

M. GREEN.
Combined Cultivators, Stalk-Cutters, Harrows,
and Corn-Planters.

No. 146,822.

Patented Jan. 27, 1874.

Fig: 1.

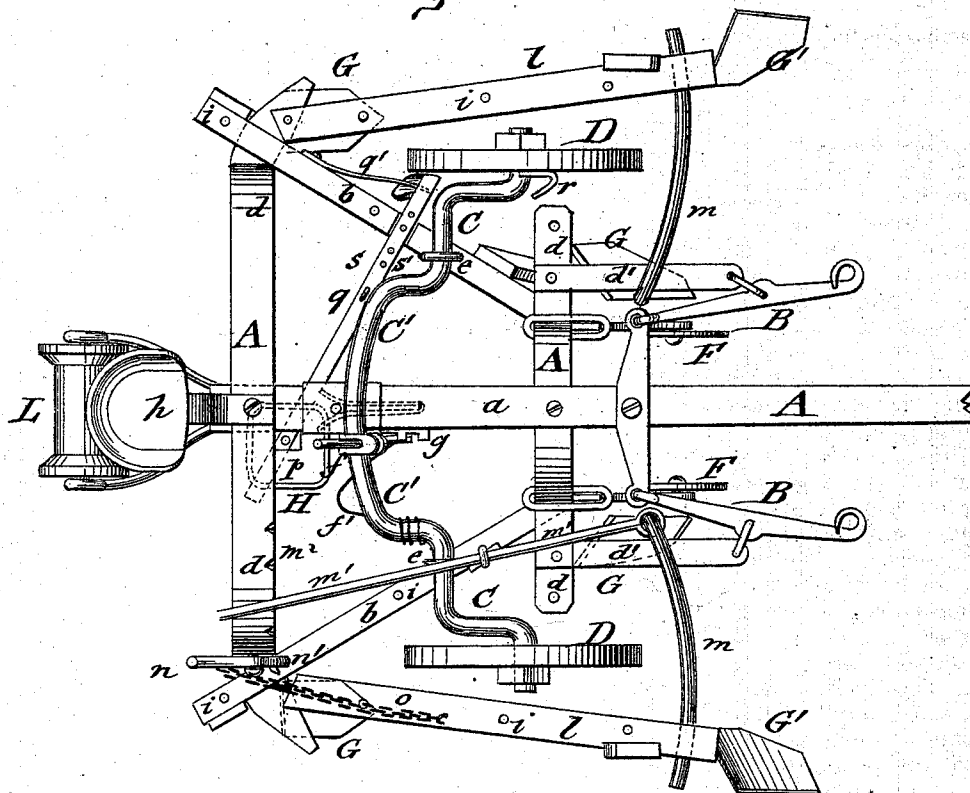
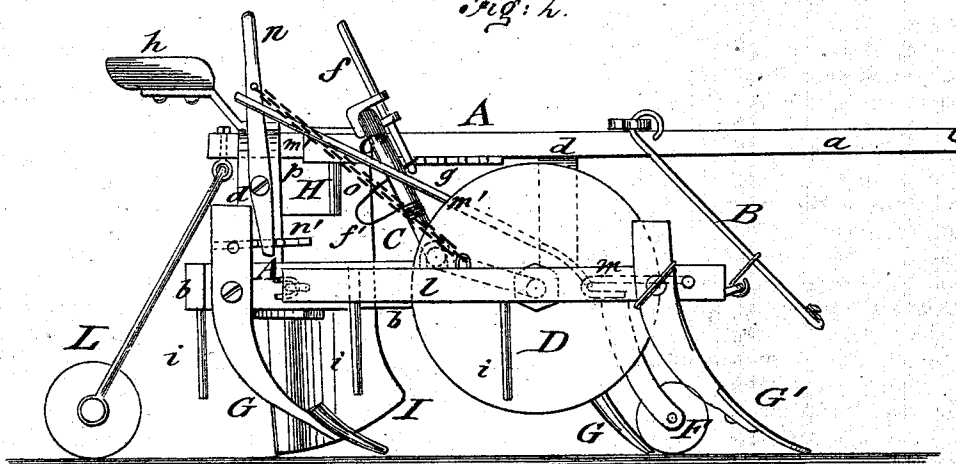


Fig: 2.



Witnesses:

Chas. Nida
Sedgwick

Inventor:

M. Green
Per *Munnell*
Attorneys.

UNITED STATES PATENT OFFICE.

