

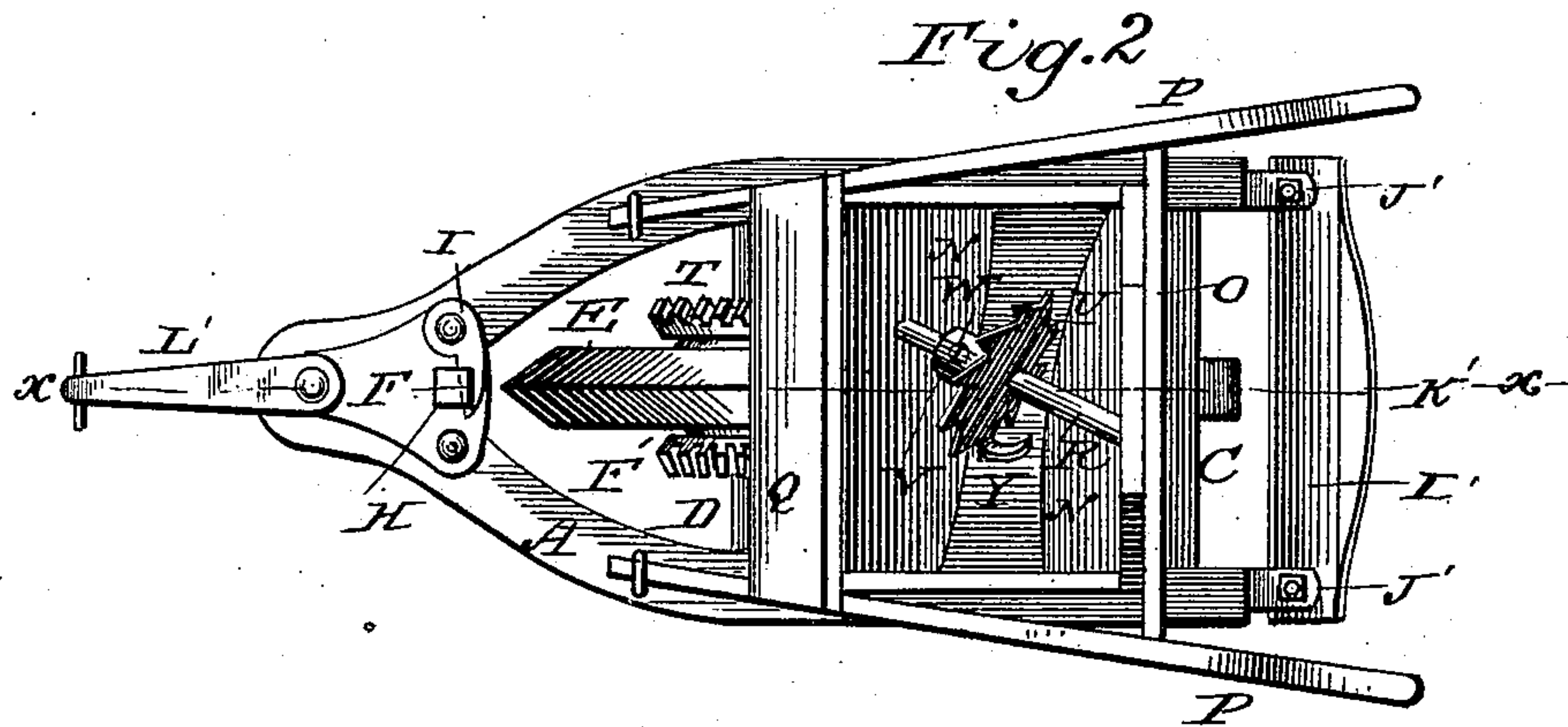
