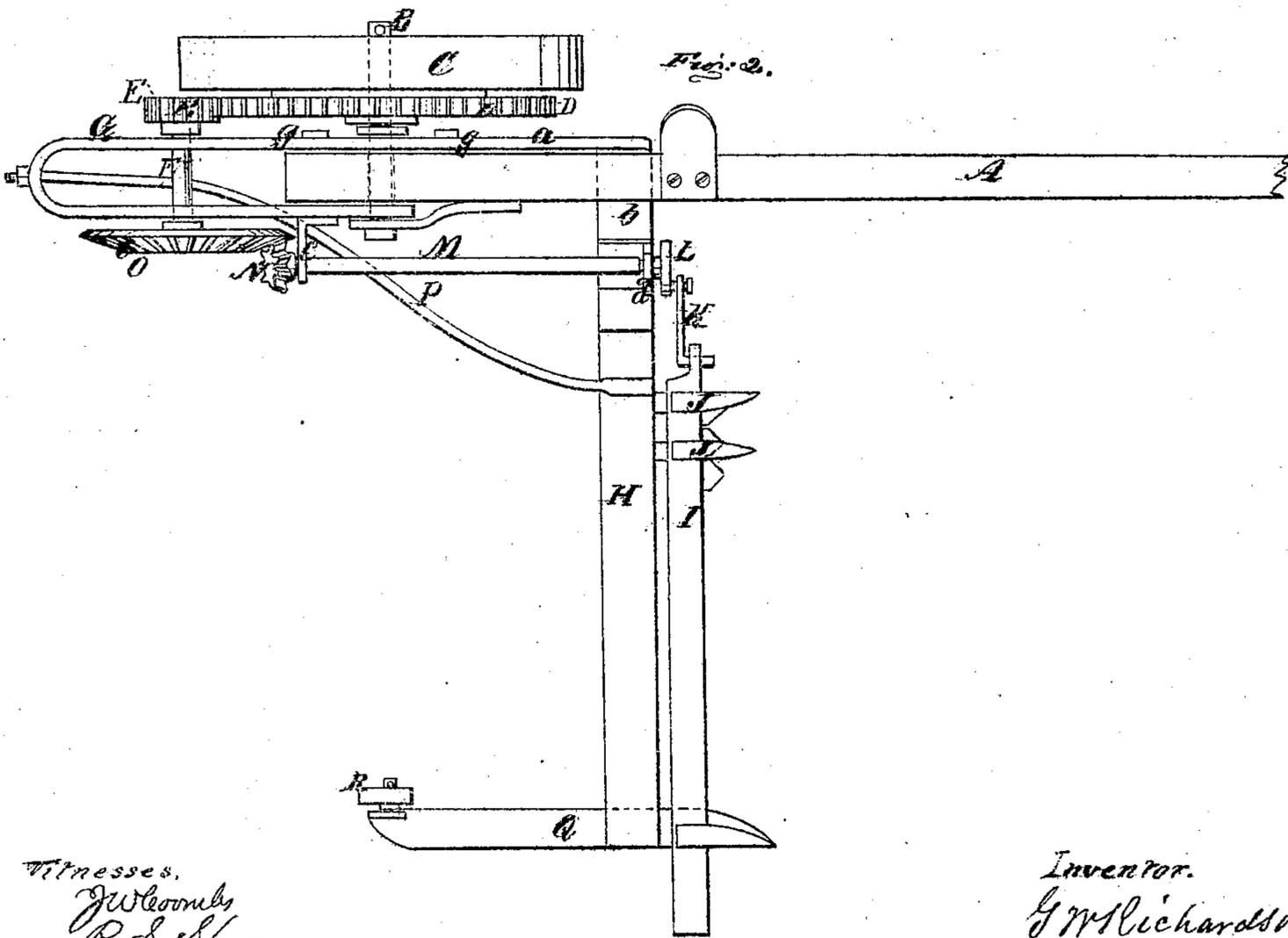
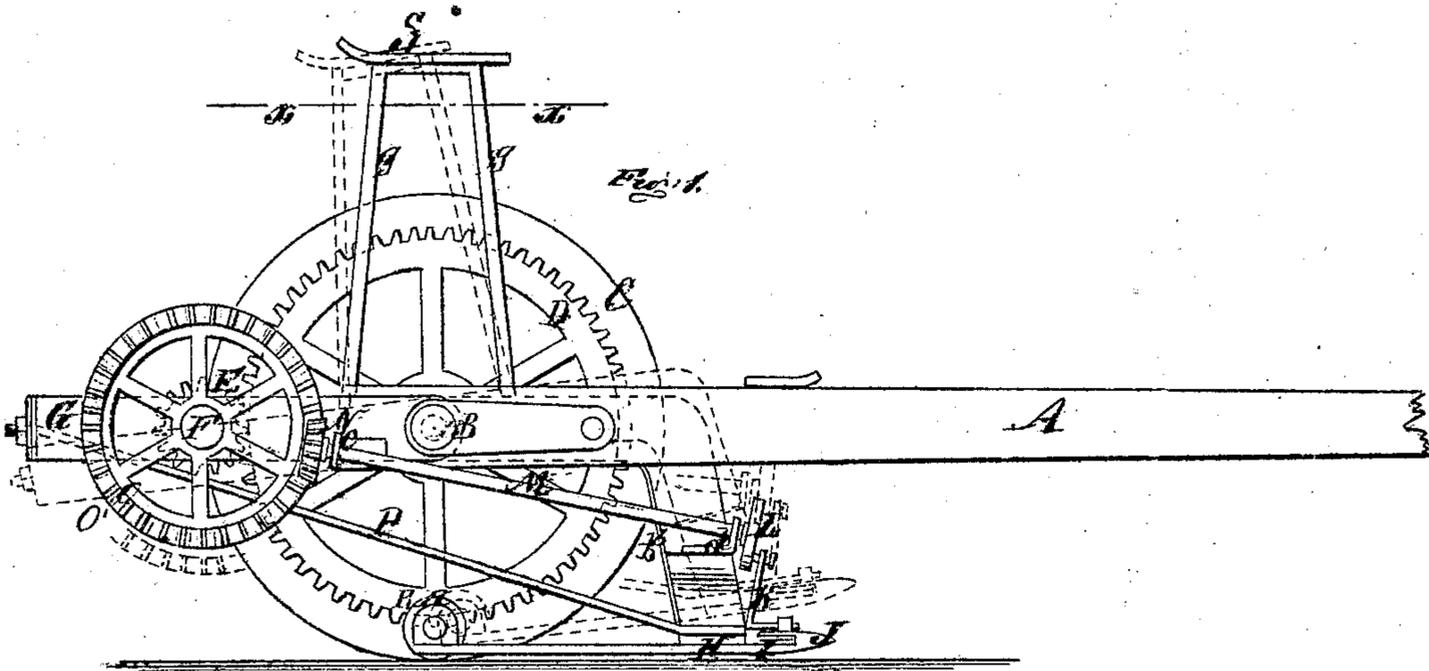


