

W. H. CUMMINGS.

Improvement in Cultivators.

No. 130,700.

Patented Aug. 20, 1872.

Fig. 1.

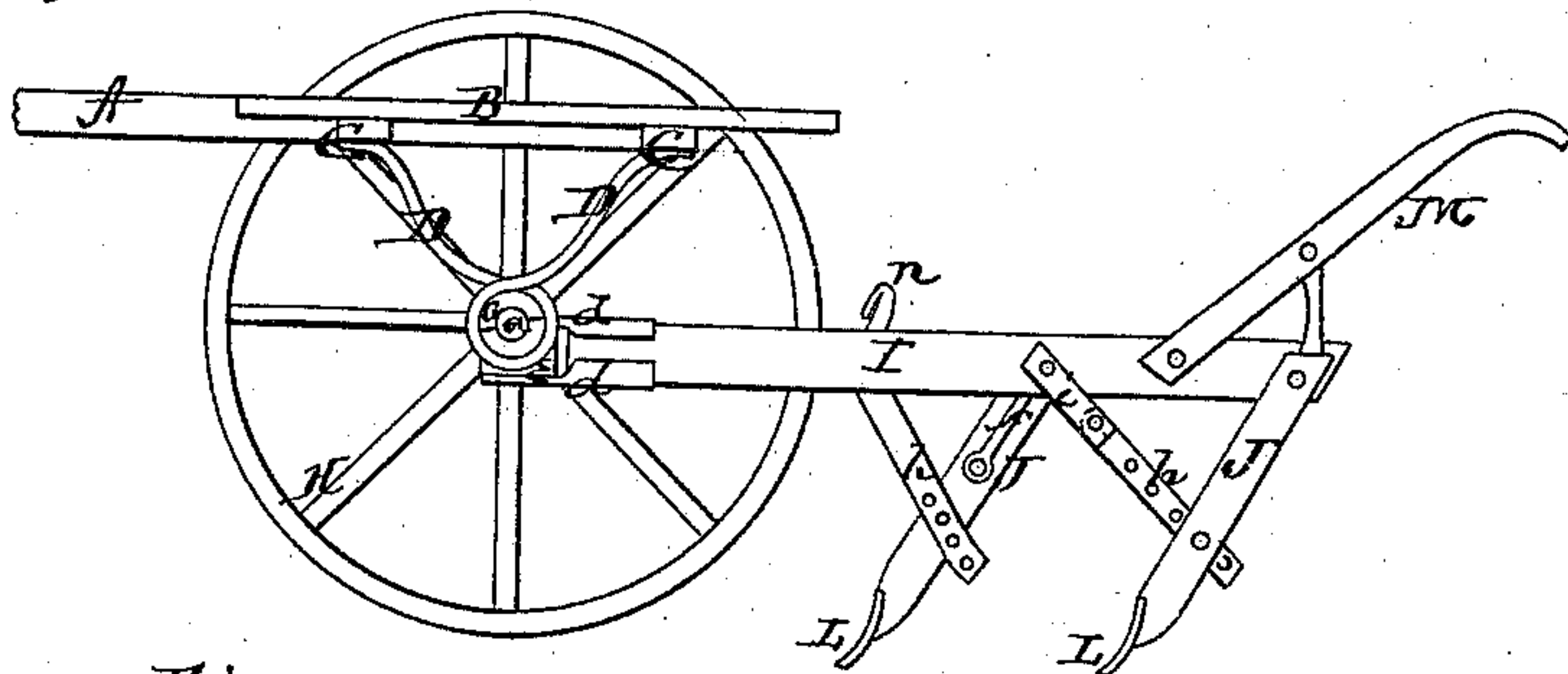


Fig. 2.

