



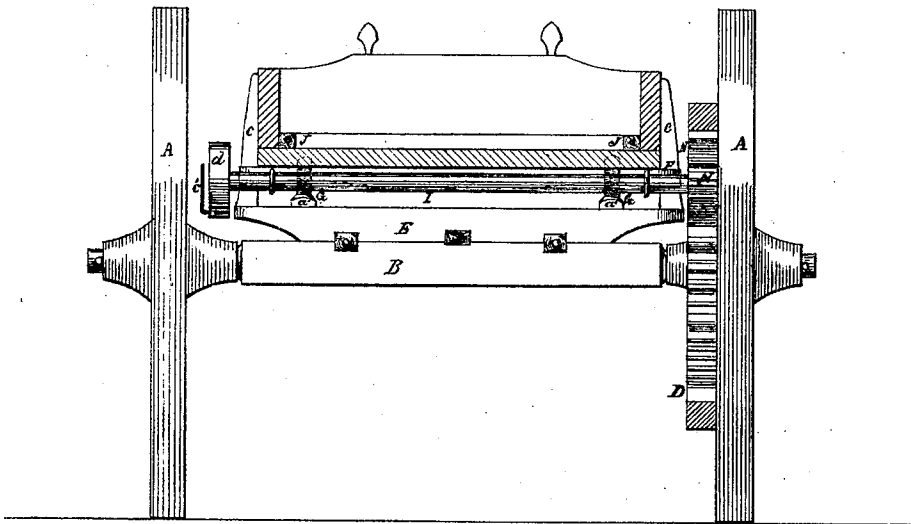
E. J. NELLIS.

Improvement in Seeding-Machines.

No. 131,113.

Patented Sep. 3, 1872.

Fig. 3.



Witnesses.  
*Fred Hume*  
*Edw. Busch*

*Edward J. Nellis*  
*per* *Rowntree & Allen*  
*Attorneys*

# UNITED STATES PATENT OFFICE.

EDWARD I. NELLIS, OF FORT PLAIN, NEW YORK.

## IMPROVEMENT IN SEEDING-MACHINES.

Specification forming part of Letters Patent No. **131,113**, dated September 3, 1872.

Specification describing certain Improvements in Sowing Attachments for Wagons, invented by EDWARD I. NELLIS, of Fort Plain, in the county of Montgomery and State of New York.

This invention comprises an apparatus for sowing seed, ground gypsum, or other powdered or pulverous material, so constructed that it may be applied to an ordinary cart or wagon, and operated from the wheel or wheels thereof, whereby the expensive wheels and running-gear ordinarily employed in such machines may be dispensed with. The invention also consists in the combination of an adjustable false bottom with the gearing and other devices which operate the moving parts of the sowing or distributing mechanism of the apparatus in such manner that the said moving parts may, when required, be thrown out of gear or rendered inoperative without necessitating the detachment of the apparatus from the wagon, thereby allowing the latter to be used for transport or carriage merely without the delay or inconvenience of such removal of the sowing machinery.

Figure 1 is a vertical longitudinal sectional view of an apparatus constructed according to my invention. Fig. 2 is a plan view of the same. Fig. 3 is a vertical transverse sectional view of the same.

A A are the wheels, and B the axle of an ordinary cart or wagon furnished with a suitable box, C. One of the wheels, A, is furnished on its inner side with an internal spur-wheel, D, constituting a driving spur-wheel and arranged concentric with the axis of the wheel. This spur-wheel D may be attached in place by means of radial lugs *a* extending therefrom, in contact with adjacent spokes, and firmly clamped thereto by clasps or bands *b*. Upon the axle B is the usual bolster E, and above this is a false bolster, F, the ends of which are longitudinally notched or secured to permit them to straddle the stakes *c* and thereby be kept from lateral or longitudinal displacement. G G are two screws arranged between the bolster E and the false bolster F, the broad heads of the screws resting upon the upper surface of the former, while the threaded portions of said

screws work in or through nuts provided in the latter. The lower portions of the screws are squared, as shown at *a'*, in order that they may be readily turned to raise or lower the false bolster when desired. Connected to the false bolster by suitable bearings and arranged behind and parallel with the same is a shaft, I, upon one end of which is a spur-pinion, N, gearing into the internal spur-wheel D at the upper part thereof, while at the other end of said shaft is a crank, *d*, actuating a pitman, *c'*. J is a rectangular frame of such size and shape as to fit snugly within the box C, where it is confined by screws or bolts *a* and, resting upon the bottom of the box, has its rearmost portion extending back beyond the rear end of the same. To this rearmost portion of the frame J is fixed the trough or hopper K, triangular in its vertical transverse section and furnished with the usual reciprocating stirring-slide *f*. This slide, as well as the adjacent side of the box, is perforated in such manner as to permit the outward passage therethrough of the seed or the gypsum or other fertilizer, in the sowing or distribution of which the machine is to be used. The requisite reciprocating motion is given to this slide by means of a rod, *g*, extending therefrom to one arm of an elbow-lever, *m*, to the opposite arm of which is connected the pitman *c'*, actuated from the shaft I, driven from the spur-wheel D of the wheel A.

It will be seen that the false bolster, being adjusted at such height as to bring and maintain the pinion N in gear with the internal spur-wheel D, the forward movement of the vehicle will insure the operation of the slide *f*, and consequently the effective distribution of the contents of the hopper, in the same manner as if the hopper were, as is ordinarily the case, supported upon wheels especially provided thereto and incapable of other use. It will also be seen that by lowering the false bolster, by means of the adjusting-screws, to such extent as to bring the spur-pinion away from the internal spur-wheel the mechanism immediately concerned in operating the slide will be rendered inoperative, which done, the hopper being, from its extreme rearward position, practically out of the way, the vehi-

cle may be used for its ordinary purposes without the loss of time and labor which, otherwise, would necessarily be incurred in the removal of the sowing or distributing apparatus.

What I claim as my invention is—

The combination of the false bolster F,

wheels D and N, frame J, trough K, slide *f*, and pitman *c'*, substantially as and for the purpose set forth.

E. I. NELLIS.

Witnesses:

A. PEALER,  
H. J. GAGE.