

G. BRADLEY.

Seeder and Cultivator.

No. 104,926.

Patented July 5, 1870.

Fig 1.

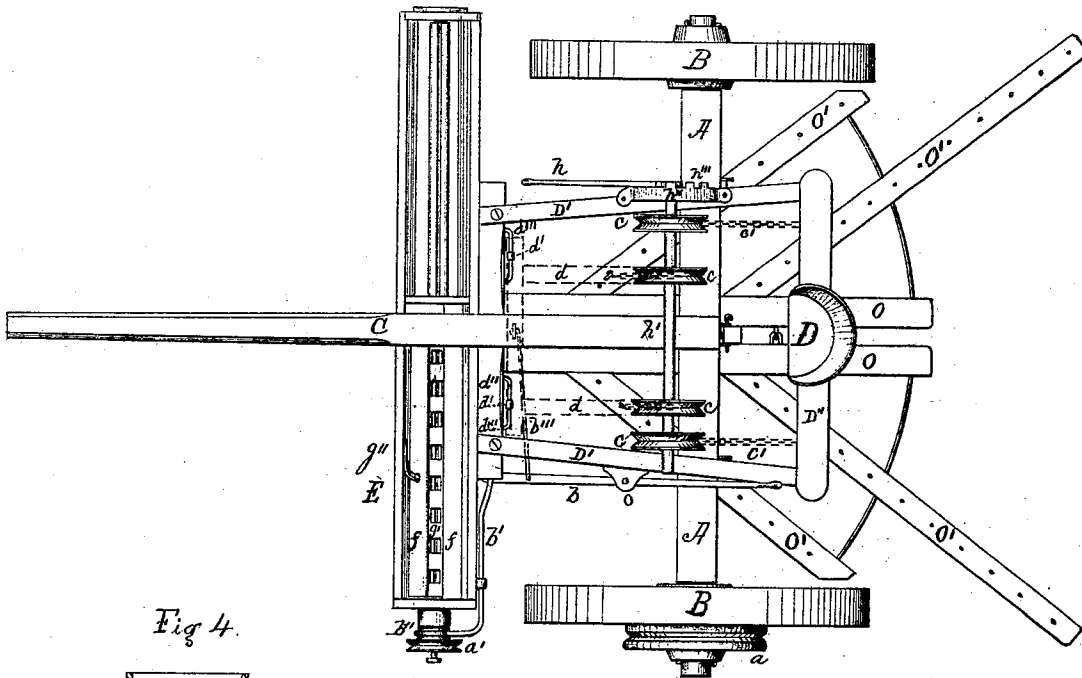


Fig 4.

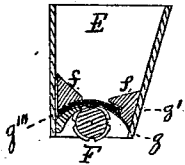
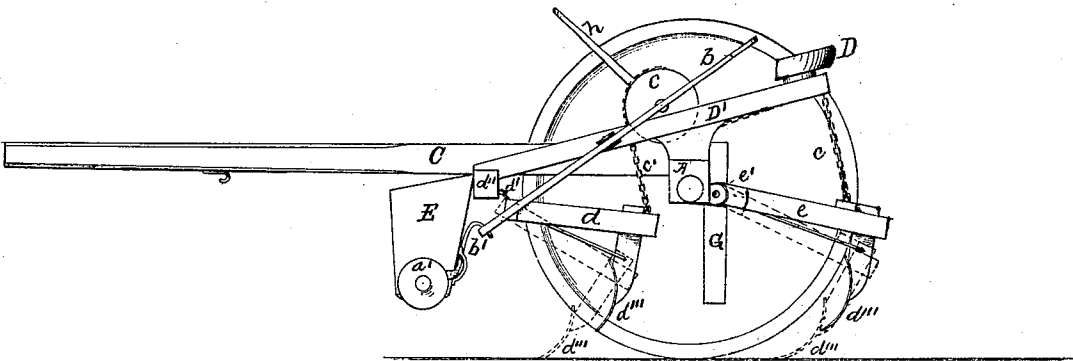


Fig 2.



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C. C. Wilson

Inventor  
George Bradley  
By H. Cramford his attorney

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Fig. 5.

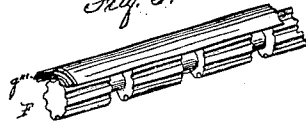


Fig. 3.

