

(No Model.)

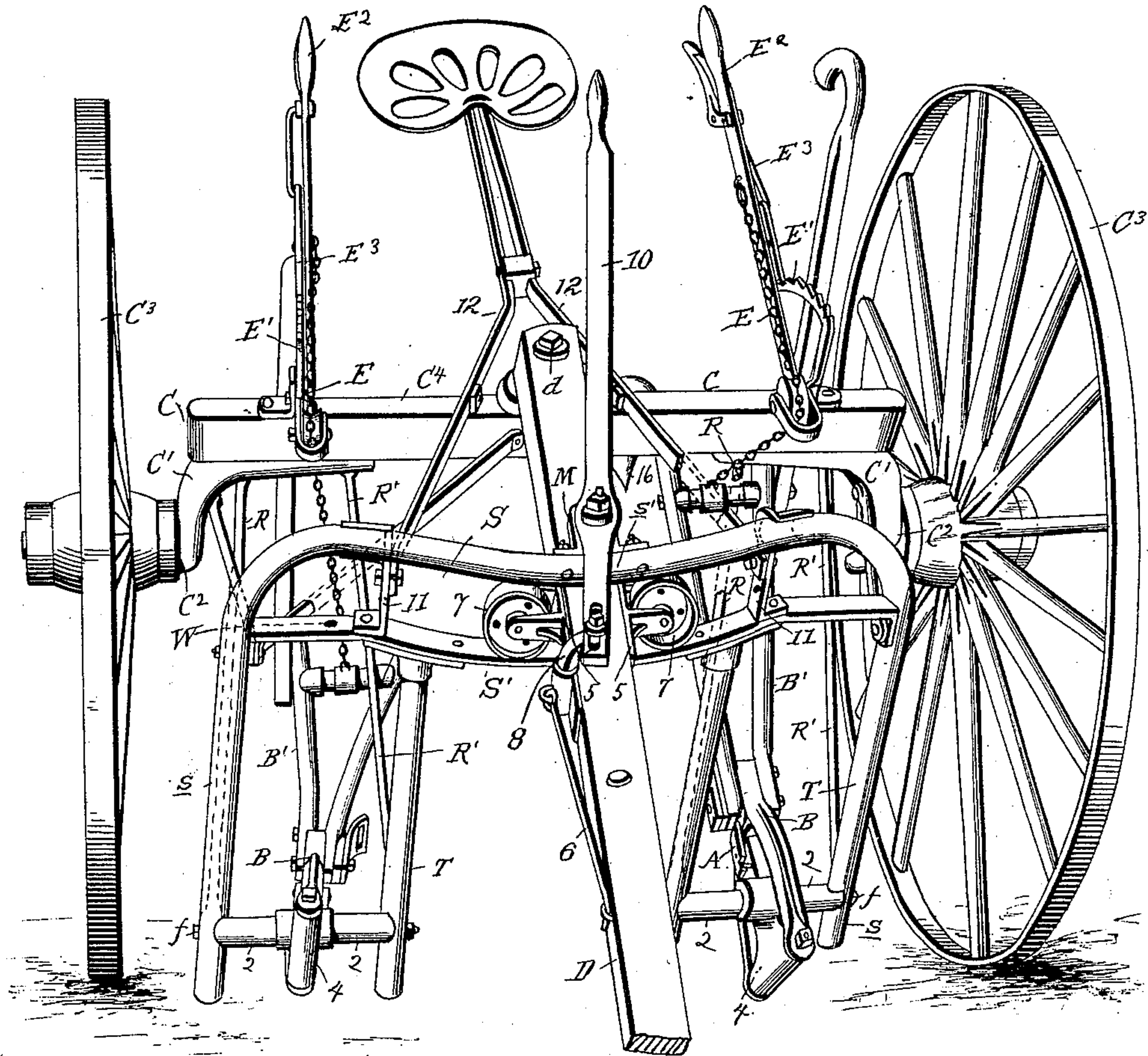
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J. DULLENTY.  
CULTIVATOR.

No. 429,020.

Patented May 27, 1890.

Fig. 1.