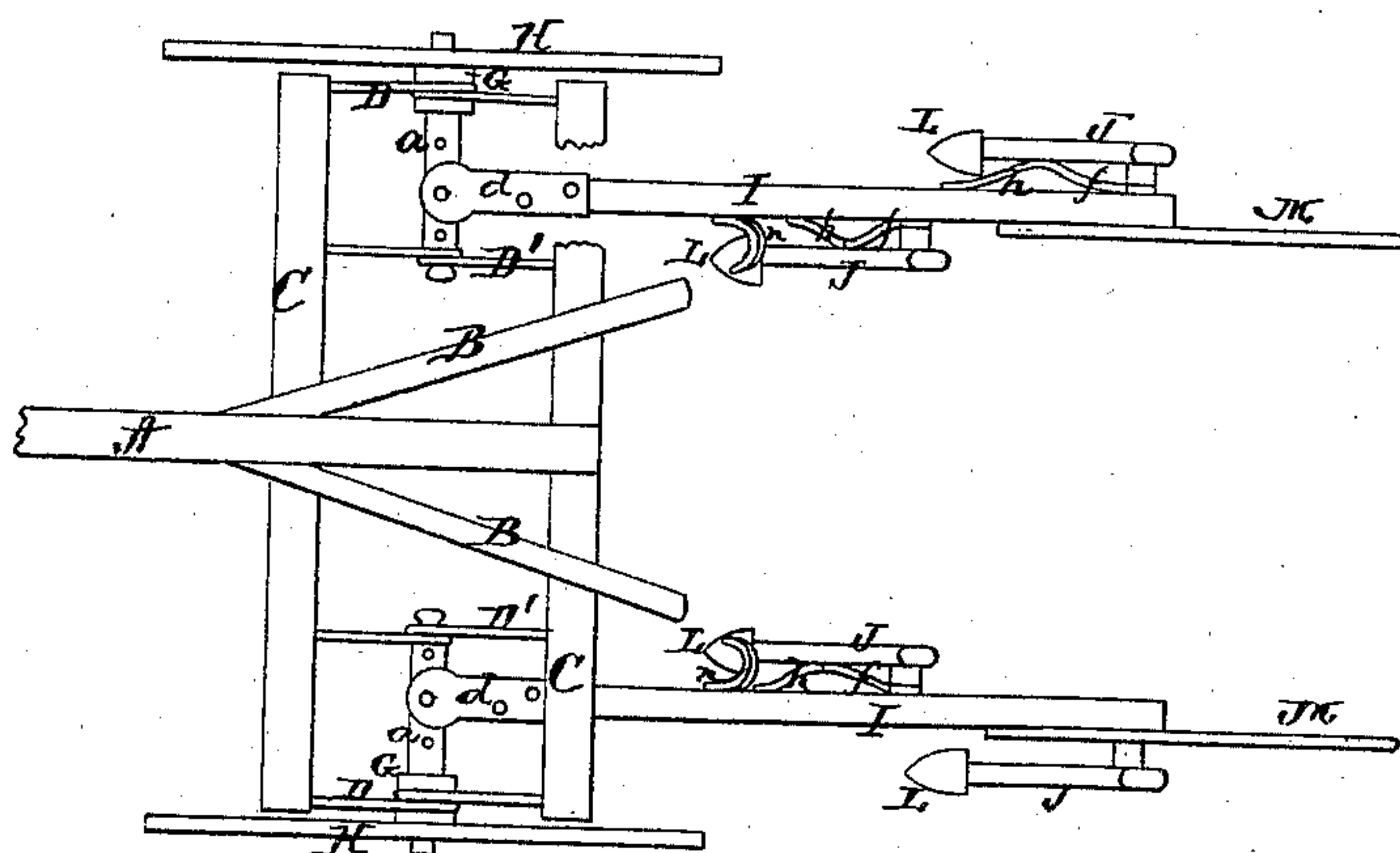


Fig. 3.

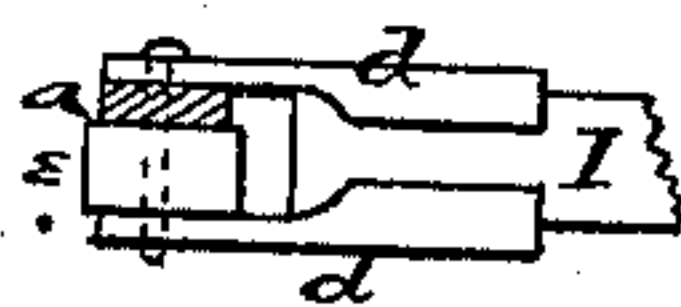


Fig. 4.

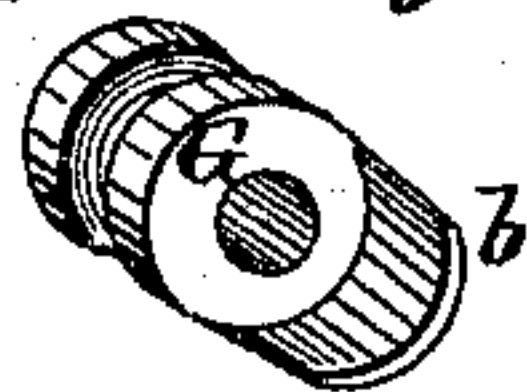


Fig. 5.



Fig. 6.

