

(No Model.)

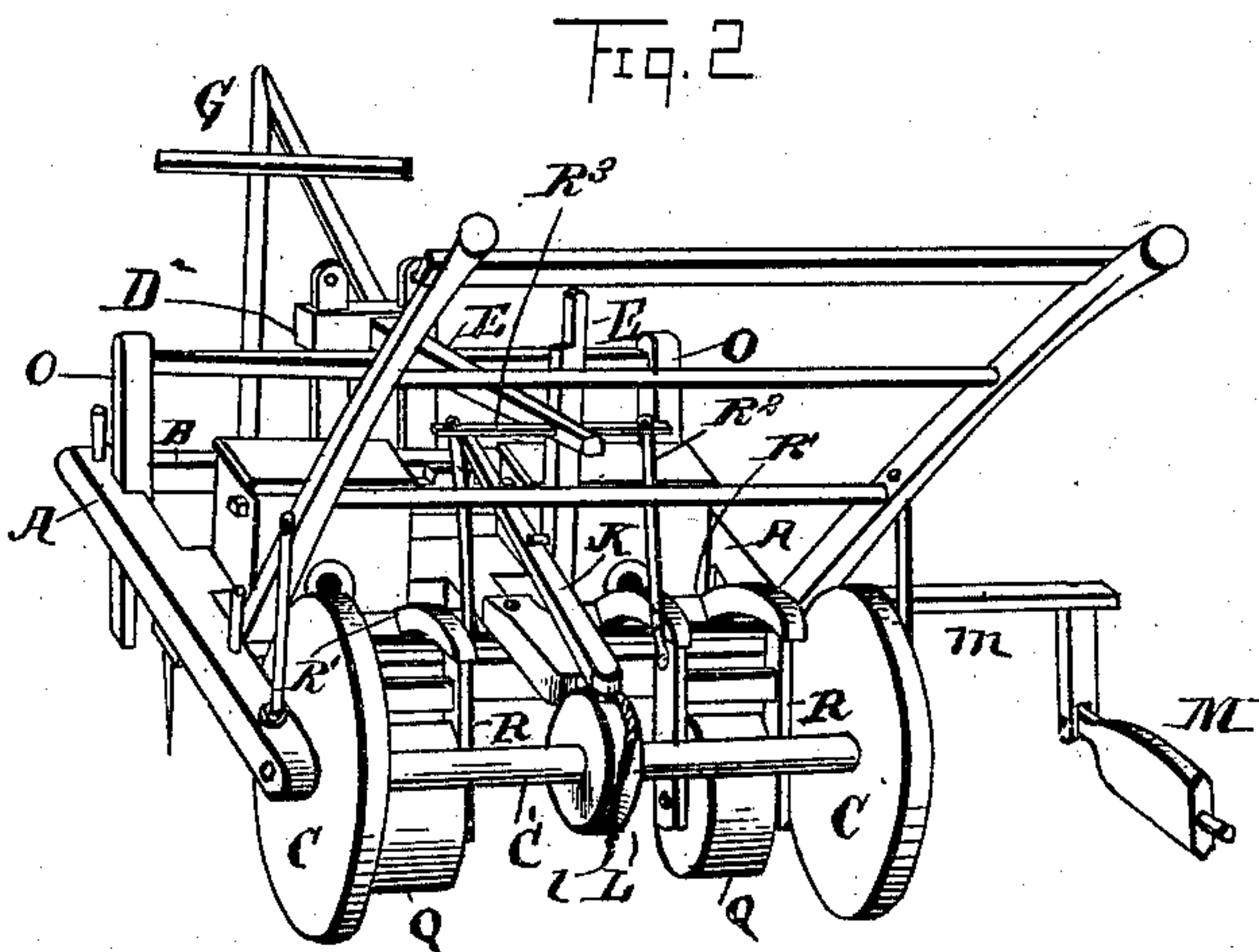
