A. KECK.

Wheel-Cultivator.

No. 45,833. Patented Jan. 10, 1865

Fig. 1.

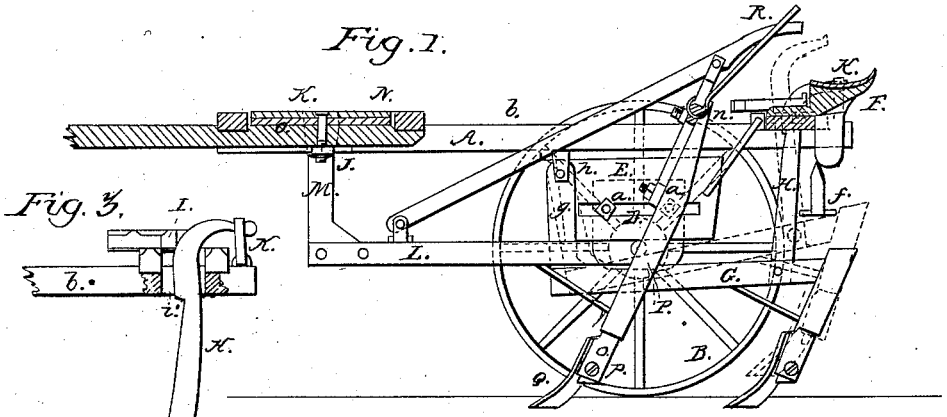


Fig. 3.

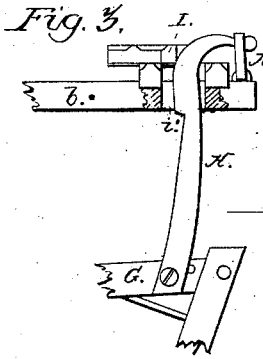
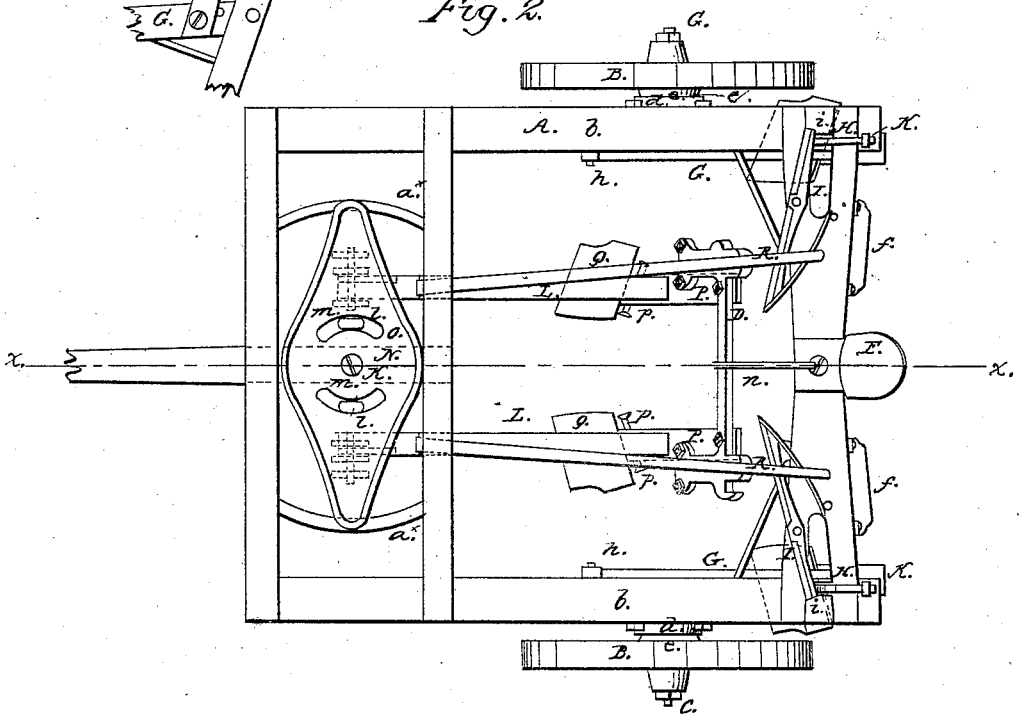


Fig. 2.



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UNITED STATES PATENT OFFICE.

ADAM KECK, OF MONTGOMERY, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **45,833**, dated January 10, 1865.

To all whom it may concern:

Be it known that I, ADAM KECK, of Montgomery, in the county of Kane 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 the same; Fig. 3, a side view of a portion of the back part of the same, partly in section.

