

(No Model.)

J. A. BLOUNT
CULTIVATOR.

No. 360,410.

Patented Apr. 5, 1887.

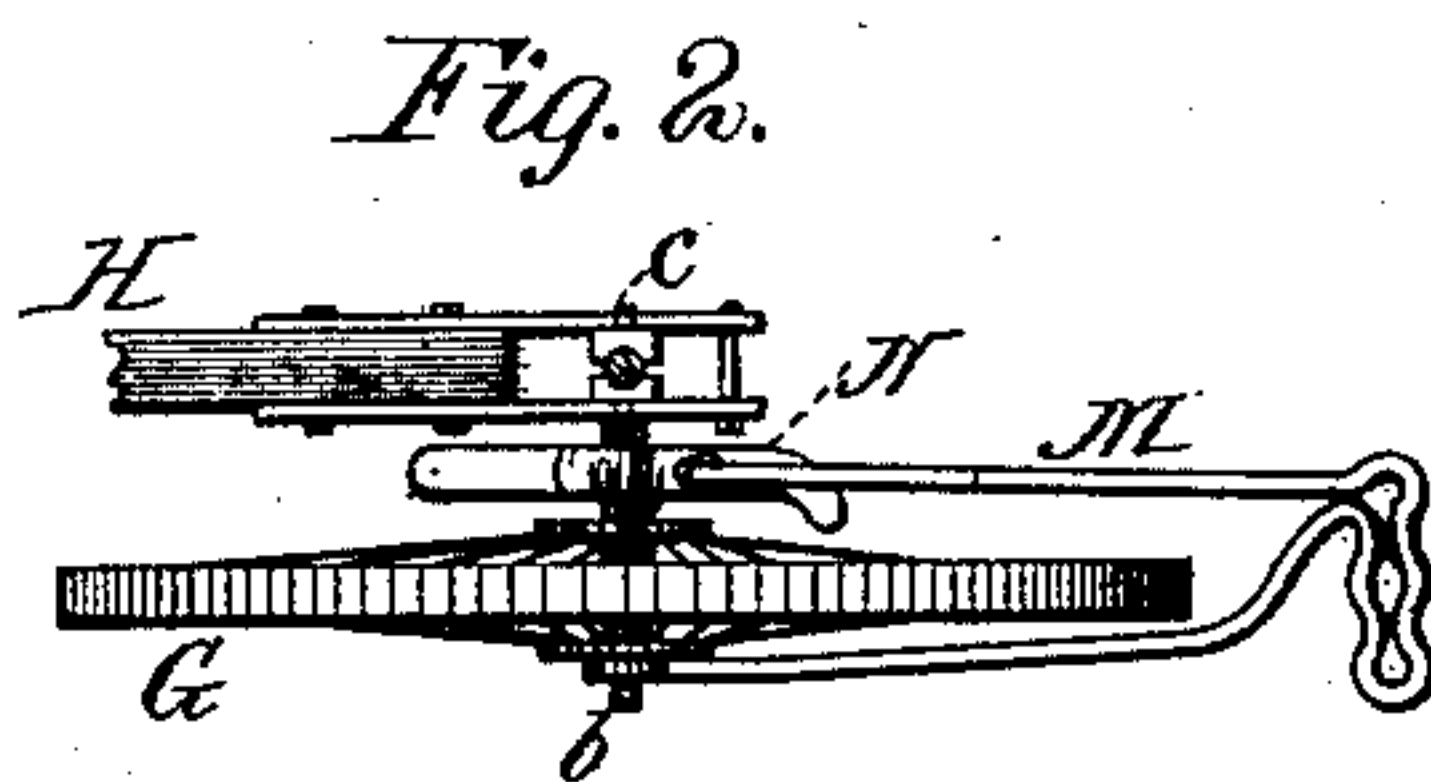
