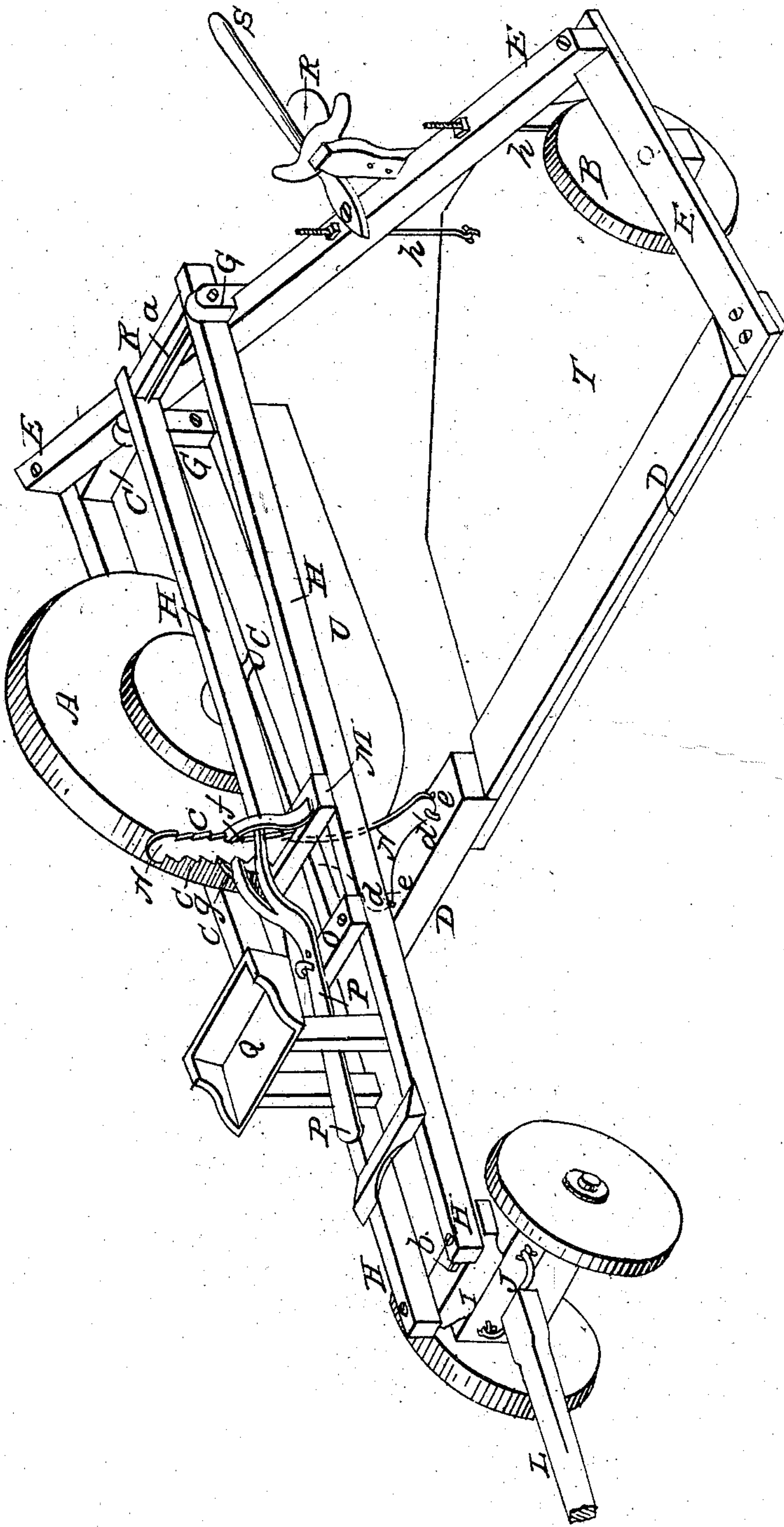


Harvester.

Patented March 24, 1857.



UNITED STATES PATENT OFFICE.

GEORGE ESTERLY, OF HEART PRAIRIE, WISCONSIN.

IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. 16,873, dated March 24, 1857.

To all whom it may concern:

Be it known that I, GEORGE ESTERLY, of Heart Prairie, in the county of Walworth and State of Wisconsin, have invented certain new and useful Improvements in the Construction of Harvesting-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, which represents in perspective so much of a harvesting-machine as will illustrate my invention.