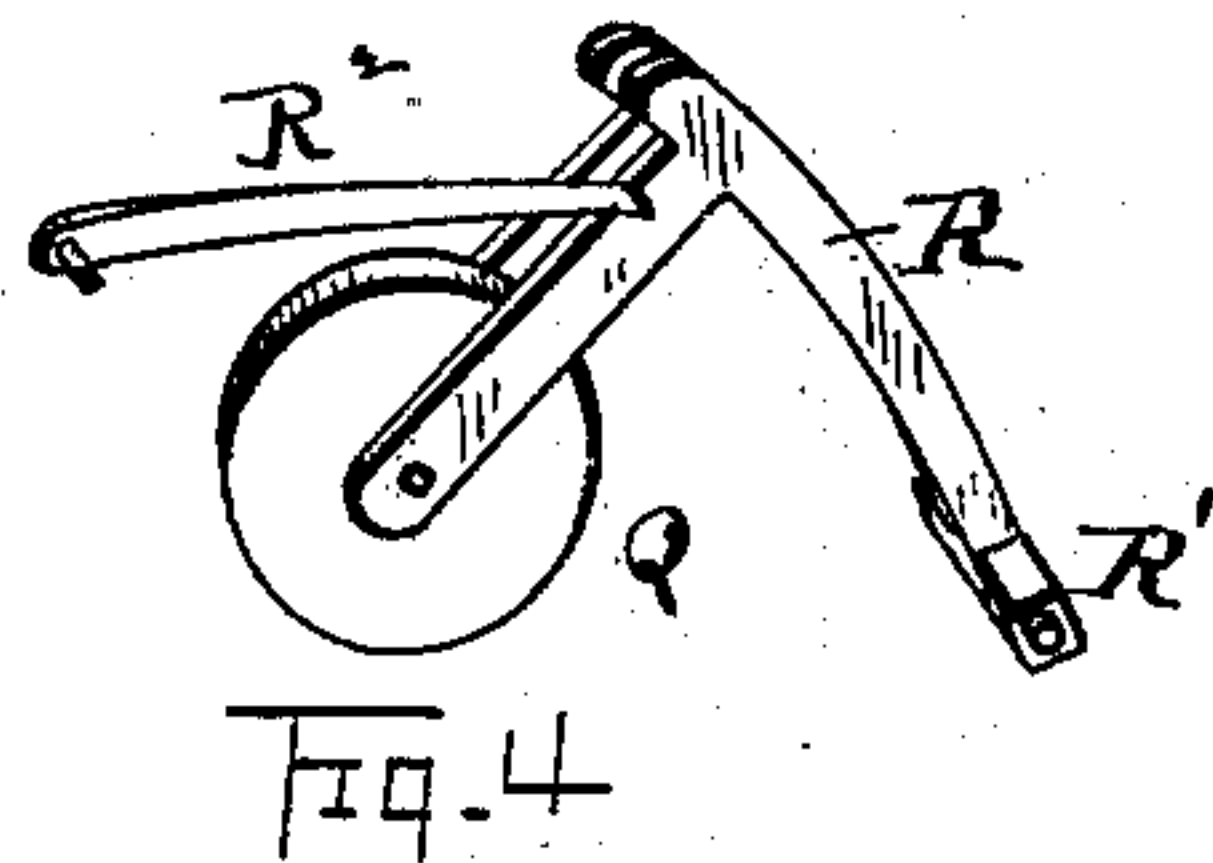
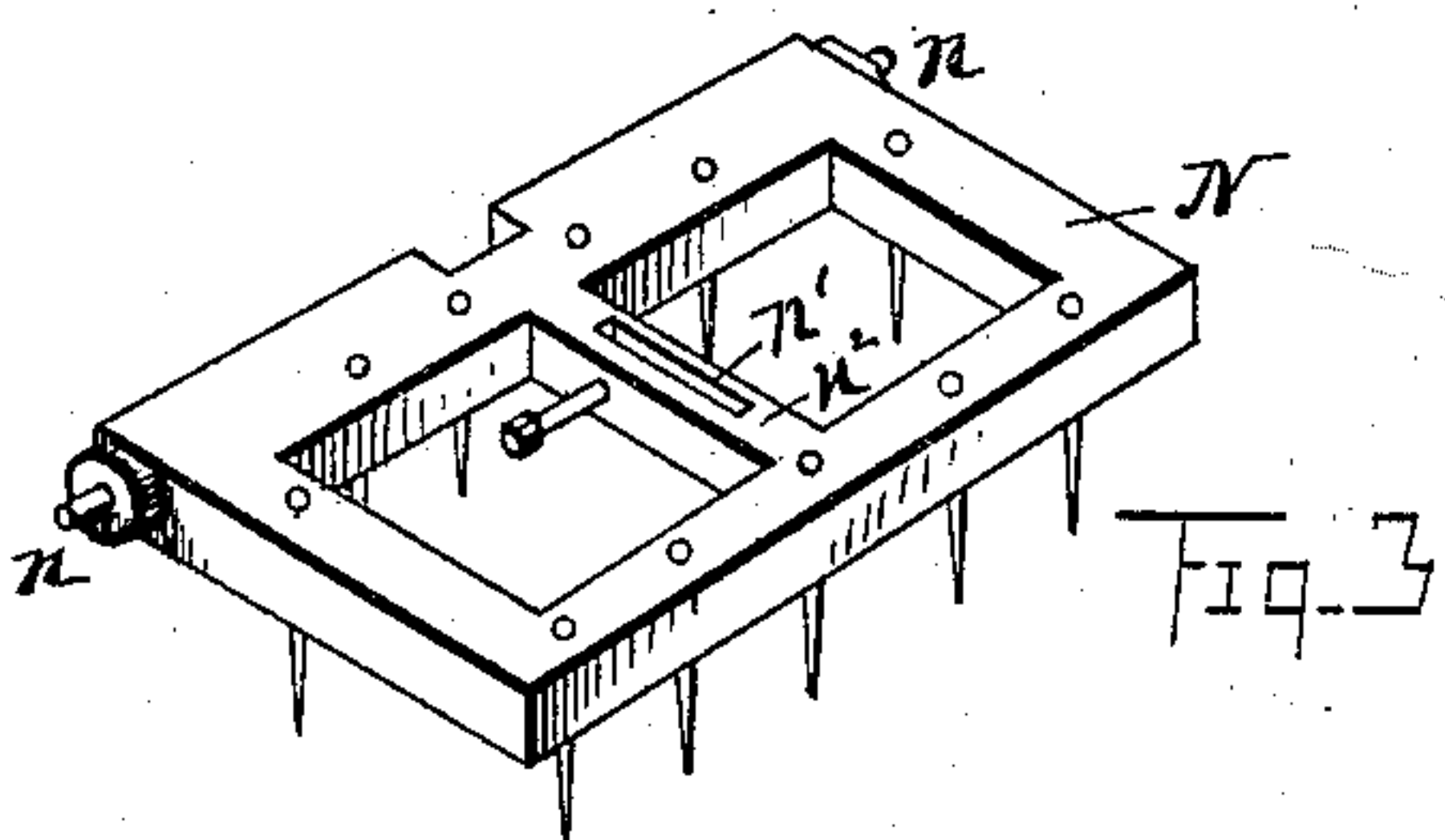
