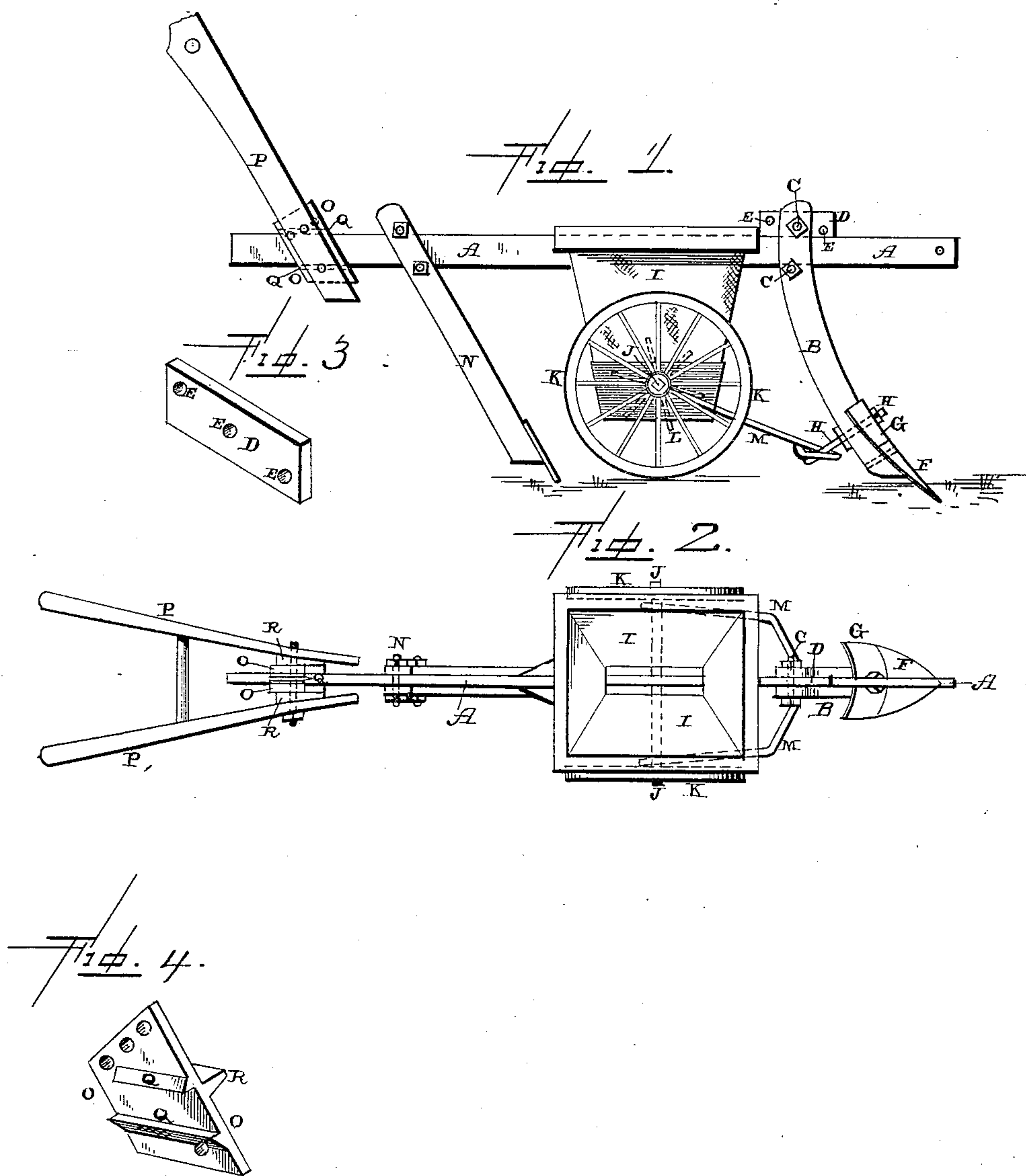


(No Model.)

W. F. LESLIE.  
COMBINED PLOW AND PLANTER.

No. 379,897.

Patented Mar. 20, 1888.



Witnesses.  
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att'y

# UNITED STATES PATENT OFFICE.

WILLIAM FRANKLIN LESLIE, OF NASHVILLE, ARKANSAS.

## COMBINED PLOW AND PLANTER.

SPECIFICATION forming part of Letters Patent No. 379,897, dated March 20, 1888.

Application filed November 1, 1887. Serial No. 253,986. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM FRANKLIN LESLIE, of Nashville, in the county of Howard and State of Arkansas, have invented certain  
5 new and useful Improvements in a Combined Plow and Planter; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable  
10 others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in a combined plow and planter; and it consists  
15 in, first, a flexible hopper suspended from the beam and having a shaft extending through its lower portion, and provided with wheels at its end and a seed-stirring device at its center, and which hopper is held in position by means  
20 of a loop or rod which extends forward from the axle and is fastened to the front standard; second, the combination of the beam, or arms secured thereto, the standards, a block having a series of holes made through it which  
25 extend diagonally across the block, and the clamping-bolts, by means of which the standard is held at any desired inclination; third, the combination of the beam, the handle, and the flanged plates, by means of which the handles  
30 are bolted to the beam, as will be more fully described.