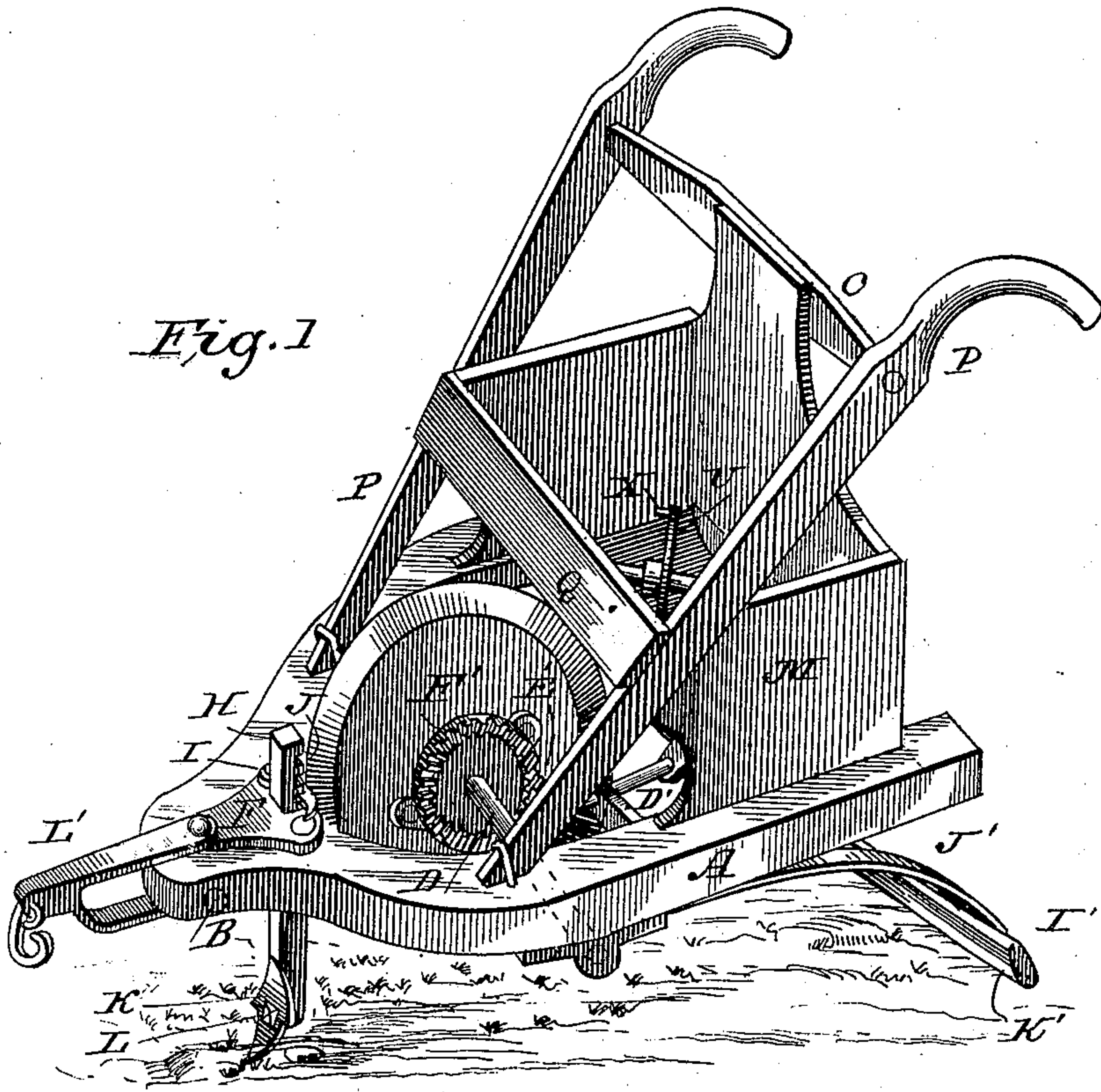
(No Model.)

