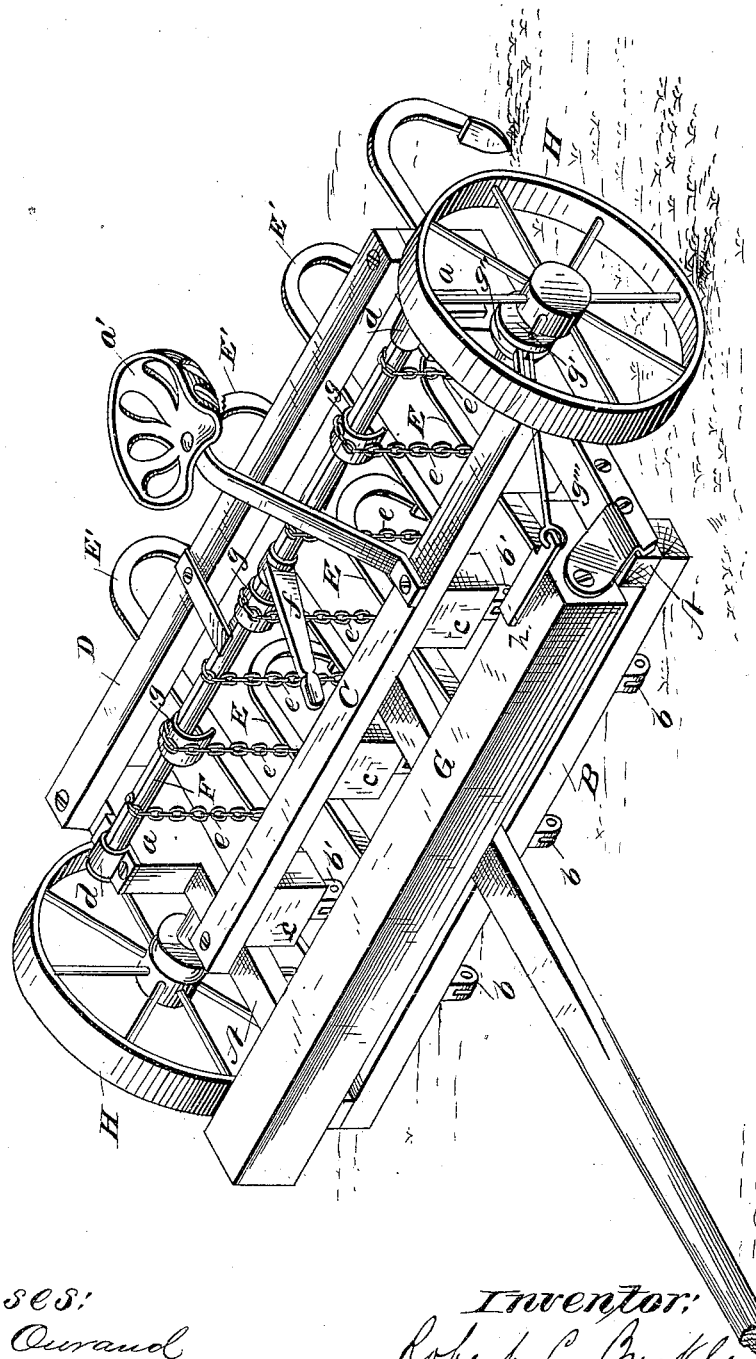
(Model.)

R. C. BUCKLEY.

COMBINED PLOW AND SEEDER.

No. 263,475. Patented Aug. 29, 1882.



Witnesses:
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UNITED STATES PATENT OFFICE.

ROBERT C. BUCKLEY, OF PEORIA, ILLINOIS.

COMBINED PLOW AND SEEDER.

SPECIFICATION forming part of Letters Patent No. 263,475, dated August 29, 1882.

Application filed June 6, 1882. (Model.)

To all whom it may concern:

Be it known that I, ROBERT C. BUCKLEY, of the city of Peoria, county of Peoria, and State of Illinois, have invented certain new and useful Improvements in Combined Plows and Seeders, of which the following is a specification, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

This invention has for its objects the seeding of small grain, the plowing of the ground, and plowing in of the seed; and it consists, first, in the construction of the frame; second, in the devices for raising and lowering the front and hind series of plows or shovels simultaneously and without changing the parallel relations of the drag-bars by the use of a single lever, as hereinafter specified.

The accompanying drawing is a perspective view of the invention.

