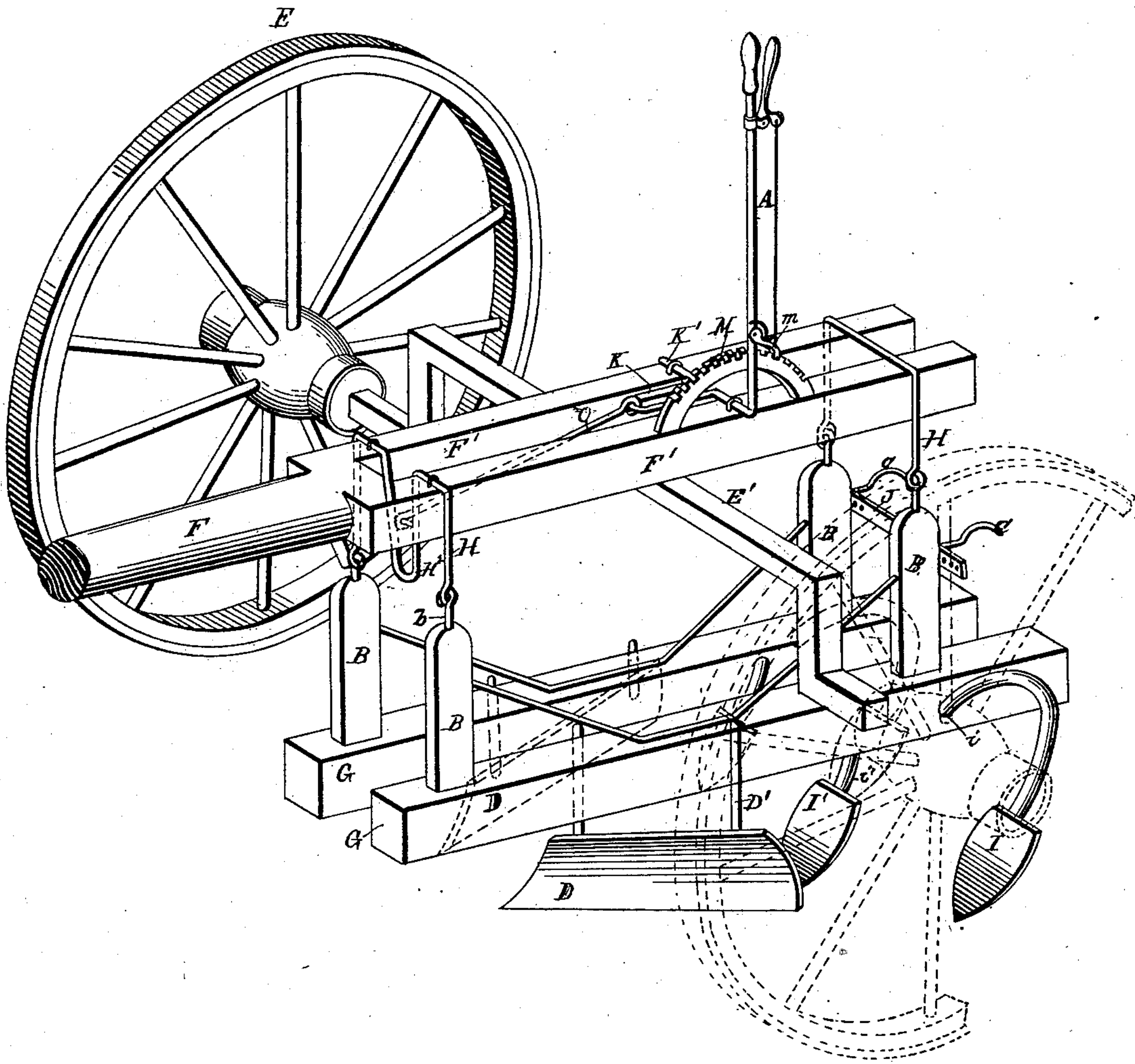


(Model.)

J. KESTER.  
CULTIVATING PLOW.

No. 272,962.

Patented Feb. 27, 1883.



Witnesses:

J. S. Bryan  
R. H. Cochran

Inventor:  
John Kester



# UNITED STATES PATENT OFFICE.

JOHN KESTER, OF CLAY CITY, INDIANA.

## CULTIVATING-PLOW.

SPECIFICATION forming part of Letters Patent No. 272,962, dated February 27, 1883.

Application filed September 4, 1882. (Model.)

*To all whom it may concern:*

Be it known that I, JOHN KESTER, a citizen of the United States, residing at Clay City, in the county of Clay and State of Indiana, have  
5 invented certain new and useful Improvements in Cultivators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing.