3 Sheets—Sheet 1.

J. N. GARDNER.
COTTON SEED PLANTER.

No. 316,255.

Patented Apr. 21, 1885.



WITNESSES:

Fred. L. Dieterich
Wm. Bagger

John Nelson Gardner
INVENTOR.
by *Louis Bagger & Co*
ATTORNEYS.

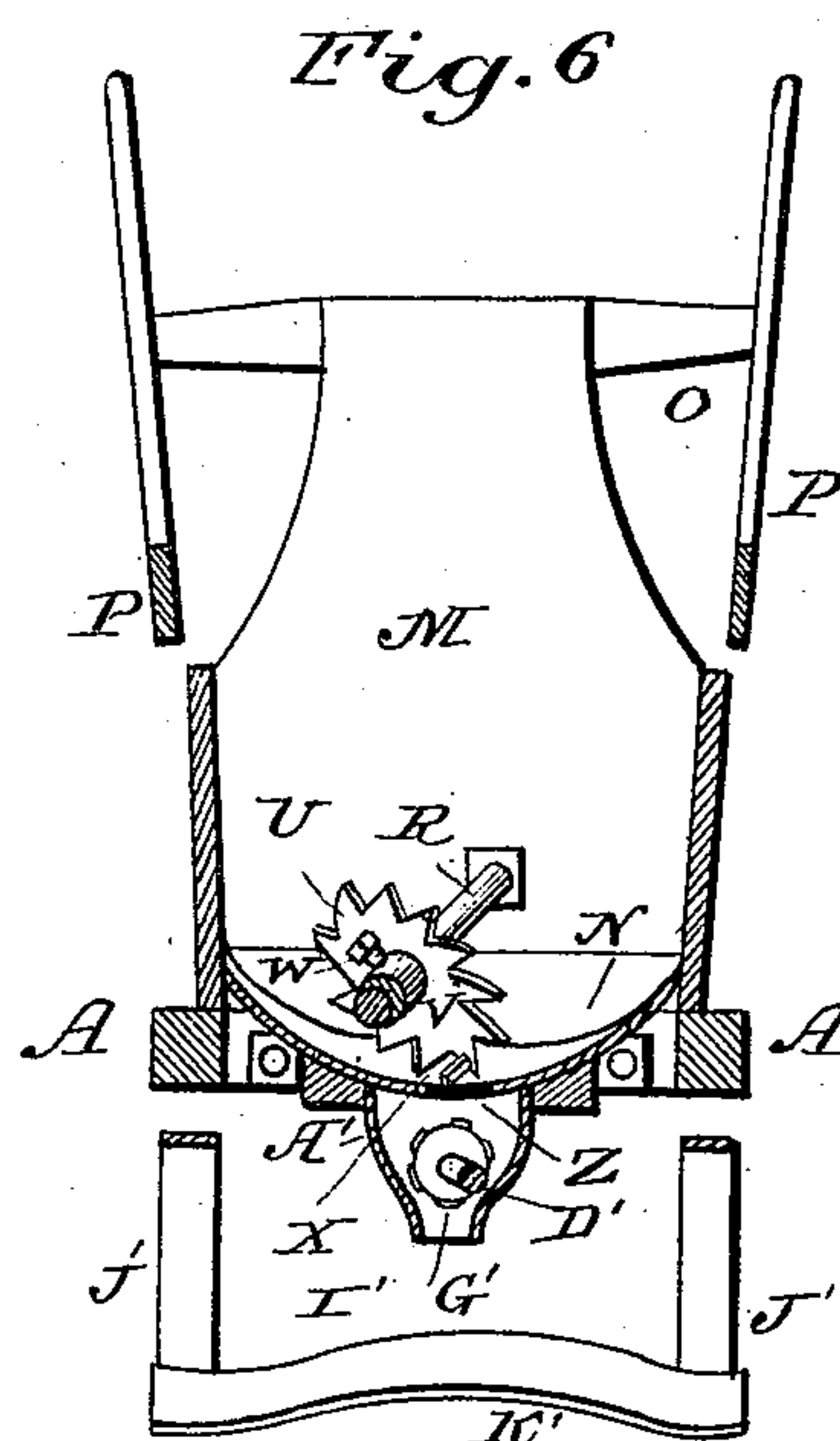
