

W. BEALL.
Improvement in Planters.

No. 126,438.

Patented May 7, 1872.

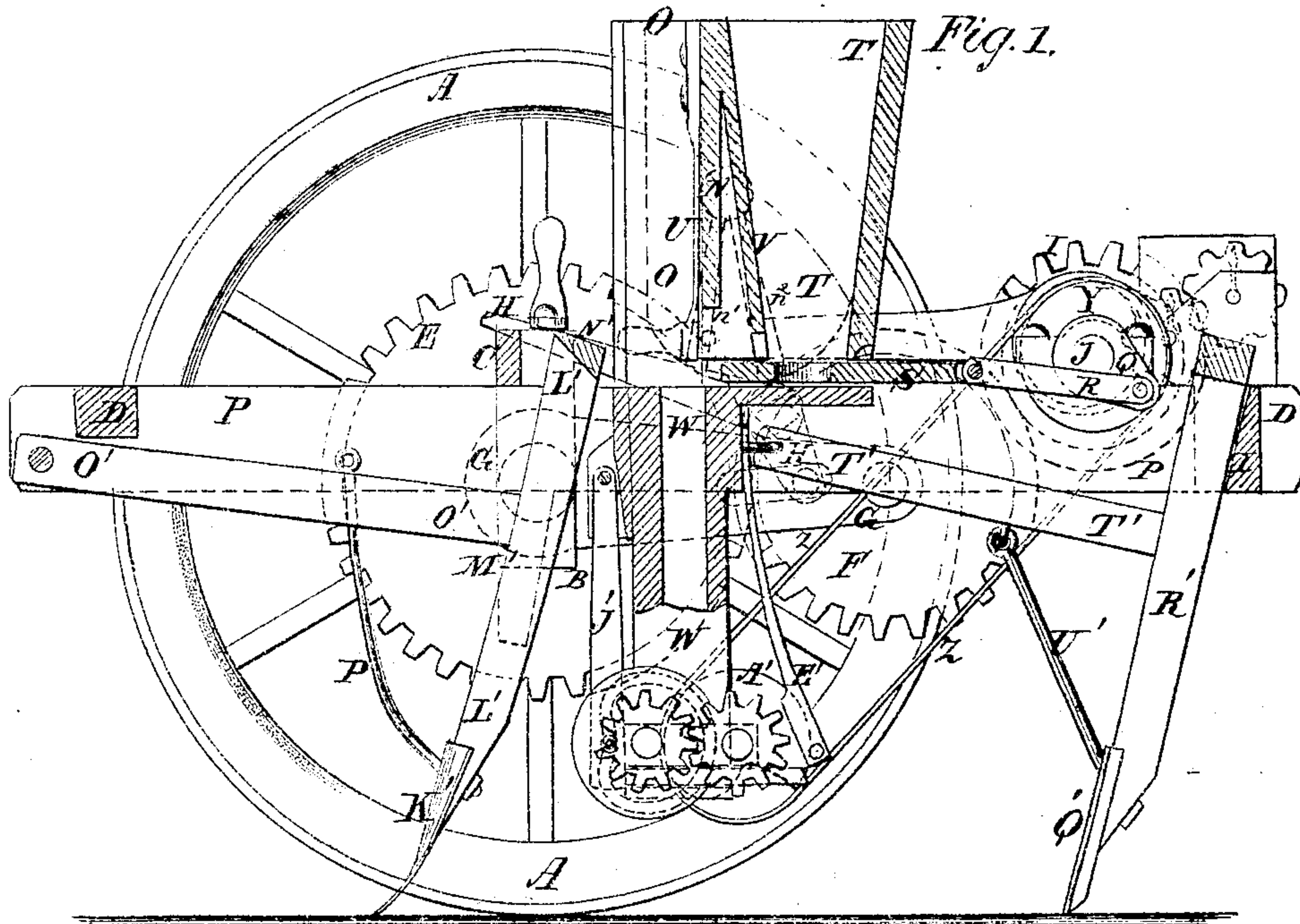
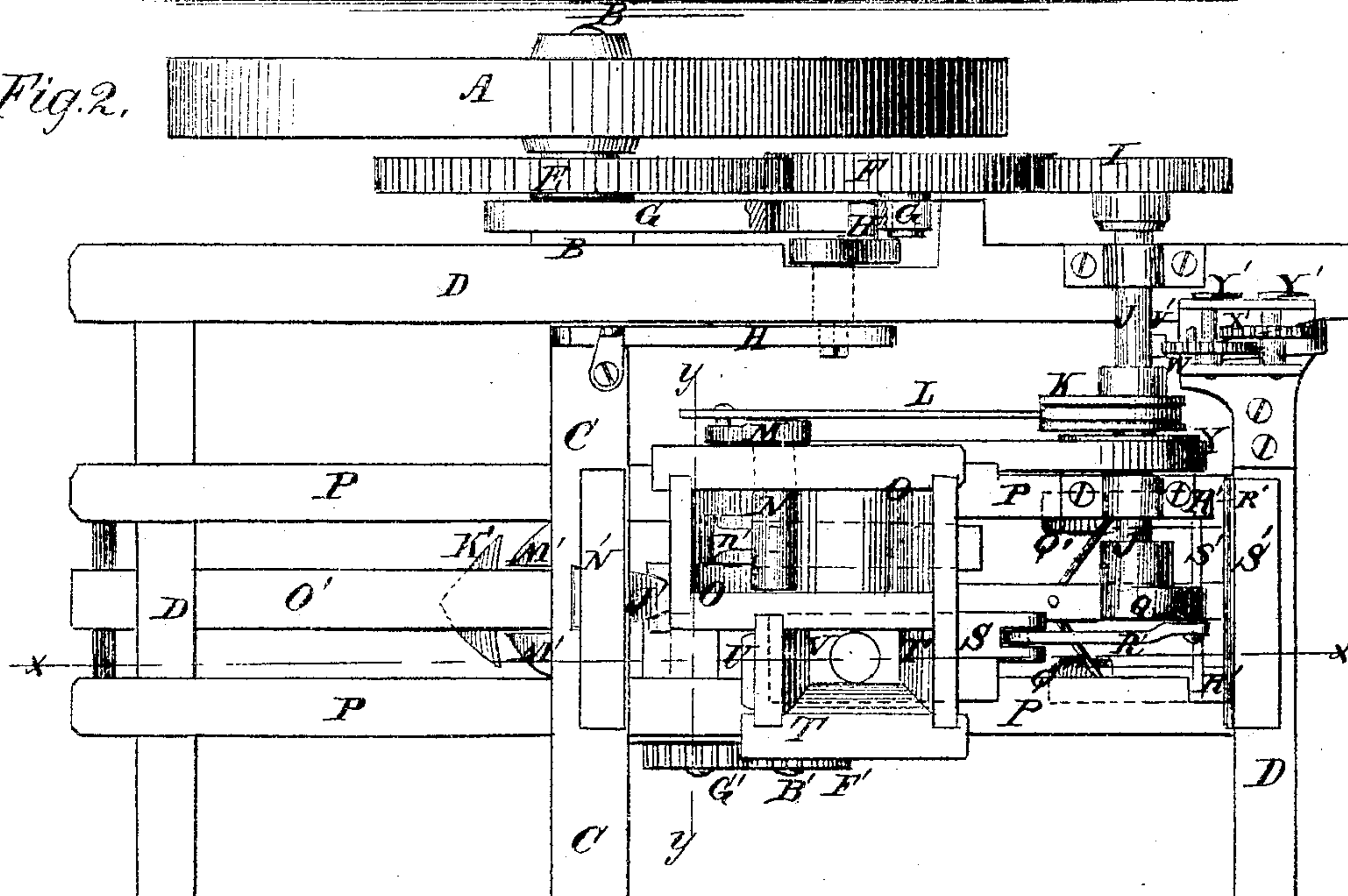


