

G. W. Richardson

Mower.

Fig. 1.

N^o 34614

Patented Mar. 4, 1862

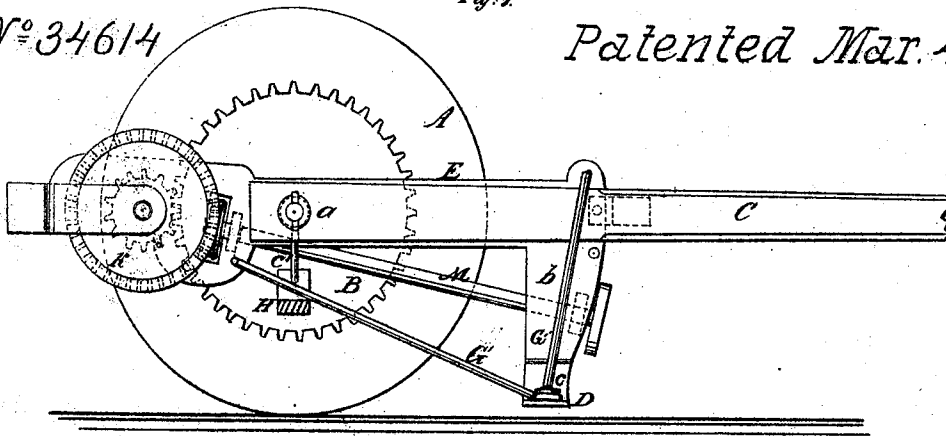
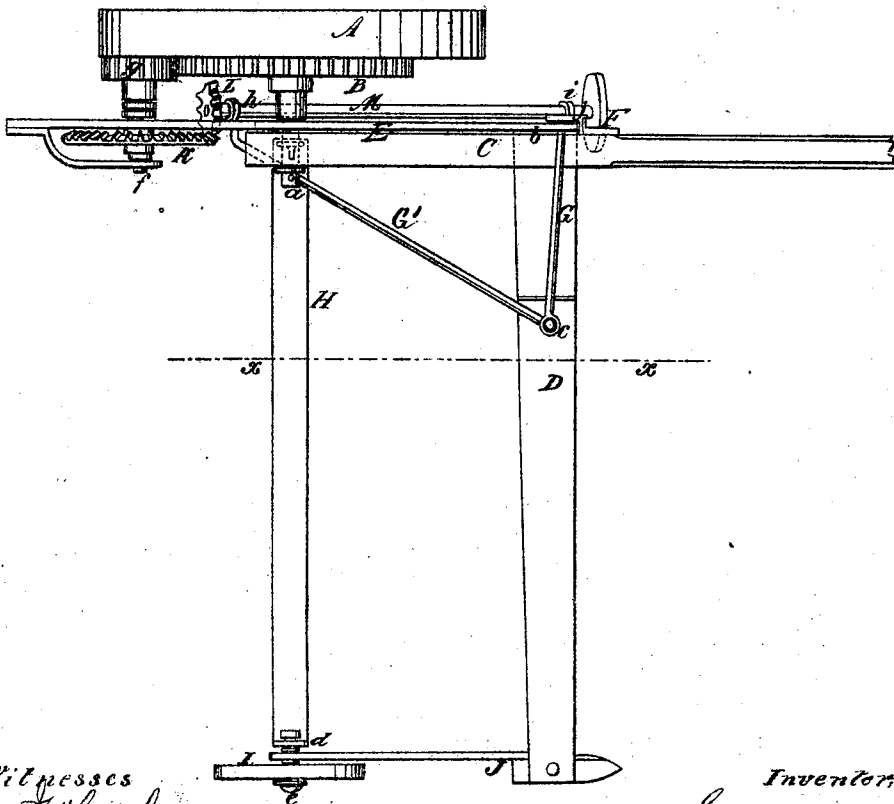


Fig. 2.



