3 Sheets--Sheet 1.

J. L. McCALEB.

Planters, Cultivators, and Stalk-Choppers.

No. 150,771. Patented May 12, 1874.

Fig. 1.

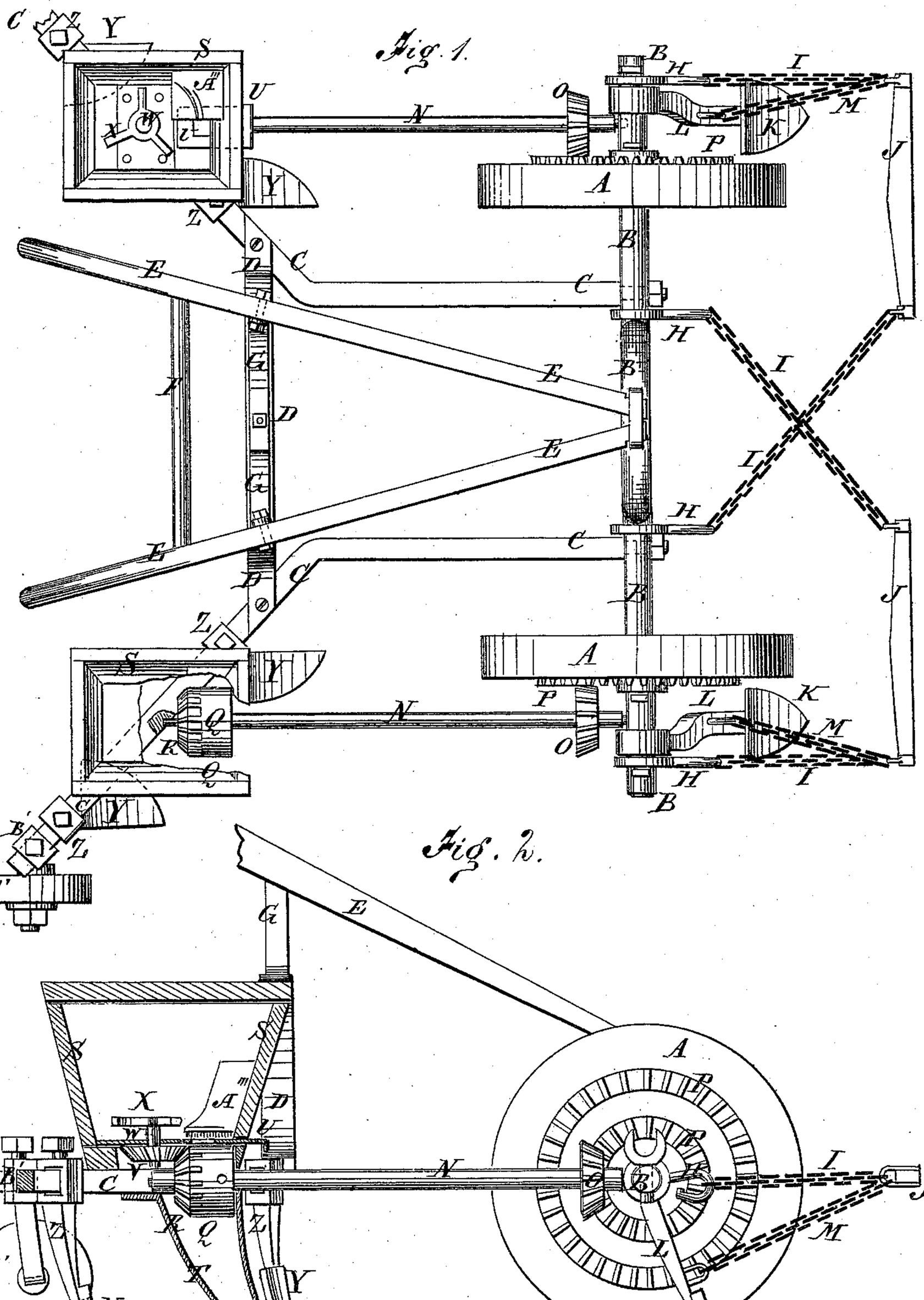

Fig. 2.