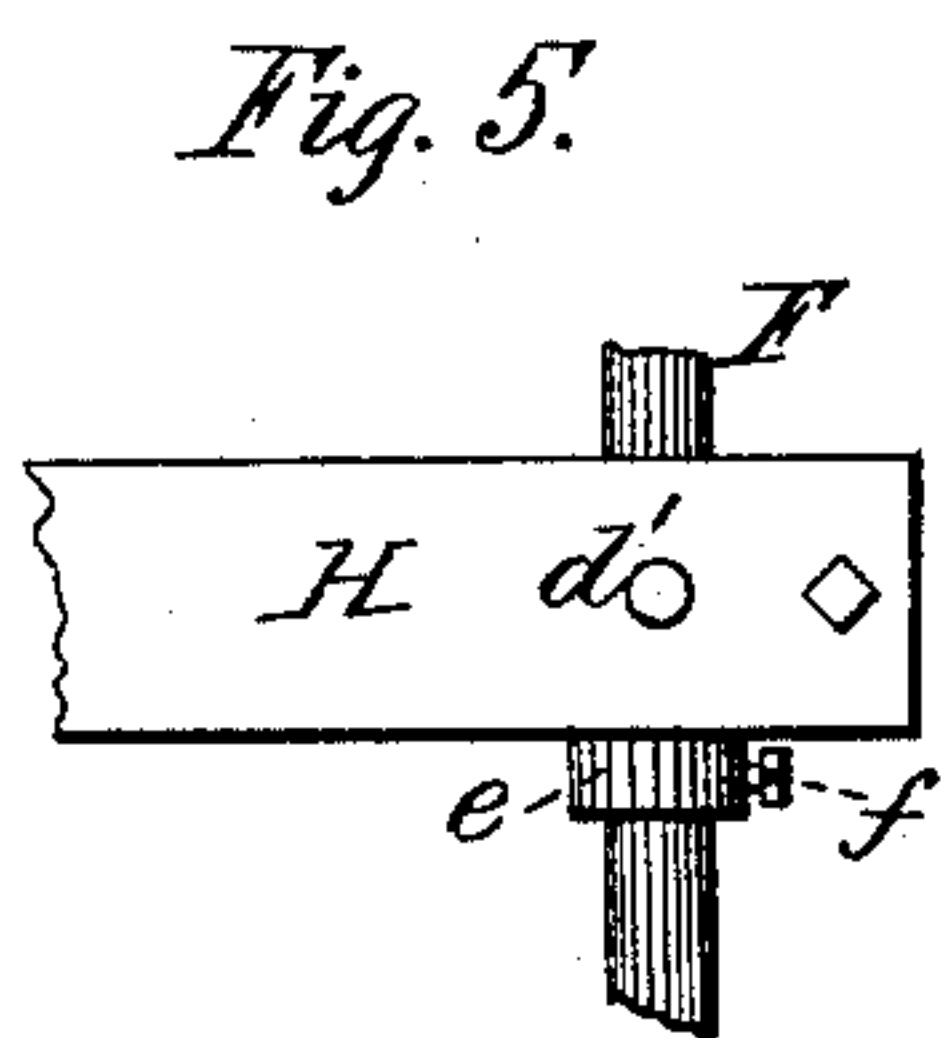
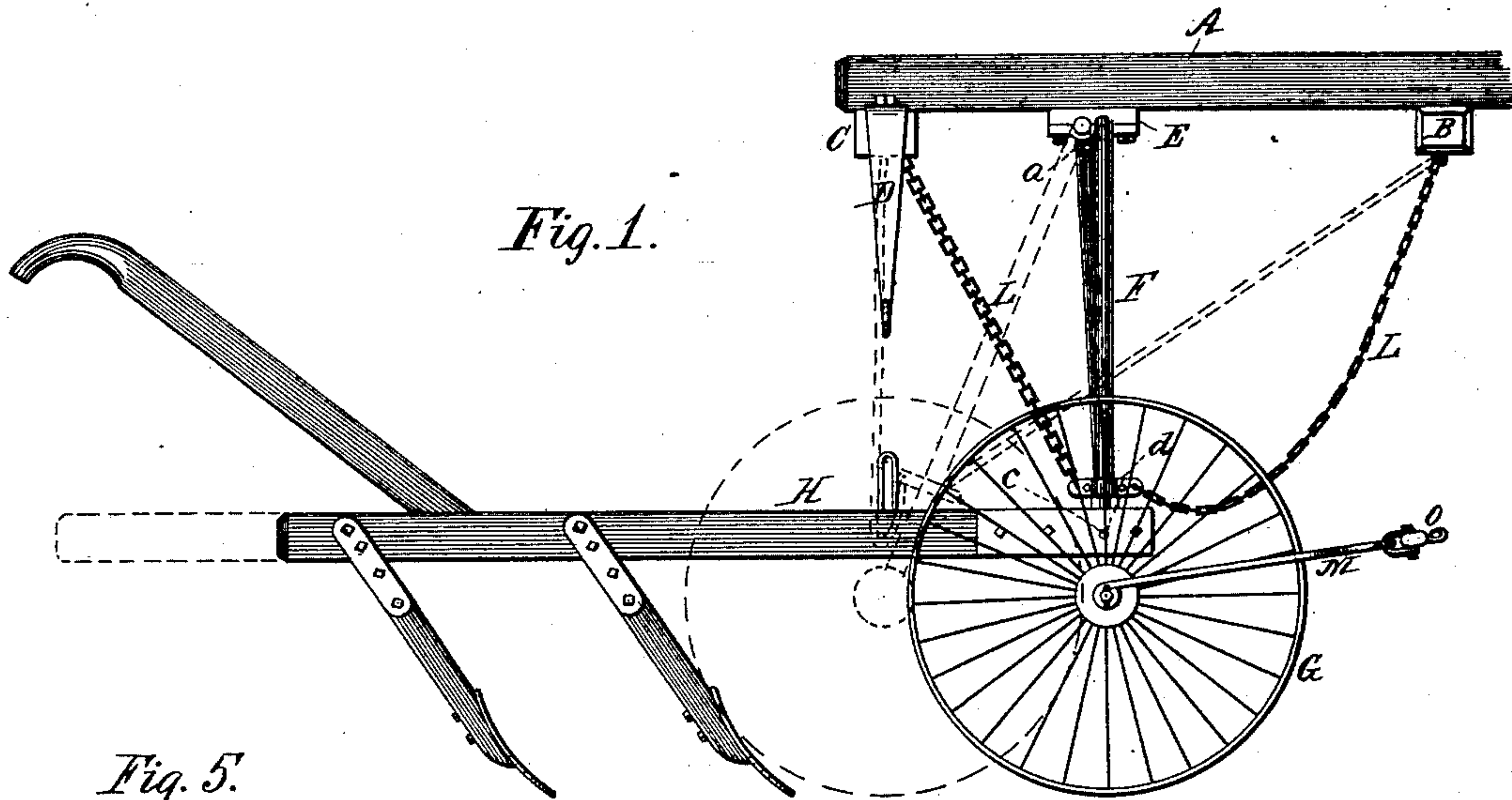


