No. 763,288. PATENTED JUNE 21, 1904.

M. & J. H. JENNINGS.

CULTIVATOR.

APPLICATION FILED OCT. 19, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

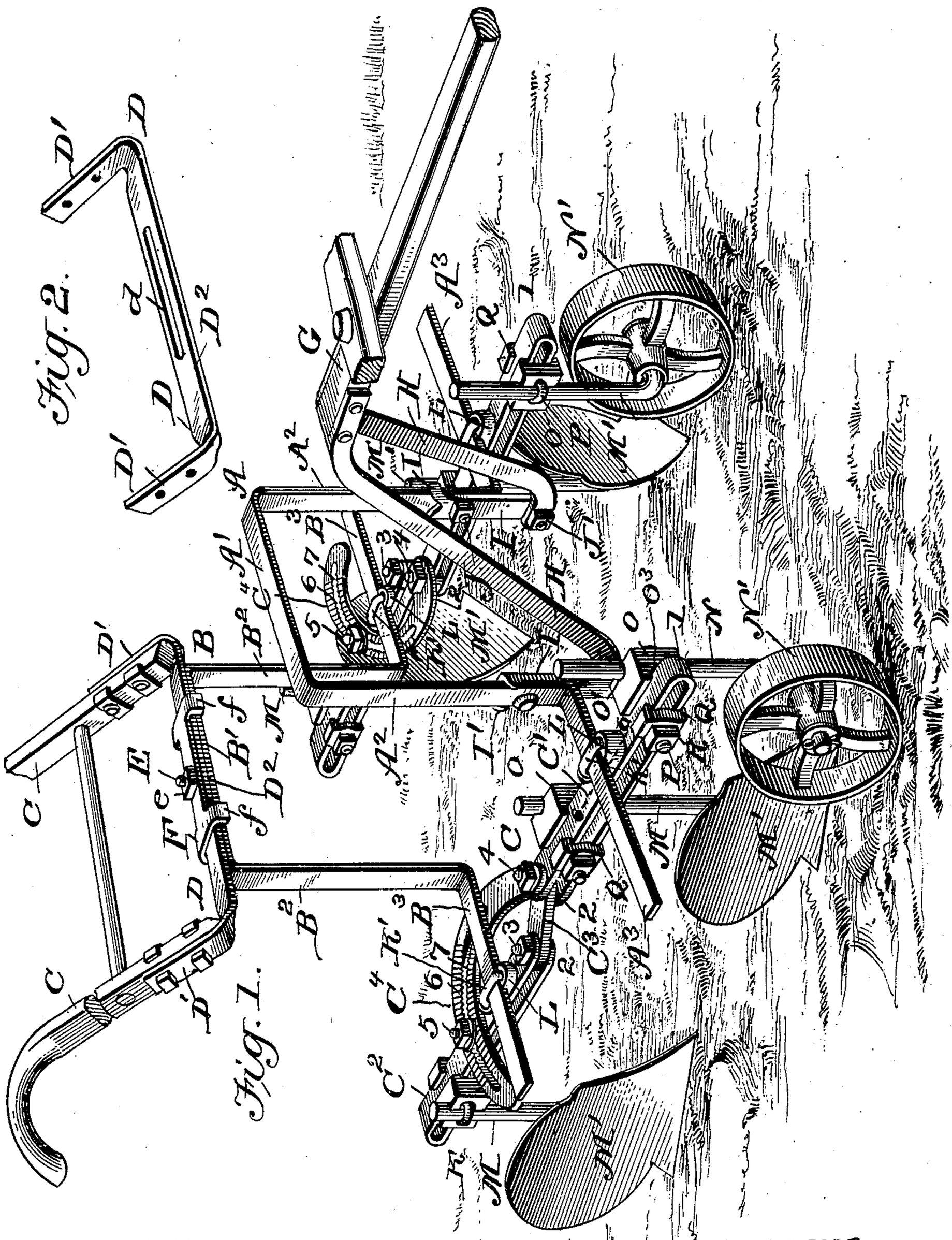

Fig. 1.

