

GEORGE S. GRIER.
Improvement in Harvesters.

No. 120,431.

Patented Oct. 31, 1871.

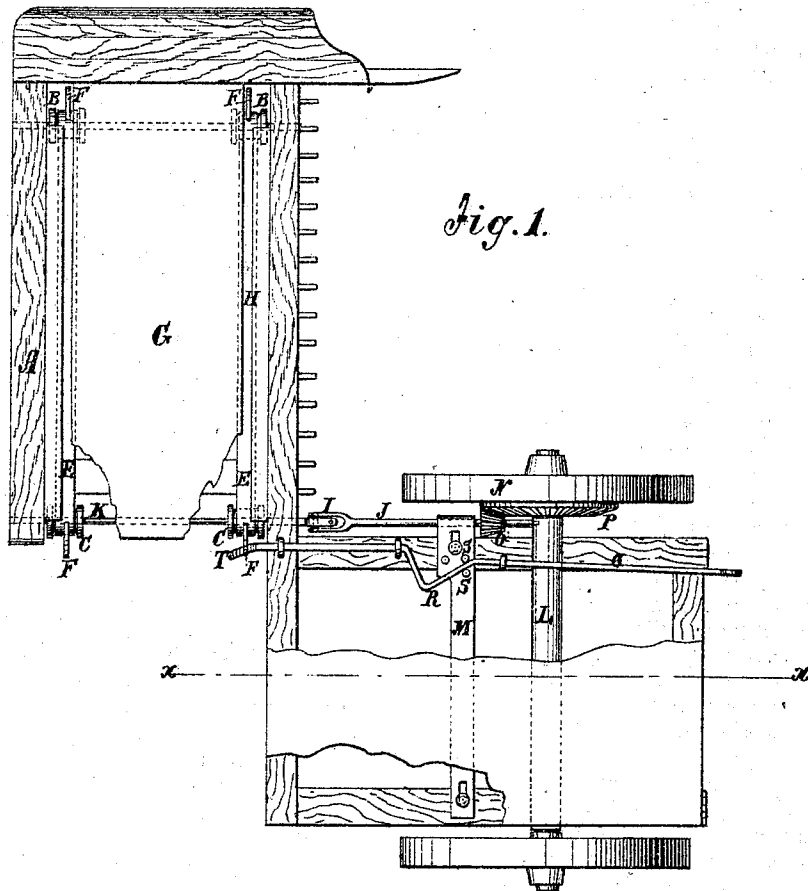
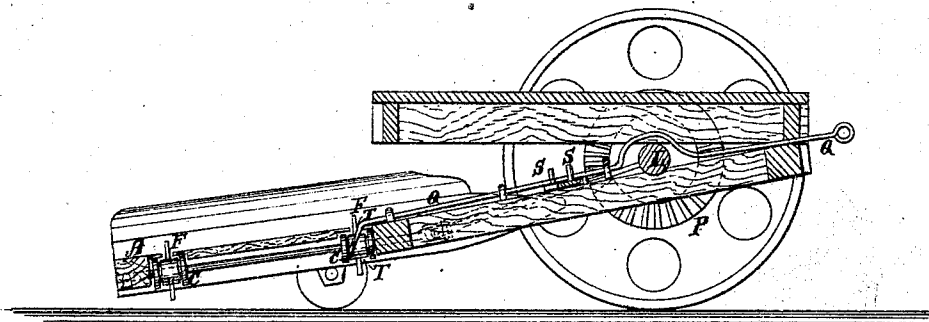


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE S. GRIER, OF MILFORD, DELAWARE.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 120,431, dated October 31, 1871.

To all whom it may concern:

Be it known that I, GEORGE S. GRIER, of Milford, in the county of Kent and State of Delaware, have invented a new and Improved Self-Raking Harvester; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

My invention consists in the improvement of harvesters, as hereinafter fully described and subsequently pointed out in the claim.

Figure 1 is a plan view of my improved self-raking harvester, and Fig. 2 is a section through the truck on the line *x x* of Fig. 1.

A is the apron, having a roller or rollers, B, at the outer end, and the same at C at the end next the truck, on which rollers I mount either a single wide endless belt or two narrow ones, E, with fingers or studs F about as far apart as the distance across the apron. In case I use two belts, as here shown, I place a fixed floor, G, between them, leaving narrow spaces H for the pins or studs. The shaft K of the rollers C is connected, by a universal joint, I, with a section, J, extending toward the axle L of the truck, and supported in a bearing in the shifting-bar M, capable of shifting toward or from the wheel N. This shaft has a bevel-pinion, O, gearing with a wheel, P, on wheel N, to turn the rollers C and actuate the belts. Q is a shifting-bar, with an inclined part, R, working between pins S on bar M in such manner as to shift pinion O into or out of gear with wheel P as it is moved forward or backward. This shifting-bar runs around to a point where it is conveniently reached by the attendant to throw the pinion O into gear with P, which

is done by shoving the said bar Q backward. At the rear of the truck this bar extends to within reach of the studs F of the belt next to the truck, and has an inclined part, T, against which said studs will come in contact at the time of delivering the gavel, and throws said rod forward to throw pinion O out of gear and stop the belts, so that the belts will have an intermittent motion, and may be allowed to stand for the accumulation of the grain a longer or shorter time, as the quantity varies in different parts of the field, or according to the size it is required to have the gavels.

I may, however, by depressing with the piece T of the bar Q, have a continuously-moving side-discharger or rake, onto which the grain may be let fall from time to time by any suitable apparatus for holding it above the rake until a sufficient amount has accumulated for a gavel.

I do not limit myself to the particular arrangement of throwing out gear here shown, for it is obvious that the studs F may be made to act on various contrivances that will have the same effect.

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

The studded carrier E F of a self-raking harvester, combined, as described, with a gear-shifting bar, Q, having an inclined end, T, so that the carrier is automatically thrown out of connection with its operative mechanism and thrown in again by the driver at the times and in the manner described.

GEORGE S. GRIER.

Witnesses:

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