Fig. 2.



Witnesses: D

Inventor:

John Beecher

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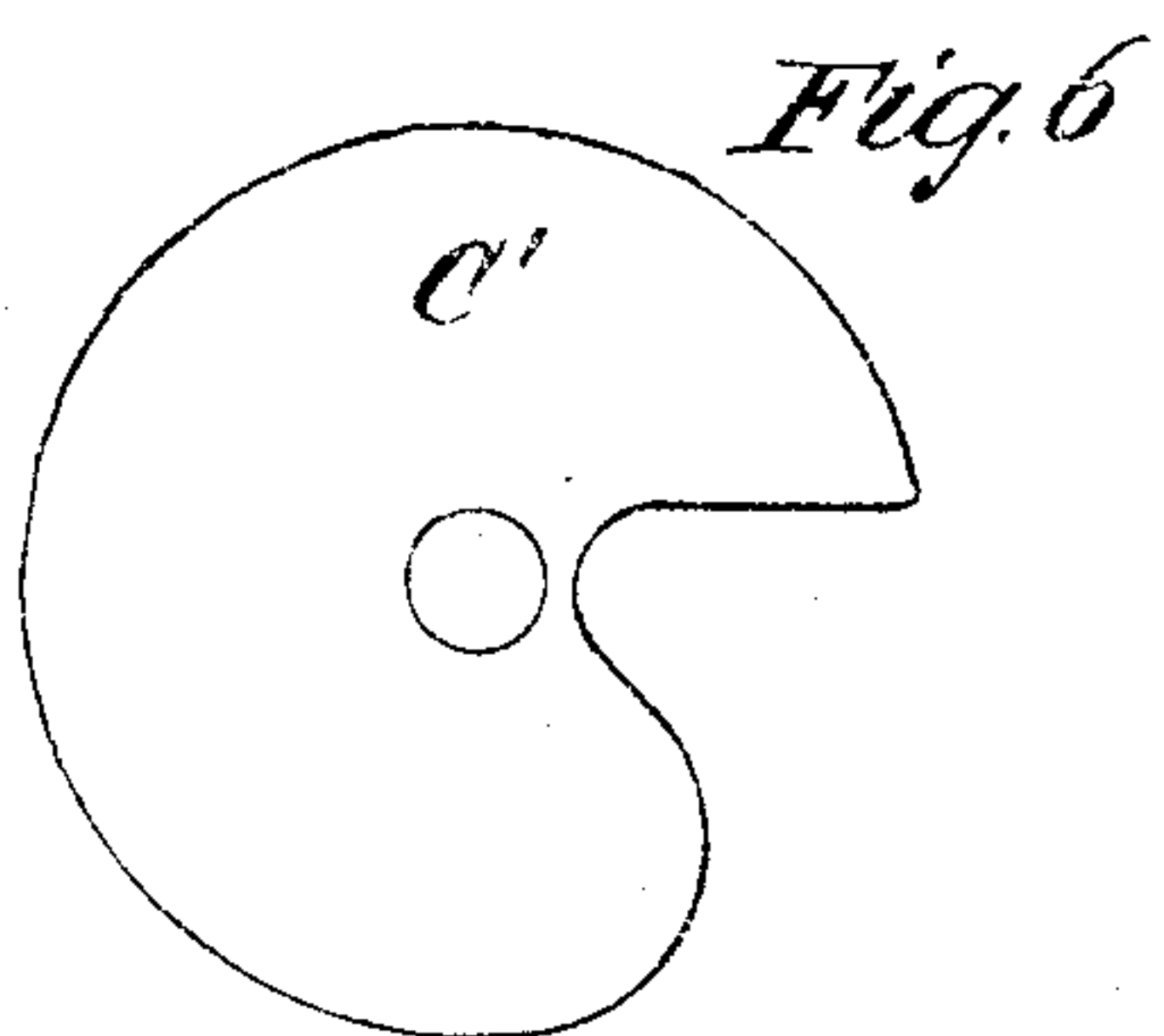
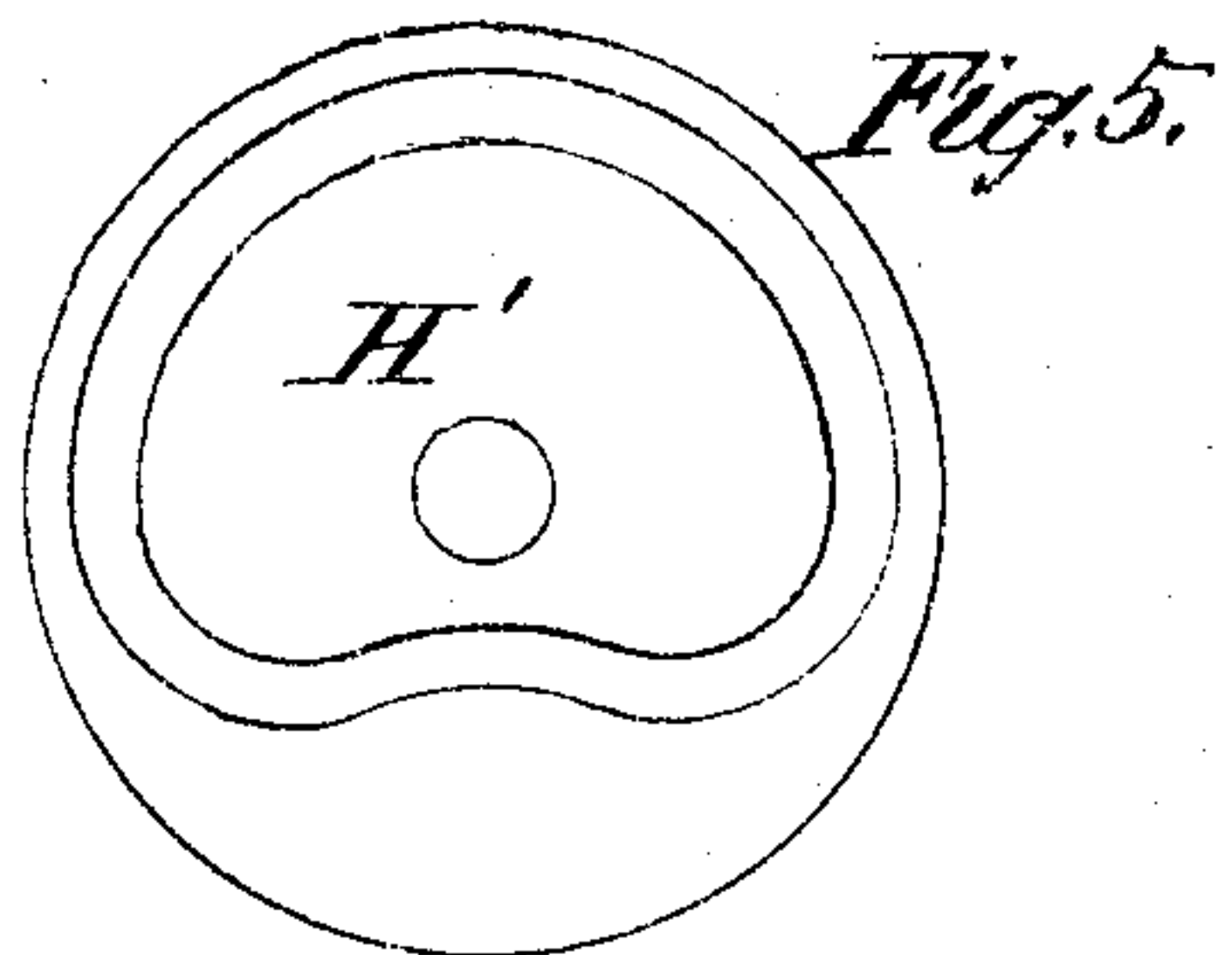