Fig. 2.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

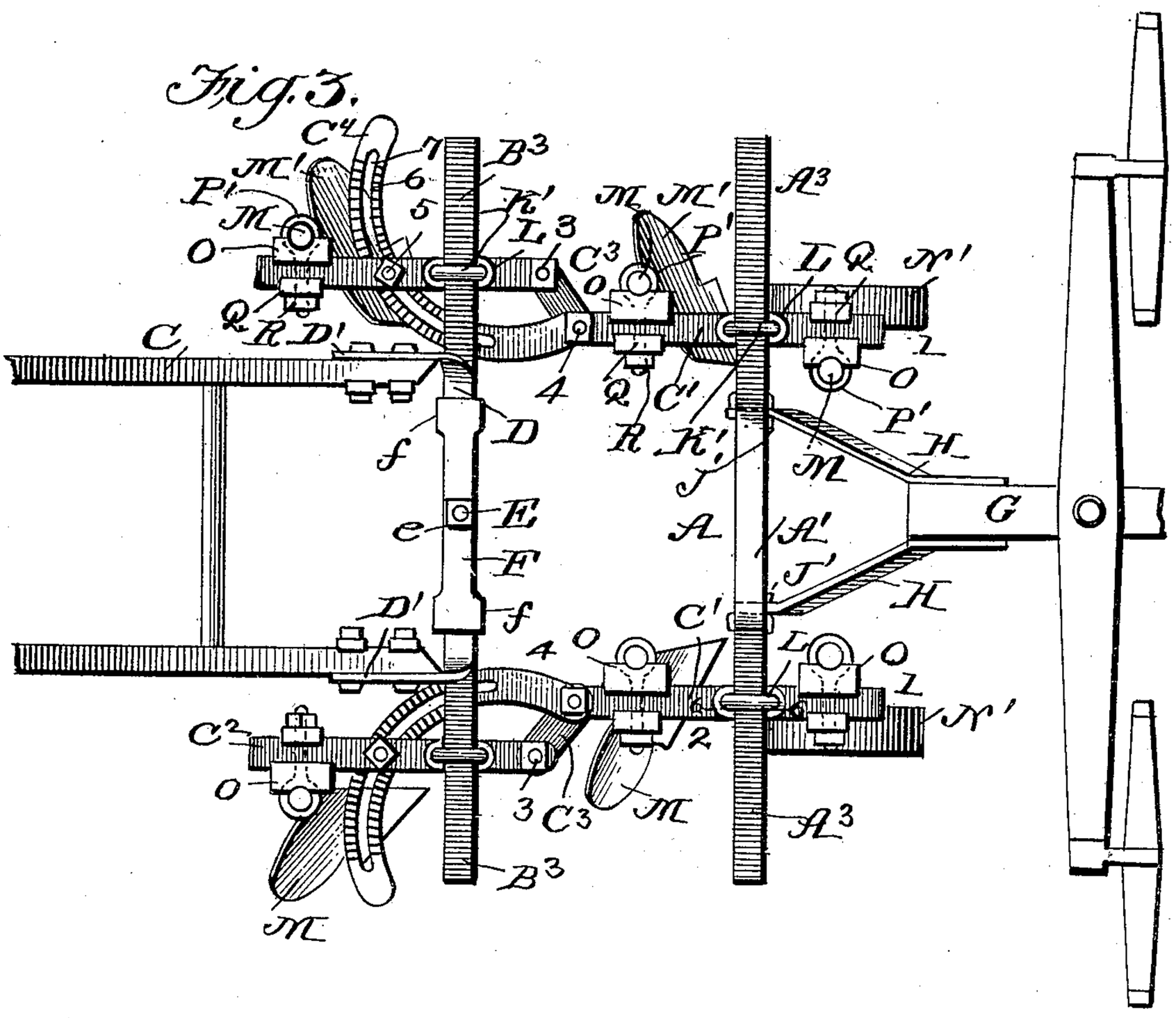


Fig. 4.