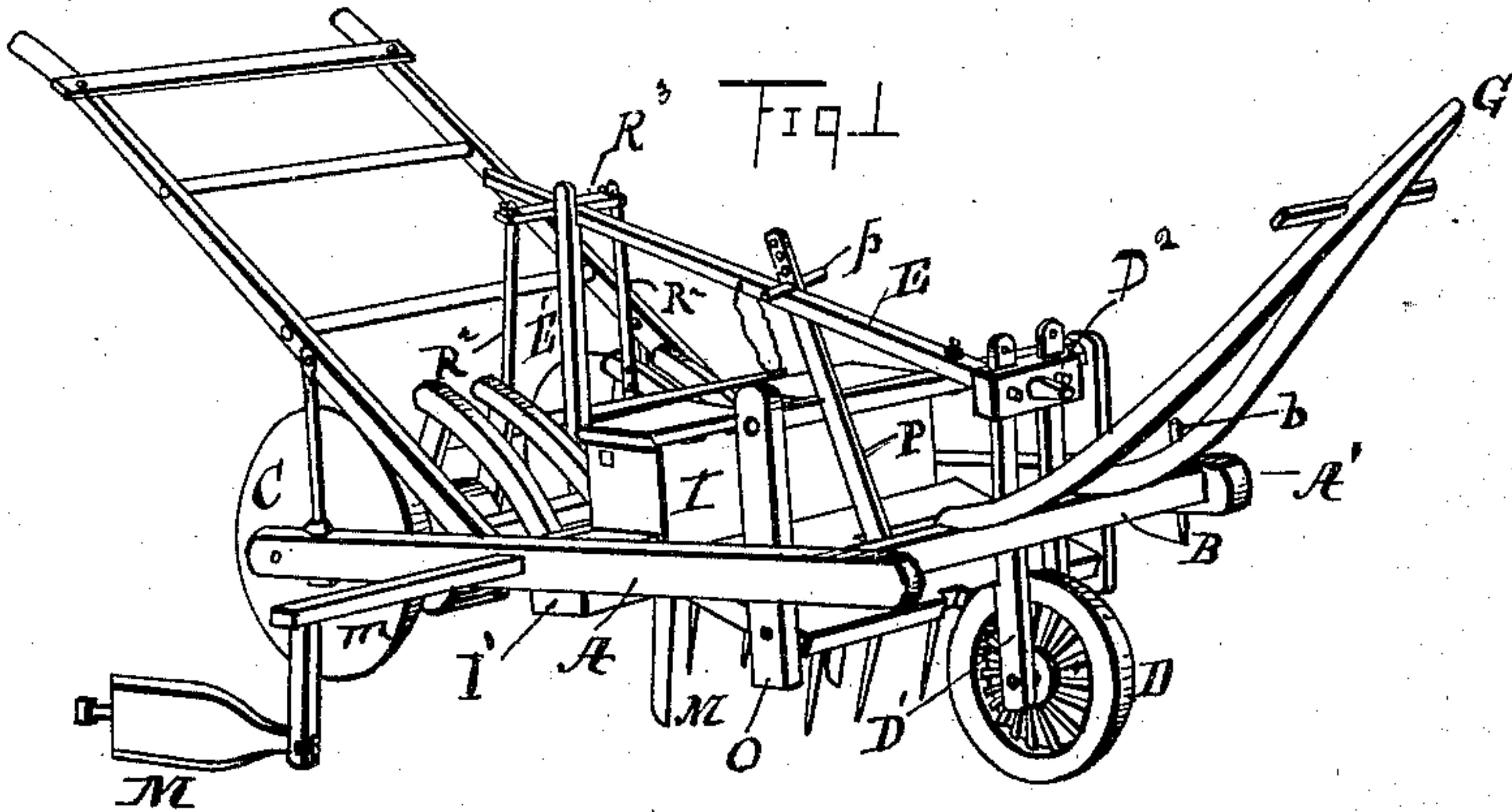
2 Sheets—Sheet 1.

