ed to engage the shafts and allow but limit the vertical movement of the shafts and main portion in respect to each other, said shafts being secured to said extensions and retaining-frames pivotally mounted on said extensions, the said main portion or platform and extensions being pivotally mounted on said supports whereby by shifting the position of the weight on the platform the height of cut may be adjusted, substantially as described.

4. A harvester of the class designated, comprising a main portion or platform provided with lateral extensions, cutting apparatus secured to said extensions, rollers rotatably mounted in said extensions, the shafts, uprights secured to said main portion, devices on said uprights adapted to engage the shafts and allow but limit vertical movement of the same, said shafts being secured to said extensions and retaining-frames pivotally mounted on said extensions, substantially as described.

5. A harvester of the class designated, comprising a main portion or platform provided with lateral extensions, said extensions being provided with forwardly-converging edges, cutting devices mounted on said edges, said platform and extensions being pivotally mounted on rollers whereby by shifting the position of the weight of said platform, the height of said cutting devices may be adjusted, the pivotally-connected shafts, uprights secured to said main portion or platform, devices on said uprights adapted to engage shafts and allow but limit vertical movement of same, said shafts being secured to said extensions and retaining-frames pivotally mounted on said extensions, substantially as described.

6. A harvester of the class designated, comprising a main portion or platform provided with lateral extensions, said extensions being provided with forwardly-converging edges, cutting devices mounted on said edges, said platform and extensions being pivotally mounted on rollers whereby by shifting the position of the weight on said platform, the height of said cutting devices may be adjusted, the pivotally-connected shafts, uprights secured to said main portion or platform, devices on said uprights adapted to engage the shafts and allow but limit vertical movement of same, said shafts being secured to said extensions and retaining-frames pivotally mounted on said extensions, and means for holding said retaining-frames rigidly in position, substantially as described.

7. In a harvester, the combination with a main portion or platform provided with lateral extensions, said extensions being provided with forwardly-converging edges, of cutting devices mounted on said extensions, uprights secured to the front of said main portion, stirrups secured to said uprights, shafts within said stirrups and pivotally mounted on said extensions, and wheels or rollers, the said main portion and extensions

being pivotally mounted on said wheels or rollers, whereby by shifting the position of weight on the platform the knives may be elevated and lowered at will, substantially as described.

5 8. In a harvester, the combination with a main portion provided with lateral extensions, of rollers mounted in said extensions and shafts hinged thereto, uprights secured to said main portion or platform, devices on said uprights adapted to engage and allow but limit vertical movement of the shafts, said shafts being secured to said extensions, retaining-frames pivotally mounted on said extensions, a latch having one end movably mounted on one of said retaining-frames and a keeper secured to the other of said retaining-frames and adapted to be engaged by the

other end of said latch, substantially as described.

20 9. In a harvester, the combination with the main platform provided with forwardly-converging edges, of cutting devices on said edges; uprights secured to the front end of the main platform and a safety-guard secured to the said uprights above the plane of the platform, the ends of said guard extending rearwardly between the platform and the cutting devices, substantially as described.

25 In testimony whereof I affix my signature 30 in the presence of two witnesses.

RICHARD B. ROBBINS.

Witnesses:

A. W. SMITH,

C. S. VAN DOREN.