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

This invention relates to a new and improved implement for plowing or cultivating corn and other crops which are grown in hills or drills; and it consists in a novel arrangement of the plows or in the manner of applying them to the frame thereof, whereby they may be manipulated with the greatest facility while at work; and the invention further consists in an improved manner of attaching the wheels to the framing of the machine, whereby the former may be kept in a properly-counterpoised state at all times, and the team relieved from any unnecessary downward pressure of the draft-pole.

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

A represents a framing of rectangular form, and mounted on two wheels, B B, which have separate or independent axles, C. These axles C are adjustable or may be moved forward or backward, and to effect this each axle at its back end is connected to a plate, D, and these plates are secured by bolts *a* to castings E, attached to the under surfaces of the side pieces, *b b*, of the framing A, the bolts *a* passing through oblong slots *c* in the castings E, as shown in Fig. 1, and therefore admitting of the axles being adjusted farther forward or backward, as may be desired.

The plates D are provided with flanges *d* to cover the upper parts of the hubs *e* of the wheels and prevent the admission of dirt between the hubs and axles. By this arragement the wheels B may be adjusted farther forward or backward, and the framing A kept in a proper state of equipoise, however much the riders or drivers may differ in weight.

The driver's seat F is at the back part of the framing A, and *f f* are foot-rests attached to the back part of the framing within convenient distance of the seat F.

G G are two plow-beams placed at the back part of the framing A, one at each side. The front ends of these plow-beams have upright bars *g* attached to them—one to each—and the upper ends of the bars *g* are connected by joints *h* to the castings E. To the back part of each beam G there is secured an upright bar, H, and these bars pass up through slots *i* in the back parts of the side pieces, *b b*, and have each a notch, *i'*, made in them to receive, when the bars H are elevated a requisite distance, a spring-catch, I, on the back part of the framing. By this means the plows J of the beams G may be retained above the surface of the ground, as shown in red in Fig. 1, when they are not required for use. When these plows are in use an india-rubber or other spring, K, is fitted over the upper end of each bar H, as shown clearly in Fig. 3. These springs are attached to the back part of the framing A, and they keep the plows J properly in the ground when the same are at work.

L L are two plow-beams, the front ends of which have each an upright, M, attached to it. These uprights M are connected at their upper ends by joints *j* to the under side of a plate, N, which is connected by a pivot-bolt, *k*, to the center of a circular plate, O, on the front part of the framing A. The plate O has two lugs, *l l*, on its upper surface, which pass through curved slots *m m* in the plate N, said slots and lugs serving as guides for the plate N. The ends of the plate N rest on segments $a^{\times}$ $a^{\times}$. The back ends of the beams L L have each a standard, P, attached to them, the upper ends of which are connected by a bar, *n*, and to the lower end of each standard a plow, Q, is attached. These plows Q are each cast or formed with a cylindrical socket, *o*, at their rear sides, and these sockets are fitted on cylindrical tenons at the lower ends of the standards and secured on the tenons by set-screws *p*. By this means it will be seen that the plows Q may be adjusted and secured in a more or less oblique position, as required, and made to cast the earth either toward or from the plants.

Each plow-beam L has a handle, R, attached to it, and these handles extend back within convenient reaching distance of the driver on seat F. The attachment of the front ends of the beams L to the pivoted plate N, as shown and described, admit of the plows Q being raised or lowered or moved laterally, as may be desired. The beams L may be adjusted nearer together or farther apart by having several sockets at the under side of the plate N, in any of which the upper ends of the uprights M may be fitted, the standards P being secured to the bar *n* at different points to correspond with the distance between the front ends of the beams.

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

1. The attaching of the axles C of the wheels B to plates D, secured to castings E at the under side of the framing A by means of bolts *a* passing through oblong slots *c* in the castings, substantially as shown and described, to admit of the wheels B being adjusted farther forward or backward to keep the machine in a proper equipoised state, as set forth.

2. The plow-beams G G, provided at their front ends with upright bars *g*, connected by joints *h* to the castings E, and provided at their back ends with upright bars H, having each a notch, *i'*, to receive a catch, I, all arranged substantially as and for the purpose set forth.

3. The springs K, on the back part of the framing A, in combination with the upright bars H of the plow-beams G G, as and for the purpose specified.

4. The attaching of the plow-beams L L, by means of the uprights M and joints *j*, to the pivoted plate N, arranged on the framing A, substantially as shown, to admit of the working or moving of the plows Q, as set forth.

ADAM KECK.

Witnesses:
SIMEON VAN ALSTINE,
JAS. G. BARR.