I. G. WISE.

## SEED PLANTER AND CULTIVATOR.

No. 416,884.

Patented Dec. 10, 1889.



*Witnesses.*

*R. S. Lowrie.*  
*John Memmner*

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(No Model.)

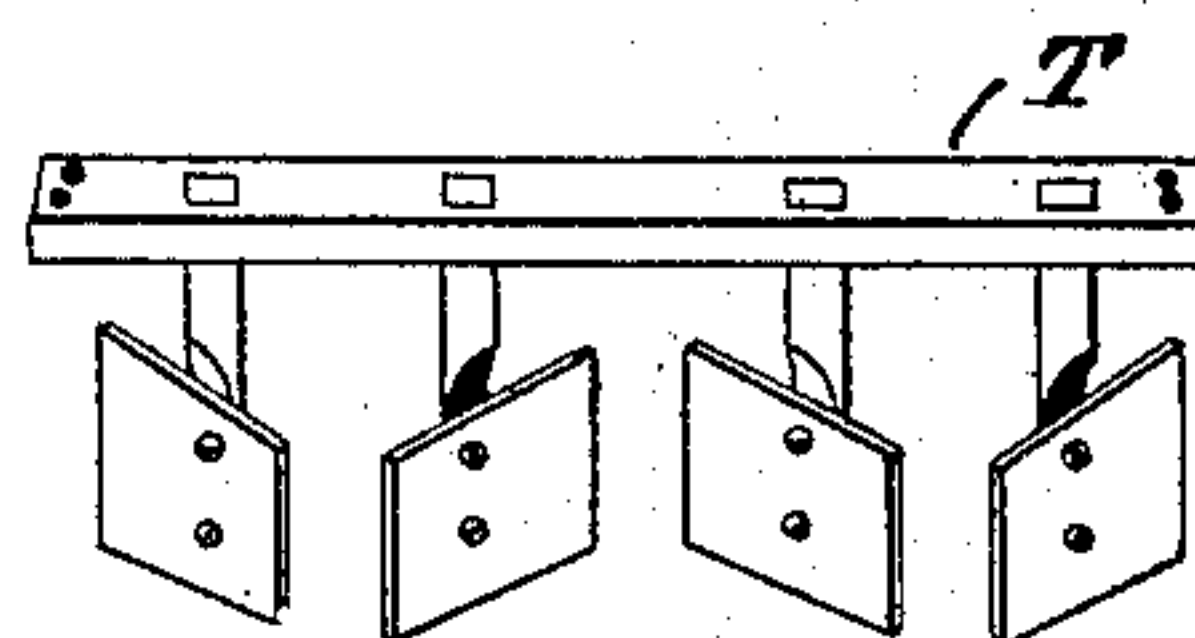
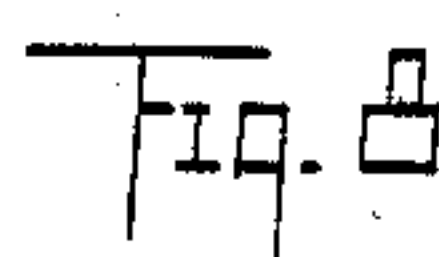
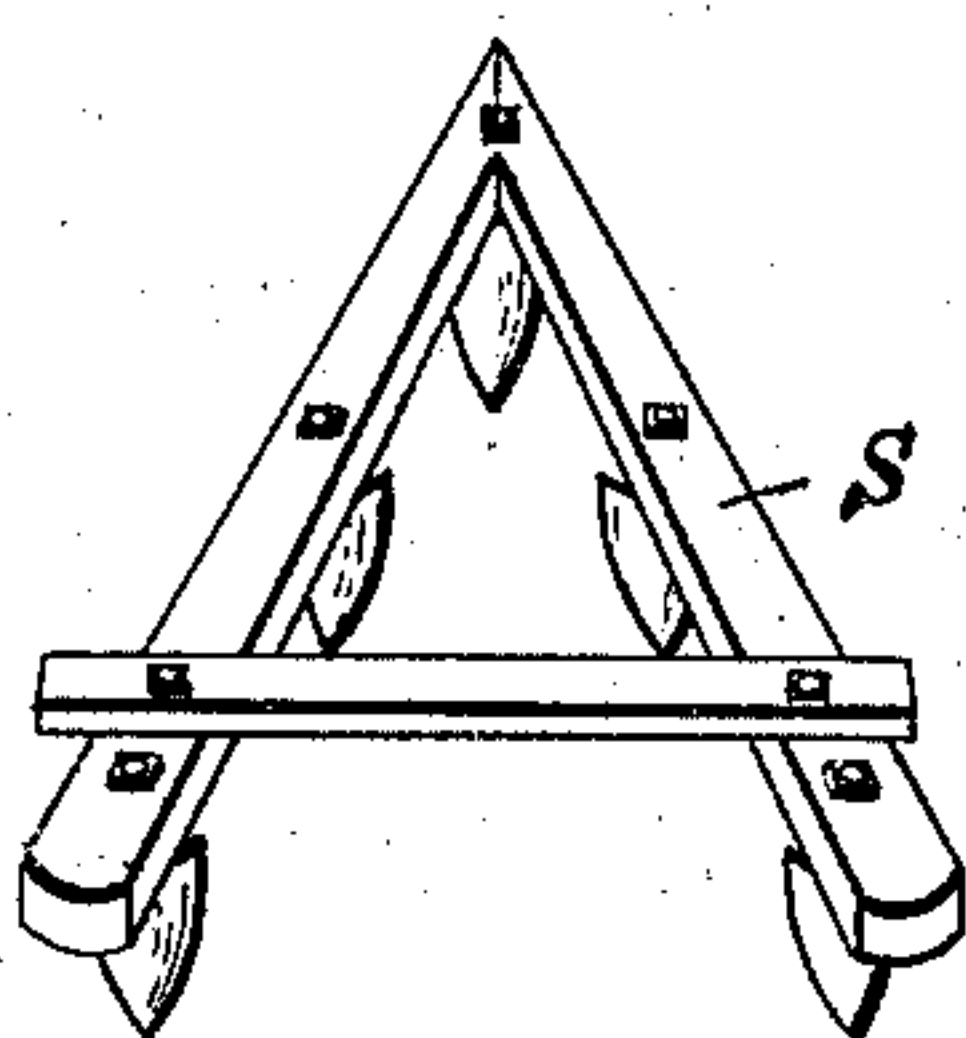
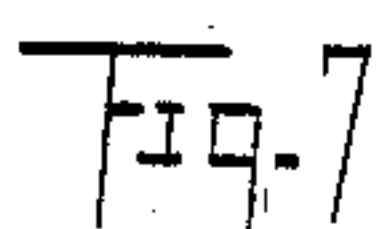