Witnesses
J. W. Leavitt
G. W. Richardson

Inventor
G. W. Richardson
per Munn & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

GEO. W. RICHARDSON, OF GRAYVILLE, ILLINOIS, ASSIGNOR TO HIMSELF AND
GEORGE M. WEED, OF SAME PLACE.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 34,614, dated March 4, 1862.

To all whom it may concern:

Be it known that I, G. W. RICHARDSON, of Grayville, in the county of White and State of Illinois, have invented certain new and useful Improvements in Grain and Grass Harvesters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

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

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

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

A represents the driving-wheel of the machine, which has a toothed wheel, B, attached concentrically to it; and C is the draft-pole, the back end of which is fitted loosely on the axle *a* of the driving-wheel.

D is the finger-bar, which is of metal, provided with fingers, as usual, and having its end which is near the draft-pole bent upward in the form of a segment, *b*, at the outer side of said pole and connected to a plate, E, which extends some distance back of the draft-pole C, and through which the axle *a* of the driving-wheel passes.

The finger-bar D, segment *b*, and plate E may all be formed of one piece of metal.

F is a guide, which is formed of a metal plate, attached to the draft-pole C and projects over the edge of the segment *b*. This guide F keeps the draft-pole in contact with the side of the segment, but admits of the former rising and falling freely by the side of it.

G G' are two braces, which are attached at one end by a single bolt, *c*, to the finger-bar D, and are attached at their opposite ends, one, G, to the top of the segment *b*, and the other, G', to the plate E at a point just back of the draft-pole.

H is a bar, one end of which is secured to a pendent rod, *c'*, on the axle *a* of the driving-wheel A, the opposite end being attached by an upright plate, *d*, to the axle *e* of the grain-wheel I. The bar H serves as a support for

the back end of the platform when the implement is used as a reaper, and as the outer or grain end of the finger-bar D is connected by a shoe, J, with the axle *e* of the grain-wheel I, it will be seen that the bar H serves to support or brace the finger-bar, rendering the latter fully competent to withstand all strain to which it may be subjected in the operation of reaping. When the implement is used as a mowing-machine, the bar H is detached.

To the back part of the plate E there is attached a bevel-wheel, K, having on its shaft or axis *f* a pinion, *g*, into which the wheel B gears. The bevel-wheel K gears into a bevel-pinion, L, which is at the back end of the shaft M, the back bearing, *h*, of which is attached to the plate E, the front bearing, *i*, being at the lower end of the segment *b*. The bearings *h i* of the shaft M are at the outer side of the plate E, and consequently said shaft is between the draft-pole C and the driving-wheel A, as shown clearly in Fig. 2.

By this arrangement of the gearing it will be seen that the sickle-driving mechanism is brought in line with the draft-pole, and consequently much side draft is avoided, and it will also be seen that by such arrangement a comparatively long pitman may be obtained, as the shaft M, to the front end of which the pitman is attached, is placed as far as possible to the left-hand side of the implement, and consequently at the greatest possible distance from the end of the sickle. The long pitman obviates much friction in driving or operating the sickle, as it works much less angularly or obliquely, and therefore does not bear or press down upon the sickle at certain points of its movement as it otherwise would in turning its upper center.

By having the segment *b* at the side of the draft-pole C, and the guide F fitted over its edge, as shown, the finger-bar may be secured at any desired height by means of a pin, *j*, which passes longitudinally through the segment and serves for a bearing on the upper edge of the draft-pole. The segment *b* may be perforated with a series of holes to admit of different adjustments of the pin *j*. The braces G G' hold the finger-bar firmly and also stiffen the whole frame.

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

The finger-bar D, segment *b*, and plate E, formed of one piece of metal or of detached pieces connected together and fitted on the axle *a* of the driving-wheel A, when said parts are combined or arranged in relation with the

draft-pole C, fitted on the axle *a*, and used in connection with the pin *j*, or its equivalent, as and for the purpose herein set forth.

G. W. RICHARDSON.

Witnesses:

S. E. KENNY,
N. E. BURNS.