

(No Model.)

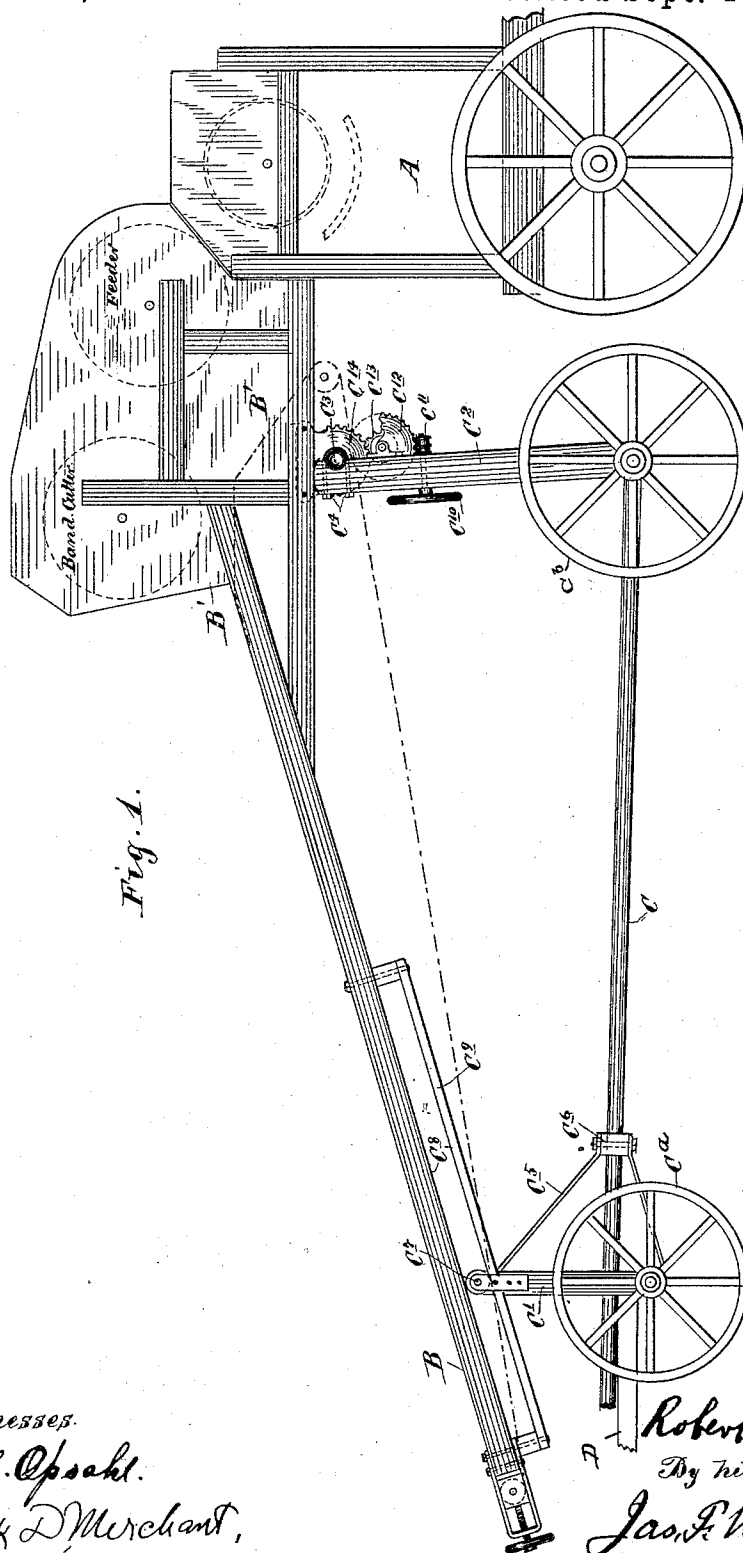
2 Sheets—Sheet 1.

R. E. DORTON.

SUPPORT FOR BAND CUTTERS AND FEEDERS.

No. 482,676.

Patented Sept. 13, 1892.



Witnesses.

A. H. Opsahl.

Frank D. Merchant,

Inventor.

Robert E. Dorton

By his Attorney.

