WILLIAM C. WILSON.

Improvement in Wheel Cultivators.

No. 120,692.

Patented Nov. 7, 1871.

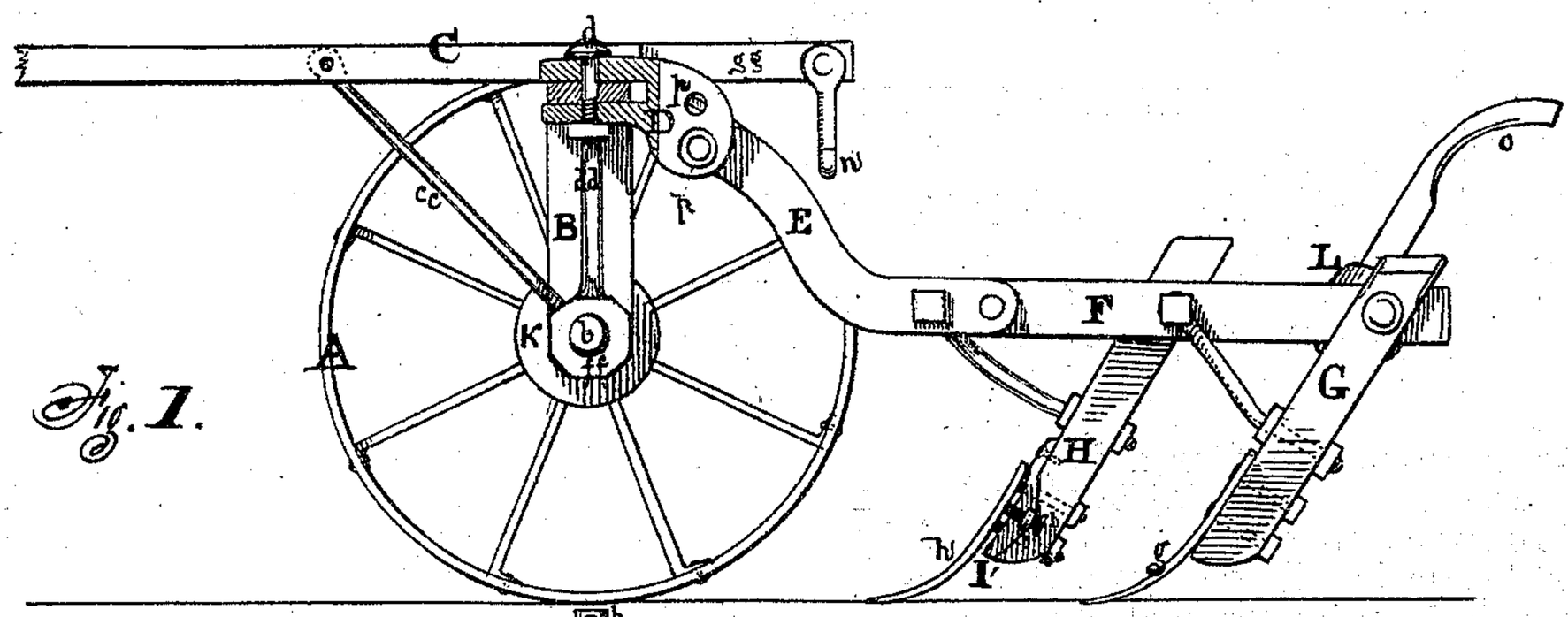


Fig. 1.

