

C. HOLMAN.

Wheel-Cultivator.

No. 53,446.

Patented Mar. 27, 1866.

Fig. 1.

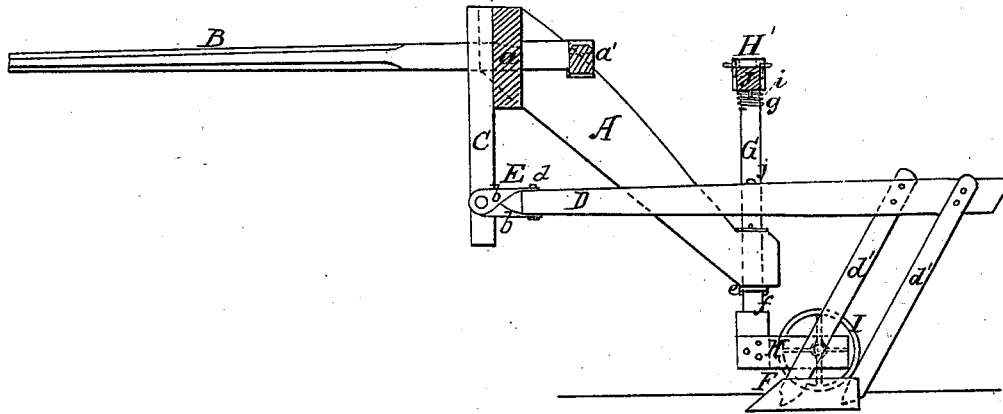


Fig. 2.

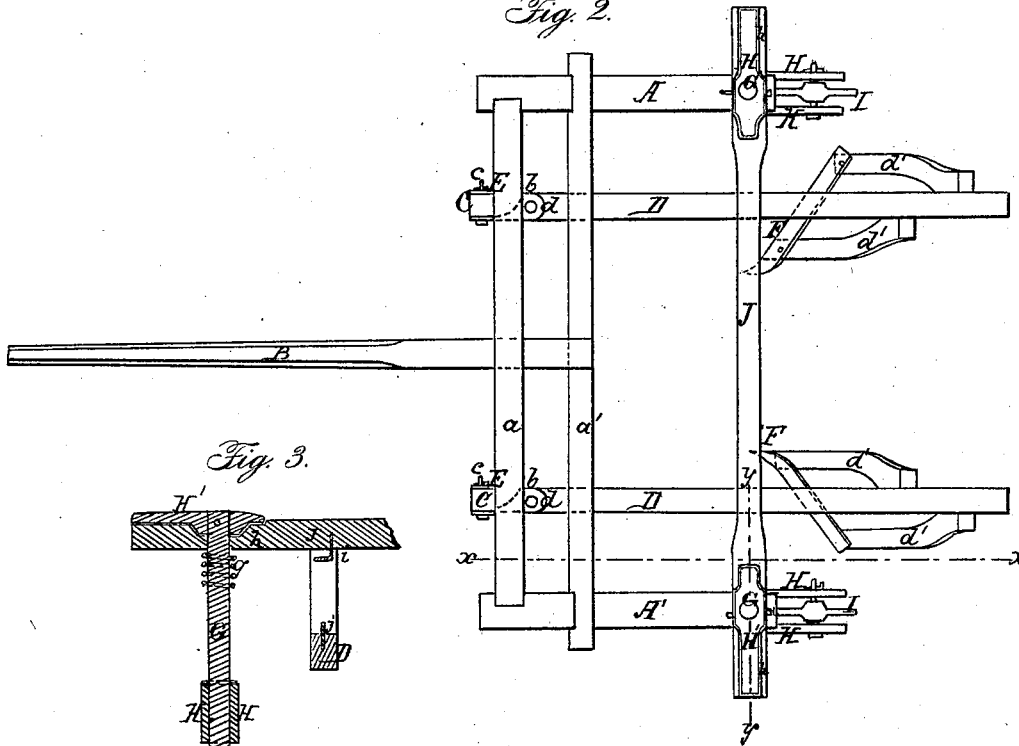
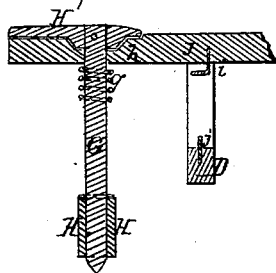


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES HOLMAN, OF CAMERON, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 52,446, dated March 27, 1866.

To all whom it may concern:

Be it known that I, CHARLES HOLMAN, of Cameron, in the county of Warren and State of Illinois, have invented a new and Improved Cultivator; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of my invention; Fig. 3, a vertical section of a portion of the same, taken in the line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists, first, in a novel manner of arranging or applying the supporting-wheels to the framing of the machine, whereby the framing may be readily adjusted higher or lower, as desired.

The invention consists, secondly, in a novel manner of arranging the standards of the wheels on which the framing is mounted, whereby the axes of the wheels are rendered capable of being rigidly fixed, so as to rotate in planes having a longitudinal position with the framing, or allowed to turn so as to operate like caster-wheels, to facilitate the turning and guiding of the machine while the same is being drawn from place to place.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A A represent two inclined side pieces, the upper and front parts of which are connected by cross-bars *a a'*, to which a draft-pole, B, is attached. The front cross bar, *a*, has two pendants, C C, attached to it, to the lower ends of which the plow-beams D D are connected by universal joints E E. These joints E E are composed of two metal plates, *b b*, which are bent or twisted so that their outer ends may abut against the sides of the pendants C C, and be connected thereto by a horizontal bolt, *c*, and the inner ends allowed to lap over the upper and lower sides of the beams, so as to be secured thereto by a vertical bolt, *d*. By this arrangement the plow-beams are allowed to rise and fall, and also to move laterally at the will of the operator.

F F are the plows, which are attached to standards *d'*, secured to the beams in the ordinary way.

G G are two vertical rods, which pass, one through each side piece, A, near its back end. These side pieces rest on shoulders *e* on the rods, and the side pieces may be adjusted higher or lower on the rods by means of pins *f*, by which the shoulders are supported. Each rod G has two bars, H H, attached horizontally to its lower end, and between these bars the wheels I are fitted.

On the upper part of each rod G there is placed a spiral spring, *g*, and on these springs the ends of a bar, J, rest, the rods G passing loosely through the bar J. Each rod G has a button, H', upon its upper end, which, in consequence of the springs *g* bearing against the under side of the bar J, fit in recesses *h* in the upper surfaces of said bar. These buttons H' prevent the rods G from turning and cause the wheels I to rotate in planes parallel with the sides of the framing. This is necessary when the machine is at work, as it insures the latter running in a direct course with the rows of plants.

At the under side of the bar J there are two hooks, *i*, to pass into loops or staples *j* in the upper surfaces of the beams D D when the latter are raised. By this means the plows are held in a suspended state above the surface of the ground, and the weight of the plows depresses the bar J, so as to free the buttons from the recesses *h* and admit of the rods G turning, so that the wheels I may operate like caster-wheels and admit of the machine being guided or turned freely at the ends of rows or while being drawn from place to place.

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

The buttons H' H', secured to the upper ends of the rods G G, in combination with the bar J, provided with the recesses *h h*, and the springs *g* on the rods G, all arranged substantially as and for the purpose specified.

CHARLES HOLMAN.

Witnesses:

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