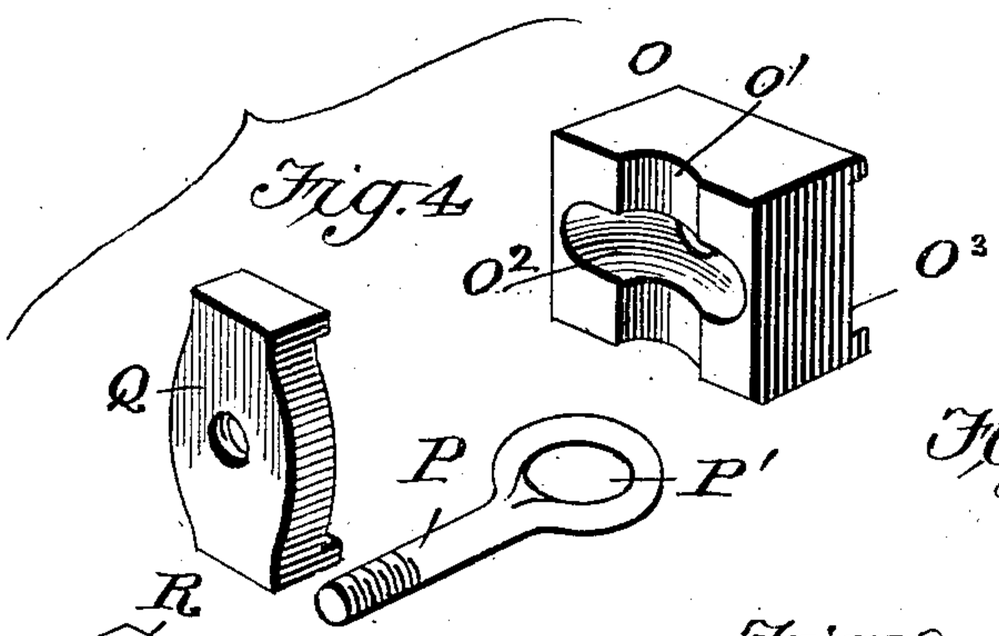


Fig. 5.

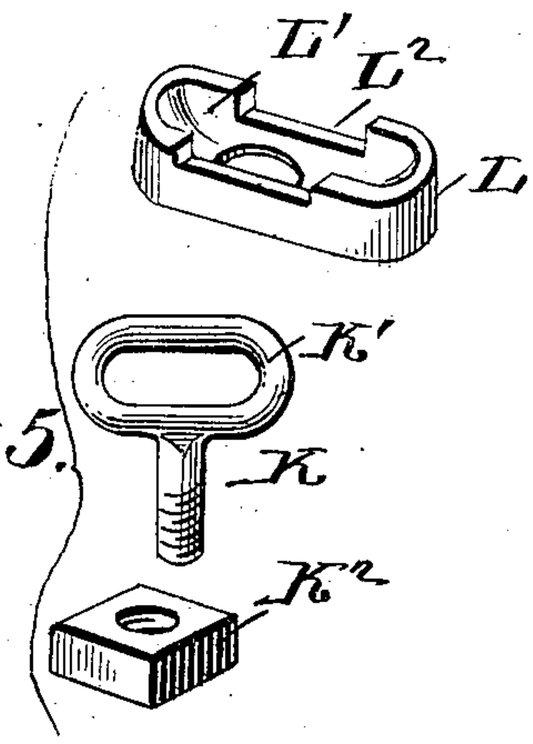
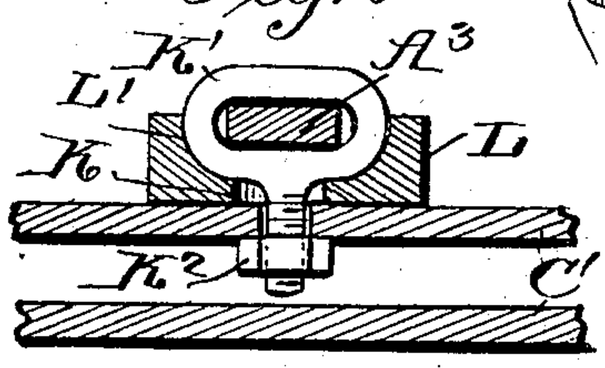


Fig. 6



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No. 763,288. Patented June 21, 1904.

UNITED STATES PATENT OFFICE.

MILES JENNINGS AND JOHN H. JENNINGS, OF ELIZABETH CITY, NORTH CAROLINA.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 763,288, dated June 21, 1904.

Application filed October 19, 1903. Serial No. 177,614. (No model.)

To all whom it may concern:

Be it known that we, MILES JENNINGS and JOHN H. JENNINGS, citizens of the United States, and residents of Elizabeth City, in the county of Pasquotank and State of North Carolina, have made certain new and useful Improvements in Cultivators, of which the following is a specification.

This invention is an improvement in cultivators, and especially in straddle-row cultivators, and has for an object, among others, to provide a novel construction of beam and of devices for supporting the same so the different sections of the beams can be readily adjusted in order to set the plows in any desired relation; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a cultivator embodying our invention. Fig. 2 is a detail perspective view of a portion of the handle-frame. Fig. 3 is a top plan view of the cultivator. Fig. 4 is a detail perspective view of the clamping devices for the plows and for the wheel-standards. Fig. 5 is a detail perspective view illustrating the devices for securing the lateral arms of the arches in connection with the beams, and Fig. 6 is a detail section on about line 6 6 of Fig. 1.