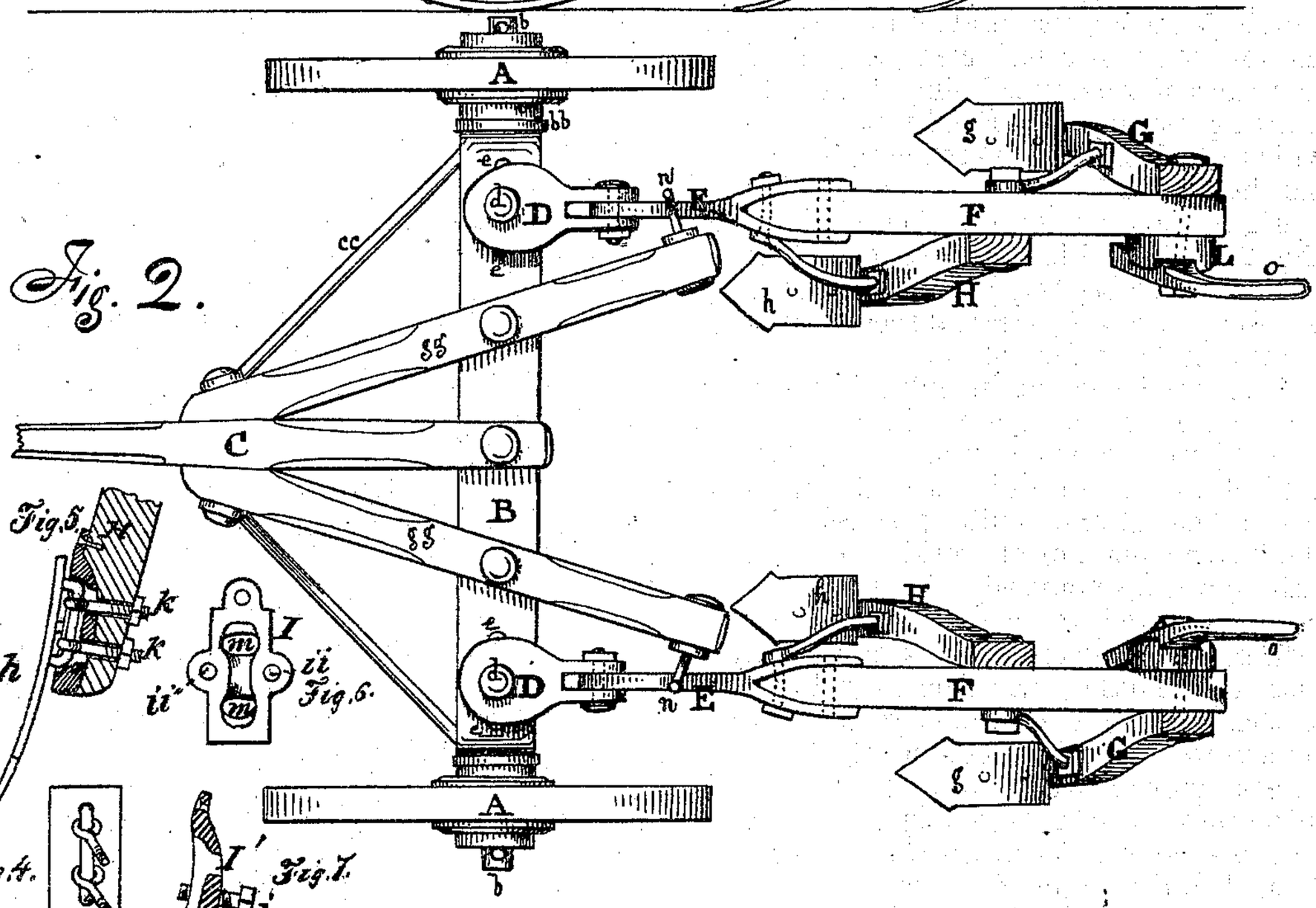


Fig. 2.

