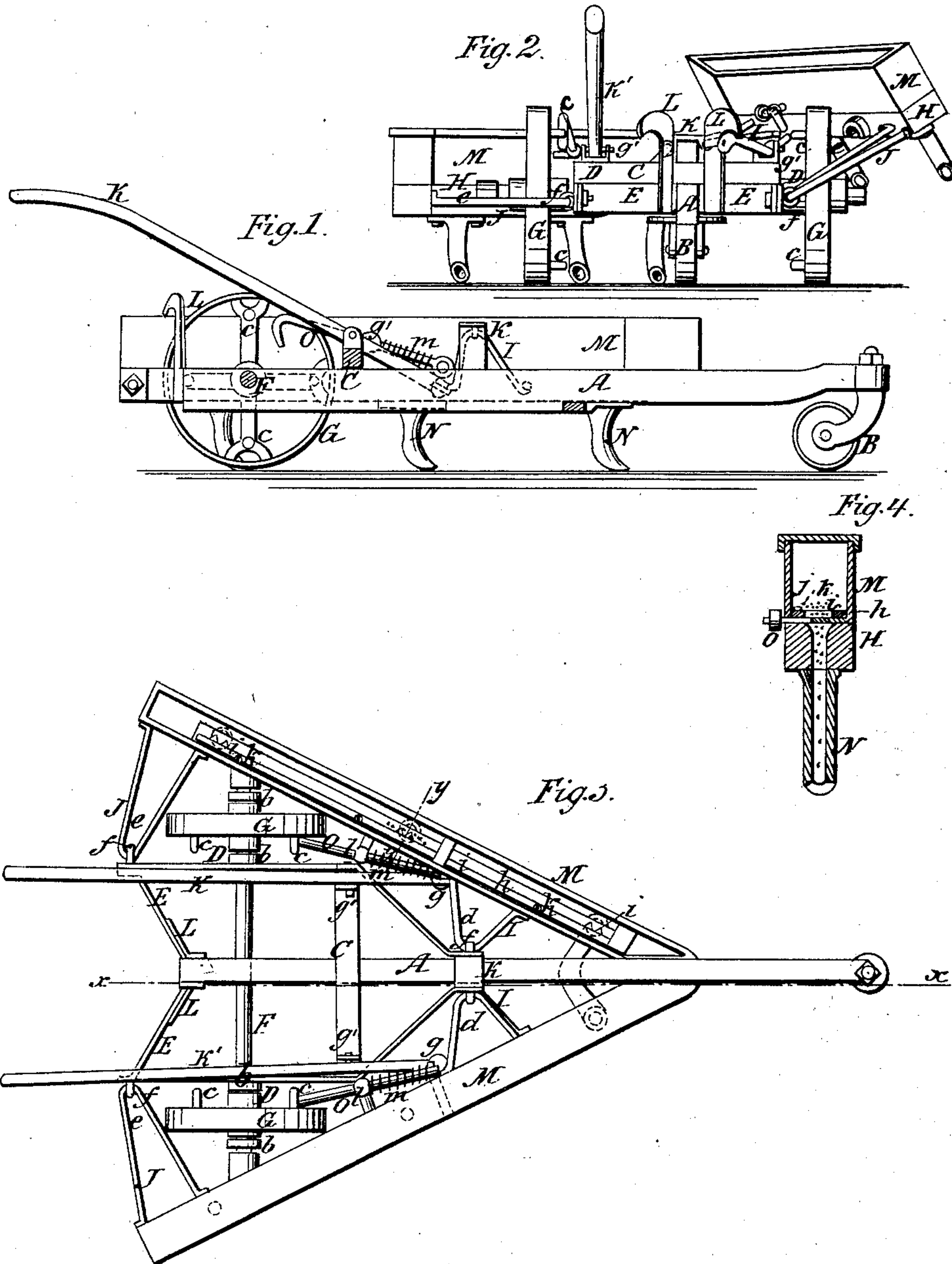


J. C STEVENS.

Seed Planter.

No. 20,377.

Patented May 25, 1858.



UNITED STATES PATENT OFFICE.

J. C. STEVENS, OF LEE, MASSACHUSETTS.

IMPROVEMENT IN SEED-DRILLS.

Specification forming part of Letters Patent No. 20,377, dated May 25, 1858.

To all whom it may concern:

Be it known that I, JOHN C. STEVENS, of Lee, in the county of Berkshire and State of Massachusetts, have invented a new and useful Improvement in Seed-Drills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my improvement, taken in the line *xx*, Fig. 3. Fig. 2 is a back view of the same. Fig. 3 is a plan or top view of the same. Fig. 4 is a transverse section of one of the seed-boxes, taken in the line *yy*, Fig. 3.