In said drawing I have shown a perspective  
10 view of my improved cultivator. It is mounted upon driving-wheels E E, which are connected by an arched axle. Upon the central part, E', of said axle rests the pole or tongue, the latter extending to a point sufficiently far to the rear.

15 My improved pole or tongue is of the peculiar form shown—that is to say, has a forwardly-projecting portion, F, (preferably rounded,) and two substantially parallel but separated parts, F' F', all formed integrally  
20 from the same beam. The slot or open space between the rear parts, F' F', may be as wide as is desired, though I prefer to have it merely wide enough to permit free movement of the cranks, to be described.

GG are plow-beams situated below and transversely to the axle. They are flexibly supported in such manner that they can be easily moved upward and also laterally. Each beam  
30 has uprights B B, which at their upper ends are united to stirrups H H, suspended from the tongue, they resting upon the top of the rear parts, F' F', thereof. The stirrups have downwardly-extending legs, long enough to allow sufficient freedom of motion. There are  
35 eyes at the ends of the stirrups, which are connected with eyes in upwardly-extending rods b, the joint that is thus provided being loose enough to allow sufficient play of the beams relatively to the stirrups.

40 I I are the rear plows or shovels. They are carried by arms secured at i to the beams, each arm being bent along the outer face of its beam, and then downward to a proper point to receive the plow or shovel.

45 I' I' are other plows or shovels, carried by arms i', secured to the insides of the beams.

50 D D represent scrapers situated diagonally to the line of travel, and each secured to its beam in front of the plow or plows carried thereby. Each is attached to its beam by means of downwardly-extending rigid hangers or rods, fastened to the beam in any suit-

able way. The cutters are sharpened along their lower edges, and are curved in cross-section, so that the lower edges are thrust forward to provide a better cutting-edge. 55

Each of the beams and the plows carried thereby can be mounted entirely independently of the other, if desired, though I prefer to connect them together at the rear ends by  
60 means of a cross-bar, J, which is provided with a series of perforations at each end, by which it can be adjustably secured to projections on the uprights B B. The handles C C are carried by this connecting cross-bar J, which handles are utilized by the driver to manipulate  
65 the beams when he is walking.

The front stirrup, H, is formed or provided with a crank, H<sup>2</sup>, between the parts F' F' of the tongue, and it will be seen that if said  
70 crank be swung backward the plow-beams and plows will be carried as well backward as upward. To effect this upward and backward movement of the operative parts I combine with the crank H<sup>2</sup> another crank at K (carried by a rocking bar, K', pivoted upon the  
75 upper side of the tongue) and a link or connecting-piece, O.

A is a lever rigidly connected to the shaft K', and M is a ratchet-segment adapted to hold  
80 the lever in any desired position by means of an interposed pawl, m, pivoted to the lever.

If the plows approach a stump, stone, or other obstruction, they can be drawn up by means of the lever and cranks, and if they  
85 should actually strike such an obstruction they can be easily disengaged therefrom, inasmuch as they are drawn backward at the same time that they are elevated.

If the obstruction is of such a nature that the  
90 plows cannot be elevated high enough to pass over the top, they can be swung to the right or to the left, owing to the flexibility of the connection. When the driver is seated upon the frame, he can use his feet to assist in thus throw-  
95 ing the movable parts to the right or to the left, stirrups being provided upon the inside of the standards B B for this purpose.

It will be seen that the weight of the parts is so distributed that it is balanced upon the  
100 axle, and therefore there is little strain upon the horses' necks, and the drawing of the plows out of the ground does not increase the weight upon their necks, but rather decreases it, as a

greater weight is brought to the rear of the axle.

The scrapers D D for the weeds and grass are so situated as to leave just sufficient space  
5 between them for the rows of plants. Being in front of the plows, they cut off all weeds and grass and turn them out toward the center of the space between the rows, and thus remove them out of the way of the plows or shovels.

10 What I claim is—

1. In a corn-cultivator, the combination of slotted pole F and stirrups H H with the swinging plow-beams G, having uprights B B and connecting-rods b, substantially as shown  
15 and described, and for the purpose set forth.

2. In a corn-cultivator, the combination, with pole F and beams G, of lever A, segment M, rock-shaft K', crank K, link O, crank H<sup>2</sup>, and stirrup H, adapted to raise or lower the plow-beams G, substantially as shown and de- 20 scribed, and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN KESTER.

Witnesses:

J. F. KESTER,  
W. H. HASLET.