

S. M. Gallup,
Grain Drill.

No. 112,700.

Patented Mar. 14, 1871.

Fig. 1.

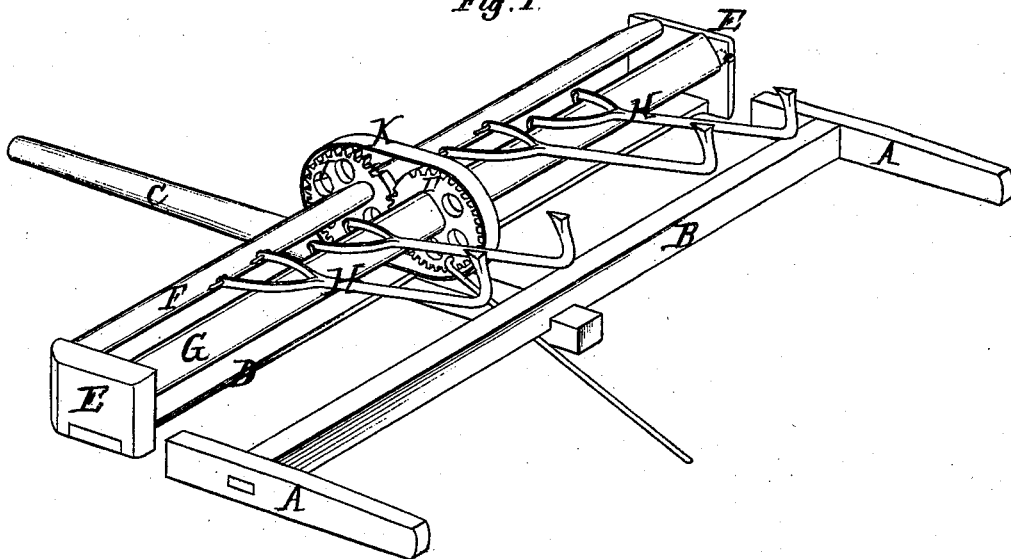
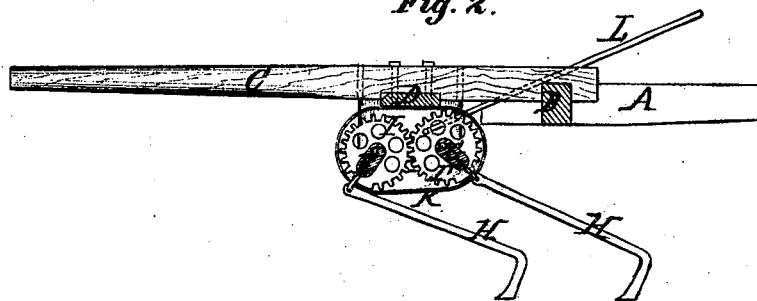


Fig. 2.



Witnesses.
H. H. Doubleday
A. B. Smith

Inventor.
Silas N. Gallup
by his Attorney
A. B. Smith

United States Patent Office.

SILAS N. GALLUP, OF MACEDON, NEW YORK.

Letters Patent No. 112,700, dated March 14, 1871.

IMPROVEMENT IN GRAIN-DRILLS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, SILAS N. GALLUP, of Macedon, county of Wayne, State of New York, have invented certain new and useful Improvements in Grain-Drills, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, and in which—

Figure 1 is a perspective view taken from the under side of the machine, and

Figure 2 is a vertical sectional view taken through the cogged wheels.

The invention relates to that class of drills or seeding-machines in which the hoes may be arranged in one row or in two rows, (that is, zigzag,) at the will of the operator.

The first part of the invention consists in a novel construction and arrangement of the devices for actuating the bars to which the drag-bars of the hoes are attached, the object of my improvement being three-fold: first, to dispense with one set of gears for operating the bars; second, to furnish a central support for said bars against the backward strain produced by the hoes; and third, to make them mutually support each other.

The second part of the invention consists in mounting the bars in an adjustable frame, by means of which construction the hoes can be moved either forward or backward out of the way when it is desired to sow the grain broadcast.

The nature of these improvements will be fully understood from the following description.

In the drawing—

A A represent the longitudinal or side pieces of the frame, upon which the hopper and seeding devices of the drill are mounted.

B is the forward transverse girt, to which the tongue is attached.

C is the tongue, which may be secured to transverse girt B in any usual or desired manner.

D is a sill or base, which, with the end-blocks E, forms a frame-work upon which are supported the bars F G.

Bars F G are mounted upon pivots which turn in suitable bearings in blocks E, (shown in dotted lines at *e*, fig. 1,) as is customary in this class of machines.

H are the hoe drag-bars, attached to bars F G by staples or their equivalent.

I I' are cogged wheels mounted upon bars F G at or near the centers of said bars, the wheels having slots for their reception.

These slots are so arranged that when the wheels are mounted they are eccentric to the bars, but their

centers are coincident with the centers of the pivots *e*, so that if the wheels are rotated in either direction they will remain in mesh with each other, the arrangement of these parts being fully shown in fig. 2.

K is a strap or shell surrounding the two wheels I I', substantially as shown in fig. 1, and fitting them closely.

This strap serves a double purpose: First, it serves to keep the two cogged wheels I I' always in mesh, as without it (the strap) the backward strain upon the rear bar G would at times, from the strain of the hoes, withdraw it (cog-wheel I') from the wheel mounted upon bar F. The strap not only keeps the wheels in mesh, but, secondly, it makes the first bar F assist in supporting the rear one, G, against any unusual strain which may be thrown upon it.

The strap K is rigidly secured to base or sill D, and is thus made to support both bars centrally, independently of one supporting the other, as above described.

L is a rod or link attached to one of the cogged wheels, and so located as to be within convenient reach of the attendant.

The frame-work D E E is mounted upon the tongue and secured thereto by bolts in such manner that it can be moved backward or forward, as the case may be, in order to move the hoes from immediately below the distributors when the machine is used for sowing broadcast.

In using my devices the wheels I I' are operated by the link L to move the free edges of bars F G in opposite directions, carrying with them the drag-bars, thus arranging the hoes in one or more rows, as may be required.

The link L should be locked in position by some of the well-known devices, which it is not necessary to describe here.

In practice the cogged wheels should be cogged upon such portions of their peripheries as shall be engaged with each other, thus leaving such portions as bear upon the strap K smooth.

Having now described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of cogged wheels I I' and strap K with the oscillating bars F G, substantially as set forth.

2. In combination with the bars F G and drag-bar H, the movable frame D E E, substantially as set forth.

Witnesses:

SILAS N. GALLUP.

LYMAN BICKFORD,
FRANK L. CORSEN.