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Fig. 3

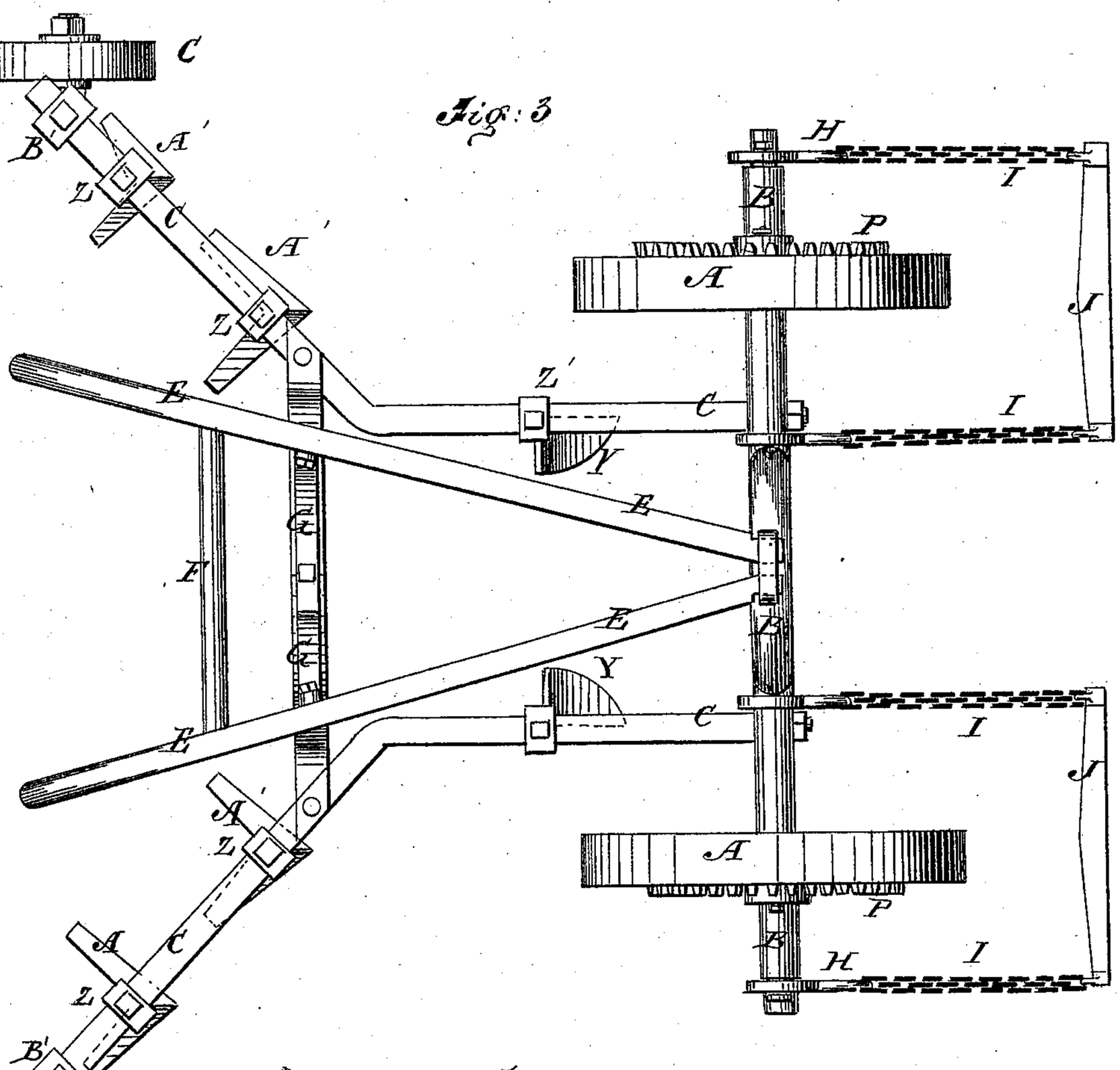

Fig. 4.

