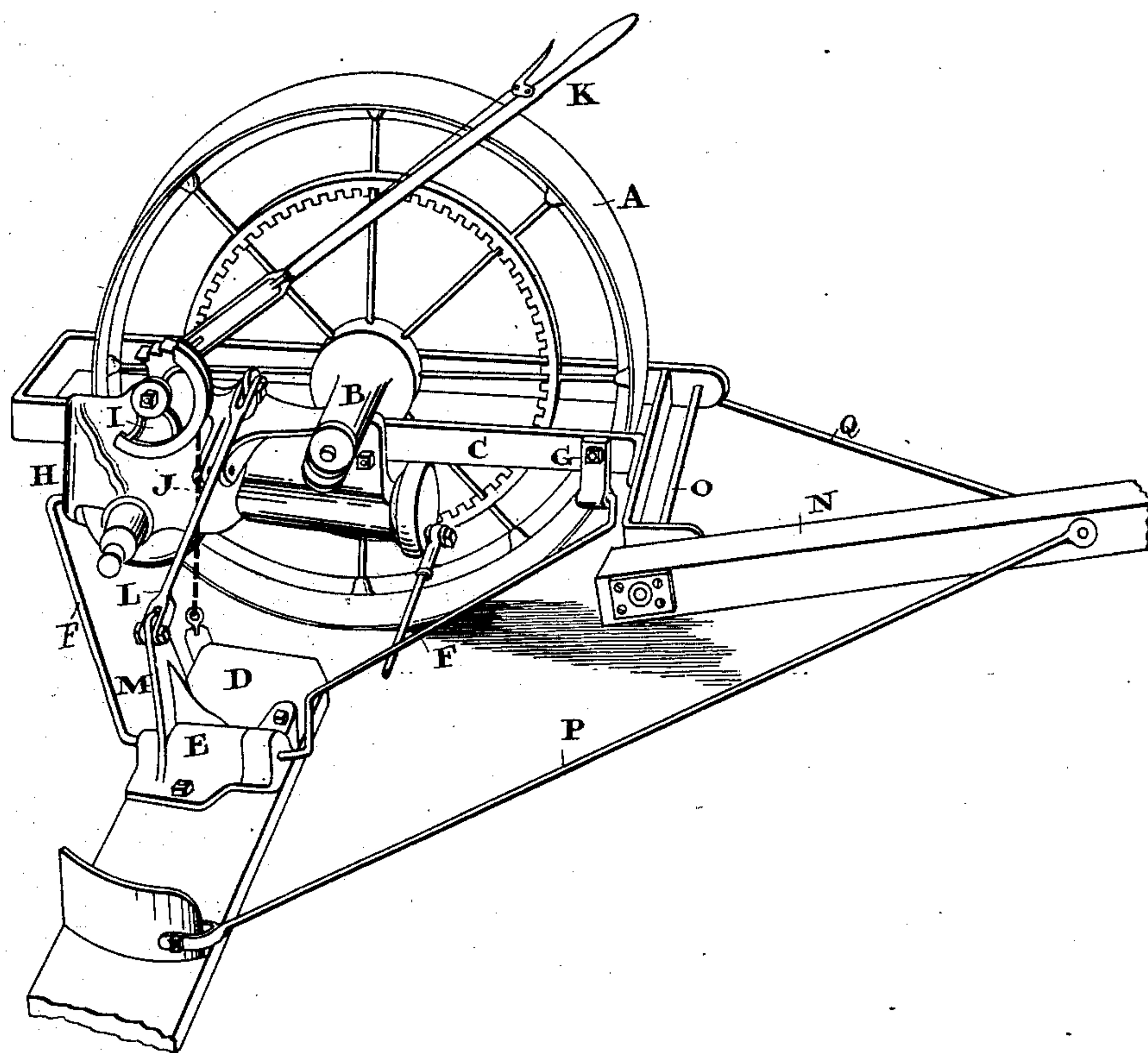


(No Model.)

W. JOHNSTON.  
HARVESTING MACHINE.

No. 244,903.

Patented July 26, 1881.



Witnesses.

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Attorneys.



# UNITED STATES PATENT OFFICE.

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## HARVESTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 244,903, dated July 26, 1881.