The cultivator, as shown, comprises the front arch A, the rear arch B, and the beams C at the opposite sides of the implement. The arches A and B are formed, respectively, with the top bars A′ B′, the side arms A^2 B^2, and the lateral arms A^3 B^3, said lateral arms being connected with the beams by the devices presently described. The handle is formed with the bars C and the handle-frame D, having the side bars D′ secured to the handles C and the cross bar D^2 slotted longitudinally at its middle at *d* to receive the bolt E, which passes through the top bar B′ of the arch B, thence through the slot *d*, and then through an opening in the clasp F and receives the nut *d*. The clasp F overlies the handle-frame and is provided at its ends with depending lugs *f*, which extend down alongside the handle-frame and the top bar B′ of the arch and braces the handle-frame in connection with the arch and at the same time permits the adjustment of the handle-frame laterally to any desired extent.

The draft connection, which may be a pole G, as shown, has the arms H, which spread apart at their rear ends and are connected with the lower ends of the sides A^2 of the arch A. This connection is preferably effected by means of the brackets I, provided at their upper ends with lugs I′, fitting on opposite sides of the uprights A^2, bolted near said ends at J to the said uprights A^2 and having the arms H bolted to the said members at J′ near their lower ends. This forms a convenient connection for the draft devices and permits the latter to be arranged below the lateral arms A^3 of the front arch, as will be understood from Fig. 1 of the drawings. The beams C are secured to the lateral arms of the front and rear arches and are alike except that they are rights and lefts, as will be understood from Figs. 1 and 3 of the drawings, so that the description of one of the beams and the parts connected therewith will answer for both.

The beam C comprises the front section C′, the rear section C^2, the connecting-bar C^3, and the segment C^4, by which to secure the front and rear sections C′ and C^2 in any desired adjustment. The front and rear sections are composed of bars of metal bent upon themselves at their middles at one end and lapping at their inner or adjacent ends at 2 upon the bar C^3, to which they are secured by the bolts 3 and 4, so the said sections C′ and C^2 may be swung to any desired adjustment relatively to each other so that they may be brought into alinement with each other or at any suitable angle within the range of the adjustment. By this means the front and rear sections can be adjusted inwardly or outwardly, or one inwardly and the other outwardly, to any desired extent in order to secure the arrangement of the plows presently described to run in any lines desired. This is specially important in cultivating different crops where they may be planted in rows spaced different distances or where it may be desired to run the plows nearer or farther from the growing

plants for any desired purpose. In order to secure the sections C′ and C² in any desired adjustment, we provide the segment C⁴, which may be secured pivotally at one end by the bolt 4 to the inner end of one of the beam-sections and swing at its free end along the other beam-section and be secured to the latter when the parts are set to any desired position by means of the bolt 5, as will be understood from Fig. 1 of the drawings. It may be preferred in some instances to tooth or roughen the segment at 6 on opposite sides of its bolt-slot 7 in order to give a better hold in clamping the segment in the desired position. By the described construction by the use of an ordinary wrench the nuts may be readily loosened and the beam-sections set to any desired position and firmly secured in such position.

The front arch has its lateral arms secured to the front beam-sections, and the lateral arms of the rear arch are secured to the rear sections of the opposite beams, and the connection is effected by means which permit of the adjustment of the beam-sections along the said arms in securing the different adjustments of the beams. As shown, the arch-arms are secured to the beam-sections by the bolts K, having eyes K′, receiving the arms A³ and fitting in recessed blocks L, resting upon the top of the beam-section, a nut K² turning on the bolt between the upper and lower bars of the beam, as will be understood from Fig. 6 of the drawings. The recessed block L has the recesses L′ in its upper face to receive the eye K′ and is notched at L² in the opposite walls of said recesses to receive the arms of the arch, as shown in Fig. 5.

Each of the beam-sections carries a standard M of a shovel M′, which may be of any suitable form, and the front ends of the beams are supported by the wheels N′, having standards N connected with the beams, and the said standards M and N are connected with the beams by similar devices, which are shown in detail in Fig. 4 of the drawings and applied for use in Figs. 1 and 3 and consist of a block O, an eyebolt P, a bearing-plate Q, and a nut R. The block O is grooved vertically in one face at O′ for the standard and has in said face a recess O² for the eye P′ of the bolt P, which latter embraces the standard and draws the same firmly into the groove O′ of the block O when secured, as shown in Figs. 1 and 3. The face of the block O opposite the groove O′ is recessed at O³ to fit the beam, and the bolt P extends through the block O, thence between the upper and lower bars of the beam, (see Fig. 1,) thence through the bearing-plate Q on the opposite side of the beam from the block O, and receives the nut R, which turns up against the bearing-plate Q, as will be understood from Figs. 1 and 3 of the drawings. By this means the standards may be secured in any desired vertical adjustment, and the securing devices may be adjusted along the beam in order to set the standards at any desired point along the said beams as may be desired in the use of the implement.