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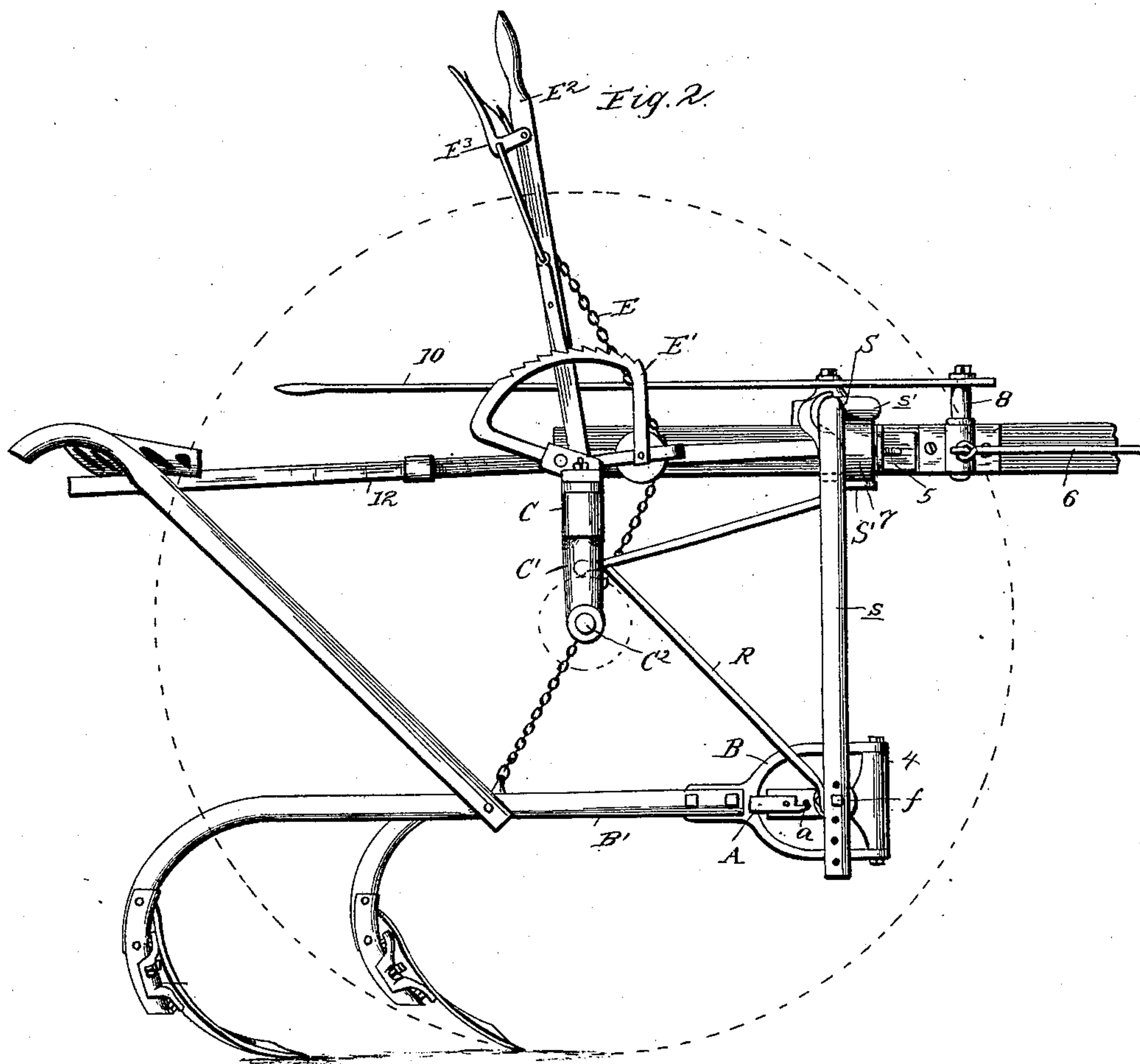
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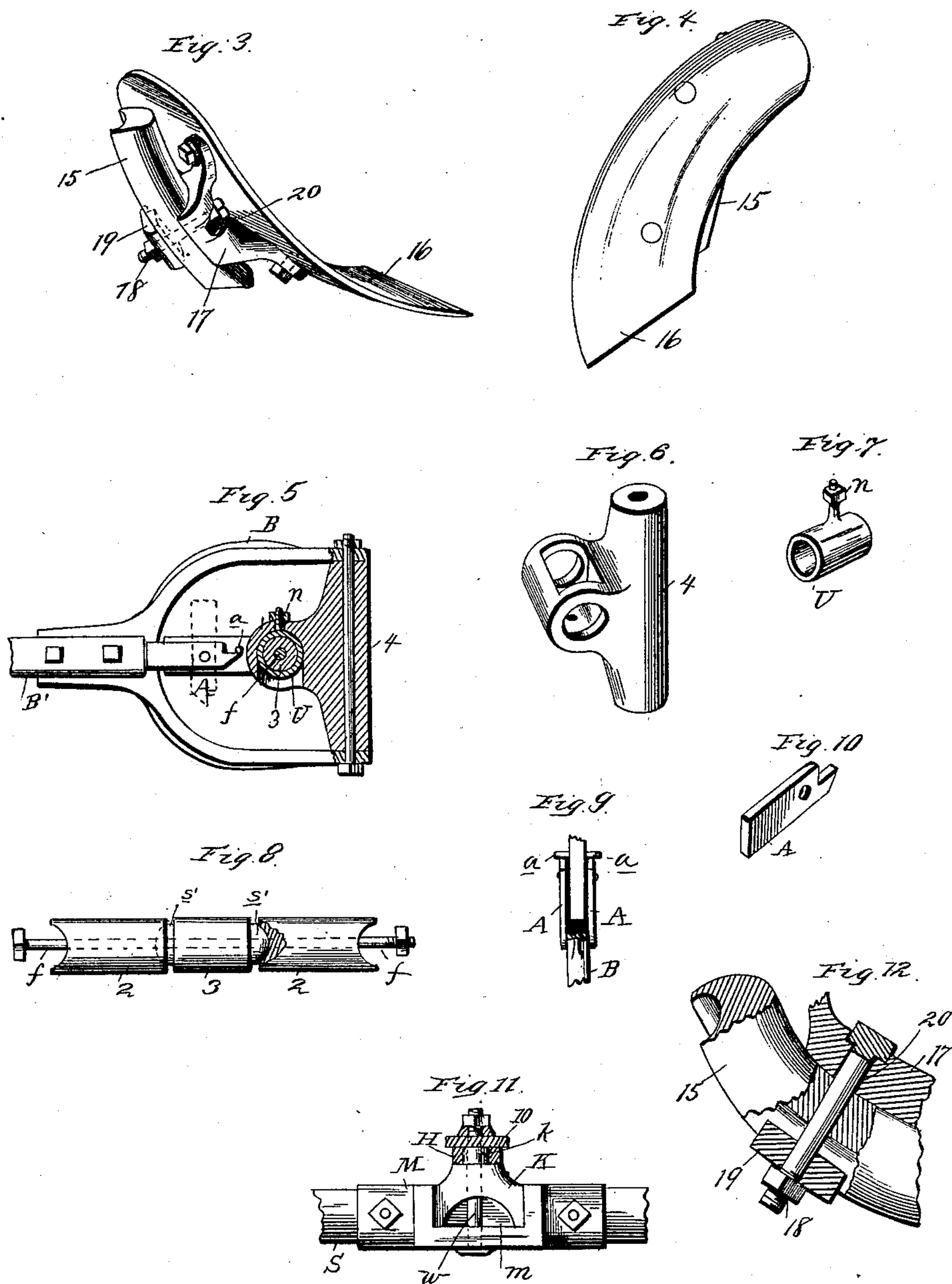
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# UNITED STATES PATENT OFFICE.

