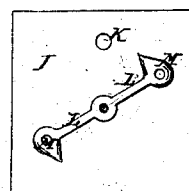
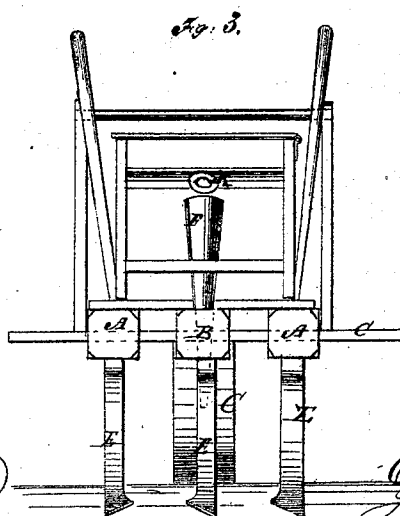
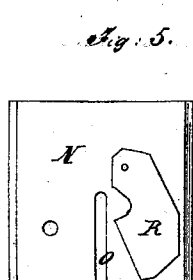
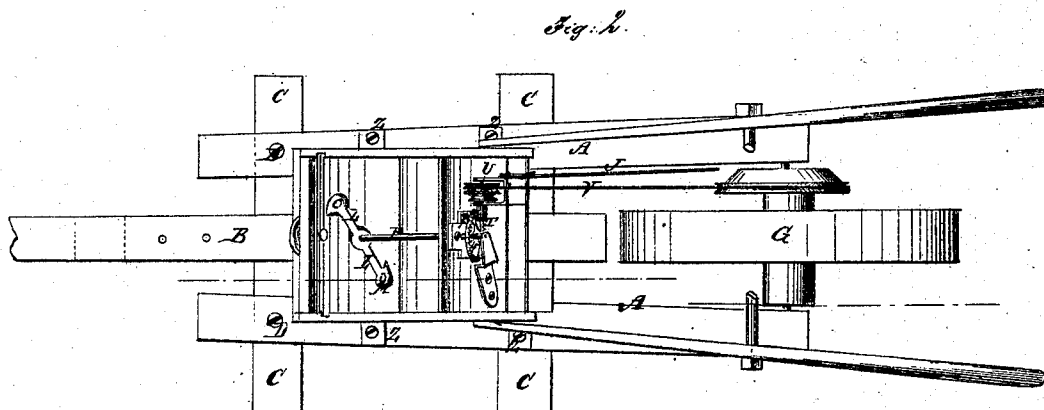
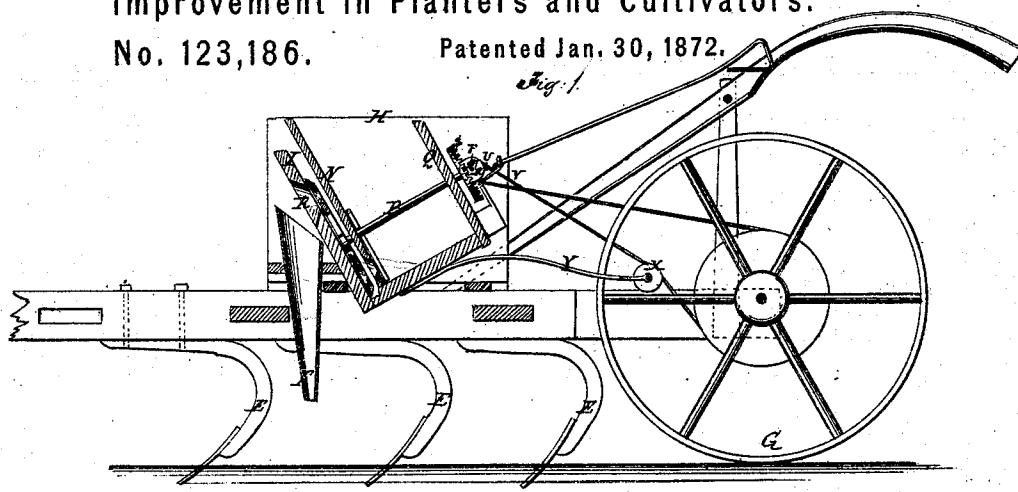


E. B. & J. F. McCLELLAN.
 Improvement in Planters and Cultivators.
 No. 123,186. Patented Jan. 30, 1872.



Witnesses:

Chas. Nida
 Francis McQuade

Inventor:

E. B. McClellan
 John F. McClellan
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 Attorneys.

UNITED STATES PATENT OFFICE.