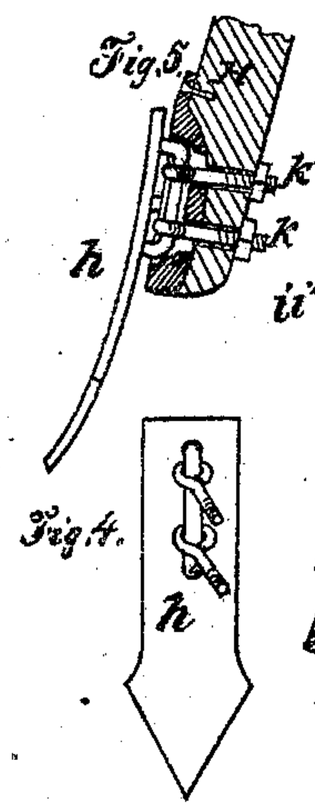


Fig. 5. Fig. 6. Fig. 4. Fig. 7.

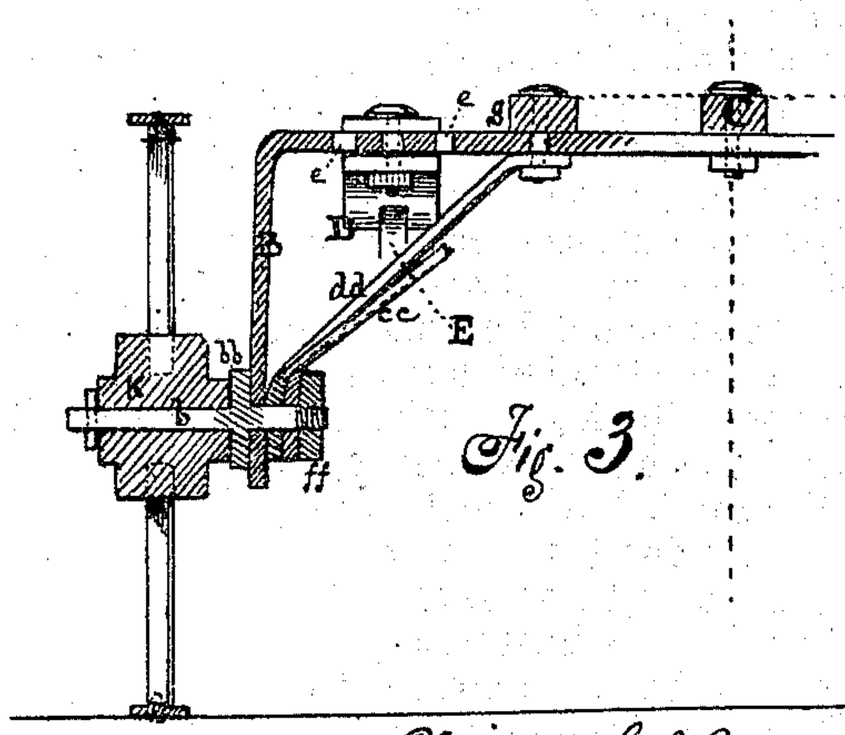


Fig. 3.

Witnesses
Charles B. Barker
William Lowes

William C. Wilson
Inventor.
by Edmund Thornton
his atty in fact.

120,692

# UNITED STATES PATENT OFFICE.

WILLIAM C. WILSON, OF BRUNSWICK, ILLINOIS.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 120,692, dated November 7, 1871.

*To all whom it may concern:*

Be it known that I, WILLIAM C. WILSON, of Brunswick, (township of Trivoli,) in the county of Peoria and in the State of Illinois, have invented a Cultivator; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a longitudinal section; Fig. 2, a plan; Fig. 3, sectional elevation of elevated axle-tree, &c.; Fig. 4, side view of adjustable shovel; Fig. 5, vertical section of same; Fig. 6, view of front face of same.

This improvement in cultivators, in common with other corn-cultivators, has an elevated axle-tree, of iron, to which the tongue and hounds are bolted and braced; also the usual double-shovel beams, and similar means of hitching up the latter when not at work. The beams terminate forward in curved outward and upward extensions bolted, to those ends, and terminating forward in pivoted bearings in adjustable couplings to the axle-tree. The shovel on the inside of the respective beams is set to any angle by set-screws in a shoe behind the shovel. The wheels have cast-iron hubs or naves cast with introduced wrought-iron spokes, whose outer ends are bent and riveted through the foot thus formed to the circle of the wheel.