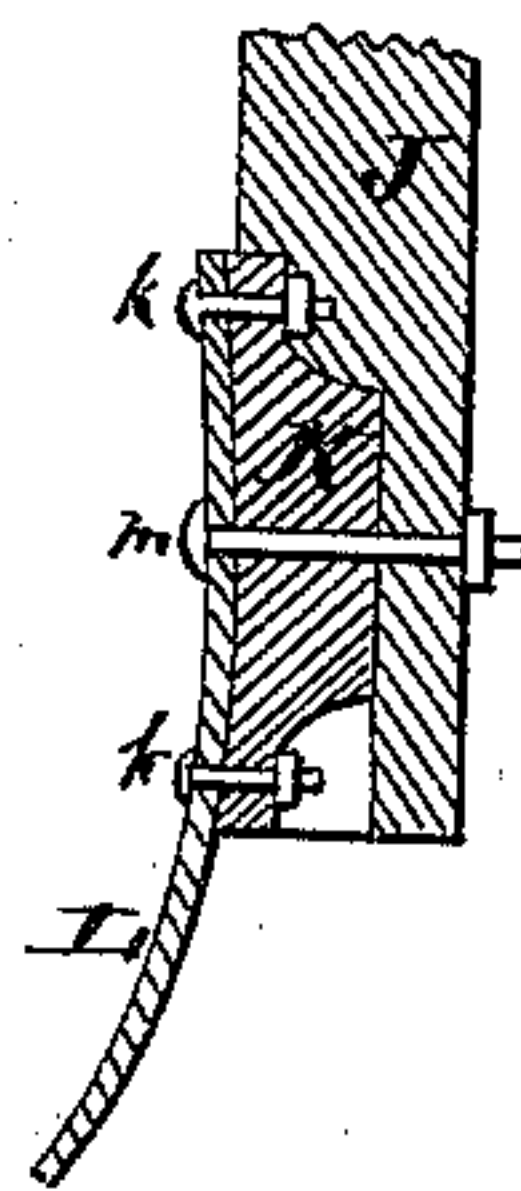


Fig. 7.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM H. CUMMINGS, OF BOONESBOROUGH, IOWA.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 130,700, dated August 20, 1872.

To all whom it may concern:

Be it known that I, WM. H. CUMMINGS, of Boonesborough, in the county of Boone and in the State of Iowa, have invented certain new and useful Improvements in Corn-Cultivator; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a "corn-cultivator," as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation of my machine with one wheel removed, and Fig. 2 is a plan view of the same. Figs. 3 to 7 are detached views, in enlarged dimensions, of various parts of the machine.

A represents the tongue, provided with the diverging side-bars or hounds B B near its rear end, all firmly secured to two cross-bars, C C, and thus forming the entire frame of my cultivator. At each end of the frame thus formed are two braces, D D', connecting the two cross-bars C C together, and extending downward somewhat in V-shape. The brace D, in its lowered center, passes around or is wound around a grooved block, G, represented in Fig. 4, through which the spindle *a* passes. This block G is, on one side, provided with a projecting lip, *b*, which is intended to extend over the hub of the wheel H placed upon the outer end of the spindle to prevent sand from entering and wearing or cutting the spindle and the inside of the hub.

It will be seen that the wheels turn on their spindles, and that the spindles may be turned without disturbing the position of the blocks G G, said blocks being placed loosely upon the spindles and held in position by the braces D D.

The lowered center of the brace D' is wound in a groove around the inner end of the spindle *a*, and that part of the spindle which lies between

the braces D and D' is flattened, as shown in Fig. 2, and perforated with two or more holes. To this flattened part of each spindle *a* is attached a plow-beam, I, by means of two metal plates or short bars, *d d*, attached to the upper and lower sides of the plow-beam at the front end, and extending in front thereof, said metal plates or bars being attached to the spindle by a pin or bolt passing through the same and through one of the holes in the spindle. In this coupling I use a block, *e*, as shown in Fig. 3, placed either on top of or beneath the spindle, the pin or bolt passing through the same. By changing the position of this block the blades will be made to run shallow or deep, as may be desired. To each side of each plow-beam I is attached a plow-stock, J, braced by means of two braces, *f* and *h*, the latter of which extends forward and fastens, by a wooden pin, in a loop, *i*, attached to the plow-beam. This brace *h* is also perforated with a number of holes, so that the plow-stock may be adjusted at any angle desired. The pin connecting the brace *h* with the loop *i*, being made of wood, will break when the blade strikes rocks or roots, and thus prevent the breaking of any other part of my cultivator. The lower end of each plow-stock J is grooved, as shown in Figs. 6 and 7, and in said groove is inserted a rocking-block, K, to which the plow-blade L is secured, the blade being fastened to the block by two bolts, *k k*, and the block to the stock by a single bolt, *m*. By means of this rocking block the blades may be turned so as to throw the dirt to or from the corn. The inner rounded part of the block K is corrugated, as shown in Fig. 5, so as to prevent it from moving when not desired to do so. In going to or from the field, or in turning at the end of each row, each plow-beam is hitched or hung up by means of a hook, *n*, attached to its inner end, which is made to catch on the rear end of the hound, or in a metal loop or ring attached to the rear cross-bar.

It will be observed that in this cultivator there are two motions to the gangs of plows—namely, up-and-down and sidewise. The up-and-down motion is obtained by the spindles *a a* turning in the braces and the hub, and the side motion by the coupling of the gang swing-

ing on the bolt which secures it to the spindle. A handle, M, is suitably attached and braced to each plow-beam I.

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

The combination of the circumferentially-grooved metal block G, with its flange *b* placed loosely upon the axle, and the twisted wrought-

iron brace D, with the short axle *a* and frame A B C, all substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of December, 1871.

WILLIAM H. CUMMINGS.

Witnesses:

A. J. DYER,

Z. P. DYER.