(No Model.)

J. G. MALLERY.

CULTIVATOR.

No. 386,146. Patented July 17, 1888.

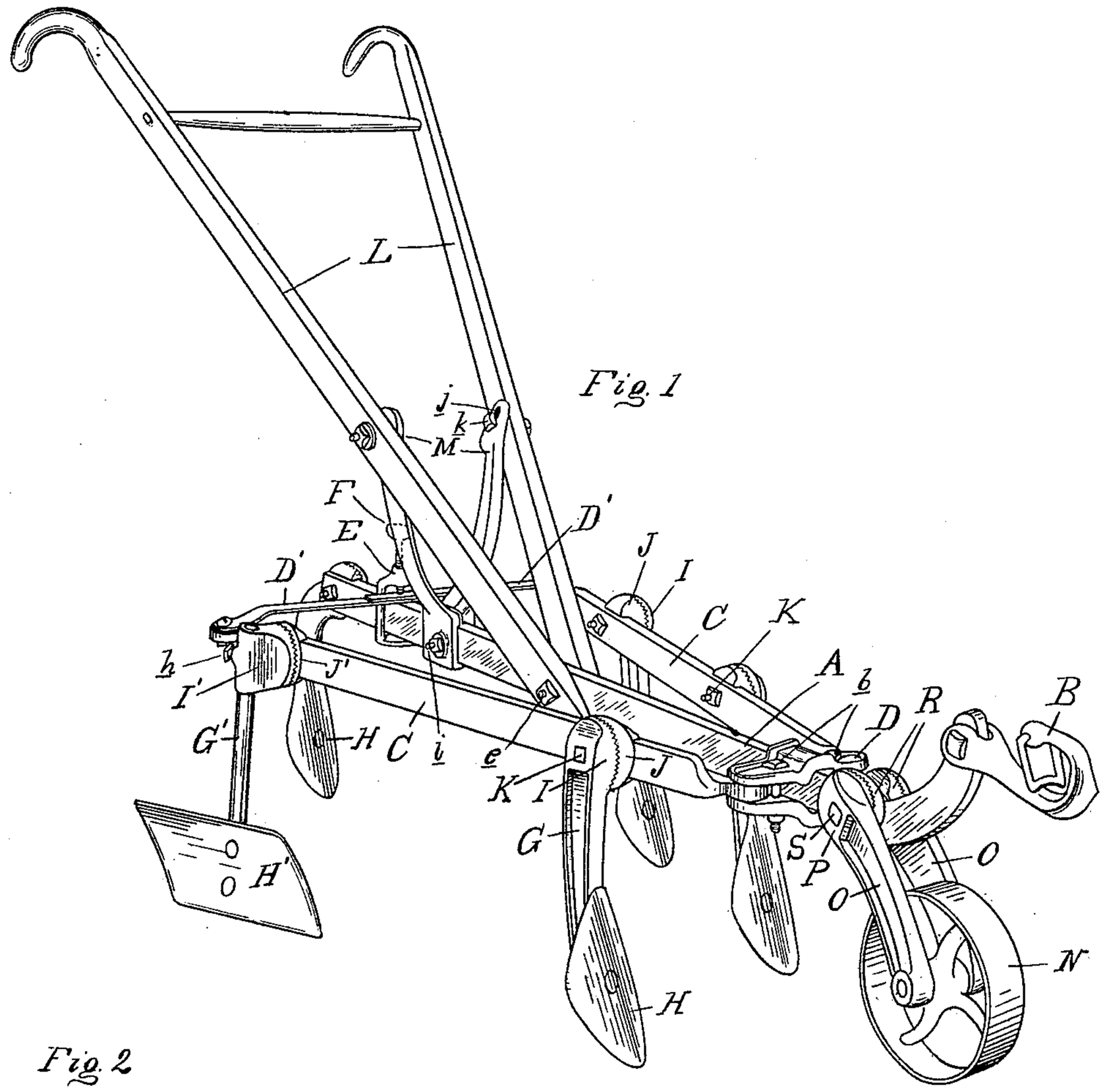


Fig. 1

Fig. 2

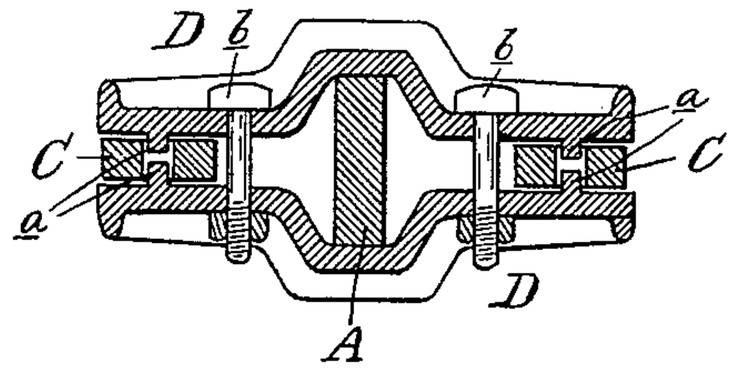
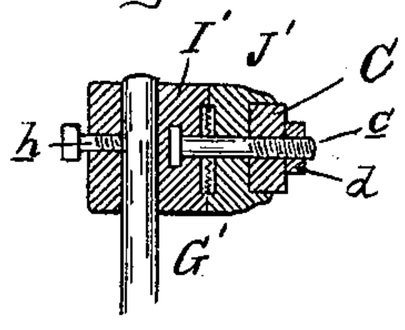