JOHN DULLENTY, OF WAVERLY, NEBRASKA.

## CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 429,020, dated May 27, 1890.

Application filed March 15, 1889. Serial No. 303,412. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN DULLENTY, a citizen of the United States, residing at Waverly, in the county of Lancaster and State of Nebraska, have invented certain new and useful Improvements in Corn-Cultivators; and I do declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to wheel-cultivators; and it consists in the novel features which will be hereinafter more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a perspective view, parts being broken away, of a cultivator embodying my invention; Fig. 2, a side view of the cultivator; Fig. 3, a perspective view of the shovel; Fig. 4, a front view of the shovel; Fig. 5, a side view, partly in section, of the means for connecting the cultivator-gang to the yoke-standards; Fig. 6, a bottom perspective view of the casting; Fig. 7, a perspective view of the eyebolt; Fig. 8, a front view, partly in section, of the connection between the standards; Fig. 9, a top detail view showing the means for fastening the clevis to the casting; Fig. 10, a perspective view of the catch; Fig. 11, a detail view showing the means for connecting the lever to the yoke; Fig. 12, a detail view showing the means for connecting the shovel to the standard.

The crank-axle C, of ordinary construction, is composed of bar C<sup>4</sup> and the castings C', bolted to its ends, having the axle-arms C<sup>2</sup>, on which are mounted the supporting-wheels C<sup>3</sup>. The tongue D is secured to the axle at its inner end by the king-bolt d, the usual wear-castings being interposed between the rubbing parts. The arch S has its ends bent down to form the vertical standards s, and its middle portion s' curved forwardly, and is strengthened by the supplemental bar S', which is bolted at its ends to the vertical standards s. The arch S is by preference composed of gas-pipe and is supported on the wheels 7 7, one secured upon each side of the

tongue D, and the bar S' is flat and of corresponding shape with the bar S and is arranged to come on the under side of the tongue and bear on the under sides of the said wheels 7 7. These wheels 7 7 are mounted on arms that project from blocks or plates 5 5, which are secured to the sides of the tongue.