The frame of the machine is constructed as follows: Two side beams, A A, are connected at their front ends by a cross-beam, B, bolted under them, and by a second cross-beam, C, bolted to their upper surfaces about midway of their length. A third cross-beam, D, is bolted to blocks *a*, placed at the rear ends of the beams A A, the beam D being in consequence elevated some height above the side beams, A A. The tongue of the machine is secured to the beams B and C, as shown, while the support for the driver's seat *a'* is bolted to the top of the beam C. To the under side of the beam B are bolted jaws *b*, which receive the ends of the forward series of drag-bars, E E E, which are pivoted therein, the jaws being so constructed as to give ample lateral bearing to the drag-bars and confine them, as far as possible, to vertical movement. To the under side of the central cross-beam, C, are secured blocks of wood or iron supports *c*, to which are bolted jaws *b'*, of a character similar to that of the jaws *b*, to which are pivoted the series of hind drag-bars, E' E' E' E'. At the top of the blocks *a* are attached bearings *d*, in which is mounted a roller, F. To this roller are secured the chains *e*, which are connected to the several drag-bars of the front and hind series. A hand-lever, *f*, is secured to the roller in convenient relation to the right-hand side of the driver's seat, in order that the driver may conveniently raise or lower the series of drag-bars. Should the chains of the hinder series of drag-bars during the raising of said series be wound over a roller of the same diameter as that employed for lifting the front series, it is evident that the hinder series would be raised the more quickly of the two, and that the front and hind series would not be raised and lowered simultaneously, or so that the parallel relations existing between the drag-bars of the two series would not be destroyed. In order that both series may be so raised and lowered, the chains of the front series are made to wind over or upon plates of metal *g*, of a curvature greater than that of the roller and placed eccentrically therewith. The drag-bars are provided with suitable plows or shovels.

The seed-box G is mounted in suitable bearings secured at the forward ends of the beams A A, the seed-box being parallel with the cross-beams B C D, and adapted to have a vibratory or oscillatory movement. This movement is produced by means of an eccentric, *g'*, attached to the inner side of one of the wheels H H and revolving therewith, the wheels having a suitable axle or axles mounted in the framework. The eccentric *g'* has preferably a concave edge or periphery, and the inner surface of the eccentric-strap *g''* is convex, the strap being narrower than the face of the eccentric to insure freedom of movement and a certain play to provide for irregularities in the course of the wheel, and consequently that of the eccentric. The eccentric-strap is provided with a rod, *g'''*, which unites with a plate, *h*, attached to the upper and inner corner of the seed-box. The opposite wheel H may also be provided with a similar eccentric, from which a strap-and-rod connection may, if desired, be made to the corresponding end of the seed-box. It will be understood that the seed-box is suitably perforated for the distribution of seed, and its interior may, if desired, be provided with any suitable distributer or scraper to aid in the expulsion of the seed; but, making no claim to the internal construction of the seed-box, I deem it unnecessary to show or describe it.

In operation the seed is shaken from the seed-

box and distributed broadcast, and the gangs of plows or shovels following plow the ground and at the same time cover the seed.

If desired, the seed-box may be lifted off or ungeared, and the plow used without it; but my invention specially contemplates the use of the machine as a combined plow and seeder.

The particular arrangement of frame-work hereinbefore described gives strength and simplicity to the machine, the strain being equally distributed throughout the structure with the employment of a minimum of material, thus insuring lightness.

The means provided for raising and lowering the forward and hinder series of drag-bars with their plows simultaneously and without changing their parallel order add to the efficiency of the machine and assist in placing it under the control of the driver. The mode of operating the seed-box gives the required movement thereto in a simple and efficient manner, and one which is not subject to derangement.

I am aware of devices applied to seeders for lifting the shovels and distributers by one winch in different planes.

I claim as my invention—

1. The frame-work consisting of the beams A A, B, C, and D, blocks *a*, and blocks or supports *c*, combined with the jaws *b b'*, all constructed and arranged substantially as set forth.

2. The frame-work of the machine and a front and a hind series of drag-bars and plows, the bars being pivoted to the frame-work, as described, combined with a roller, curved plates thereon, and chains connecting the roller and curved plates with the two series of drag-bars, whereby the drag-bars as they are raised and lowered shall maintain the same parallel relations with respect to each other, substantially as set forth.

In testimony whereof I have hereunto set my hand this 25th day of May, 1882.

ROBERT C. BUCKLEY.

Witnesses:
PETER ANICKER,
FRANK TREFZGER.