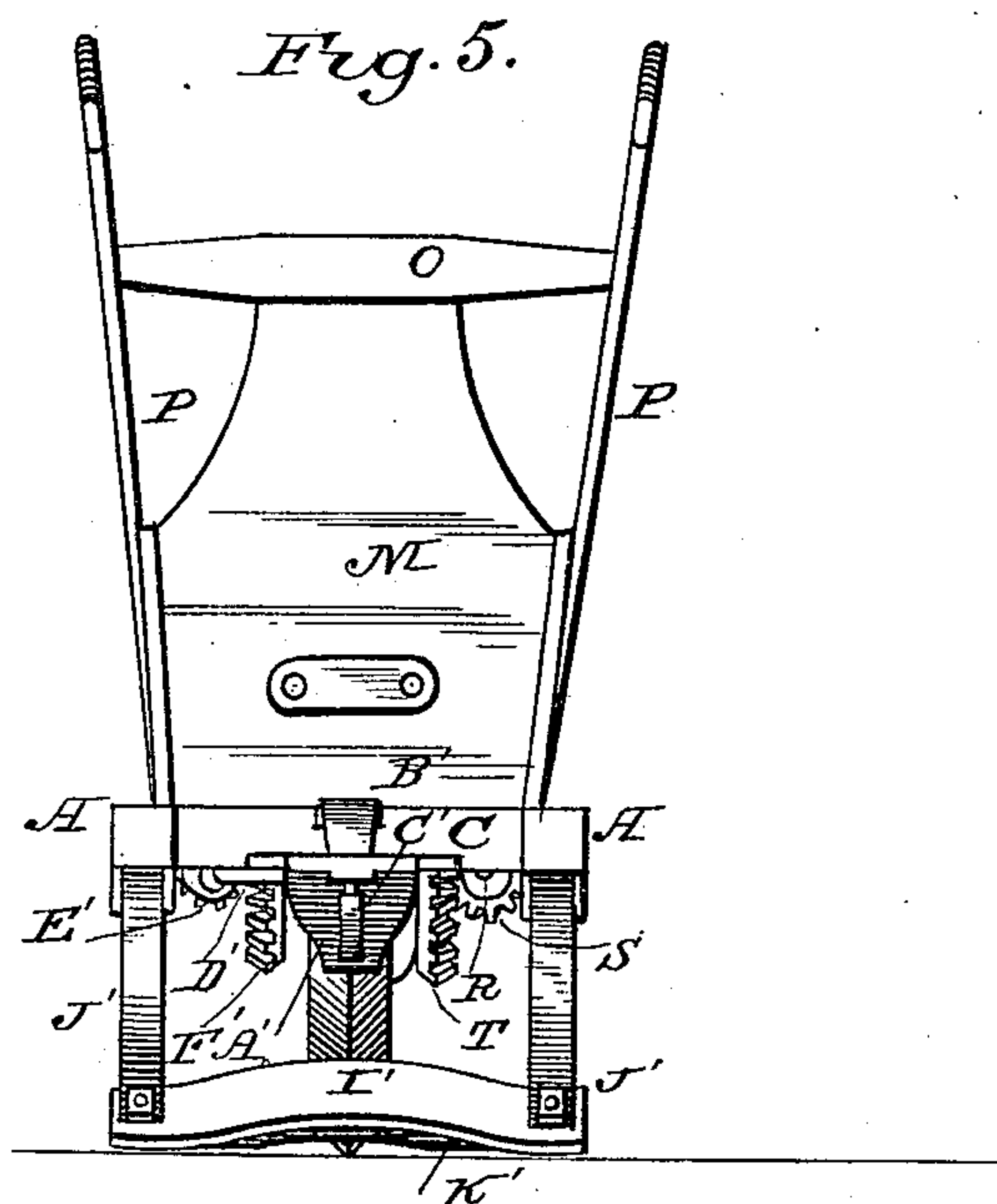
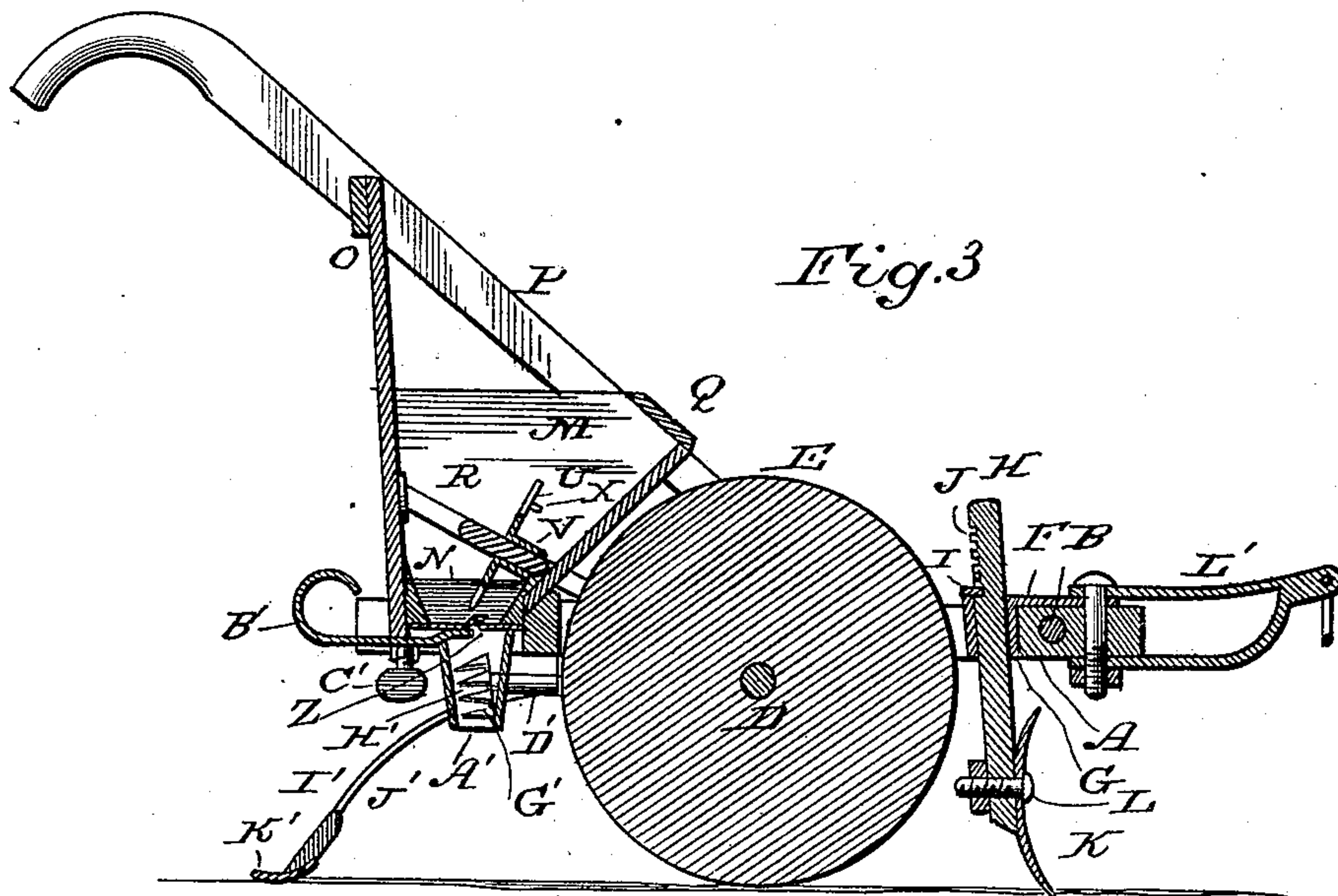
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