The nature of my invention relates to the construction of the frame of a harvesting-machine with a view to its being better balanced and adjusted on its supports, and in preventing side draft.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents the main driving and supporting wheel of the machine, and B the outside supporting-wheel. The wheel A has its bearings in a quadrangular frame, C, from which extends the cutter-beam D and rear beam, E, which are united at their outer ends by a girt, F, to which the box or bearing of the outer wheel, B, is affixed.

On the rear beam, E, or near to it, are arranged two supports, G G, to which is hinged or pivoted by a through-rod, *a*, the rear end of a reach, H, the forward end of said reach being provided with a bolster, I, and resting on a truck, J, to which it is connected by a bolt, *b*, so that the truck-wheels may freely turn under said reach.

The wheels of the leading truck J are so made as to pass under the reach when the machine is being turned around, and thus it may turn on less ground. The tongue L may be loose, and thus there will be no weight upon the horses' necks.

A bar, M, is united to the reach H at or near the middle of its length through a mortise, in which bar passes up the end of *l* or fork-shaped lifting-piece N, provided with ratchet-teeth *c* on both of its edges, and its forked ends *d* united to the beam D, as shown at *e*. Another cross-bar, O, is attached to the reach H, on which rests a lever, P, the front end of said lever passing under the driver's seat, Q, so as to be conveniently reached by said driver, and the rear end of said lever is forked, so as to straddle the shank of the lifting-piece N. The

edges of the two forks *f f* next to the ratchet-teeth *c* should be beveled or rounded off so as not to catch into the rack-teeth.

Outside of the forks *f*, and connected to the bar M, are two spring-dogs, *g*, which take under the ratchet-teeth *c*, and thus hold up the cutter-beam D at any fixed height. Should it be necessary to lower the cutter-beam, the driver places his foot upon the end of the lever P, and, pressing it downward, raises up the opposite end of said lever, bringing the forks *f f* against the spring-dogs *g g*, and, throwing them out of the teeth *c*, the lifting-bar and beam D will drop, and by releasing the lever P the spring-dogs will immediately catch into the teeth *c* and again hold the beam D suspended.

On the rear beam, E, and close to the raker's stand R, is arranged a lever, S, which the raker can readily reach, and by it raise up the front of the machine. The spring-dogs *g g*, when this is done, slip over the inclined portions of the ratchet-teeth, but taking under and holding the square or shoulder part of said teeth the moment the raising by the lever S ceases. The spring-dogs *g g* by their elasticity, yield to the weight of the machine as it drops, and thus prevent all sudden jar; and in order that the raker at his stand may do both the lowering and raising of the machine a cord may run from the front end of the lever P over suitable pulleys to or near to the raker's stand, so that by drawing on the cord the dogs will be thrown out, and the front of the machine drop, as before stated. The spreading of the reach and hinging it at the rear of the machine not only facilitate the turning around of the machine, but prevent all racking of the frame. Besides this, the lifting-piece N, spreading right and left at its lower end, and connected to the sickle-bar D, tends to throw or remove the outer weight of the machine onto the main-wheel side of the machine, and thus counteract side draft. The reach H is placed inside of the main wheel A, or between it and the end of the sickle-bar, so as to take and support as much of the outer part of the machine as possible without interfering with the cutting of the standing grain.

The platform T is hinged at its front to the sickle-beam, and its rear is supported on the rear bar, E, by the screw-rods *h h*, by which it can be raised or lowered. The raker's seat

or stand R is also made adjustable on the rear bar, E, so that as the platform is raised or lowered the seat or stand may also be raised or lowered, said platform being the support for the raker's feet.

U is a dash-board arranged on the frame C for catching the grain as it is swept in gavels from the machine by the raker.

The raking off of the platform is as follows: When sufficient grain has accumulated to make a gavel the raker turns the stalks on the platform until their heads are in the direction of the dash-board U. He then pushes off the gavel endwise against said dash-board, the advancing motion of the machine not in the least scattering the grain, as is invariably the case when the grain is pushed off sidewise, and the butts of the stalks are in the direction of the advancing motion of the machine.

Having thus fully described the nature of my invention, what I claim is—

1. Connecting the leading truck to the main frame by means of a rigid reach or secondary frame, H I K, when said reach or frame is pivoted to the rear end of the main frame and united to the truck by a king-bolt, and arranged in relation to the driving-wheel, main frame, and platform, substantially as set forth.

2. The forked lever P, lifting-piece N, and spring logs g, combined and operating together for lowering the sickle-beam, as set

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Witnesses:

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