The vertical standards T, parallel with the standards s, are secured to the bar S', and the two sets of standards T s are braced by the rods R and R', as shown, and have corresponding openings to receive the bolt f, which connects the lower ends of the standards and has the blocks 2 2 and 3 placed thereon. The outer ends of the blocks 2 2 are indented to receive the standards T s, which are partially embedded therein. The inner ends of the blocks 2 2 have bearings s', which are fitted in the ends of the block 3.

The coupling 4 is mounted on the block 3 and is adjustable thereon, being held by the eyebolt U, which is fitted in a mortise in the under side of the coupling 4 and embracing the block 3. The eyebolt is tightened by the nut n on its threaded stem.

The clevis B, to which the cultivator-gangs B' are attached, is secured to the coupling 4 in the usual manner, and may be held fast or limited in its lateral movement in either direction by the stops A, which are pivoted to a rear extension of the coupling 4. The pins a, projecting from the sides of the coupling, engage with and hold the stops A in proper position. When both stops are thrown down, they embrace the sides of the clevis and prevent its movement in either direction. By turning down the right stop only the clevis will be limited in its movement to the right. The same is true if the left stop be the only one turned down, the clevis in this case being limited in its movement to the left.

The gang of cultivators are raised and lowered by means of the hand-levers E<sup>2</sup> and the chains E connecting them with the said hand-levers, which latter are held fast by the latches E<sup>3</sup>, which engage with the segments E'.

The seat-bars 12 12 rest on the axle midway of their ends and have their front ends justably connected with the vertical bars 11 11, which are placed between the arch S and the bar S'.

The operating-lever 10 is mounted on the



crank-arm S, and is connected with the arch S a short distance from its end. The bracket M, secured to the arch, has a recess *m* in one side in which is fitted the block K, that has the gudgeon *k*. The lever is placed on this gudgeon, and is held in place by the bolt *w*, which passes through the block K and bracket M. The washer H, placed between the head of the bolt and the end of the gudgeon *k*, prevents any binding of the lever 10 between the block K and the head of the bolt. The lever 10 extends within convenient reach of the driver's seat, and can be operated to move the frame to the right or left, as required, as will be readily understood.

The hook 6, attached to one of the blocks 5, is adapted to enter the opening W in the bar S' and hold the arch steady when transporting the machine.

The shovel 16 is pointed, as most clearly shown in Fig. 4, and its edges are approximately parallel and curve to one side, the shovel curving rearwardly and to one side, after the fashion of a mold-board.

The casting or coupling 17, secured to the rear of the shovel, has a transverse groove 20, through which and the standard 15 the fastening-bolt 18 passes. The front side of the standard is curved and fits a corresponding curved seat in the said casting. By loosening the bolt the shovel can be adjusted laterally on the standard. The rear side of the standard is grooved and is spanned by the plate 19 on the back end of the bolt.

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

1. In a wheel-cultivator, the combination, with the frame comprising the arch, which has two parallel bars S and S', the one above the other, of the tongue having pivotal connection with the said frame and passing between the bars S and S', and the rollers journaled to the sides of the tongue and adapted to obtain a bearing on the said bars S and S', substantially as described.

2. In a wheel-cultivator, the combination,

with the frame comprising the arch, which has two parallel bars S and S', said bars curving outward between their ends, of the tongue having pivotal connection with the frame and passing between the said bars S and S', and having a roller-bearing to travel between the bars on the said curved portion, substantially as described.

3. A wheel-cultivator comprising the axle, the arch connected with and braced to the axle and comprising the parallel bars S and S', the ends of the bar S being bent down to form the standards *s*, the standards T T', parallel with the standards *s* and connected with the bar S', the cultivator-gangs supported between the lower ends of the standards *s* and T and adjustable at their rear ends by means of chain E, lever E<sup>2</sup>, ratchet-segment E', and latch E<sup>3</sup>, the tongue pivotally connected with the axle and passing between the bars S and S', the rollers journaled on the sides of the tongue and adapted to travel on the lower bar S', and the hand-lever 10 for moving the tongue, substantially as described.

4. In a wheel-cultivator, the combination, with the vertical standards and the bolt *f*, having the block 3, of the coupling, the eyebolt fitted in a mortise or recess in one side of the coupling, and the nut *n*, substantially as described.

5. In a wheel-cultivator, the combination of the frame having standards, as *s* and T, the blocks 2 2 and 3 interlocking at their opposite ends, the bolt *f*, passing through the standards and the said blocks, the coupling 4, placed on the block 3 and having a recess in its side, the eyebolt U, inserted in said recess in the coupling for holding the same on the block, and the cultivator-gang connected with the said coupling, substantially as described.

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

JOHN DULLENTY.

Witnesses:

SAMUEL WALKER,  
M. V. NAREN.