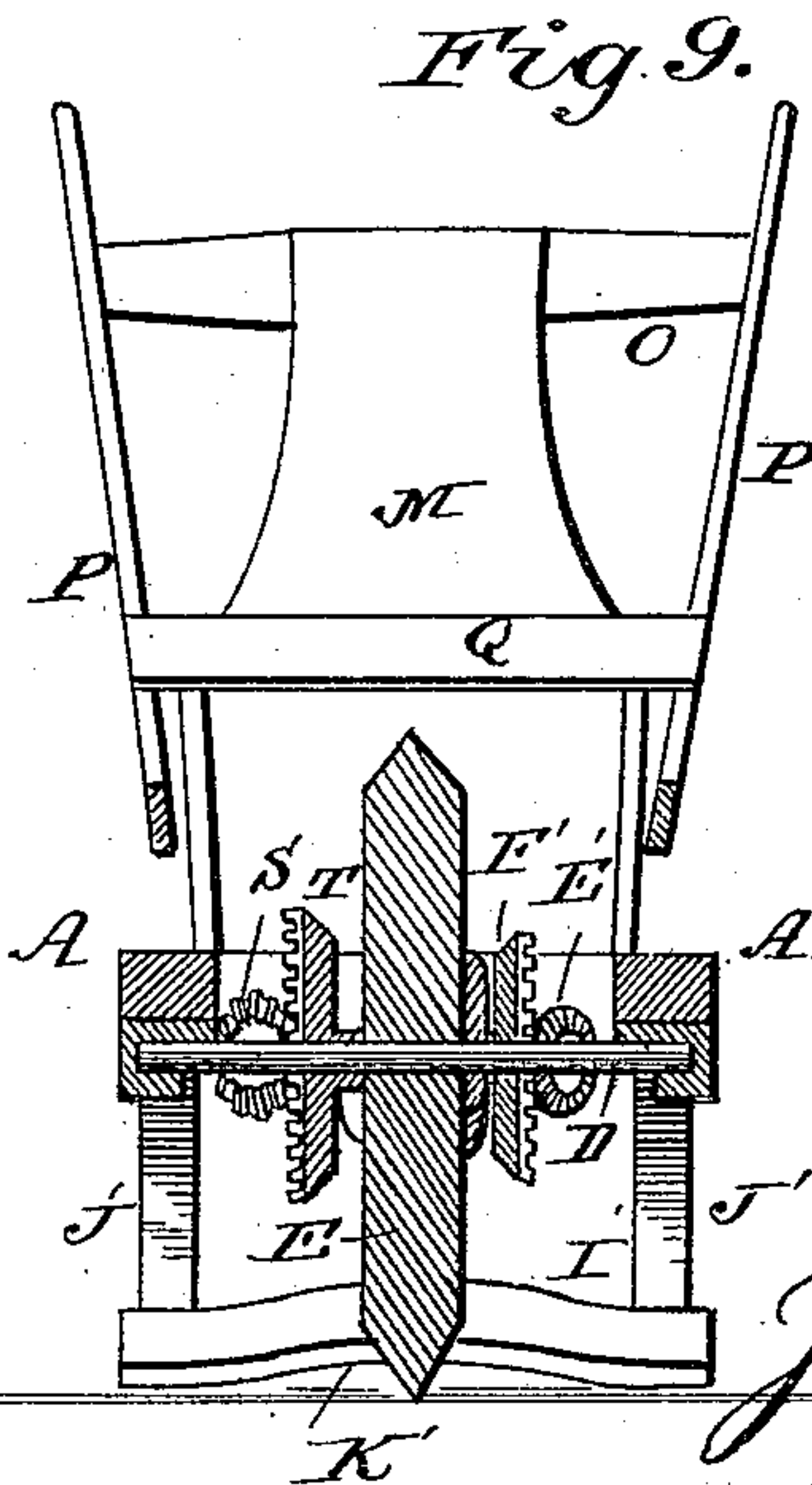
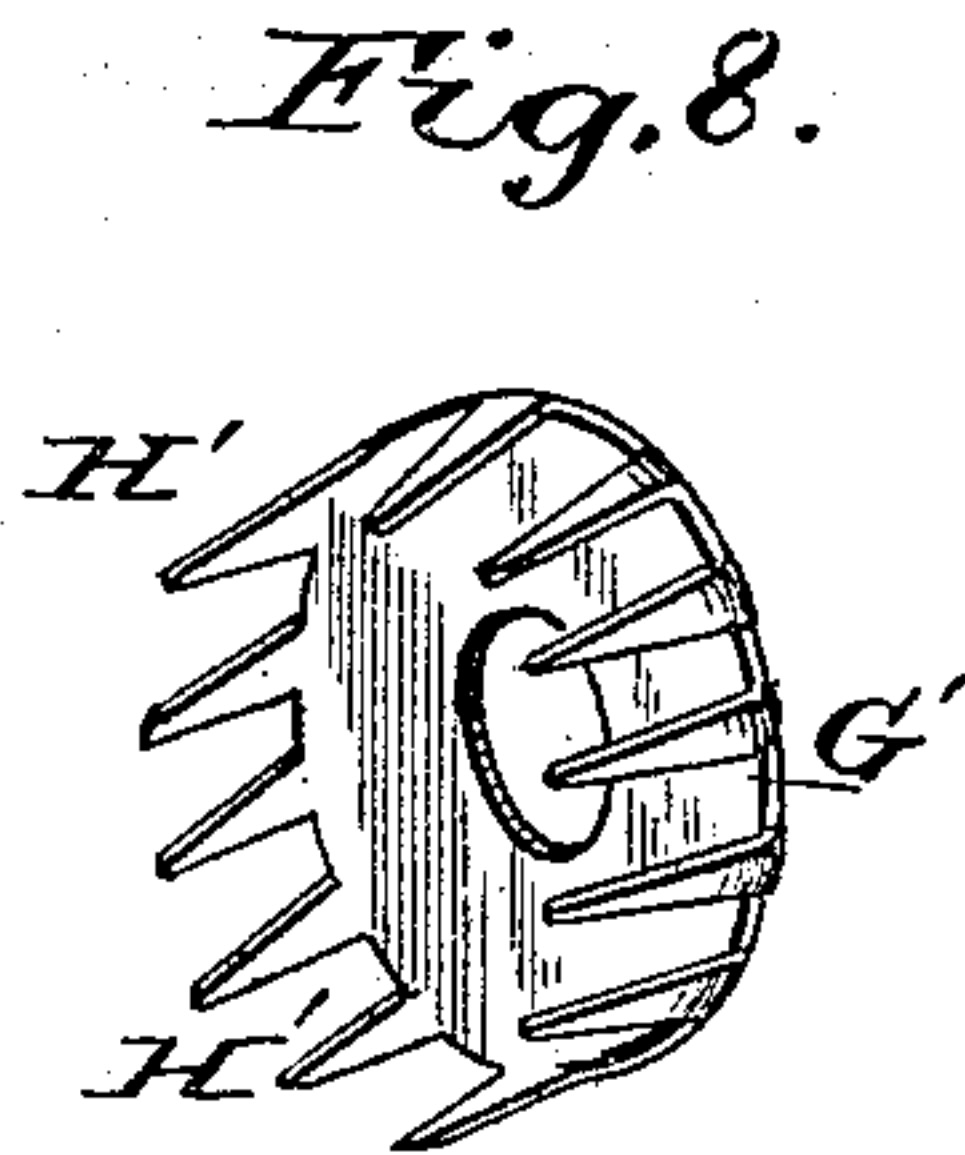
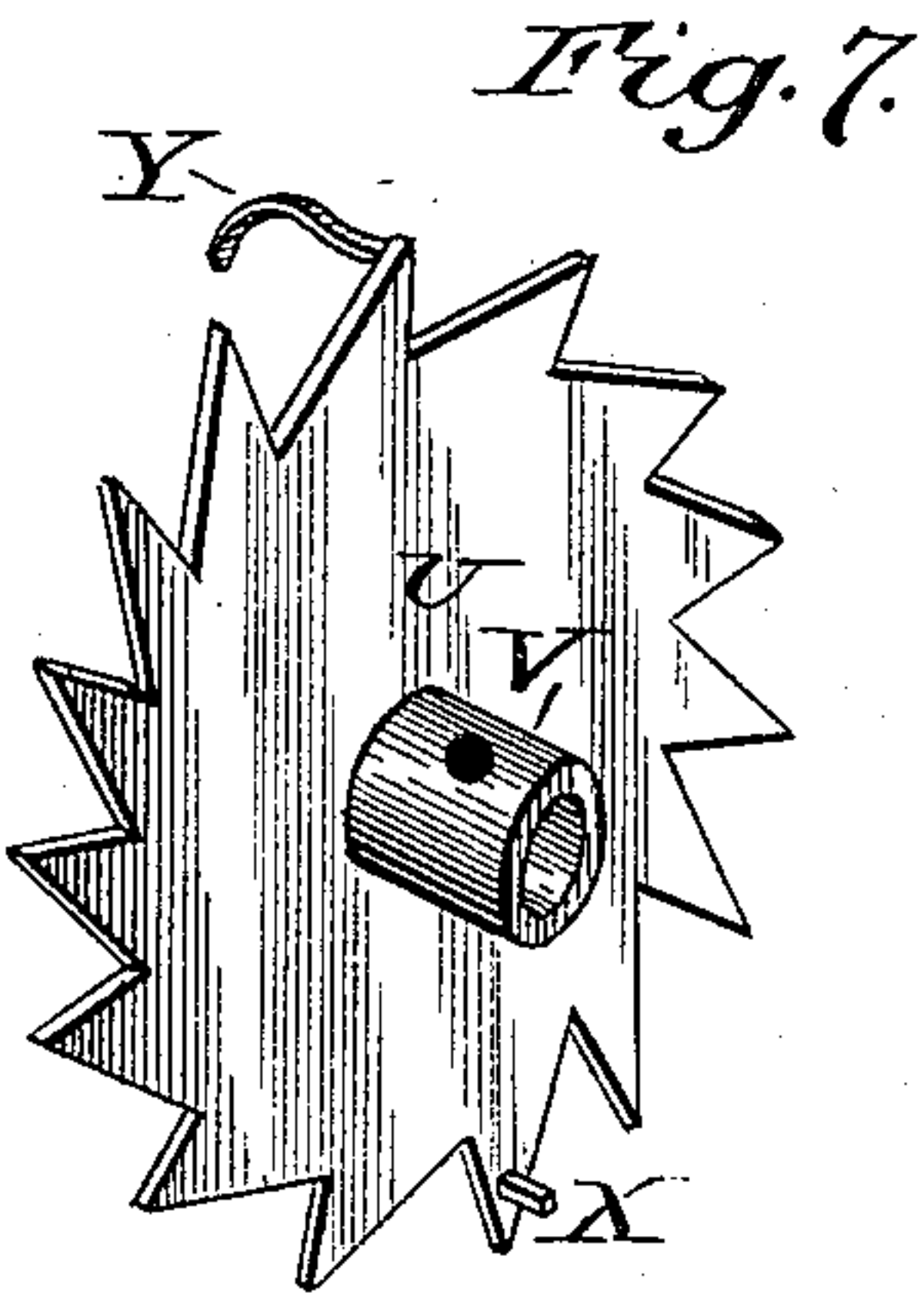