G. W. Richardson,
Mower.

N^o. 1,665
32,669.

Patented June 25, 1861.



Witnesses,
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R. S. Spurr

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UNITED STATES PATENT OFFICE.

GEORGE W. RICHARDSON, OF GRAYVILLE, ILLINOIS, ASSIGNOR TO HIMSELF
AND ROBERT GLOVER, OF SAME PLACE.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 32,669, dated June 25, 1861.

To all whom it may concern:

Be it known that I, GEORGE W. RICHARDSON, of Grayville, in the county of White and State of Illinois, have invented a new and Improved Grain and Grass Harvesting Machine, more especially designed for a grass-harvester; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a plan or top sectional view of my invention, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to obtain a simple and efficient arrangement of parts, as hereinafter described, to render the draft of the machine as light as possible, and at the same time admit of a very ready raising and lowering of the cutting device.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the draft-pole of the machine, which is fitted loosely at its back end on the axle B of the driving-wheel C. To the inner side of the wheel C there is attached a toothed wheel, D, into which a pinion, E, gears, said pinion being on a shaft, F, which passes transversely through a bracket-frame, G. The frame G is constructed of a metal bar, bent in loop form at its back part, as shown clearly in Fig. 2, and having its left arm *a* bent downward and underneath the draft-pole, forming a shoulder, *b*, said arm then extending still farther and obliquely downward, and having a finger-bar, H, attached at right angles to its lower end. The sickle I is of the usual reciprocating kind, and works in the fingers J of bar H. The sickle is driven by a pitman, K, from a crank-pulley, L, the latter being on the front end of

a shaft, M, the back end of which has a bevel-pinion, N, on it, that gears into a bevel-wheel, O, on the shaft F. The bracket-frame G is hung loosely on the axle B, and the bearings *c d* of the shaft M are attached to said frame. The finger-bar H is braced from the frame G by a rod, P, and at the outer or grain end of the finger-bar there is attached at right angles a bar, Q, to the back end of which the grain-wheel R is placed, said wheel R having its axis in line with the axis of the driving-wheel C.

To the arm *a* of the bracket-frame G uprights *g g* are attached, on the upper part of which is secured the driver's seat S, said seat being about over the axle B of the driving-wheel C. By this arrangement the machine is nearly balanced on the axle B, so that as the machine is drawn along, the driver, by slightly exerting himself in a backward direction, with a foot braced against the pole A, will cause the finger-bar to rise, as shown in red in Fig. 1, and in backing the machine the finger-bar will rise automatically. Thus the finger-bar may be adjusted—that is to say, raised or lowered—without any difficulty whatever, while an extremely simple device is obtained, and the driving-gear of the sickle not at all affected by the raising and lowering of the sickle.

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

The arrangement and combination of the bracket-frame G, draft-pole A, and driver's seat S with the gearing D E O N and shaft M, substantially as and for the purpose herein set forth.

GEORGE W. RICHARDSON.

Witnesses:

N. C. BURNS,
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