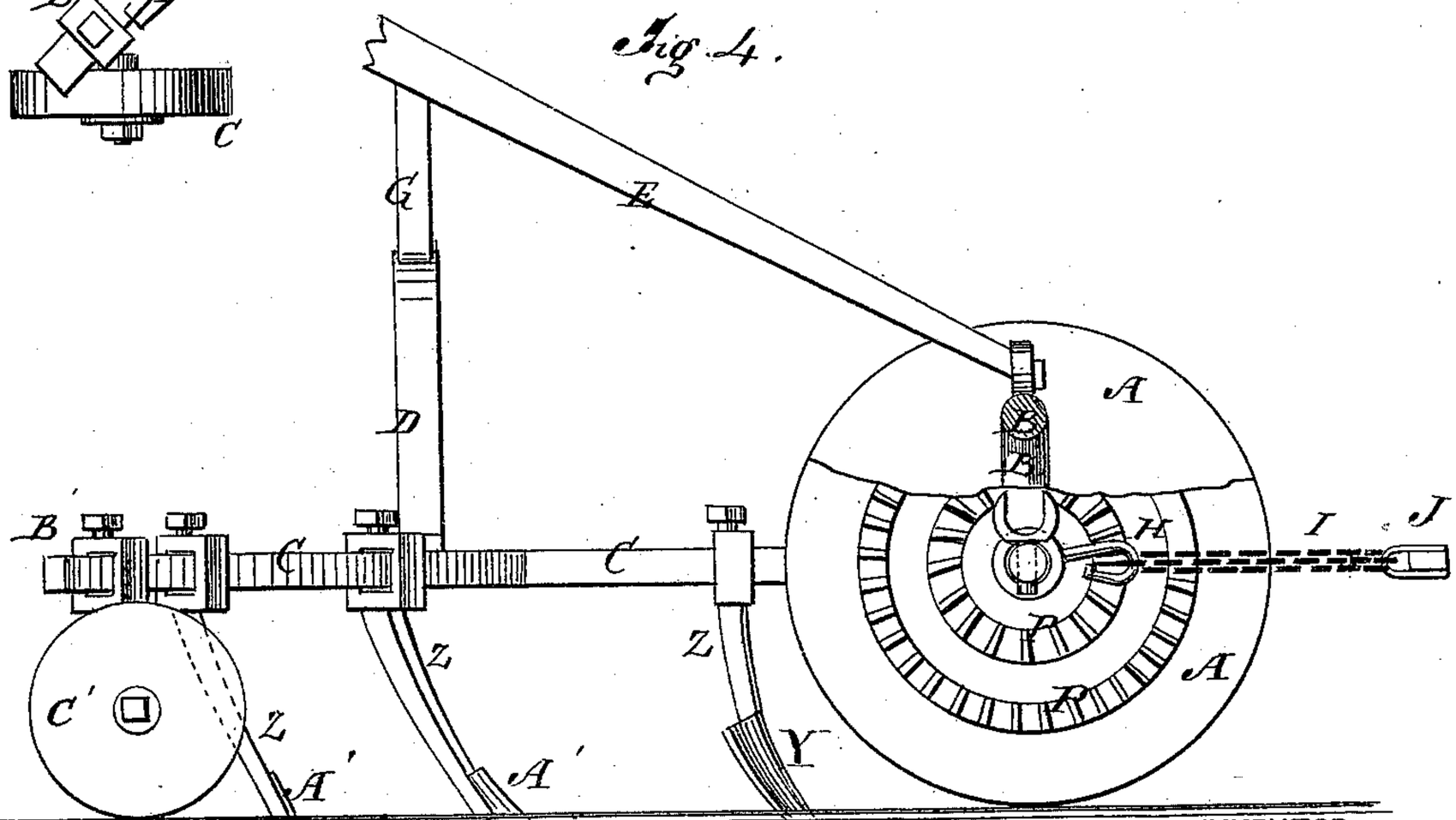

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Fig. 5.