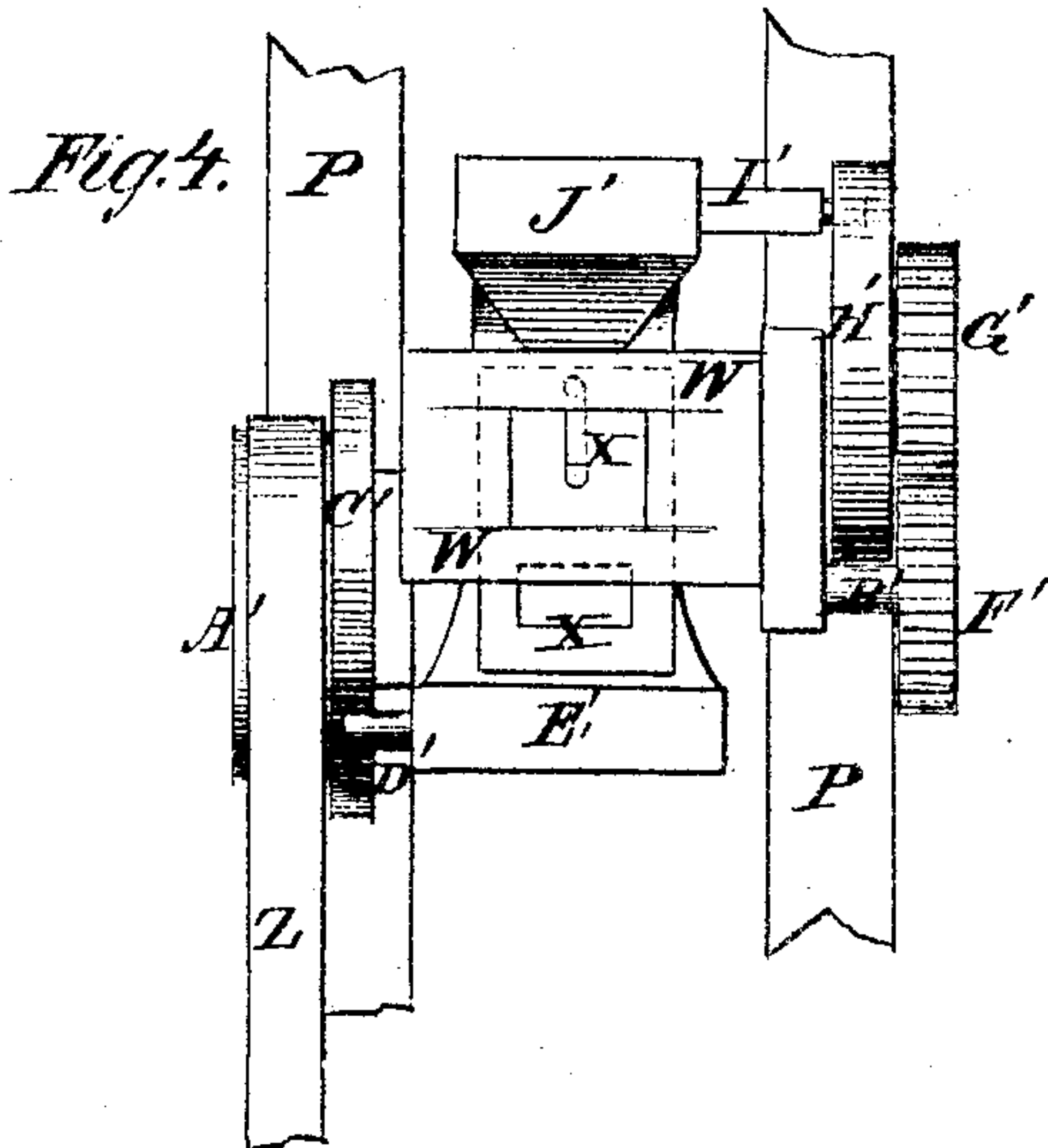
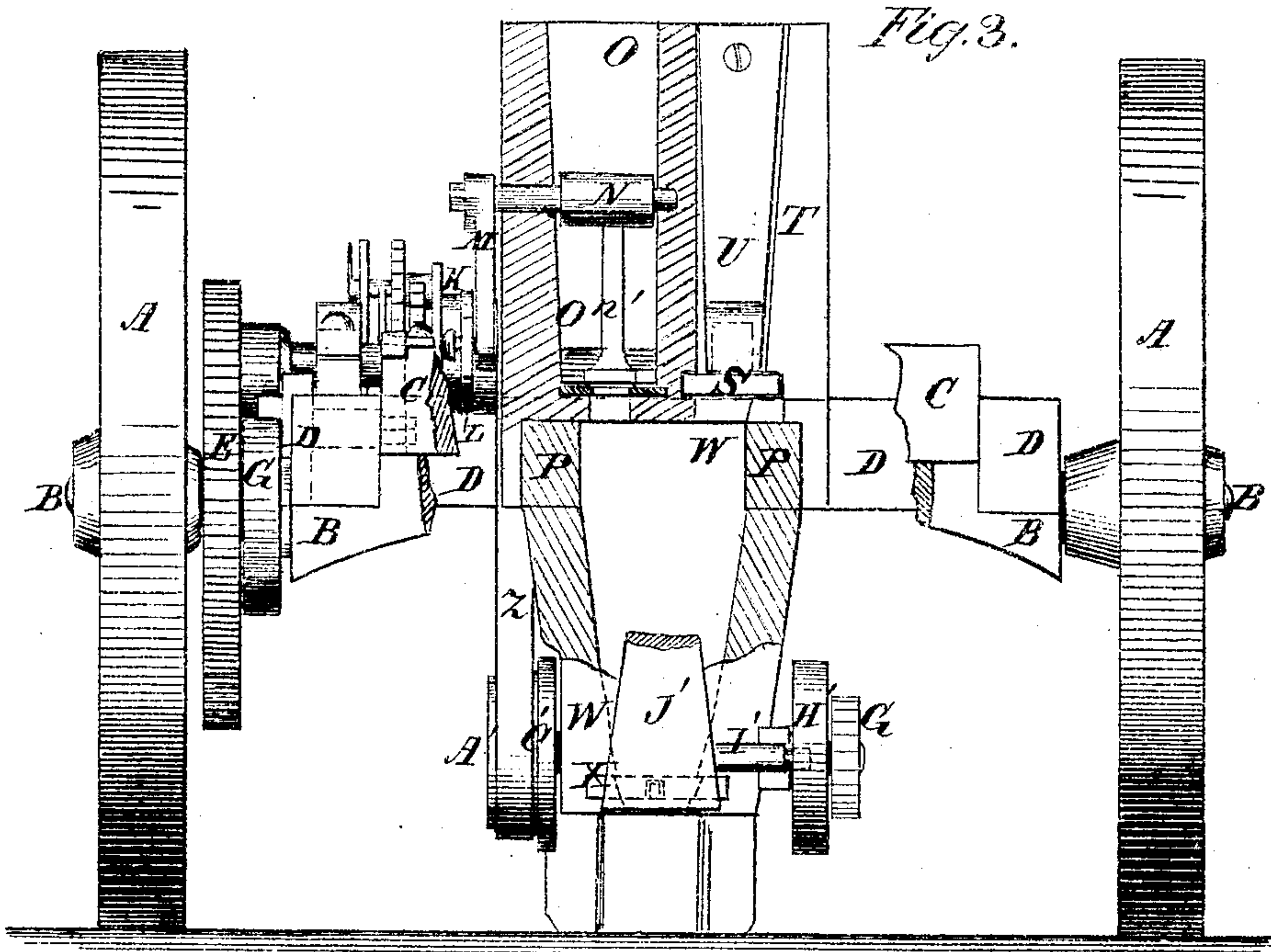
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UNITED STATES PATENT OFFICE.