A A are the wheels just described. B is the elevated axle-tree, (iron,) its vertical supports pierced for the admission of the inserted axles *b b*, each having a flange, *b b*, on the outer side of said support, and secured on the inner side, after receiving the ends of the braces *c c d d*, by a nut, *f f*. The brace *d d* extends thence to the under side of the elevated axle, and is secured by the same bolt which passes through the hound above. That at *c c* passes thence to and is secured by the same bolt which unites the same hound to the tongue C in front of the axle. The latter is pierced with several holes, *e e e e*, for bolts or pins for the adjustment of the couplings D D of the plow-beams thereto. C, the tongue, the hounds *g g g g* extending behind the axle-tree (to which both they and the tongue are bolted) far enough to sustain a hook, *n*, one on each hound, in which the iron extensions E E are respectively hung when necessary. D D, iron couplings with horizontal slots for the purpose of embracing the axle-tree B, to which they are respectively adjusted by pins or bolts in the holes *e e e e*, &c. A vertical slot in the lower end of each coupling receives the upper point of the beam-extension E, there being two or more bolt-holes, *p p*, one above the other, through said slot for the adjustment of the beam F to the proper or desired height with bolts. E E are curved-upward extensions of each plow-beam, attached to the couplings D D, as just described, and, forking below, embrace the forward end of the plow-beam, to which each is fastened by the same bolt which secures the brace which sustains the shovel-stem H. F F, the plow-beams, each carrying the usual shovels *g h* and handles *o o*. I′, a shoe fastened to the end of the shovel-stem H, slightly hollowed in front, and having ears on either side pierced with the holes *i i i i* for the set-screws *i i*, the latter abutting against either side of the shovel *h* to incline the latter, as desired. As auxiliaries for this purpose the oval holes or slots *m n*, at right angles to the face of the shoe and shovel, sunk through the shoe and continued through the stem or beam H behind, admit the short rods or pins *k k*, which are eyed loosely on a strap fixed on the back of shovel *h*, the ends of the rods or pins *k k* being secured by a thread and nuts or equivalents. K K, the wheel-hubs, (described with the wheels A A.) L L are iron or wooden blocks with recesses to receive and retain one of the plow-handles *o o*, and are respectively secured to the inner side of each of the beams F F by the same bolt which secures the shovel-stem G thereto, and are for the purpose of ready attachment and for setting-off or bringing the handles nearer the center of the machine.

The operation of this cultivator is as follows: During the passage of the implement to the field the plows are withheld from the ground by the hooks *n n*, which sustain their respective plows by the parts E E. The distance between the shovels *g h* and *g h* is adjusted by means of the couplings D D and the holes *e e e e*. The inclination of the forward shovels *h h*, either toward or from the corn-row, is managed by means of the set-screws *i i*, the proper one being partly withdrawn and the other screwed forward to the proper extent, the oval slots *m m* giving ample room for the movement to either side of the

pins *k k* of the shovel. The depth of plowing is regulated by means of the adjustment of the end of the iron E E to either of the holes *p p* in the coupling D.

What I claim as my invention is—

1. The shovel *h*, having the pins or bolts *k k* eyed loosely to a strap on the back thereof, in combination with the shoe I provided with the oval slots or holes *m m* and ears with holes *i i* for receiving the bolts or pins, substantially as described.

2. In a wheel-cultivator, the construction and arrangement of the axle B with its braces *c c* and *d d*, holes *e e e e*, tongue C, hounds *g g*, and hooks *n n*, wheels A A and the beams F F with extensions E E and shovel-stems G H, all as shown and described.

In testimony that I claim the foregoing cultivator I have hereunto set my hand this 1st day of June, A. D. 1871.

WILLIAM C. WILSON.

Witnesses:

JOHN WILSON,

JOHN BARNARD. (43)