C. P. GRONBERG.

Harvester.

No. 213,106. Patented Mar. 11, 1879.

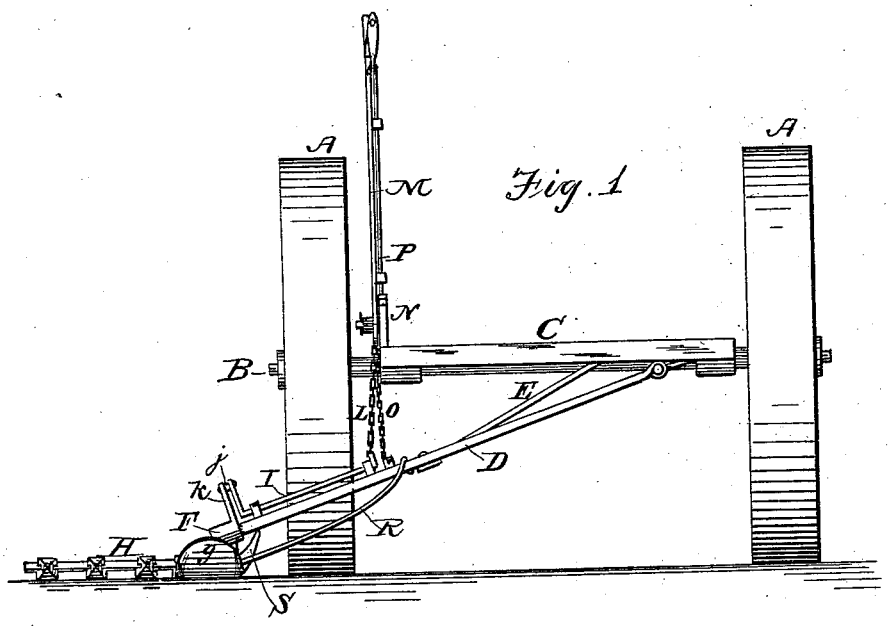

Fig. 1

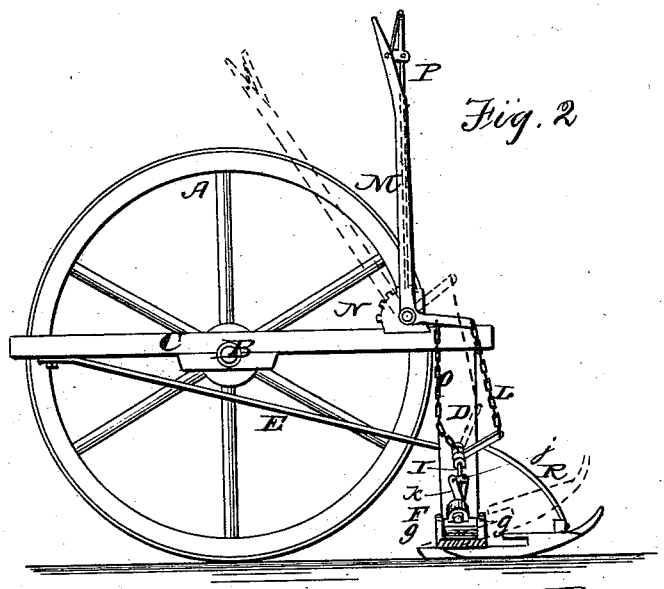

Fig. 2

Witnesses.

W. C. Jordinston

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Inventor.

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His Atty.

UNITED STATES PATENT OFFICE.

CHARLES P. GRONBERG, OF ELGIN, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **213,106**, dated March 11, 1879; application filed June 22, 1878.

To all whom it may concern:

Be it known that I, CHARLES P. GRONBERG, of Elgin, in the county of Kane and State of Illinois, have invented a certain new and useful Improvement in Means for Rocking and Lifting the Finger-Bars of Harvesters; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation of a harvester, showing the application of my improvements; and Fig. 2 is a side elevation of the same, the inner wheel being broken away to show the operating-lever and its connections.

Similar letters of reference in the several figures denote the same parts.

My invention has for its object to improve the means for rocking and lifting the finger-bars of harvesters; and it consists in a certain novel construction of parts, whereby a single lever is adapted to perform both the aforesaid operations, as I will now proceed to describe.

In the accompanying drawings, A represents the supporting-wheels, B the axle, and C the frame, of a harvester, mounted thereon in the usual or any preferred manner. D is the arm of the finger-bar, hinged at one end to the front of the frame, and braced from the rear end by the rod E. The projecting end of this arm is formed with a journal, which enters the upper part of a double thimble, F, the lower part of which is journaled between lugs *g g* on the finger-bar H, as shown. This connection permits the finger-bar to turn on the journal of the arm, and also to swing upward into a substantially vertical position.

I is a crank-shaft, having its bearings on the arm D, so as to oscillate freely. Its inner end is bent upward, and pivoted by a link, *j*, to an upwardly-projecting arm, *k*, formed on the upper part of the double thimble, and its opposite end is also bent at right angles to the main portion, and connected, by a chain or cord, L, to the short arm of a lever, M, pivoted to the side of the main frame or to a segmental rack, N, affixed thereto. The short arm of the lever is also connected, by a chain or cord, O, in rear of the cord L, to the hinged arm D, and its long arm is provided with a spring-catch, P, to engage with the segmental rack.

By these connections it will be seen that when the lever is operated the cord L, crank-shaft, and the double thimble will impart a rocking motion to the finger-bar and elevate the points of the fingers, to enable them to pass over obstructions, while a further movement of the lever will raise the whole finger-bar and its cutting mechanism through the chain O. One lever only, therefore, is employed to perform both operations.

A brace, R, connects the arm D with the shoe of the finger-bar, and a projection, S, on the inner end of the latter bears against the under side of the arm D when the bar is lifted, to prevent it from dropping to the ground, as will be readily understood.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The double connecting-thimble F, mounted upon the end of the supporting-bar, and journaled between lugs *g g* of the finger-bar, and having the projecting arm *k*, in combination with the crank-shaft I, chain L, and lever M, substantially as described, for the purpose specified.

2. The combination, with the finger-bar, its supporting-bar, and the double-thimble connection, of the crank-shaft I, lever M, and chains L O, whereby a partial movement of the lever will cause the points of the fingers to be raised, and a further movement will lift the finger-bar and cutting mechanism entirely from the ground, substantially as described.

CHARLES PETTER GRONBERG.

Witnesses:

D. E. MALONEY,

D. W. NORRIS.