Jan. F. Williamson

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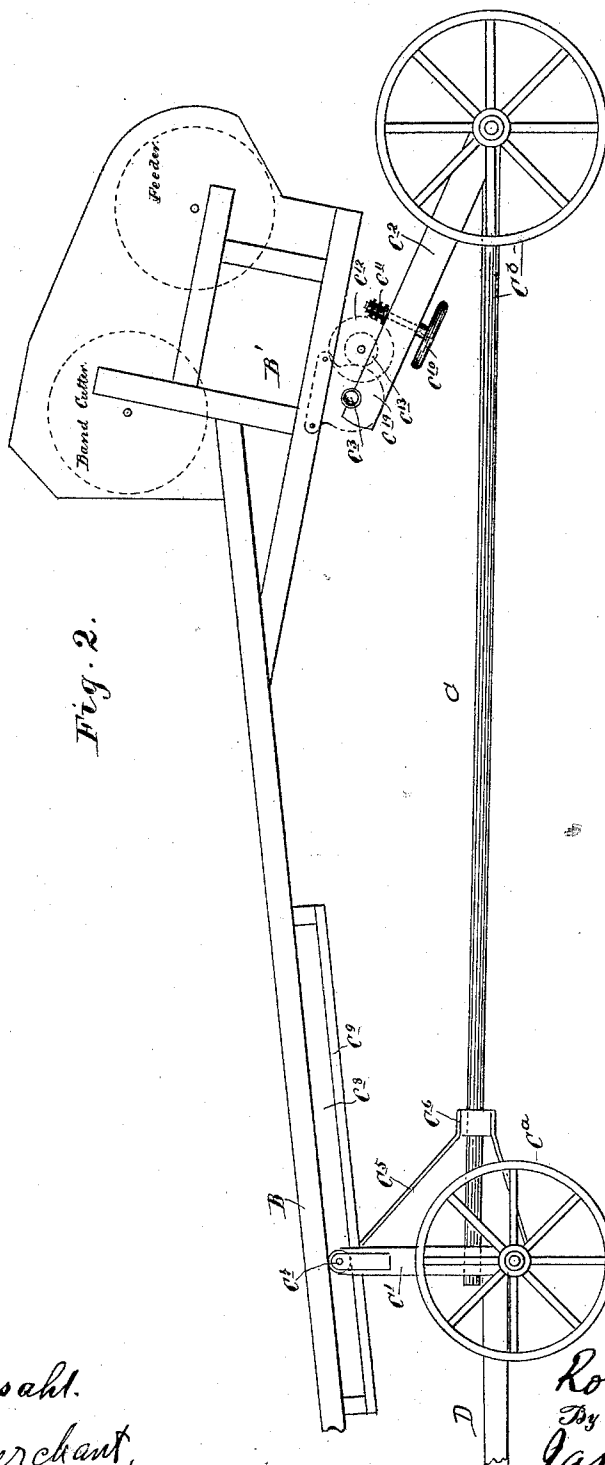


Fig. 2.

Witnesses.

A. H. Opsahl.
Frank D. Merchant.

Inventor.

Robert E. Dorton
By his Attorney.
Jas. F. Williams

UNITED STATES PATENT OFFICE.

ROBERT E. DORTON, OF MINNEAPOLIS, MINNESOTA.

SUPPORT FOR BAND-CUTTERS AND FEEDERS.

SPECIFICATION forming part of Letters Patent No. 482,676, dated September 13, 1892.

Application filed March 15, 1892. Serial No. 424,946. (No model.)

To all whom it may concern:

Be it known that I, ROBERT E. DORTON, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Supports for Band-Cutters and Feeders; 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 has for its object to provide a convenient support for a band-cutting and feeding mechanism, whereby the said mechanism may be independently moved and adjusted to run with any thrashing-machine.

The invention is illustrated in the accompanying drawings, wherein, like letters referring to like parts throughout—

Figure 1 is a right-side elevation of the device, shown as in working position, directions being taken from the position of an observer at the head of the machine, looking in the direction of the travel of the stock; and Fig. 2 is a similar view of the device with the band-cutter and feeder frame lowered into the inactive position of the operative parts and detached from the separator.

A represents the front end of an ordinary thrashing-machine separator.

B represents the receiving end, and B' the delivery end, of the band-cutter and feeder frame, the former of which parts stands at a downward dip or angle with reference to the latter.

C is a coupling-pole or reach-rod, C^a the front wheels, and C^b the rear wheels constituting together a wagon-like truck or running-gear. The front or rear set of truck-wheels may be spaced apart to different distances by adjusting the front members on the said coupling-rod in the same way as on an ordinary road-wagon. C' and C² are respectively sets of front and rear end standards connecting the band-cutter and feeder frame with the truck. Of these standards C² are pivoted at their lower ends to the truck, preferably directly to the rear axle, and at their upper ends are pivotally connected to the delivery end of the band-cutter and feeder frame, the means for the upper end connection, as shown, being a pipe C³, fixed to

the said frame, and U-bolts C⁴, embracing the pipe and secured to the upper end of the said standards. The front end standards C' are secured to the truck against pivotal motion when the two members of the truck are coupled together, the means shown for the purpose being brace-bars C⁵ and a yoke C⁶ riding on the coupling-pole. The delivery end of the band-cutter and feeder frame is connected to the front standard C' with freedom for both a sliding and pivotal motion thereon. The means of connection shown for the purpose are a cross-rod C⁷, carried by the said standards, working in ways C⁸, formed by hanger-bars C⁹, secured to and spaced apart from the under side of the said frame. D is a tongue for attachment of a team. It is evident that by swinging the rear end or pivoted standards that the band-cutter and feeder frame may be both raised and lowered and moved lengthwise of the truck. It is also evident that by shortening or lengthening the coupling by spreading the trucks the receiving end of the frame may be raised or lowered and the delivery end of the same be tilted to a limited extent on the pivot-pipe C³.