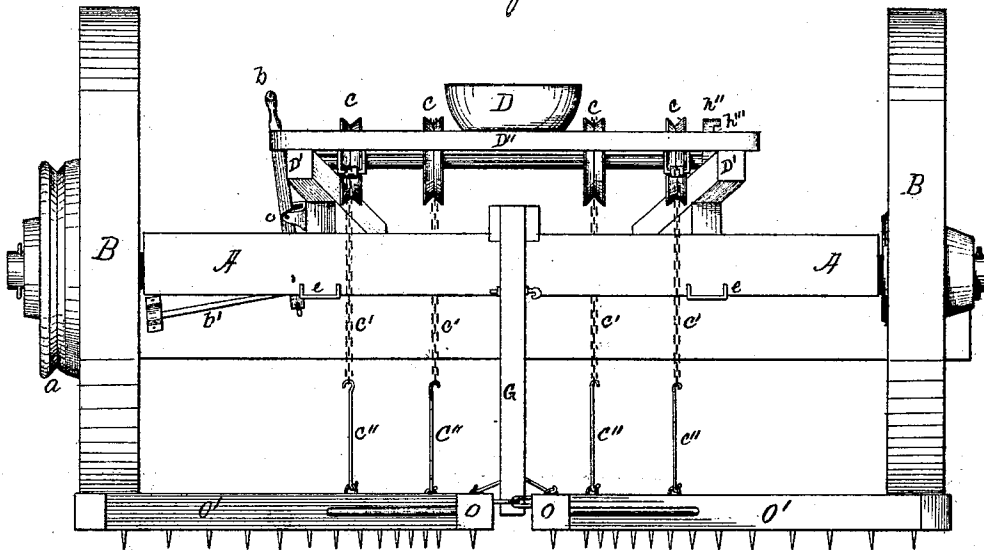
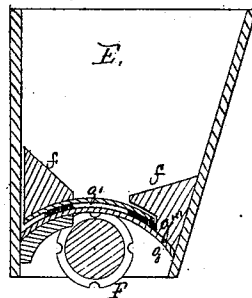


Fig. 6.



*H. Kilbygatt*  
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{ Witnesses

*George Bradley*  
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# United States Patent Office.

GEORGE BRADLEY, OF ROCKFORD, ILLINOIS.

Letters Patent No. 104,926, dated July 5, 1870.

## IMPROVED SEED-SOWER AND CULTIVATOR.

The Schedule referred to in these Letters Patent and making part of the same

### To whom it may concern :

Be it known that I, GEORGE BRADLEY, of Rockford, in the county of Winnebago, in the State of Illinois, have invented certain Improvements in Seed-Sowers and Cultivators, of which the following is a specification.

The object of the invention is to improve and simplify the ordinary sulky seed-sowers and cultivators; and

It consists in the special construction and combination of the operating parts of the machine.

In the drawing—

Figure 1 represents a plan or top view of the machine;

Figure 2, a side elevation;

Figure 3, an upright rear view;

Figure 4, a sectional view of the seed-box, cylinder, and shields;

Figure 5 is a view in detail of the cylinder enlarged; and

Figure 6 is an enlarged sectional view of the seed-box.

A is the axle.

B, the wheels.

C, the draft-tongue or pole.

D is the seat, resting on the cross-bar D' of the inclined supports D', which are all of ordinary construction and in common use, and will need no especial description.

E is the seed-box or reservoir, of any desired capacity, and attached in the ordinary way to the front part of the machine, and underneath the draft-tongue or pole.

F is the revolving seed-distributing cylinder, extending the entire length of the seed-box, located at the bottom of and extending up into the seed-box, one-half, more or less, of its diameter.

At one end of the cylinder F is a fast clutch-plate, having holes into which fit the pins of the sliding clutch-sleeve b".

Outside of and attached to the sliding clutch is a grooved pulley, a', and which is, together with the cylinder F, revolved whenever the sliding clutch is in contact with the fast plate on the end of said grooved cylinder.

The clutch b" is operated by hand-lever b, pivoted at o, and attached to connecting-rod b', which goes to and is attached to sliding clutch b".

The revolving distributing-cylinder F has longitudinal grooves s s, as seen in figs. 1 and 4, cut in its periphery.