Fig. 3



Witnesses:

P. M. Hulbert.

Inventor:

James G. Mallery,

By Thos. L. Sprague & Son.
Atty.

UNITED STATES PATENT OFFICE.

JAMES G. MALLERY, OF FLINT, MICHIGAN.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 386,146, dated July 17, 1888.

Application filed December 2, 1887. Serial No. 256,774. (No model.)

To all whom it may concern:

Be it known that I, JAMES G. MALLERY, a citizen of the United States, residing at Flint, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Cultivators, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in cultivators.

The invention consists in the peculiar construction and arrangement of the various parts, whereby all requisite adjustment of the parts is provided for, and in the combinations of the parts, all as more fully hereinafter described.

Figure 1 is a perspective view of my improved cultivator. Fig. 2 is a vertical cross-section showing the pivotal connection between the bars. Fig. 3 is a vertical cross-section through the head of one of the rear cultivator-standards.

In the accompanying drawings, which form a part of this specification, A represents the central and draft bar of the cultivator, the forward end of which is turned upwardly, as shown, and carries the hook B, or other suitable device, to which the draft may be applied.

C are the side bars of the frame, their forward ends being twisted or bent at right angles, as shown, and have suitable holes formed therein to receive the lugs *a*, which project inwardly from the ends of the head-plates D, the latter being secured to the central bar, A, by bolts *b*. The rear ends of these side bars, C, have pivotally secured to them the lateral spreader-bars, D′, the overlapping ends of which pass through a link, E, which embraces the central bar, A, and is provided with a set-screw, F, by means of which the two bars D′ may be firmly clamped upon the central bar, and thus retain the side bars at their adjusted angle from the line of the central bar, as the nature of the work to be performed may require.

G are the standards, which carry the cultivator-teeth H. The upper ends of these standards are provided upon their inner faces with a circular head, I, the flat face of which is radially corrugated to engage with a similarly-formed face upon the wedge-shaped disk J, the rear face of which is provided with a channel or groove to partially embrace the bars of the frame, the standard and disk being secured to the bar by means of a bolt, K. By this construction it will readily be seen that the cultivator-teeth may be easily adjusted, so as to be parallel with the line of draft, and so as to give a greater or less pitch to the teeth.

At the rear end of one or both of the side bars the standard G′ of the scraper H′ is secured at its upper end in a head, I′, which is provided with a corrugated face to engage with a corrugated disk, J′, such head and disk being secured to the bar by means of a threaded bolt, *c*, which is cast with the head I′, and which passes through a central hole in the disk and a coincident hole in the bar, receiving a nut, *d*, upon its inwardly-projecting end. The standard G′ passes through a vertical hole in the head I′, and is secured therein by means of the set-screw *h*.

L represents the handles, the lower ends of which are secured to the bar A by the bolt *e*.

M are standards, preferably made in two parts, the lower ends partially embracing the bar A, and are secured thereto by a bolt, *i*, their upper ends being provided with slots *j*.

k are bolts which pass through the slots *j* and the adjacent handles for the purpose of securing the parts in their desired relative positions, such adjustment of the handles being limited by the length of the slots, which may be more or less.

N is the cultivator-wheel, which is journaled between the lower ends of the hangers O, the upper ends of which are provided with heads P, the inner faces of these heads being corrugated to engage with the corrugated faces of the disks R, the whole being secured to the bar A by a suitable bolt, S.

By this construction and arrangement of the parts it will readily be seen that all necessary adjustment is provided for, so as to meet the requirements of the work to be performed, while at the same time I produce a simple and compact implement.

What I claim as my invention is—

1. The combination, with the central bar, A, and the head-plates D, secured to said central bar, and provided at their ends with lugs *a*, of the side bars, C, having their forward ends twisted and bent at right angles, as shown, and

provided with holes to receive said lugs, substantially as shown and described.

2. The combination, with the bars C, of the corrugated head I′, having formed integral therewith the bolt *c*, the corrugated disk J′, the standard G′, passed through a hole in the head, and the set-screw *h*, all substantially as described, and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 28th day of October, 1887.

JAMES G. MALLERY.

Witnesses:
H. S. SPRAGUE,
P. M. HULBERT.