To effect the pivotal motion or swinging of the rear end standard C², I provide a hand-wheel C¹⁰, a worm C¹¹, and a worm-gear C¹², having on its hub a pinion C¹³, which engages with a gear C¹⁴, fixed to the delivery end of the band-cutter and feeder frame. The worm and its train of gear are carried by the pivoted standards. Hence by operating the hand-wheel C¹⁰ the pivoted standard C², together with the band-cutter and feeder frame carried thereby, may be adjusted at its delivery end as may be required for connection with the separator or for the convenient support of the same when traveling on the road. The adjustments possible by means of the pivoted standards C² and by spreading the trucks are all that are required to meet all the conditions which may arise in the use of such a band-cutter and feeder.

To attach the band-cutter and feeder to any separator, it is only necessary to remove the forward arms and the ordinary feed-board, adjust the band-cutter and feeder frame into its proper working position, as shown in Fig. 1, and substitute a special feed-board (not shown) which may accompany either thesepa-

rator or the band-cutter and feeder. This device was designed to support band-cutting and feeding mechanism of the characters shown and described in my pending application marked "Case B," executed by me of date February 27, 1892, entitled "band-cutters and feeders." The positions of some of the parts of the band-cutting and feeding mechanism are indicated by the dotted lines and centers on the said frame. Any further illustration or description of the same is not deemed necessary for the purposes of this case.

When it is desired to move the machine for considerable distances, as when traveling on the road, the frame will be lowered into the position shown in Fig. 2. By supporting the band-cutting and feeding mechanism in this way on a separate truck by an adjustable frame no additional weight is added on account of the band-cutter and feeder to the ordinary separator. The band-cutter and feeder is readily attached to any separator regardless of size or height. Access may be readily had to any of the operative parts and having regard to the way in which separators are now built moving of the machine is made more convenient.

The independent vertical adjustment of the band-cutter and feeder frame at each of its opposite ends and the pivotal motion of the same at each of its opposite ends adapts the construction to make a tight joint with the separator, regardless of the relative heights or relative angular positions in which the two machines may stand as long as they are in line with each other. It will often happen, for example, that the front wheels of the separator will stand on either lower or higher ground than the rear wheels of the band-cutter and feeder frame truck. In virtue of the construction above noted the proper joint can nevertheless be made between the separator and the band-cutter and feeder frame.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination, with a supporting-truck, of a band-cutter and feeder frame mounted on said truck and means for independently raising and lowering either end of said frame on the said truck, substantially as and for the purpose set forth.

2. The combination, with a truck, of fixed standards rising from one end of the truck

and pivoted standards from the other and a band-cutter and feeder frame having one end pivoted to said pivoted standards and the other secured to the other standard with freedom for both a sliding and pivotal movement, whereby the band-cutter and feeder frame may be adjusted by moving the pivoted standards, substantially as described.

3. The combination, with a wagon-like truck having its front and rear sets of wheels adjustably coupled together, of pivoted standards rising from one end of said truck and fixed standards rising from the other and a band-cutter and feeder frame having its delivery end pivoted to said pivoted standards and having its receiving end connected to said fixed standards with freedom for both a sliding and pivotal motion thereon, substantially as and for the purpose set forth.

4. The combination, with a supporting-truck, of pivoted standards rising from one end of said truck, a band-cutter and feeder frame having the delivery end of the same pivoted to said pivoted standards and its receiving end free for sliding and pivotal movement, a fixed gear carried by said frame, and a worm and worm-gear carried by the pivoted standard, having one member of the train engaging said fixed gear, whereby the said frame may be adjusted both vertically and longitudinally by said worm-gear, substantially as described.

5. The combination, with the wagon-like truck having its sets of wheels adjustably coupled together, of standards rising from the front axle, fixed against pivotal motion when the wheels are coupled together, standards rising from the rear axle free for pivotal motion thereon, a band-cutter and feeder frame having its delivery end pivoted to said pivoted standards and its receiving end mounted for both sliding and pivotal motion on said fixed standard, a fixed gear carried by said frame, and a worm and train of worm-gear carried by said pivoted standards, one member of which meshes with said fixed gear, substantially as and for the purposes set forth.

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

ROBERT E. DORTON.

Witnesses:

JAS. F. WILLIAMSON,
EMMA F. ELMORE.