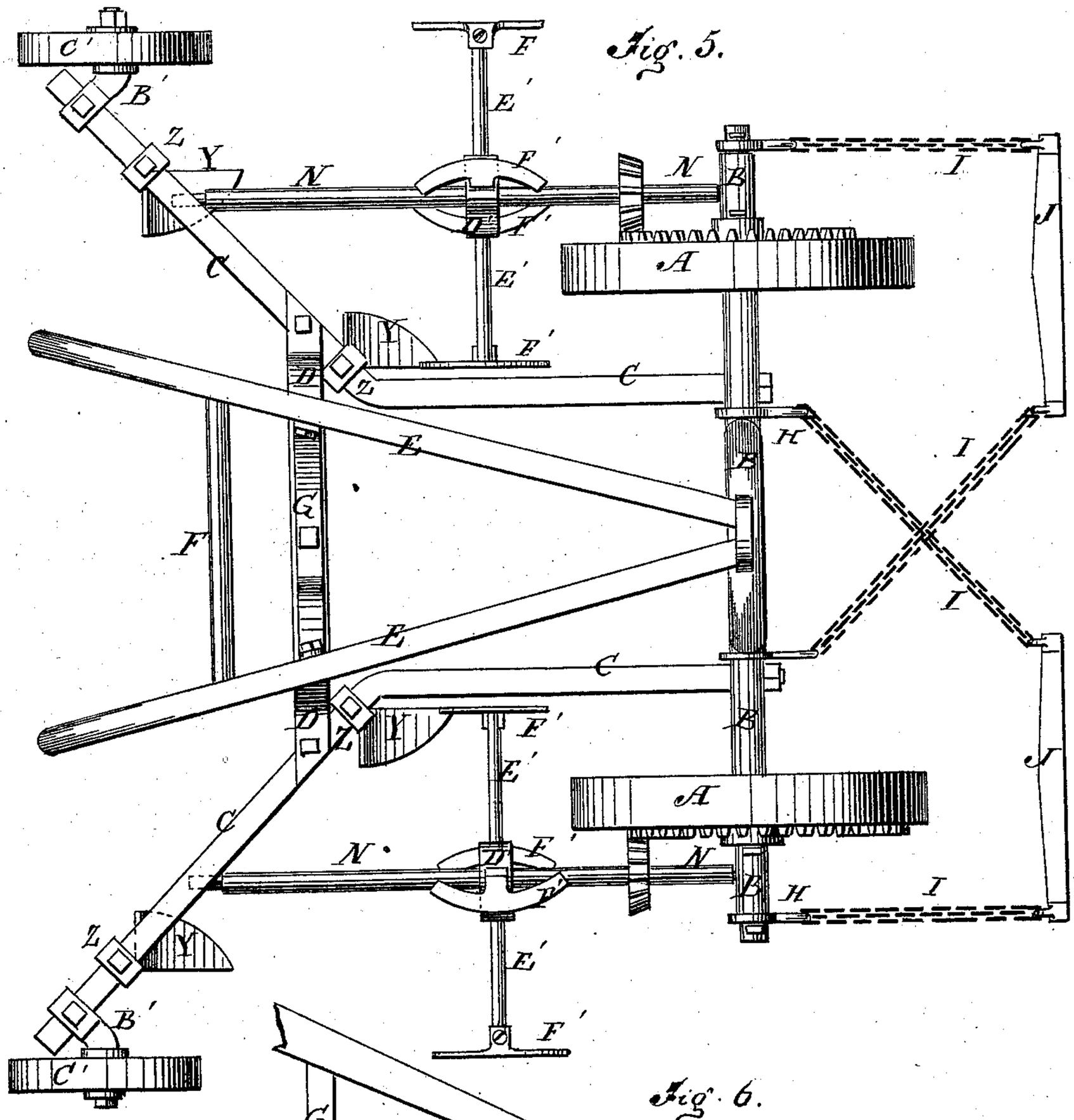
