

F. UPSHAW.  
CULTIVATOR.  
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936,961.

Patented Oct. 12, 1909.

Fig. 1.

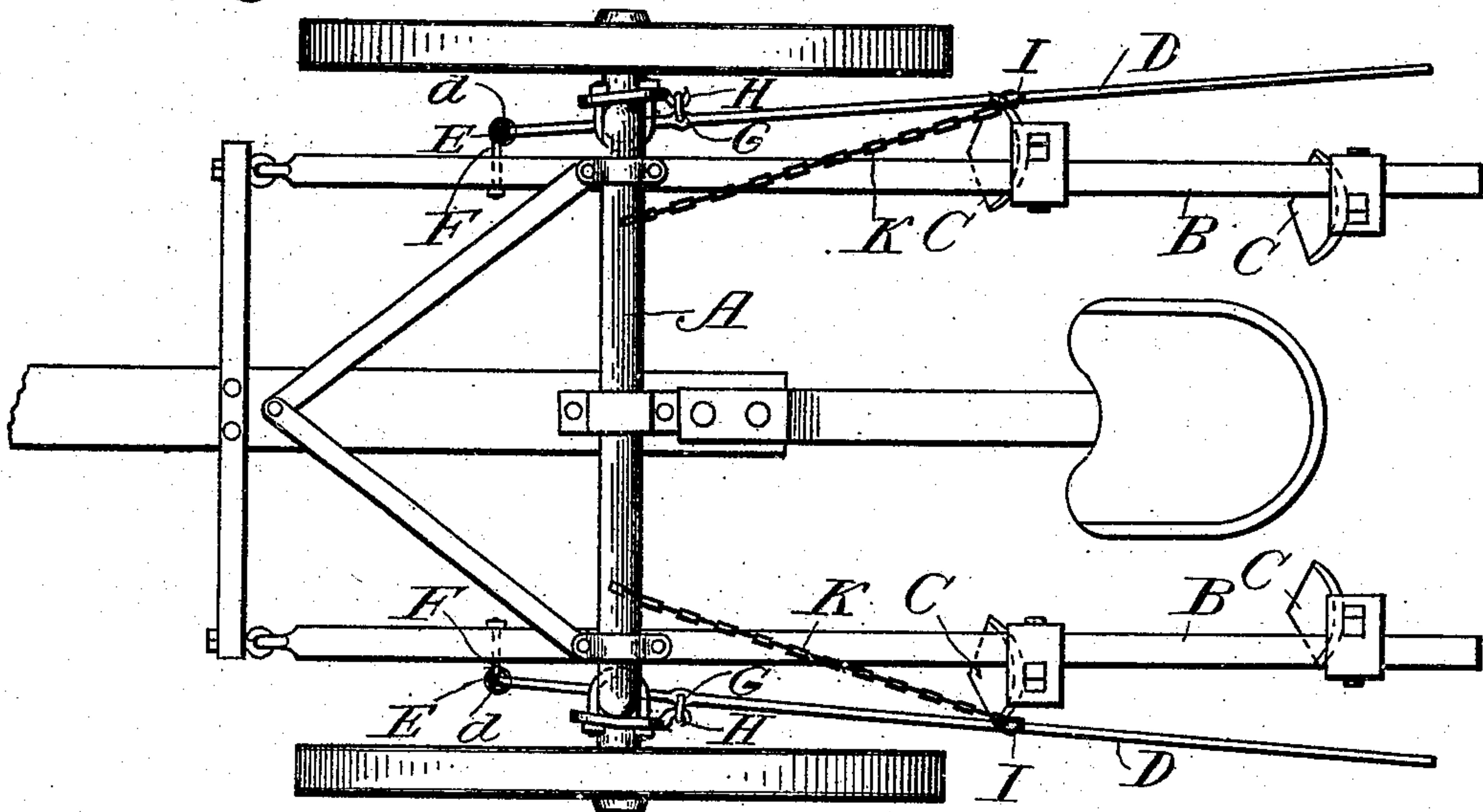


Fig. 2.