Fig. 4.

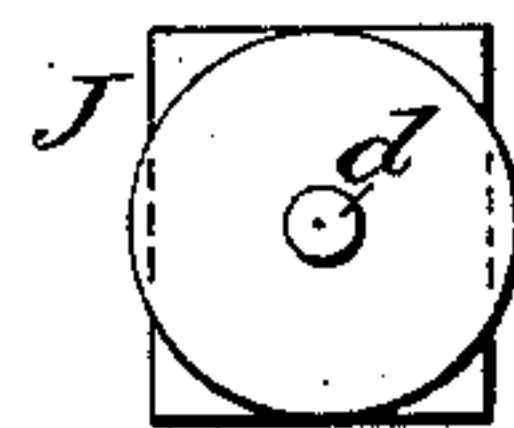
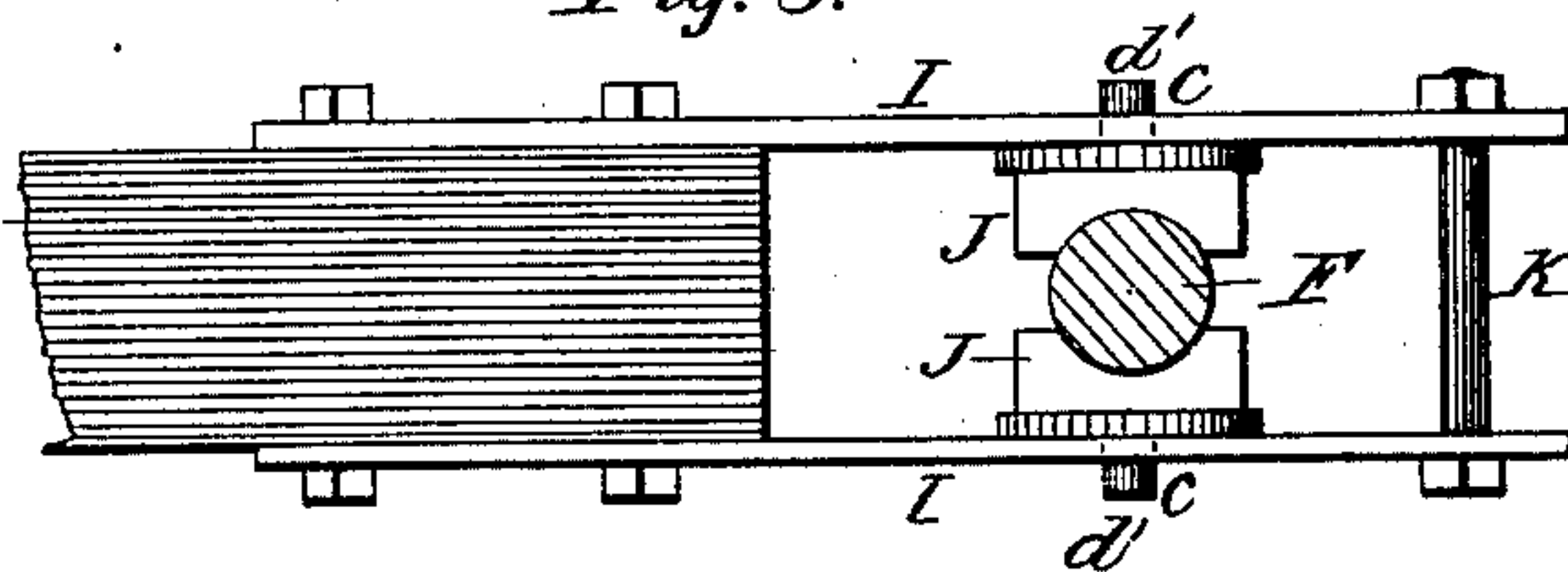


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN A. BLOUNT, OF SPRINGFIELD, OHIO.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 360,410, dated April 5, 1887.