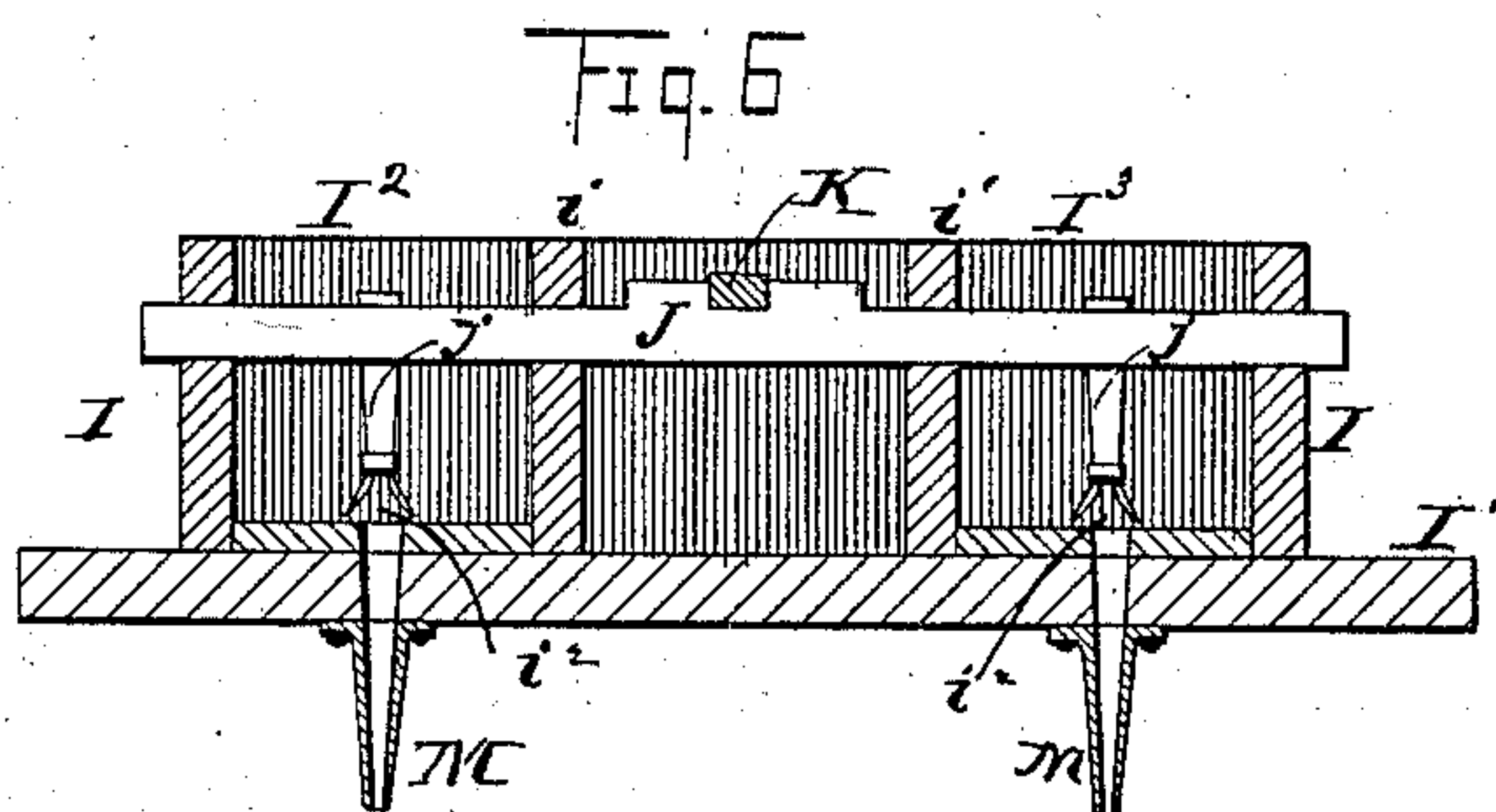
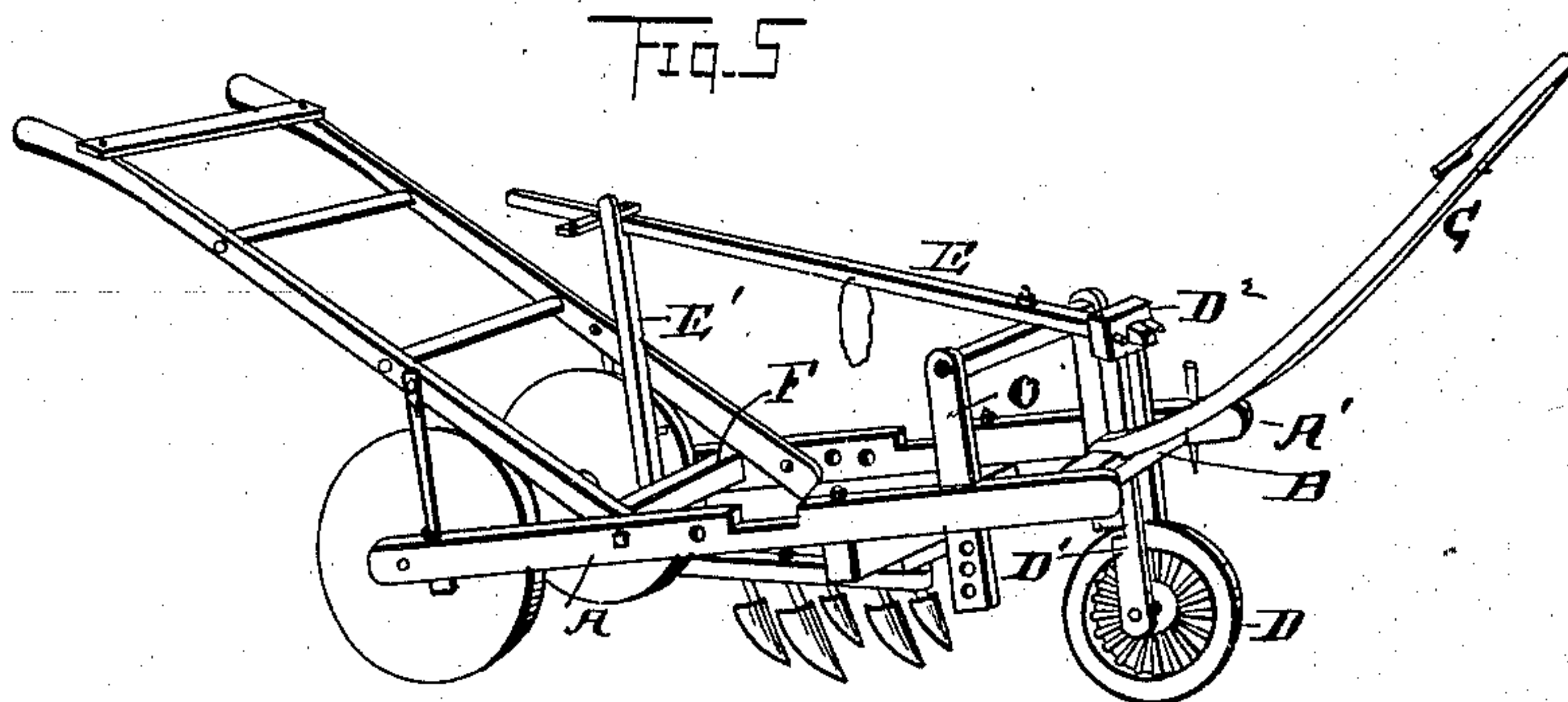
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# UNITED STATES PATENT OFFICE.