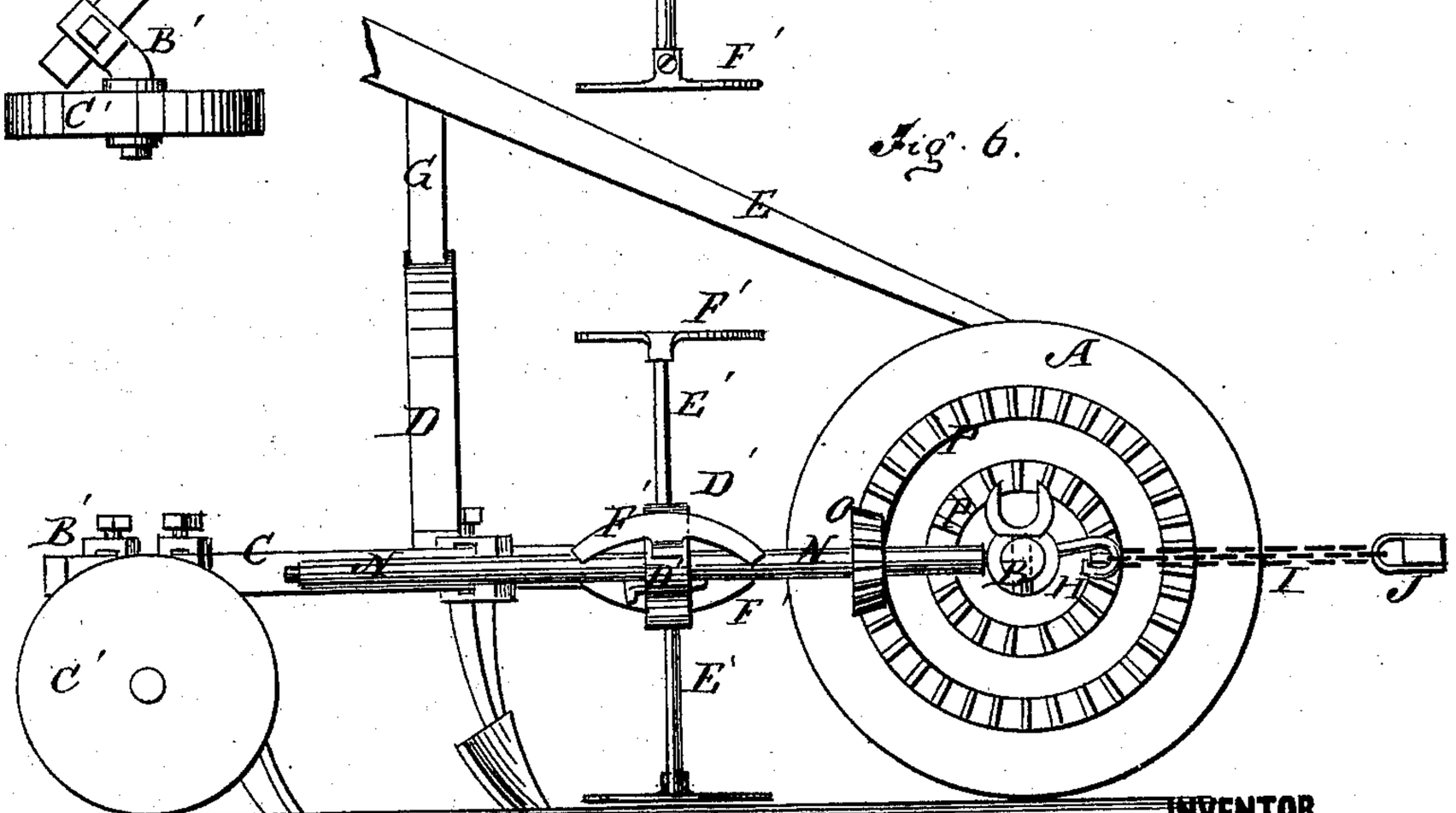


