

(No Model.)

N. WHITEHALL.
CULTIVATOR.

No. 459,451.

Patented Sept. 15, 1891.

Fig. 1.

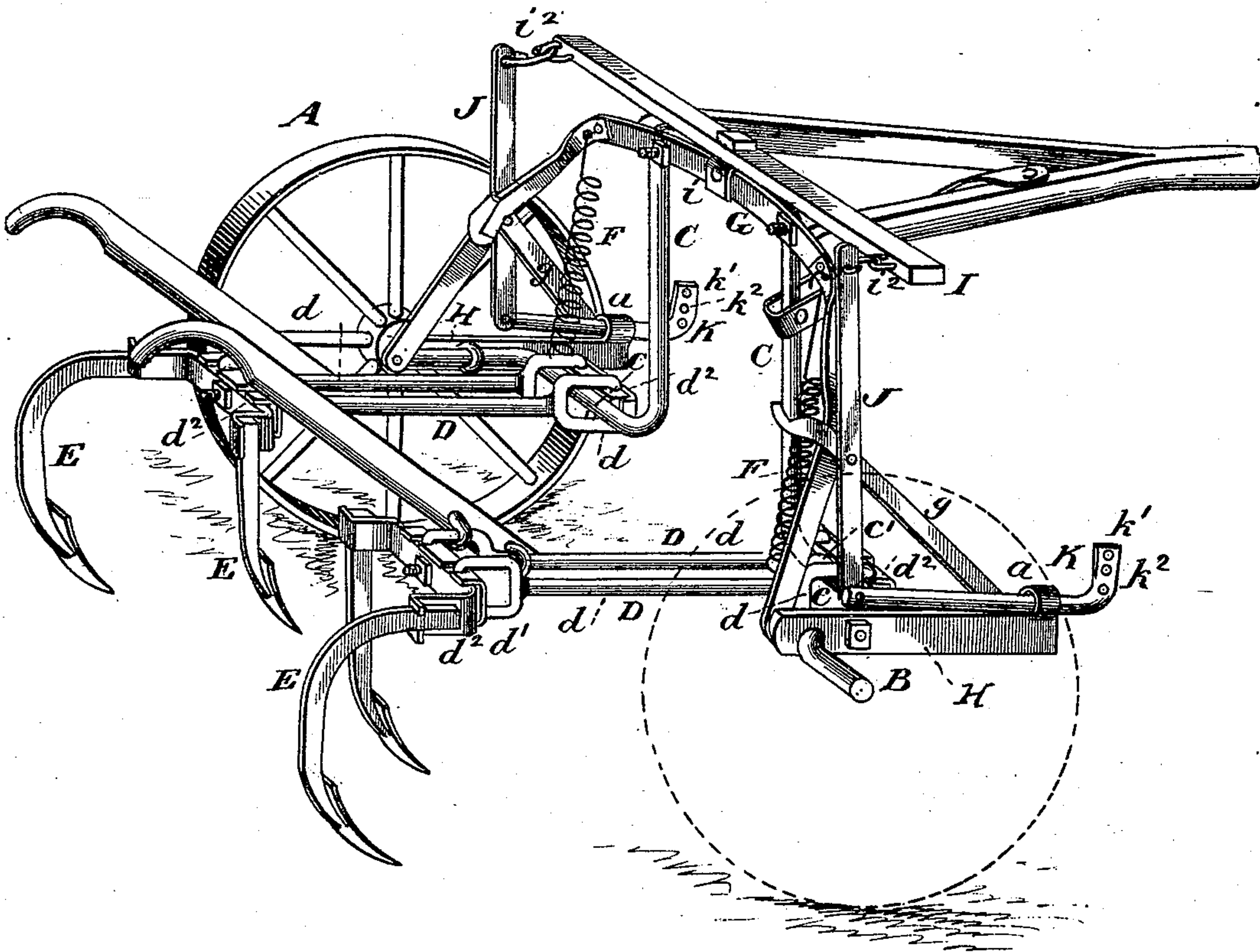
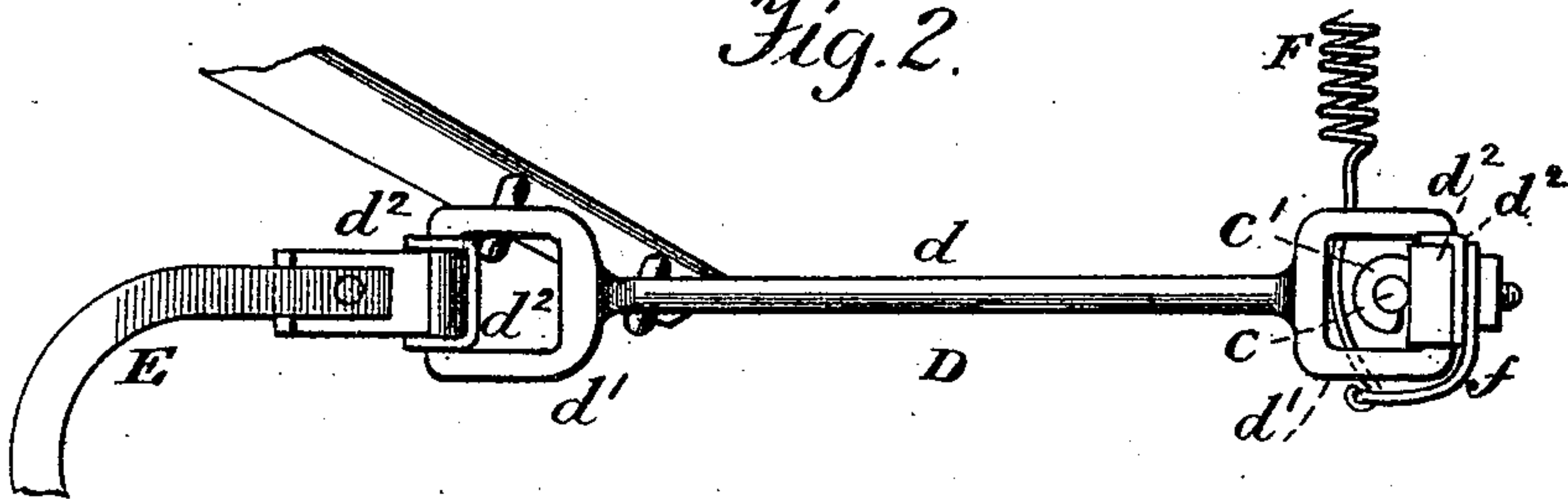