ISAAC G. WISE, OF BRIMFIELD, OHIO.

## SEED-PLANTER AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 416,884, dated December 10, 1889.

Application filed May 2, 1889. Serial No. 309,405. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC G. WISE, a citizen of the United States, residing at Brimfield, in the county of Portage and State of Ohio, have invented a certain new and useful Hand Seed-Planter and Cultivator, of which the following is a specification.

My invention relates to machines for planting and tending corn, wheat, and similar food-crops; and the object of my invention is to produce a machine certain parts of which shall be readily detachable and interchangeable, so as to adapt the machine to be used either as a seeder, harrow, cultivator, marker, or as a combination thereof, as circumstances may require.

To the above purposes my invention consists in certain peculiar and novel features of construction and in certain combinations of parts, as hereinafter described, and pointed out in the claims.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved machine. Fig. 2 is a similar view of the same, viewed from the rear. Fig. 3 is a perspective view of a detachable harrow designed to be used in connection with my invention. Fig. 4 is a perspective view of a covering-wheel, also designed to be used in connection with my invention. Fig. 5 is a perspective view of the machine adjusted for use as a cultivator. Fig. 6 is a vertical longitudinal section of the seed-box of my improved machine. Fig. 7 is a detail view of the cultivator. Fig. 8 is a detail view of a coverer or shovel used in connection with the machine.