Application filed May 18, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM JOHNSTON, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Harvesting-Machines, of which the following is a specification.

My invention relates to that class of harvesting-machines in which the finger-beam has a vertical adjustment independent of the main frame, its object being to provide a suitable connection between the finger-beam and the main frame that will admit of the desired vertical adjustment, while at the same time forming strong stays for bracing the finger-beam to the main frame.

In the drawing, which is a perspective view of the machine, A is the master or ground wheel, the axle B of which is journaled on both sides of the wheel in bearings on the frame C.

The rake-driving mechanism, which is carried on the finger-beam, but which is not shown in the drawing, is driven by a tumbling-shaft connected to the axle B in the ordinary way.

D is a finger-beam provided with a bracket, E, formed substantially as shown, and bolted near the stubble end of the finger-beam, as represented.

F is a link journaled on the bracket E, and connected to the front of the frame C in a bracket, G, bolted to the said frame and forming a bearing-box for the link F, as represented. This link F also extends obliquely to the rear of the machine, where it is likewise journaled in a bracket, H, secured to the frame C, as shown. This bracket also provides a bearing for the spindle of the quadrant-wheel I, to which the lifting-chain J is attached. The other end of the lifting-chain J is connected, as shown, to the stubble end of the finger-beam D, which is therefore adjusted by the movement of the lifting-lever K in the usual manner.

L is a bar connected at one end, as shown, to an arm, M, extending from the bracket E, the other end of the bar L being connected to the arm on the bracket H.

N is the pole or tongue of the machine, connected to the rocking-shaft O, pivoted on the front of the machine, and provided with a le-

ver for tilting the frame C, which, in this class of machines, conveys a corresponding tilting movement to the finger-beam.

P is a brace extending from the tongue N to the finger-beam D, and Q is a similar brace extending from the tongue N to the frame C, as shown.

As this invention relates purely to the manner in which the finger-beam is connected to the main frame, and as the operation of this class of machines is well understood, it will not be necessary to show more of the machine than is exhibited in the drawing, nor to explain in detail the operation of the parts. There is nothing new in pivoting the lifting-lever K on the frame C and connecting it, as described, to the finger-beam D.

It will be seen that by moving the lifting-lever K the finger-beam will be adjusted accordingly, the link F permitting this vertical movement, while the bar L prevents the finger-beam tilting, as it would otherwise do. This bar likewise constitutes a stay to support the finger-beam and prevent its outside end sagging. It will also be seen that the position of the link F braces the finger-beam upon both sides, thereby making the connection between the finger-beam D and the frame C rigid where rigidity is required and flexible where flexibility is necessary.

In order to provide for the vertical adjustment of the finger-beam when connected to the tongue N by a brace, P, I place the journal in the bracket H for the link L at a point lower than the journal in the bracket G which supports the front end of the link F. The center line of the journal in the bracket E should also be parallel with the center line of the journals for the links in the brackets G and H. The effect of this arrangement is that when the finger-beam is lifted it moves slightly back, thereby accommodating itself to the brace P.

I am aware that it is not new to so connect the finger-bar of a harvesting-machine with the main frame that it can be raised vertically by a lever or rotating shaft and chain, and therefore I do not broadly claim such invention.

What I claim as my invention is—

1. In a harvesting-machine, and in combi-

nation with the frame C and finger-bar D thereof, the bent link F, having its ends pivoted to separate brackets H and G, and having its center pivotally connected to a single bracket, E, mechanism, substantially as described, for raising the finger-bar, and the brackets E G H, substantially as and for the purpose specified.

2. In combination with the frame C and the finger-bar D, the bent link F, pivotally connected at its center to a bracket, E, on the finger-bar D, and pivotally connected at its ends with the separate brackets H and G, the link-journal in the bracket H being lower than in the bracket G, bar L, connected at its ends to

the frame and the finger-bar, and mechanism, substantially as described, for raising the finger-bar, as and for the purpose specified.

3. In combination with the frame C, finger-bar D, link F, rod L, and suitable raising devices, the brackets H and E, each bracket forming a bearing for the link, and each provided with an arm for receiving the bar L, substantially as and for the purpose specified.

WILLIAM JOHNSTON.

Witnesses:

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T. J. McBRIDE.