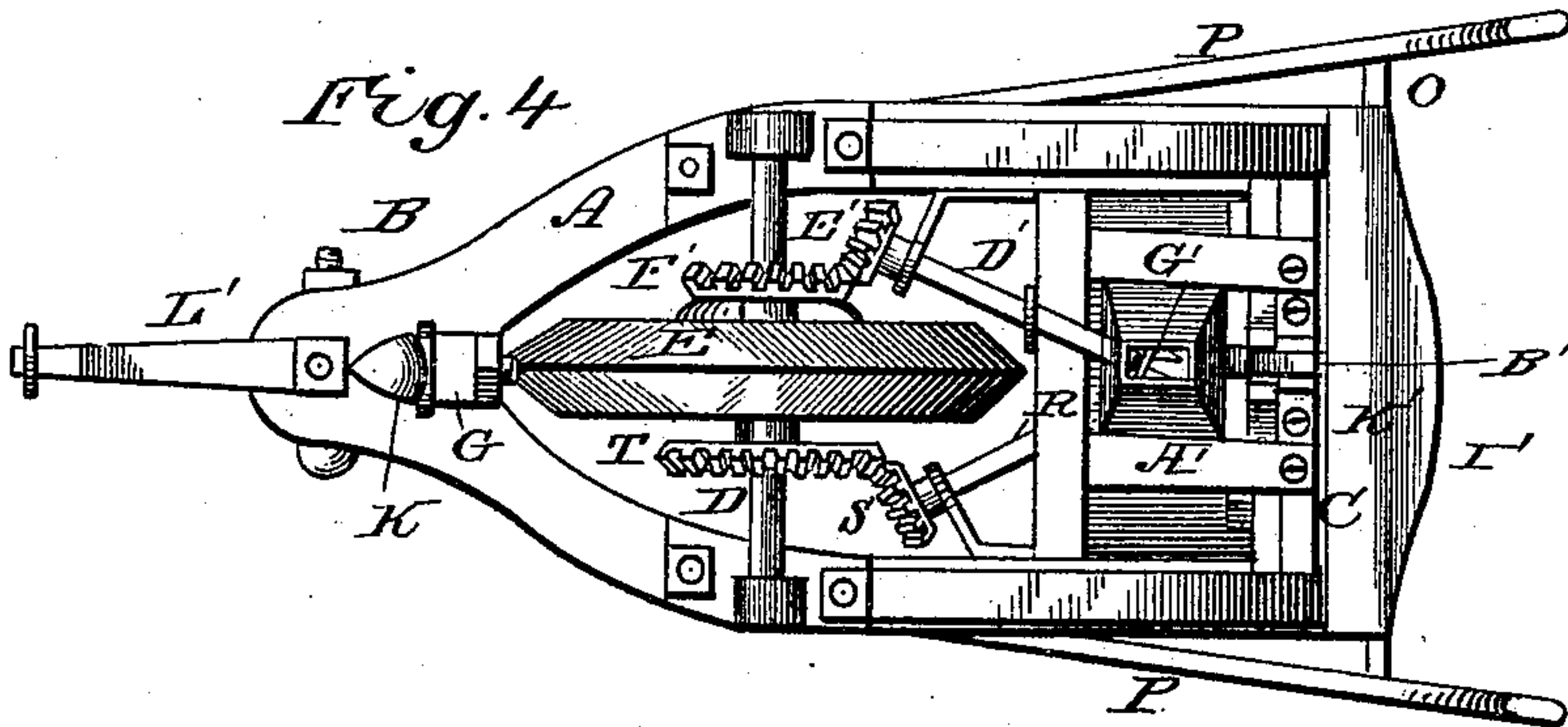
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UNITED STATES PATENT OFFICE.