In the said drawings, A A' designate two horizontal beams, which constitute the sides of the machine. These side beams converge toward each other at their front ends, at which point they are connected by a cross-piece B, one end of which is detachably connected to the adjacent side beam, as A', by a pin b, as shown. The rear ends of the beams A A' are supported by the axle C' of the two rear carrying-wheels C C, and the front end of the machine is supported by the standards

D' of a caster-wheel D, as shown, the upper ends of said standards being connected by a horizontal cross-piece D<sup>2</sup>. The front end of a bar E is inserted into the cross-piece D<sup>2</sup>, and its rear end is supported by an upright E', the lower end of which rests upon a cross-piece F near the rear end of the machine-frame. The purpose of this beam E will be hereinafter explained.

The front end of the machine carries a handle or tongue G, suitable as the means for propelling the machine by hand or animal power, as desired.

I designates the seed box or hopper, which is of oblong rectangular form and which rests upon a base I', the latter extending transversely of the machine-frame when the hopper is in position. The interior of the hopper I is divided into two compartments I<sup>2</sup> I<sup>3</sup> by two vertical partitions i i', as shown, and across these compartments extends a bar J, carrying downwardly-extending agitators j. A lever K is pivoted upon the machine and engages at its front end with the bar J midway of the length of the same. At its rear end the lever K engages the wavered groove l of a cam-wheel L, which is mounted rigidly upon the axle C', before referred to. By virtue of this arrangement, as the machine progresses over the ground, the lever K is vibrated laterally and oscillates the bar J, so as to reciprocate the agitators over the feed-openings i<sup>2</sup> of the hopper, and thus carry the seed out through the drill-tubes M. The hopper is mounted detachably upon the machine-frame, so as to be removed therefrom when desired, as shown in Fig. 6.

N designates a rectangular harrow-frame, which is detachably connected by studs n n to the lower ends of the standards O, which are secured to the front portion of the machine-frame. The lower end of a bar P is inserted into a slot n', which extends longitudinally of a cross-piece n<sup>2</sup> of the harrow-frame. The upper end of the bar P is provided with a cross-piece p, which engages over the bar E, as shown in Fig. 1. It will thus be seen by reference to Figs. 1 and 5 that the bar E may be raised at its rear end and thus raise the harrow to clear obstructions, &c.

When the seeding mechanism above described is in use, one or more covering-wheels



Q are preferably employed with the machine. Each of these wheels is carried by a V-shaped frame R, (see Fig. 4,) and is pivotally supported upon the machine-frame at the point.

5 R' R<sup>2</sup> designate links, which are pivotally connected at their lower ends to the frames R below their angles, and the upper ends of which are similarly connected to the opposite ends of a cross-piece R<sup>3</sup>. (See Fig. 1.) This  
10 cross-piece R<sup>3</sup> is attached to the rear portion of the bar E, and thus it will be seen that when said bar is raised it will carry the covering-wheels with it and cause them to clear obstructions.

15 S in Fig. 7 designates a triangular cultivator-frame, which is detachably connected beneath the front part of the machine just back of the seed-box, and T designates a shovel-frame, which is at times substituted  
20 for the cultivator-frame S. When either the harrow or shovel frame is used, the seeding devices are generally removed from the machine, so that the latter may be used as a sulky cultivator or coverer, as desired.

25 M designates a marker for check-row planters, said marker being connected to one side of the machine-frame by an L-shaped hanger m, as shown.

30 From the above description it will be seen that I have devised a simple and durable form of machine, which is adapted to various agricultural uses, and the several changes

and adjustments of which may be easily effected as required.

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

1. In a cultivator, the combination, with a carrying-frame adapted to support the removable seed-box and harrow, of a central  
40 longitudinal bar E, connected with the harrow and adapted to raise it out of operation, substantially as described.

2. In a cultivator, the combination, with the carrying-frame supporting the seed-box  
45 and harrow, of a vibrating lever mounted upon said frame and operatively connected to the agitator-bar of the seed-box, and a cam-wheel connected to the lever and serving to actuate the same, substantially as described. 50

3. In a cultivator, the combination, with a carrying-frame, a seed-box supported therefrom, and a harrow-frame N, detachably connected at one end to said frame in front of  
55 the seed-box, of the central longitudinal bar E, connected to the harrow-frame at its free end by the adjustable bar P, to raise and lower said harrow-frame, substantially as described.

In testimony that I claim the above I hereunto set my hand.

ISAAC G. WISE.

In presence of—

C. P. HUMPHREY,

C. E. HUMPHREY.