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN L. McCALEB, OF ATASCOSA, TEXAS.

IMPROVEMENT IN PLANTERS, CULTIVATORS, AND STALK-CHOPPERS.

Specification forming part of Letters Patent No. **150,771**, dated May 12, 1874; application filed December 1, 1873.

To all whom it may concern:

Be it known that I, JOHN L. McCALEB, of Atascosa, in the county of Bexar and State of Texas, have invented a new and useful Improvement in Combined Planter, Cultivator, and Chopper, of which the following is a specification:

Figure 1, Sheet 1, is a top view of my improved machine arranged as a planter, part being broken away to show the construction. Fig. 2, Sheet 1, is a side view of the same, partly in section, to show the construction. Fig. 3, Sheet 2, is a top view of my improved machine arranged as a cultivator. Fig. 4, Sheet 2, is a side view of the same, part being broken away to show the construction. Fig. 5, Sheet 3, is a top view of my improved machine arranged as a chopper. Fig. 6, Sheet 3, is a side view of the same.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and subsequently pointed out in claim.

A are wheels, which revolve upon journals formed upon the axle B at a little distance from its ends. In the middle part of the axle B is formed a bow or arch, so that it may readily pass over tall plants without breaking or injuring them. C are beams, the forward ends of which are secured to the axle B close to the ends of the arch or bow formed upon the middle part of said axle. The beams C pass back parallel with each other, and at right angles with the axle B for a short distance, and are then bent outward at an obtuse angle, as shown in Figs. 1, 3, and 5. The rear parts of the beams C are held in their proper relative positions by an arch or bow, D, the ends of which are secured to said beams at or near their bend or angle. E are the handles, the forward ends of which are inserted and secured to the top of the bow or arch of the axle B by a loop, keeper, or other convenient means. The rear parts of the handles E are connected by a round, F, and are held at the proper elevation by the U-shaped brace G, to the ends of which they are attached, and the bow or bend of which is secured to the top of the bow or arch D. To the outer and inner ends of the horizontal parts of the axle B are pivoted hooks H, to receive the ends of the chains I. The outer ends of the chains I are attached to the ends of the draft-bars J. The inner chains I may be crossed, as shown in Figs. 1 and 5, or straight, as shown in Fig. 3. The furrow is opened to receive the seed by the plows K, which are bolted to the lower ends of the standards L, the upper ends of which have eyes formed upon them to receive the end parts of the axle B, upon which the said standards L swing. The draft-strain upon the standards L is sustained by the chains M, the rear ends of which are secured to the said standards L, and their forward ends are provided with hooks, to hook into the links of the chains I, so that by adjusting the said hooks the inclination of the standards L, and consequently the depth to which the plows K enter the ground, may be regulated at will. N are longitudinal shafts, the forward ends of which work in sockets formed in the rear side of the end parts of the axle B, and their rear ends work in sockets in the end parts of the beams C. O are bevel-gear wheels keyed to forward parts of the shafts N, and the teeth of which mesh into the teeth of one or the other of the bevel-gear wheels P attached to the wheels A, according as a greater or less speed is to be given to the shafts N. To the rear end of the shaft N is attached a cylinder, Q, and a bevel-gear wheel, R. In the outer part of the cylinder O are formed one or more cavities, to receive corn and other smooth seeds from the hopper S, and transfer it to the bottom of the furrow through the conductor-spout T. In the forward part of the cylinder Q are formed a series of cavities somewhat similar to the teeth of a gear-wheel, to take the cotton-seed from the hopper S. The face of the dropping-cylinders Q projects into openings in the bottoms of the hoppers S, which openings are covered by a slotted slide, U, which slide, when the machine is to be used for planting corn, is adjusted to bring its slot over the outer part of the cylinders Q, and which, when the machine is to be used for planting cotton, is adjusted to bring its slot over the inner part of the said cylinders. The hopper S is provided with a brush or other suitable cut-off, A‴, to prevent the cylinder O from carrying out any more seed than enough to fill its dropping-cavities, so that the seed may be dropped uni-

formly. The hoppers S are secured to the upper and the conductor-spouts T are secured to the lower side of the beams C. The teeth of the bevel-gear wheels R, attached to the rear ends of the shafts N, mesh into the teeth of the small bevel-gear wheels V, attached to the lower ends of the short vertical shafts W, which pass up through and work in the center of the bottoms of the hoppers S, and to the upper end of which is attached a stirrer to keep the seed in the lower part of the hopper S stirred up, and to cause the seed to pass freely to the dropping-cylinder Q. Y are the covering-plows, which may be made in the form of half-shovels, or of any other suitable form, and which are attached to the lower ends of the standards Z. The standards Z have square holes formed in their upper ends to fit upon the beams C, are placed one in front and one in rear of the hopper S, and are secured in place adjustably by set-screws, as shown in Figs. 1 and 2.

In adjusting the machine for use as a cultivator, the furrowing-plows K L, the shafts N, and hoppers S, and their attachments, are detached, and three or more standards, Z, provided with suitable plows, are placed upon each of the beams C. In this case I prefer to place half-shovel plows Y upon the standards Z attached to the parallel parts of the beams C, and scooters A′ or shovels upon the standards Z attached to the inclined parts of said beams C. To the rear ends of the beams C are detachably attached standards B′, having outwardly-projecting journals formed upon their lower ends to receive the small wheels C′, by which the rear parts of the machine are supported.

In the adjustment shown in Figs. 5 and 6 the gear-wheel O is moved back, so that its teeth may mesh into the teeth of the larger gear-wheel P, to give the said shaft a more rapid motion. Upon the middle part of the shafts N are keyed hubs D′, to each of which are attached the inner ends of four (more or less) spokes, E′, which are slightly curved forward, and to their outer ends are attached cutters F′, the blades of which project forward nearly at right angles with the spokes E′.

By this construction, as the machine is drawn forward the cutters F′ will chop the cotton to a stand. The distance apart of the cuts may be regulated by varying the number of spokes E′ or of teeth in the gear-wheel P.

The plants may be cultivated at the same time that the chopping is done by attaching standards Z to the inclined parts of the beams C in front and rear of the shafts N, which standards Z may be provided with half-shovel plows, Y, or other suitable kind of plows.

With this adjustment the machine will chop and cultivate two rows of plants at the same time.

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

The combination, with arched axle B, having ratchet-wheels A A, of the obtuse-angled bars C C, having their ends extended laterally beyond wheels A A, supported at the ends by wheels C′ C′, and spaced by arched piece G, as described, to enable the frame to receive the seeding devices or cultivators or choppers, in the manner specified.

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Witnesses:

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