JOHN NELSON GARDNER, OF CHESTERFIELD, SOUTH CAROLINA.

COTTON-SEED PLANTER.

SPECIFICATION forming part of Letters Patent No. 316,255, dated April 21, 1885.

Application filed September 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN NELSON GARDNER, a citizen of the United States, and a resident of Chesterfield, in the county of Chesterfield and State of South Carolina, have invented certain new and useful Improvements in Cotton-Seed Planters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved cotton-planter. Fig. 2 is a top view of the same. Fig. 3 is a longitudinal vertical sectional view taken on the line *x x* in Fig. 2. Fig. 4 is a bottom view. Fig. 5 is a rear elevation. Fig. 6 is a transverse vertical sectional view taken through the hopper of the planter. Fig. 7 is a perspective detail view of the sowing-wheel detached from the machine. Fig. 8 is a perspective detail view of the sowing-wheel which is located in the spout of the hopper, and Fig. 9 is a transverse sectional view taken through the axle of the ground-wheel.

The same letters refer to the same parts in all the figures.

This invention relates to cotton-planters, and it has for its object to provide a device which shall possess superior advantages in point of simplicity, durability, and general efficiency. With these ends in view, the invention consists in the improved construction and arrangement of parts, which will be hereinafter fully described, and particularly pointed out in the claim.

In the drawings hereto annexed, A designates the frame of the machine, which consists, mainly, of two planks converging at their front ends, where they are connected by a transverse bolt, B, and a cross-bar, C, connecting the rear ends of the said planks. The latter are provided with boxes or bearings for the transverse shaft or axle D, carrying the ground or furrow wheel E.

F is a plate bolted upon the front ends of the frame-beams, and having a downward-extending socket, G, in which the standard H of the furrow-opener is vertically adjustable

by means of a plate or latch, I, pivoted upon the plate F by one of the fastening-bolts of the latter, and adapted to enter any one of a series of notches, J, formed in the rear side of the standard H. The furrow-opener K, which is secured to the lower end of the said standard by means of the heel-bolt L, is provided with two blades of different construction, so that it may be reversed for the purpose of forming furrows of unequal width. By the socket G the standard of the furrow-opener is held very securely against any strain to which it is likely to be subjected.

M is a suitably-constructed hopper mounted upon the rear end of the frame, and having a concave bottom, at the front and rear sides of which a pair of beveled diagonal guide-plates, N N, are placed. The rear side of the hopper extends upwardly, and is provided with a cross-piece, O, to the ends of which are secured the handles P P, the lower ends of which are suitably connected to the side beams of the frame. The front end of the hopper is provided with an inclined guard-plate, Q.

R is a shaft extending diagonally through the hopper, in which it is placed in an inclined position, its rear end being higher than its front end, and having its bearings in a box in the rear side of the hopper and in a bracket extending from one of the side beams of the frame in front of the hopper, through the front wall of which the said shaft extends.

The front end of the shaft R carries a pinion, S, meshing with a spur-wheel, T, which is secured upon the axle D, adjoining one side of the ground-wheel, and from which a rotary motion is thus imparted to the said shaft R. The latter carries the sowing-wheel U, which, owing to the disposition of said shaft, occupies a diagonal and inclined position. The sowing-wheel U consists of a metallic disk having a collar, V, through which a set-screw, W, passes for the purpose of securing it to its shaft. Said disk is provided with teeth, the front edges of which are inclined, while their rear edges are about radial. By this construction the teeth will more readily feed the seed without any of the fiber adhering to the teeth and clogging the machine. The ends of the teeth are tapered to a point, as shown, for the purpose of facilitating the operation. The

wheel is provided on its opposite faces and at diametrically-opposite sides with stirrers or agitators X and Y, the former of which upon the front side of the wheel is merely a stud or lug, while the latter consists of a curved arm or finger, which will serve to force the seed from the top to the bottom of the hopper, thus obviating the necessity of suspending the operation at any time for the purpose of forcing or pushing the seed down into the hopper.

The bottom of the hopper is provided with a diagonal slot or opening, Z, through which the seed may pass into the spout A', which is located under the hopper. B' designates a suitably-constructed slide arranged under the bottom of the hopper for the purpose of regulating the size of the feed-opening. A thumb-screw, C', is provided, bearing against the under side of the shank or handle of the slide B', for the purpose of retaining the latter in any position to which it may be adjusted.

D' is a shaft extending diagonally into the spout A', and mounted in suitable bearings attached to the frame of the machine. The front end of the said shaft has a pinion, E', meshing with a spur-wheel, F', upon the axle D, and its rear end carries a feed-wheel, G', consisting of a disk placed nearly at right angles to the sowing-wheel U and the feed opening or slot Z, and having rearward-extending beveled teeth or arms H', which, as the seed passes through the slot Z, forces it downward through the spout.

I' designates the covering device, which consists of a beveled or inclined bar mounted upon the lower ends of a pair of flat curved springs, J' J', the upper ends of which are secured to the under sides of the side beams of the frame. The bar I' is concave on its under side and shod with a metal strip, K'. Owing

to this construction of the covering-bar, it will scrape the soil toward the seed and form it in a ridge over the latter.

Upon the forward bolt, which secures the plate F at the front end of the frame, is mounted a clevis, L', having a lap-ring, M', to which the draft may be attached.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of my invention will be readily understood.

The general construction of my improved cotton-planter is simple. It is therefore inexpensive and not liable to get out of order. It is convenient, light, and durable, easily manipulated, and exceedingly efficient in operation.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

In a cotton-seed planter, the combination of a hopper with an opening in the bottom, a sowing-wheel arranged diagonally in the hopper above the opening in the bottom, and a forcing-wheel arranged diagonally in the feed-spout below the hole in the bottom of the hopper at about right angles to the plane of the sowing-wheel, both of said wheels receiving motion from a transverse shaft in front of the feed box or hopper by means of suitable bevel-gearing on said shaft, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN NELSON GARDNER.

Witnesses:

J. S. WHITE,
J. F. MYERS.