These grooves are calculated to receive the grain in its revolution, and distribute it in any desired quantity, which is regulated by having the supports ff in the seed-box in which are metal shields g and g'.

Shield g is fixed in its position, and is perforated,

as seen in fig. 1. The portions left between the perforations or seed-holes fit into the spaces cut out of the cylinder, as seen in fig. 5. Over the fixed shield g is another perforated sliding shield, g', which is operated by hand-lever g', and will slide longitudinally, so that its perforations will exactly coincide with the perforations in the fixed shield g.

Its purpose is to so operate as that the quantity of grain may be graduated that goes into the grooves s s of the cylinder F for distribution.

In order to prevent the binding of the sliding shield g' upon fixed shield g, a thin piece of leather, g'', or other suitable substance, is inserted between plates g and g', which will prevent their coming in contact, or in any way interfering with the grain in its distribution.

To the frame of the sulky may be attached a harrow, as seen in figs. 1 and 3, by means of chains c' and connecting-links c'' passing over pulleys c c, resting on supports D', and operated by the hand-lever h, which is fixed to shaft h', and upon which is firmly attached the pulleys c c; and, by operating lever h, to revolve the pulleys c c, the harrow may be graduated to any desired height, or raised to clear obstructions in its path, and retained in its position by simply placing lever h into the necessary notch h'' in the semicircular notched plate h''.

The harrow is formed in the usual manner of the V-shaped harrows, and hinged by its two center longitudinal bars O O, and having two wiry bars, O' O', on each side of the center bars.

The center bars O O are purposely placed a few inches apart, for the purpose of allowing the guide-bar G to pass between them. This guide-bar G is firmly fixed into the under side of axle A of the sulky, and extends downward to nearly the top of the ground, but not so near as to ever touch.

The purpose of this guide is to keep the harrow in its proper relative position with the machine, whether in use to cover the seed sown, or in a raised condition for transportation, completely preventing the harrow from striking the wheels of the sulky, and yet allowing the wings to run very near the said wheels.

By detaching the harrow from the sulky, it can readily be made into a sulky-cultivator by attaching cultivator-frames d and e, as seen in fig. 2, having cultivator-plates d''.

The frame d is hinged to cross-bar d' by means of an eye, d', in frame d, and a long straight staple, d'', in the bar d'', while frame e is hinged to axle A by means of hinge e'.

The long straight staple d'', which is the device that the eye d' is hinged to, is made long, so that the eye d' can slide upon the straight part of the same, and allow the operator to change the position of the two forward cultivator-teeth laterally, as may be necessary

in the cultivation of any crop where the vegetable being cultivated may be out of line, and the teeth in such case would strike it and destroy it; but, by this arrangement, the cultivators can be instantly changed to avoid such destruction.

This changing the cultivators laterally is effected by means of the pivoted hand-lever *b*, to which is attached rod *b'*, running to and connected with frame *d*, as seen in fig. 1, partly in dotted line.

The devices for raising the harrow, as hereinbefore described, are used for elevating the cultivator-frames *d* and *e*, as seen in fig. 2, while the dotted lines show the cultivators let down to their work.

The seed-box can readily, if desired, be detached from the sulky, when either the harrow or the cultivator can be used without the seed-box, or either the harrow or cultivator can be used with the seed-sower, as may be wanted, by which arrangement the convenience of three distinct machines is had in one, with little trouble to change from one to the other, and all connected to and used with the wheeled sulky.

Having thus described my invention,

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

1. The combination of the fixed shield *g*, sliding shield *g'*, and leather *g''*, arranged to operate in the manner and for the purpose substantially as described.

2. The combination of the grooved roller *F* with the shields *g* and *g'*, when constructed and arranged to operate substantially as described.

3. The combination of the pivoted hand-lever *b*, connecting-rod *b'*, cultivator-frame *d*, with the eye *d'* and staple *d''*, for the purpose substantially as described.

4. The combination of the harrow  $\Theta$  *O* and *O' O'* with the guide *G*, chains *c'*, links *c''*, pulleys *c*, and hand-lever *h*, when constructed and arranged to operate substantially as described.

5. The harrow, seed-sower, and cultivator herein described, when arranged with relation to and used with the wheeled sulky, in the manner and for the purpose set forth.

Witnesses:

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JOHN A. WILEY,  
J. G. MANLOVE.