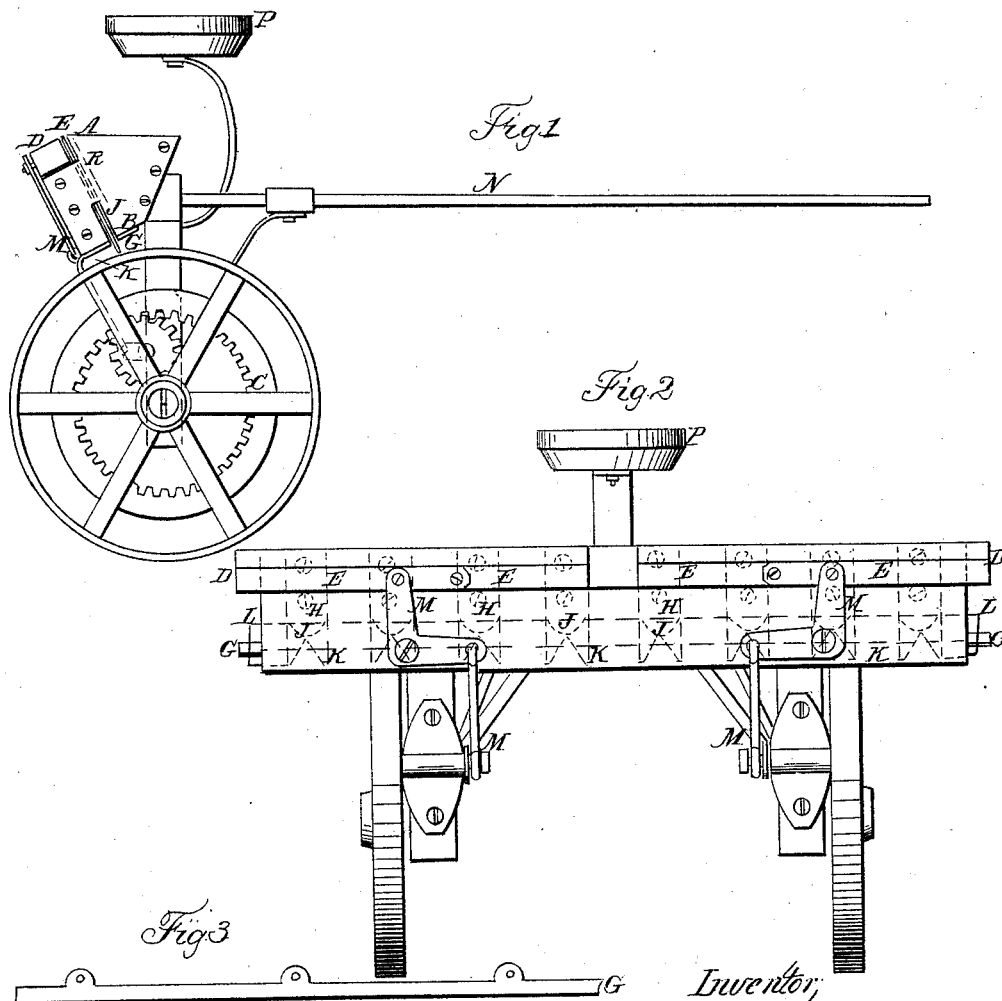


A. BUGBEE.

Fertilizer.

No. 49,973.

Patented Sept. 19, 1865.



Witnesses;  
Mrs Melhan  
Daniel Reigart

Inventor;  
Alpheus Bugbee  
by his Attorney  
J. Franklin Reigart

# UNITED STATES PATENT OFFICE.

ALPHEUS BUGBEE, OF ELKHART, INDIANA.

## IMPROVEMENT IN MACHINES FOR SOWING PLASTER.

Specification forming part of Letters Patent No. **49,973**, dated September 19, 1865.

*To all whom it may concern:*

Be it known that I, ALPHEUS BUGBEE, of Elkhart, Elkhart county, State of Indiana, have invented new and useful Improvements in Machines for Sowing Plaster and Various Kinds of Grain; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the arrangement of an adjustable iron bar (set at an opposite angle with the forks) operating at the bottom of the box or hopper on pivots, so as to widen or narrow the throat of the box to regulate the quantity of plaster to be sown; also, the shape and construction of the forks to saw and loosen the plaster or stir the grain and work it through the throat; also, the shield-board to prevent the plaster from packing or pressing against the forks.

Figure 1 represents an end view of the machine; Fig. 2, a cross-section; Fig. 3, shape of the adjustable regulating-bar.

A represents the angular V-shaped hopper or box with an inclined or oblique-shaped bottom, B. This box is about nine inches wide across the top and about nine inches deep and about nine feet in length, and the toothed wheels C are about twenty inches in diameter. The horizontal slides D D at top (that operate the fingers or stirrers E E) will make three lateral vibrations to one revolution of the wheel C.

The adjustable flat bar G at bottom is intended to be adjusted so as to widen or narrow the throat or long aperture at the bottom of the box to sow any quantity required, more or less.

The forks or stirrers E are made of sheet-iron, and are attached to the back side of the box A by a pivoted screw, H, upon which the forks vibrate, and they are permanently screwed fast at their tops to the sliding bars

D, and their forked ends K project through the throat below. They are about one inch in width and are placed about three inches apart, (they are double plates,) the front plate or finger extending only to within an inch of the throat and terminates in a saw-tooth turning up hooked shaped in front, as seen at J, the point turned up about one-eighth of an inch. These front points, J, saw and loosen the plaster, while the forked ends K stir and work the plaster through and out of the throat. The two outside end forks, L, extend through a slot in the ends of box A and stir and prevent the plaster from packing at the ends of the box.

I have also a shield, R, made of thin board or sheet-iron, on the inside of the box A, that is screwed fast to the back side of the box to cover the forks over from the top to below the pivoted screws H or fulcrums of the forks, to prevent the plaster from pressing heavily against the forks, that the forks may work freely and regularly.

The slides D are operated by cranks M M, driven by common toothed wheels C c that are attached to and revolve with the carriage-wheels.

I do not confine myself to the use of the revolving toothed wheels to drive the cranks M, as I purpose using either a zigzag or toothed wheel to propel the slides.

N is the shaft to which the horse is geared, and P a driver's seat.

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

1. The shape and construction of the double forks and stirrers E, when arranged and combined with the slides D, as operated and herein described, and for the purposes set forth.

2. The shield R, as arranged and combined with the stirrers E, for the purposes set forth.

ALPHEUS BUGBEE.

Witnesses:

DEAN SWIFT,  
A. S. DAVENPORT.