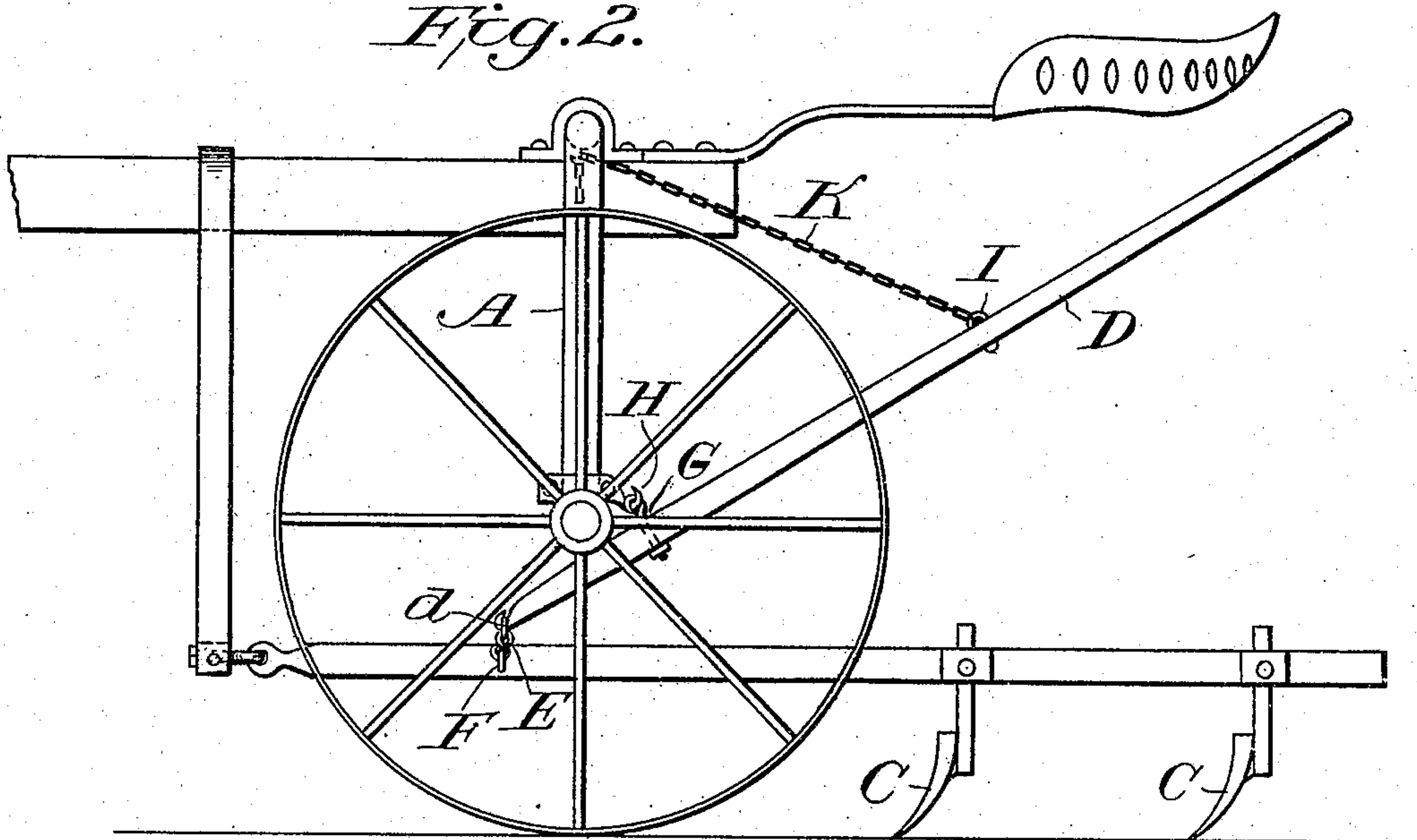
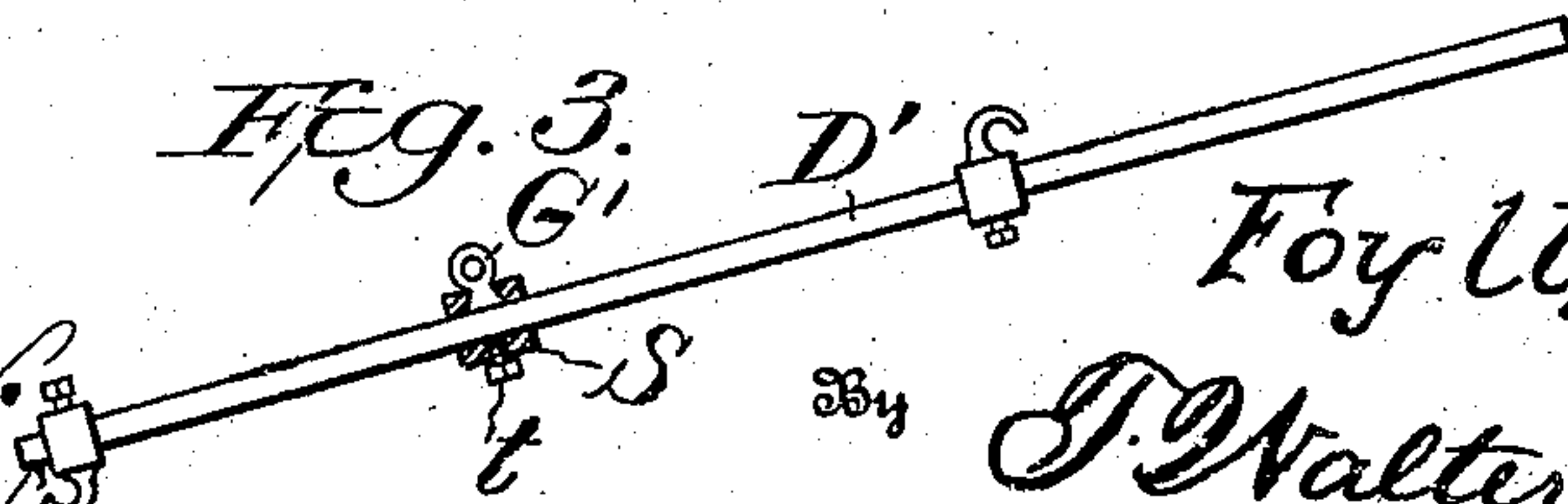