Application filed May 12, 1886. Serial No. 201,927. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. BLOUNT, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Straddle-Row Cultivators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to improvements in cultivators of that class known as "straddle-row" cultivators; and it has for its object the improvement and simplification of construction of the parts, whereby the machine is rendered durable, simple, and efficient.

The novelty of my invention will be herein set forth, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a cultivator embodying my improvements. Fig. 2 is a plan view of one of the wheels, the forward part of one of the beams, and the hitch. Fig. 3 is an enlarged plan view of the front of one of the beams and the coupling mechanism. Fig. 4 is a side elevation of one of the coupling-clamps. Fig. 5 is an enlarged detail of the beam-adjusting collar.

The same letters of reference are used to indicate identical parts in all the figures.

A is the pole or tongue, of the usual construction, having secured to it the cross-girths B and C, to the latter of which are secured the usual hanger-hooks, D.

Between the girths B and C is secured to the pole a box or bearing, E, into which from opposite sides are inserted the upper horizontal portions of the divided and independently-swinging arch-bars F. Set-screws *a*, passed through the box E, serve to hold the arch-bars from slipping laterally after they have been adjusted to make the furrow of the width required. The arch-bars F have their lower ends bent outwardly to form horizontal spindles *b*, and upon which the usual wheels, G, revolve.

Instead of coupling the plow-beams H to the horizontal portion of the arch-bars, as is common, I adjustably couple them to the vertical portions of the arch-bars, so that they can be

raised or lowered to suit the requirements of the work, in the following manner: A plate, I, is secured to and projects forward upon each side of each of the beams H, and is perforated, as at *c*, to receive trunnions *d* upon the clamping-blocks J, whose inner faces are vertically grooved to snugly embrace the vertical portions of the arch-bars F. A clamping-bolt, K, serves to cause the blocks J to embrace the bars F, as will be readily understood. By this construction I produce a swiveled coupling that enables the beams to be raised or lowered or swung to either side and follow the sinuosities of the rows. To prevent the blocks and plow-beams from slipping down after having been adjusted, I provide a collar, *e*, as seen in Fig. 5, which is secured to the vertical portion of each of the arch-bars, and can be clamped thereto by a set-screw, *f*. This collar can be adjusted up or down and secured directly under the blocks J, which rest upon it. To prevent the arch-bars F in their independent action from swinging too far forward or too far back, I employ chains L, whose upper ends are secured at the rear to the girth C and in front to the girth B, and whose lower ends are secured to a clip, *d*, fastened upon the lower vertical portion of the arch-bars. These chains are of such length that when the back ones are taut the arch-bars are preferably in a vertical plane, while the front ones are slack and permit the arch-bars to swing backward to a limited extent, as will be seen by reference to Fig. 1, where the dotted lines show the change of position.

My improved hitch mechanism consists of bent clevis-rods M, straddling each of the wheels G, and hinged on the outer side to the spindles *b* and on the inner side to an arm or supporting-plate, N, rigidly secured to the spindles *b* between the wheels and the beams. The single-trees O are attached to the forward looped ends of these clevis-rods, where several hitching-loops are provided to enable the horses to be kept the proper distance apart at the different adjustments of the arches. By means of the plate N the clevis-rods M are held from falling below a horizontal position, and the draft is brought almost in direct line with the plow-beams.

From the above construction it will be seen

that the horses act independently of each other and each draws its own plow.

Having thus fully described my invention, I claim—

- 5 1. In a straddle-row cultivator, the combination, with the pole and the plow-beams, of the independently-swinging arch bars or sections and the stop-chains, the arch-sections being adjustably secured in a bearing fastened
10 to the pole and the plow-beams being adjustably connected to the lower part of the vertical portions of said arch-sections, substantially as described.

2. The combination, with spindle *b*, wheel *G*, and supporting-plate *N*, rigidly secured to 15 the spindle, of clevis-rods *M*, hinged to the spindle outside the wheel and to plate *N* between the wheel and the beam, substantially as described, and for the purpose stated.

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Witnesses:

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