The objects of my invention are to hold the flexible hopper in position, and yet allow it to move with the supporting-wheels upon uneven  
35 ground, and to secure the standard directly to the beam or arms by means of blocks, which act as wedges to hold the beam at any desired angle.

Figure 1 is a side elevation of a planter  
40 which embodies my invention complete. Fig. 2 is a plan view of the same. Fig. 3 is a perspective of one of the wedges. Fig. 4 is a perspective of one of the handle-plates.

A represents the plow-beam, which is made  
45 of a flat bar of metal which has no other opening through it except the one at its front end for the attachment of the draft-animals. This beam is perfectly straight or plain from end to end, and has all of the parts of the plow or  
50 standard secured to it by means of clamps. The front end of the foot or standard B is se-

cured in position by means of the two clamping-bolts C and the wedge-block D. The wedge-block is of suitable length or width, and has a series of holes, E, made through it,  
55 which holes extend diagonally from the front end of the block backward, as shown. One of the bolts C is passed through the standard or foot B, which straddles over the beam A, just below the lower edge of the beam, while  
60 the other bolt C passes through the upper ends of the standards and the wedge-block D. By shifting the upper bolt C from one opening to the other in the wedge-block D, the inclination at which the standard B shall extend  
65 can be adjusted at will. After the standard has been adjusted into its proper position, although neither one of the bolts C passes through the standard itself, the wedge-blocks D hold  
70 the standard in position, so that it can have no backward movement whatever. By means of this construction only two bolts need to be used in connection with the block D, and hence there is no necessity for making any  
75 openings through the beam to weaken it, or to form any flanges, stops, or projections upon the sides of the beam, as has heretofore been found necessary. As neither of the bolts pass  
80 through the beam, the standard can be adjusted back and forth at the will of the operator, and thus used in any desired position.

The shovel or furrow-opener F is clamped to the lower end of the standard B by a single bolt, and hence can be removed from the stand-  
85 ard whenever it becomes dull.

The part G of the cultivator shovel, which is used in connection with the furrow-opener in cultivating, is so shaped as to conform to the shape of the furrow-opener, and the two parts F G together form a cultivator-shovel. The  
90 part G, being clamped to the beam by a bolt of its own, can be removed from the standard independently of the part F. When these two parts F G are used together, the part F is prevented from rising upward upon the standard  
95 by having its upper edge strike against the lower edge of the part G. In planting cotton-seed this part G is not necessary; but it may be used, if so desired, in which case it will be secured to the standard by means of the hook-  
100 bolt H. This bolt can be attached to the standard whether the part G is used or not, and



hence it is a matter of choice whether these two parts will be used together or not.

The body of the hopper I is made flexible, as shown and described in my Patent No. 361,366, and has the shaft J, provided with wheels K at its ends and a stirring device, L, at its center passing through its lower portion. In the said patent this hopper was held rigidly in place; but, instead of holding it rigidly in the present instance, the body is left free to rise and fall, so that the shaft J and the wheels K can freely rise and fall in following the inequalities of the ground, and thus the stirrers will be always kept in motion while the planter is being drawn forward. In order to keep the lower portion of the hopper in position, the ends of the axles J have fastened to them the bent brace or rod M, which extends forward and has its front end fastened to the hook-bolt H. This bolt, it will be seen, serves the double purpose of clamping the upper part, G, of the shovel in position, and prevents any backward movement of the shaft and the hopper in case the wheels K should encounter any obstructions. Just back of the hopper there is clamped to the beam A the standard N, to the lower end of which a covering device is secured. This coverer acts in the usual manner and covers the seed as the machine is drawn along. Placed in direct contact with the rear end of the beam are the two plates O, which are provided with a single bolt-hole at their lower ends and two or more at their upper ends, for the passage through them of the clamping bolts, by means of which the handles P are fastened to the outer sides of the plates and the plates clamped to the beam. Upon the inner side of each of the plates are the two flanges Q, which catch over opposite edges of the beam, while upon their outer sides are the single flanges R, which bear against or bite into the inner sides of the handles P. By forming a series of holes through the upper ends of the plates or castings O, the handles can be adjusted at any de-

sired inclination. The inner flanges, Q, hold the plates or castings O in position upon the beam and prevent the castings from turning upon the beam when any pressure is applied in either direction to the outer ends of the handles. The flanges R on the outer sides of the plates serve to catch in the surface upon the handles, and thus prevent the handles from becoming loose upon the castings.

Having thus described my invention, I claim—

1. The combination of the plow-beam with a plow-standard, the two bolts which are passed through the standard above and below the beam, and the wedge-block which is placed upon the top edge of the beam, substantially as shown.

2. The combination of the hopper, made of flexible material, the axle which passes through the hopper and is provided with a stirring device at its center and the wheels at its ends, and the bent rod or braces by which the ends of the axle are secured to the standard, substantially as set forth.

3. The combination of the hopper, made of any flexible material, the axle which passes through its lower end and is provided with the wheels K and the stirring device L, the bent rod or braces secured to the ends of the axle, the hook-bolt H, the upper portion of the shovel or furrow-opener, and the standard B, substantially as specified.

4. The combination of the beam, the plates or castings O, provided with the flanges Q upon their inner sides, the flanges R upon their outer sides, and the bolt-holes through their ends, with the handles and the clamping bolts, substantially as shown.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM FRANKLIN LESLIE.

Witnesses:

WM. BLADEWOOD,  
J. F. SMITH.