Fig. 2.



Witnesses:
A. Ruppert,
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UNITED STATES PATENT OFFICE.

NICHOLAS WHITEHALL, OF NEWTOWN, INDIANA.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 459,451, dated September 15, 1891.

Application filed June 27, 1890. Serial No. 356,970. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS WHITEHALL, of Newtown, in the county of Fountain and State of Indiana, have invented certain new and useful Improvements in Cultivators, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

10 The object and nature of my invention will be fully set forth in the following specification and claim.

In the drawings, Figure 1 is a perspective view of my improved cultivator, and Fig. 2 is 15 an elevation of a detached portion thereof.

Similar letters of reference indicate similar parts in the respective figures.

A A represent the wheels, and B B the axles.

20 The saddle C is preferably solid with the axles, the whole being formed of a continuous bar bent as shown.

D D are the plow-beams, each consisting of two parallel rods d d , having loops d' formed at each end. Each of the front loops is piv- 25 oted between two plates d^2 , the plates being recessed to receive them. The plates are secured together and to the horizontal part c of the saddle by means of the eyebolts c' .

30 The loops at the rear ends of the rods are likewise pivoted between similar pairs of plates d^2 , and to one plate of each pair are secured the shovels or plows E, the plates in each pair being bolted together, as shown. The plow-beams thus have a vertical move- 35 ment, as they and the plates d^2 can swing on the horizontal part c of the saddle, and the rear ends of the plow-beams also have free lateral movement by reason of the pivotal connection of their front ends to the plates d^2 .

40 F F are springs attached at their lower ends to the hooks f , the latter being secured to the front plates d^2 . The upper end of the springs are attached to the arched bar G, secured to the top of the saddle C and to the 45 struts H, as shown. These springs have a tendency to lift the plow-beams and shovels, and thereby gives them a certain degree of elasticity. The struts H are rigidly secured to the axles B and to the horizontal part c of

the saddle C, and their front ends are con- 50 nected to the arched bar G by means of the braces g . The rear ends of these braces extend a short distance beyond the arched bar G and form supports for the plow-beams when not in use.

55 I is a yoke pivoted at its center to a supporting-plate i , rigidly secured to the arched bar G. The ends of this yoke are suitably connected by links i^2 to the levers J, and the latter are pivoted on the braces g . The lower 60 ends of the levers are pivotally connected to the draft-bars K, which are supported in the sleeve a , rigidly attached to the front ends of the struts H. The front ends of the bars K are bent upward, and the bent-up portions k' 65 are provided with a series of holes k^2 , to either of which the singletree can be attached, and thus vary the height of the hitching-point as may be requisite. The pivotal connection of the yoke I, levers J, and draft-bars K to the 70 arched bar G and to each other is very advantageous, as a compound lever is thus formed and there is no rigid connection between the team and the cultivator, and consequently the cultivator will not be subjected 75 to uneven strain to any great extent should the horses not pull uniformly.

Having described my invention, I claim—

In a cultivator, the combination, with the axles and saddles, of struts secured at one 80 end to the axles, an arched bar connected to the saddle and to the ends of the struts adjacent to the axle, braces leading from the other ends of the struts to the arched bar, a yoke pivoted to said arched bar over the sad- 85 dle, and levers pivoted on said braces at opposite sides of the arch, each lever being connected at its upper end to the end of the yoke adjacent thereto and at its lower end to a draft-bar sliding in a sleeve on each strut, 90 substantially as specified.

In testimony whereof I have hereunto set my hand and seal.

NICHOLAS WHITEHALL. [L. S.]

Witnesses:

ISAAC RICE, Sr.,
WASHINGTON RICE.