EDWARD B. McCLELLAN AND JOHN F. McCLELLAN, OF ALEXANDRIA, ALA.

IMPROVEMENT IN PLANTERS AND CULTIVATORS COMBINED.

Specification forming part of Letters Patent No. 123,186, dated January 30, 1872.

Specification describing a new and Improved Seed-Planter and Cultivator, invented by EDWARD B. McCLELLAN and JOHN F. McCLELLAN, of Alexandria, in the county of Calhoun and State of Alabama.

The invention will be first fully described and then clearly pointed out in the claim.

Figure 1 is a longitudinal sectional elevation of my improved machine. Fig. 2 is a plan view. Fig. 3 is a front elevation. Fig. 4 is an elevation of one of the insides of the hoppers and the dropper; and Fig. 5 is an elevation of a slide employed for protecting the dropper from the grain when the hopper is full.

Similar letters of reference indicate corresponding parts.

The frame is composed of three long beams, A, A, and B, and the cross-pieces C, two of the latter being used when the machine is arranged for planting, and three when it is arranged for cultivating or bedding cotton. The cross-pieces are framed into the beams so that they may be taken out and put in readily, being held in connection with the beams by screws, pins, or bolts D. For planting the middle beam is arranged in advance of the others, as shown. E represents the plows, which are used both for planting and cultivating. One is arranged on the center beam in advance of the dropping-tube F, and one on each side beam behind said tube. G is a large wheel arranged in the rear end of the frame, as shown, behind the end of the middle beam, for supporting the machine and imparting motion to the dropping apparatus. H is the hopper, with a sloping front, having an inverted funnel-shaped hole, K, near the top and over the upper end of the tube F, through which the corn is dropped, the corn being carried up to it by the revolving arms L, with enlarged ends, having inverted funnel-shaped holes M, which, together with the surface of the hopper side I, over which the said ends work closely, form pockets, into which the corn drops as the ends of the arms dip into it while passing through the lowermost part of the path, to which the corn is admitted in a limited quantity under the slide N, arranged in front of said arms to prevent them from being flooded and obstructed by the corn when the hopper is full. This slide works up and down in guides provided for it in the hopper at its ends, and it has a slot, O, to allow it to pass below the shaft P of the arms, and a cam,

R, for said slot. These revolving arms being attached to the shaft P, which runs through the side Q, are driven by the large wheel S, pinion T, cone-pulley U, and belt V, the latter being actuated by a pulley on the shaft of wheel G. The said belt works over a tightener, X, mounted on a spring, Y, which admits of the varying tension of the belt, due to being shifted on the cone-pulley V, which is employed for varying the speed of arms L, which is required to vary the distance of the droppings from each other; and a shifting-lever, J, is employed for throwing the belt from one groove to another. The hopper, as well as the wheel G, is detachably connected to the beams, being secured thereto by the small bars Z screwed upon them, so that the changes required to adapt the frame for a cultivator or a bedding-machine can be made readily. The wheel and hopper being removed, and the middle beam shifted back with the others, the cultivator-plows may be arranged therein in the order in which it may be preferred to have them, being detachably connected for that purpose.

We make the standards E, which hold the plows, detachable on the frame, and we also make plows detachable on the standards for shifting both the standards and the plows to use different kinds, as may be required by the nature of the work in hand. When it is to be used as a cotton-bedding machine we attach one double-turning plow to the middle beam in the rear, a right-hand-turning plow on the right-hand beam, and a left-hand-turning plow on the left-hand beam.

This arrangement is employed for turning the earth from the middle each way to form a bed wherein the cotton is to be planted, which bed will be completed by two passages of the machine, each passage finishing one bed and forming one-half of the next.

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

The front-sloping hopper H, having hole K and slide N O, the rotary arms L, having holes M and tube F, when combined in a seeder, as and for the purpose set forth.

EDWARD B. McCLELLAN.

JOHN F. McCLELLAN.

Witnesses:

W. K. STEWART,
C. G. BOLES.