MATTHEW GREEN, OF WALKER STATION, MISSOURI.

IMPROVEMENT IN COMBINED CULTIVATORS, STALK-CUTTERS, HARROWS, AND CORN-PLANTERS.

Specification forming part of Letters Patent No. **146,822**, dated January 27, 1874; application filed September 6, 1873.

To all whom it may concern:

Be it known that I, MATTHEW GREEN, of Walker Station, in the county of Vernon and State of Missouri, have invented a new and Improved Combined Cultivator, Stalk-Cutter, Harrow, and Corn-Planter, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view of my improved cultivator, &c.; and Fig. 2, a side elevation of the same.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and afterward pointed out in the claim.

In the accompanying drawing, A represents the main supporting-frame of the cultivator, which consists of the central top beam *a*, to which the hitching attachment B, for three or four horses, is applied, and the side beams *b*, which are placed lower than top beam *a*, under a suitable angle of inclination toward the same. The tongue and beams *a* and *b* are of wood, and laterally supported by the arched iron bars *d*, which are of sufficient size to sustain the different parts. The front bar *d* connects, by forward-extending rods *d'*, with the hitching attachment B. The axle C turns in bearings *e* at the top of side beams *b*, and is produced with a central arch, *C'*, which extends over the top beam *a*, and two curved side extensions, which pass downward below beams *b*, and carry the spoke-wheels D at their outer ends. A lever, *f*, is firmly attached to the arched part *C'* of the axle, and adjustable by means of a spring, *f'*, in a rack, *g*, of top beam *a* by the action of the driver from seat *h*, raising or lowering thereby the wheels D, and producing the depression or elevation of the plows. Common sod-plows or revolving stalk-cutters F are rigidly applied to the front end of side beams *b*, while plows G are attached to them, back of the lateral bars *d*, in such a manner, by suitable bands and bolts, that they may be taken off at will. Both side beams *b* are also provided with harrow-teeth *i*, which are shorter than the plows, and are used after the same are detached. Additional plows, *G'*, are applied to auxiliary beams *l*, which are hung or pivoted to side beams *b*, or

rear bar *d*, being also provided with harrow-teeth *i*. A guide-rod, *m*, passes from the front end of beams *l* over rods *d'*, and is then connected by a pivoted lever, *m'*, to rear bar *d*, on which lever *m'* is set by the driver in notches *m''*, and thereby adjusted to the width of the rows. The side plows *G'* may also be entirely thrown out of use by raising beam *e*, by means of a lever, *n*, pivoted and set into a rack, *n'*, at the sides of rear bar *d*, which lever is connected by a chain, *o*, to the top of the beam *l*. The corn-planter is arranged in front of rear bar *d*, and attached to top beam *a*. It consists of a seed-box, *p*, in connection with shovel-plow I, which widens into a tubular opening, with spread wings, for guiding and depositing the corn at a suitable depth. The seed is dropped by the action of a sliding lever, *q*, which takes up a certain number of seed through a hole at the bottom of box *p*, and carries it to the guide-tube. Lever *q* slides on the top of side beam *b*, being carried forward and backward by the alternating motion of spring *q'*, and one or more lugs, *r*, applied to the circumference of wheel D at points corresponding to the distance of the rows. A pin, *s*, which is fastened by chain or rope to sliding lever *q*, is inserted in holes *s'* of the same when the planter is to be thrown out of action. A covering-roller, L, is applied back of the planter for placing the earth over the seed.

The apparatus is intended for the different farming operations, used as desired. It is used as a cultivator and stalk-cutter combined across the rows, running the cutters on each side of the young plants, and throwing up the earth to the adjoining rows by the front plows, while the rear plows open the earth between them. The stalk-cutters serve for the purpose of cutting the stalks, and also as fenders for protecting the young corn from being loosened by the tearing up of the stalks, and preventing injury by the falling of heavy clods upon them. After the first plowing the auxiliary front plows are taken off, and placed on the side beams after the rear plows have been taken off, changing both front and rear plows, so as to throw the earth toward the corn, and produce the covering up of the weeds. For har-

rowing, the plows are taken off, and the ground smoothed for seed-planting, each at the proper time.

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

In a wheeled implement, the supporting-frame *a b d*, the beams and guide-rods *l m*,

the arched axle *C C'*, combined and adapted, as set forth, for the attachment of a cultivator, stalk-cutter, harrow, or corn-planter.

MATTHEW GREEN.

Witnesses:

W. T. MITCHELL,
BEN. F. MITCHELL.