From the foregoing description it will be understood that we provide an implement in which the beams are composed of sections which may be adjusted relatively to each other and also adjustable along the arms of the front and rear arches so the shovels can be set to any desired position and those on the same side of the implement be caused to run directly in line with each other, or the front and rear shovels may be set to any desired relative position in order to secure the movement of the shovels in the desired lines. The shovels can also be adjusted vertically independently of the front supporting-wheels and the latter may also be adjusted, thus enabling us to secure the running of the shovels at any desired depth. The construction is also simple and can be easily adjusted, as described, by the operator in a few moments, not requiring the services of a skilled mechanic.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The cultivator herein described, comprising the front and rear arches having the lateral arms, the brackets secured to the upright arms of the front arches, the draft connection secured to said brackets, the handle-frame secured to and adjustable laterally upon the top bar of the rear arch, the side beams composed of front and rear sections, connecting-bars jointed to the adjacent ends of the front and rear sections, the segment pivoted at one end to one of the sections and movable at its swinging end along the other sections, devices securing such segment to said section, the clamping devices for securing the lateral arms of the front and rear arches to their respective sections of the beams, and the standards and devices securing the standards to the beams, substantially as and for the purposes set forth.

2. The combination in a cultivator with the arches, of the beams composed of front and rear sections having upper and lower bars, and secured respectively to the front and rear arches, the connecting-bar fitting at its ends between the upper and lower bars at the adjacent ends of the beam-sections and jointed thereto, the segment jointed at one end to one of the beam-sections and movable at its swinging end along the other beam-section, and devices securing said segment to such beam-section, substantially as set forth.

3. In a straddle-row cultivator, the combination with the arch, of the handle-frame, having a cross-bar resting upon the arch and provided with a longitudinal slot, the clasp overlying the handle-frame and having lugs extending down alongside the cross-bar of the frame and the top bar of the latch, and the

bolt and nut for securing said parts, substantially as set forth.

4. In a cultivator, the arch having a top bar, combined with the handle-frame having a cross-bar resting upon said top bar of the arch, the clasp resting upon said cross-bar of the frame and provided at its ends with depending lugs lapping alongside said cross-bar of the frame and the top of the arch, and the securing-bolt, substantially as set forth.

5. The combination in a cultivator with the beam, and the arch having a lateral arm, of the eyebolt having an eye receiving the lateral arm of the arch, and securing the same to the beam, and the block having in its upper side a recess for the eye of the bolt and provided in the opposite walls of said recess with notches for the arm of the arch, substantially as set forth.

6. The combination with a beam having upper and lower bars spaced apart, of a block recessed in one face to fit alongside said beam, and provided in its other face with an upright groove for the standard and with a recess intersecting said groove for the head of the eyebolt, the eyebolt fitting in said recess and passing between the upper and lower bars of the beam, the bar and plate on the opposite side of the beam from said block, the nut on said bolt, and the standard passing through the eye of the bolt and fitting in the groove in the block, substantially as and for the purposes set forth.

7. The combination with the standard, and the beam, of the block fitting alongside the beam, and provided in its outer face with a vertical groove for the standard and with the recess for the eye of the bolt, the bolt having an eye fitting in said recess and embracing the standard, said bolt passing through the block and thence through the beam, and means on the opposite side of the beam for securing the bolt, substantially as and for the purpose set forth.

8. A cultivator having front and rear arches provided with lateral arms, beams composed of front and rear sections and adjustable connections between the adjacent ends of said sections, the front and rear beam-sections being movable along the lateral arms of their respective arches, and means for securing the beam-sections in any desired adjustment upon the arch-arms, substantially as set forth.

9. The combination with the front and rear arches having lateral arms, of the beam, composed of front and rear sections having upper and lower bars spaced apart, a connecting-bar between and secured to the adjacent ends of the front and rear beam-sections, the segment secured at one end to one of the beam-sections, and movable at its other end along the other beam-section, means for securing said end in connection with its beam-section, the standards, their securing devices having bolts passing between the upper and lower bars of the beam-sections, whereby the standards may be adjusted longitudinally along the beam-sections, and devices securing the front and rear arches in connection with the beam-sections, substantially as set forth.

10. The combination in a cultivator of the beam-sections having upper and lower bars, spaced apart, the swinging bar extending between the adjacent ends of the beam-sections, and fitting between the upper and lower bars thereof, and jointed at its ends to the adjacent ends of the beam-sections, and the segment secured at one end by the bolt which secures one end of the swinging bar to one beam-section and movable at its swinging end along the other beam-section, and the bolt for securing the swinging end of the segment in connection with such beam-section, substantially as set forth.

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Witnesses:
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