

(No Model.)

C. F. CRAVER.
HARVESTING MACHINE.

No. 347,692.

Patented Aug. 17, 1886.

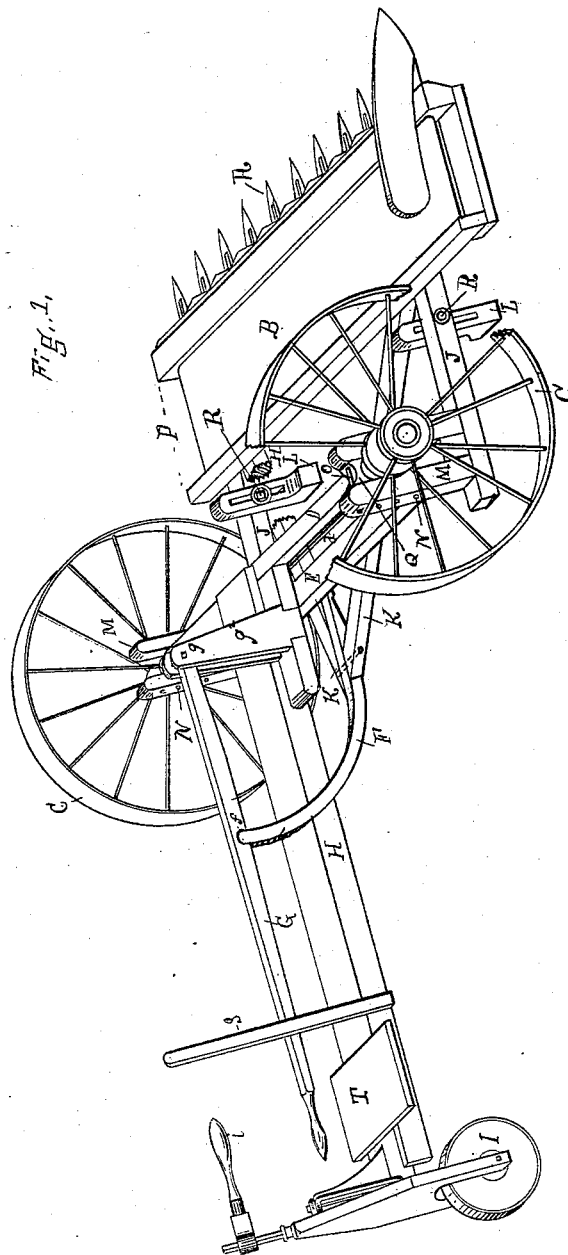
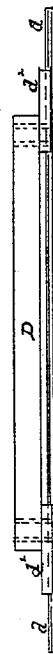


Fig. 1.



WITNESSES:

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CHARLES F. CRAVER, OF GRINNELL, IOWA.

HARVESTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 347,692, dated August 17, 1886.

Application filed November 10, 1885. Serial No. 182,360. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. CRAVER, a citizen of the United States, residing at Grinnell, in the county of Poweshiek and State of Iowa, have invented a certain new and useful Improvement in Harvesting-Machines, of which the following is a full, clear, and exact specification, reference being had to the accompanying drawings, which form a part thereof.

My invention relates more particularly to that class of harvesting-machines known as "headers," although it may be applied to other harvesting-machines having similar requirements.

The object of my invention is to provide a simple and convenient device for raising or lowering the sickle or cutting apparatus to adapt it to any required height of cut. I accomplish this result by adding to the lower or cutting-mechanism frame (which is swung from the running-gear by vertically-adjustable journal-blocks) a pair of adjustable blocks, which act as fulcrums upon which the frame can rest and be lifted from its usual bearing, directly or indirectly, on the axle of the running-gear. I construct the lower or cutting-mechanism frame of several parts secured together, and swung by means of adjustable bearing-blocks upon the rounded upper surface of bearing-boxes bolted to a bolster and resting upon the axle of the machine. These adjustable blocks are held by movable bolts between two pairs of uprights, which are firmly secured to the lower frame. The lower frame can be swung upon the bearing-boxes on the axle by means of a hand-lever reaching to the driver's platform, and attached to the lower frame by a curved lever.