Fig. 3.



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Witnesses  
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# UNITED STATES PATENT OFFICE.

FOY UPSHAW, OF COLLINSVILLE, TEXAS.

## CULTIVATOR.

936,961.

Specification of Letters Patent.

Patented Oct. 12, 1909.

Application filed June 4, 1909. Serial No. 500,176.

*To all whom it may concern:*

Be it known that I, FOY UPSHAW, a citizen of the United States, residing at Collinsville, in the county of Grayson and State of Texas, have invented certain new and useful Improvements in Cultivators, of which the following is a specification.

My invention relates to cultivators, and particularly to that type of such machines known as riding cultivators which are provided with an arched axle so that they straddle the rows of corn or other growing crop and cultivate upon each side thereof; and the invention consists of the parts, and the constructions and combinations of parts which I will hereinafter describe and claim.

An essential object of the present invention is to provide new and improved means by which the cultivator-beams may be swung laterally to one side or the other by the combined action of a hand-operated lever and the foot of the driver, the beams moving either simultaneously—both moving toward one side or the other—or separately each being moved independently of the other in order to guide the cultivator shovels properly around in irregularities in the corn.

In carrying out my invention, I have herein disclosed only those parts of the cultivator with which my improvements are specially designed to operate, it being understood that the cultivator may be of any well known type employing the usual arch-bar or axle.

In the accompanying drawing forming part of this specification and in which similar reference characters indicate like parts in the several views: Figure 1 is a plan view of my invention, the cultivator wheels, beams, arch-bar or axle and seat being shown in dotted lines. Fig. 2 is a side elevation of the same. Fig. 3 illustrates a modification to be referred to.

In carrying out my invention, I construct the arch-bar or axle, A, in any manner well known in this art and the cultivator-beams, B, which may also be of the usual type, are provided with the usual shovels or other blades, C, said beams being connected at their forward ends in the usual manner so that they may swing in horizontal planes and may be raised and lowered as occasion requires.

The leading characteristic of my invention is the provision of new and improved

means associated with the beams and arch-bar or axle whereby the beams may be moved in lateral directions to permit the operator to move the cultivator shovels in and out along the row of plants so that the plants may be worked as close to the row as is desired even though the alinement of the row should not be straight.