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

This invention consists in having two seed-boxes hinged or jointed obliquely to a frame in such a way that they may when necessary be raised or turned upward without at all interfering with each other, so that their teeth will be free from the ground, the seed-boxes being also arranged relatively with the seed-distributing devices that by the same movement they will be thrown out of gear with the driving-wheels, the whole being arranged as hereinafter shown, whereby the machine may be moved from place to place without a useless distribution of seed, and the machine placed under the complete control of the operator or attendant.

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

A represents a longitudinal bar or beam of proper dimensions, to the front end of which a caster-wheel, B, is attached.

C is a short traverse-bar, attached to beam A, and D D are two metal bars, the back portions of which are parallel with each other, the front ends being bent inward and secured to the bar or beam A, as shown at *a*. The back ends of the bars D D are connected to the back end of the beam A by braces E E.

F is an axle which passes through the back part of the beam A and through the bars D D. This axle is stationary, and a wheel, G, is placed loosely on it, one near each end, the hubs of said wheels being fitted between collars *b*, permanently attached to the axle. To the inner sides of the wheels G pins *c* are attached at equal distances apart.

To each side of the beam A an oblique bar or beam, H, is attached by joints I J, formed of curved rods *d e*, which fit in eyes *f*, attached to the framing. The front ends of the bars or beams H are close to the beam A, the bars or beams H diverging from their front to their back ends, as shown clearly in Fig. 3. The rods *d* of the front joints, I, are attached to the bars H, and the rods *e* are fitted in eyes *f*, attached to an upright bent plate, K, which is attached to the beam by the same bolt that secured the front ends of the bars D D thereto. The rods *e* of the back joints, J, are fitted in eyes *f*, which are attached to the back parts of the bars D. The eyes of the front joints, I, it will be seen, are considerably higher than the back joints, J. To each bar H a handle, K', is attached. These handles are attached to the beams by joints *g*, and the handles are connected to the bar C by bolts *g'*, which serve as fulcrums for the handles.

To the braces E E upright catches L are attached, one to each, and these catches retain or hold down the outer ends of the handles when they are depressed.

On each bar or beam H a seed-box, M, is placed. These seed-boxes extend the whole length of the bars or beams, and at their bottoms they have slides *h*, which are allowed to work or vibrate freely in a longitudinal direction. Each slide *h* has seed-holes *i* made through it at suitable distances apart, and these holes may be varied in size by adjusting a strip, *j*, which is fitted in the bottom of each hopper, said strips being secured in proper position by set-screws *k*. (See Fig. 3.)

To each bar or beam H teeth or shares M are attached. Three teeth are shown in Fig. 1, but more or less may be used. The teeth are hollow and communicate with the seed-boxes M, where the holes *i* in the slides are made to register with the holes in the teeth, it being understood that the bars or beams have holes *i'* made through them in line with the teeth.

To each slide *h* a rod, O, is attached. These rods work through eyes or guides *l*, attached to the inner sides of the boxes, and each rod O has a spiral spring, *m*, placed on it, said springs having a tendency to keep the holes *i* in line or register with the teeth N.

The operation is as follows: As the machine is drawn along the pins *c* on the wheels G act-

uate the rods O, and, in conjunction with the springs *m m*, give a reciprocating movement to the slides *h*, which, every time they are thrown in line or register with the holes *i'* and teeth N, cause a certain current of seed to drop through the teeth. The outer ends of the rods O are bent downward, so that the pins *c* can act properly against them. The operator or attendant at any time may elevate the bars H, and consequently raise the teeth N free from the ground by merely depressing the handles K', and as the bars or beams are thus turned upward the rods O are thrown out of gear with the pins *c*, so that the distributing device may be stopped simultaneously with the elevating of the teeth, and the machine drawn from place to place.

This machine will prove highly valuable for drilling small seeds, as the teeth are placed at a considerable distance apart and still the drills are made quite close, owing to the obliquity of the bars or beams. The teeth will not therefore be liable to clog, owing to the space allowed between.

In consequence of the front joints, I, of the bars or beams H being higher than the back

joints, J, the bars or beams, and consequently the seed-boxes, as they are turned upward, are kept outward and free from each other at their front ends.

I do not claim broadly the perforated and reciprocating seed-slides *h*, for they have been used in various machines; but,

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

Connecting the bars or beams H to the frame of the machine by means of joints I J, arranged as shown, to prevent the front and converging ends of the boxes from coming in contact with each other when raised, and using, in connection with the bars or beams thus hinged, a distributing mechanism, arranged substantially as shown, so that the distributing device will be thrown out of gear with the wheels G simultaneously with the elevating of the bars or beams H, and consequently the teeth N.

JOHN C. STEVENS.

Witnesses:

MARSHALL WILCOX,
WILLIAM TAYLOR.