In the drawings, Figure 1 is a perspective view of the machine. Fig. 2 is a front elevation of the main axle.

A is the cutting mechanism; B, canvas of endless-apron platform P; C, wheels; D, bolster; *d*, the axle; E, cross-beam; F, curved lever connecting the lower frame with the rod G, for raising and lowering; H, tongue rigidly attached to the running-gear.

J are the long levers of the lower frame, (these I shall designate as the "line-levers;")

K, angle-braces secured to levers J and to E. L are the blocks for raising or lowering the lower frame. These act as fulcrums, and are

adjustable up or down by means of slots and the bolts R R, passing through the line-levers J.

M are posts provided with a series of holes, N, at right angles to the axle D, and firmly mortised to the line-levers J.

Q are journal-blocks placed between each pair of posts M, secured to them by bolts O O, and resting upon the axle near its ends, the ends being rounded for this purpose. The blocks Q Q can be slid up or down between the posts M, and held in any required position by the bolts O, passing through a series of holes in M.

G is a hand-lever for swinging the sickle-frame about the main axle D as an axis.

I is the tiller-wheel for steering, controlled by the handle *i*; T, driver's platform; S, post against which the lever G rests.

The parts lettered C, D, H, and I form one frame or the running-gear.

The parts lettered A B E F J K L M N O P Q form the lower or sickle frame, this latter frame being hinged to the first frame or running-gear by the adjustable blocks Q, resting upon the top of the round ends of the bearing-boxes *d'*, which are bolted to the bolster, and themselves rest upon the axle just inside the wheels. This method of attaching the sickle-frame to the running-gear permits the frame to swing partly around the axle D upon the upper surface of the boxes *d'* as pivots.

When the rear end of the lower frame rises, the front or sickle end falls, because the whole frame swings upon the bearing-boxes *d'* upon the axle.

The operation is as follows: To raise or lower the sickle-frame bodily, first lower the lever G; then slide the blocks L down to the ground and fasten them to the line-levers J by the bolts R, thus forming a fulcrum in place of the axle D, and between A and D. Then upon raising the hand-lever G the lower or sickle frame will rock upon the fulcrum formed by the blocks L; the platform P, being the heaviest, will drop and cause the back part of the frame to rise, so that the bearing-blocks Q can be lowered or raised, as the case may require, one or more holes by changing the bolts O. The bolts R are then loosened, the blocks L are then either raised or turned parallel with the line-levers J, the hand-lever G is then raised and the machine is ready to operate,

the height of the cutting mechanism having been changed as required. These blocks L may be adapted to various constructions of headers or similar harvesting machinery.

5 The axle D consists of a bolster, having bolted to it iron bearing-boxes d^2 , which in turn bear upon the axle d , upon which the wheels are mounted. The bolster is shorter than the space between the wheels, leaving a
10 space for the blocks Q of lower frame to rest upon the rounded upper surfaces of the bearing-boxes d^2 . These boxes d^2 have the usual covers secured to them beneath to keep out dirt.

15 Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a harvesting-machine, a lower or sickle frame supported from the axle of the running-gear by vertical adjustable bearing-blocks,
20 and provided with slotted and pivoted adjustable blocks which are capable of being turned down to act as a fulcrum upon which the whole sickle-frame can be supported and

turned when required to raise or lower the height of cut, all substantially as shown and
25 described.

2. In a harvesting-machine, the combination of the axle D, wheels C, tongue H, and steering-wheel I, composing the running-gear, with the platform P, resting upon the long le-
30 vers J, held together by the cross-beam E and diagonal braces K, and provided with the slotted and pivoted blocks L, to act as fulcrums, as set forth, the said frame being adjustably supported from the axle of the running-gear
35 by bearing-blocks capable of being raised or lowered in vertical guides attached to the frame, all substantially as and for the purpose shown and described.

In witness whereof I have hereunto set my
30 hand.

CHAS. F. CRAVER.

Witnesses:

JOHN G. PETTIT,
RUFUS RICKER.