With the above objects in view, I employ a mechanism associated with each beam and which mechanism comprises a lever, D, which in practice is about four feet long, said lever having its front end slightly bent to one side and provided with a hook-shaped extremity *d*, for the attachment of one end of a chain or other connection, E, the opposite end of which is connected to an eye bolt, F, or like device secured to the cultivator beam. At its intermediate portion, say about one foot from the forward end, the lever, D, is provided with a hook-shaped bolt, G, or equivalent member which projects laterally and is adapted to hook into engagement or otherwise loosely connect with a hook-shaped member, H, clipped or otherwise secured to the lower ends of the vertical end members of the arch-bar or axle, whereby a loose fulcrum connection is provided between the lever and said arch-bar. By this arrangement, the lever and its connections may be readily attached to existing cultivators of this type, while the hook-attachment for the chain, E, permits this chain to be lengthened or shortened as occasion requires.

Attached to the central portion of the lever is an eye-bolt, I, or equivalent device to one end of which is attached a chain, K, the other end of this chain being adapted to hook into engagement or otherwise attach to the upper horizontal bar of the arched-axle whereby the lever is suspended from said axle and is in a position where the operator sitting on the seat may readily engage and manipulate said lever, it being understood that the connection of the chain with the arch-bar is such that it may be shortened or lengthened for adjusting the lever relatively to the seat. There will be one set of these levers and connections at each side of the seat and associated with one of the cultivator beams, and when it is desired to operate the attachment, the operator will pull inward upon the lever on either side and at the same time will employ the



foot on that side to assist the action of the lever. In other words, if the right-hand lever is pulled inward, the right foot is at the same time pushed outward bearing upon the beam, thus causing the beam to be moved laterally relatively to the row being cultivated. Whichever lever is moved is pulled inward toward the operator and at the same time the foot on that side is caused to bear on the beam and thus assist in moving said beam outwardly. Thus the movement of the hand lever is in harmony with the movement of the foot, a position and action perfectly natural for the operator.

The lever may be formed of tubing or pipe D', and may be substantially straight throughout thereby dispensing with the bent or crooked forward end, as shown in Fig. 3; and on this tube or pipe a sleeve S carrying the hook bolt G' may be mounted in such manner that the fulcrum point of the lever may be changed as circumstances require, by shifting the sleeve on the lever and fixing it in its adjusted position by means of a set screw t. The hook bolt may also be counter-sunk in or otherwise secured to said lever, and the connection may be such that the bolt will swivel in the sleeve, if desired.

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

1. The combination with a straddle-row cultivator having beams connected therewith at their forward ends, and an arch-bar or axle, of an attachment comprising a lever located at one side of the beam, means loosely connecting an intermediate portion of said lever with the lower ends of the sides of the arch-bar or axle, a flexible adjustable connection between the front end of said lever and an intermediate portion of the cultivator beam, and a flexible connection having one end attached to the arch-bar and

the other end connected to an intermediate portion of the lever.

2. In combination with a straddle-row cultivator having an arch-bar, and cultivator-beams pivotally connected at their forward ends, of a lever mechanism at each side of the cultivator between the cultivator-beams and the sides of the arch-bar, said mechanism including a lever having a hook-shaped front end, a hook-bolt fixed to the lever back of its front end, a member fixed to the sides of the arch-bar adapted to be engaged by said hook-bolt, a chain having one end attached to an intermediate portion of the cultivator-beam and having another portion connected with the hook member on the front of said beam, and a chain having one end secured to an intermediate portion of the lever and having another portion adapted to detachably connect with the upper horizontal member of the arch-bar.

3. In combination with a straddle-row cultivator having beams pivoted at their forward ends, and an arch-bar, of a lever having an intermediate portion loosely connected to the front portions of the side members of the arch-bar, a flexible connection between the front end of said lever and an intermediate portion of the cultivator beam, and a flexible connection between the upper horizontal member of the arch-bar and a portion of said lever back of its connection with the side members of the arch-bar whereby the lever is suspended from said arch-bar and is capable of a movement in a horizontal plane to move the cultivator beam laterally.

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

FOY UPSHAW.

Witnesses:

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W. J. McGAUGHY.