WEISEL BEALL, OF HAINESVILLE, WEST VIRGINIA.

IMPROVEMENT IN PLANTERS.

Specification forming part of Letters Patent No. 126,438, dated May 7, 1872.

Specification describing a new and Improved Planter, invented by WEISEL BEALL, of Hainesville, in the county of Berkeley and State of West Virginia.

Figure 1, Sheet 1, is a detail vertical section of my improved machine taken through the line *x x*, Fig. 2. Fig. 2, Sheet 1, is a top view of the same. Fig. 3, Sheet 2, is a detail vertical cross-section of the same taken through the line *y y*, Fig. 2. Fig. 4, Sheet 2, is a detail bottom view of the lower part of the dropping mechanism. Fig. 5, Sheet 2, is a detail view of the grooved cam-wheel for operating the lever. Fig. 6, Sheet 2, is a detail view of the cam-wheel for operating the spring-hammer.

Similar letters of reference indicate corresponding parts.

The invention consists in introducing certain mechanical elements into the train of mechanism which connects the axle with the seed-slide of a planter, by which the number of hills planted may be indicated on a dial mechanism with which it is combined.

I will first describe my invention in connection with a fertilizer, with which it is for the most part used by me, and then indicate the mechanical instrumentalities in the claim.

A are the wheels of the machine, which revolve upon the journals B, which are attached to the axle C or frame D. The axle C is arranged above the frame, and may be arched to leave space beneath it for the operating mechanism. To one of the wheels A is attached a gear-wheel, E, the teeth of which mesh into the teeth of a gear-wheel, F. The gear-wheel F is pivoted to the rear end of the lever G, the forward end of which is pivoted to the journal B or frame D. The rear part of the lever G is slotted to receive the crank-pin of the lever H, which is pivoted to the frame D, and the forward part of which projects into such a position that it can be conveniently reached and operated by the driver from his seat to throw the gear-wheel into and out of gear with the gear-wheel I. The lever H may be secured in place, when holding the gear-wheels in gear, by a catch attached to the axle C or frame D. The gear-wheel I should be a compound wheel, having parts of different diameters, so that by throwing the gear-wheel F into gear with one or the other of said parts the distance apart of the hills may

be regulated at will. The gear-wheel I is attached to the end of the shaft J, which revolves in bearings attached to the frame D, and to it is attached an eccentric wheel, K, with which is connected the rear end of the pitman L, the forward end of which is pivoted to a crank, M, attached to the projecting end of the shaft N, which works in bearings in the sides of the hopper O. To the shaft N, within the hopper O, are attached two arms, $n^1 n^2$, the lower end of the forward one n^1 of which is made so large as to cover and close the discharge-opening of said hopper O when the lower slide is open to drop the corn and fertilizer into the furrow. As the arm n^1 moves forward, uncovering the discharge-opening, the rear arm n^2 pushes the portion of the fertilizer that may be in front of it into the discharge-opening of said hopper O. The hopper O is attached to the bars P, which are attached to the frame D at such a distance apart as to receive the tongue between their forward ends. To the inner end of the shaft J is attached a crank or crank-wheel, Q, to which is pivoted the rear end of the pitman R, the forward end of which is pivoted to the rear end of the slide S, which works in the lower part of the corn-hopper T, also attached to the bars P at the side of the hopper O. The slide S is designed to drop the corn from the hopper T, and I prefer to make it with as many holes, each of such a size as to receive a kernel, as it is desired to drop kernels for a hill. U is a spring, attached to the forward side of the hopper T to brush off any loose kernels that may be upon said slide S, and which will yield if too great resistance is encountered, returning immediately to its place when said resistance is removed. To the hopper T is also attached an arm, V, to prevent the corn in the hopper T from pressing against the spring U and thus impeding its operations. The arm V should be made of such a length as to allow a few kernels to pass beneath its lower end. W is a spout or receiver, placed beneath the frame D and hoppers O T, and connected with both of said hoppers so as to receive both the guano and corn. In the lower part of the spout W is placed a slide, X, upon which the guano and corn from the hoppers O T rest until said slide is operated to drop them into the furrow. To the shaft J is attached a chain-

wheel or pulley, Y, around which passes an endless chain or band, Z, which also passes around a chain-wheel or pulley, A', attached to the end of the shaft B', which passes across the rear side of the lower end of the spout W and revolves in bearings attached to said spout. Upon the inner side of the chain-wheel or pulley A' is attached a cam, C', against which rests the arm or pin D', attached to the lower end of the spring-hammer E'. The upper end of the spring-hammer E' is attached to the upper part of the spout W or to the frame-work of the machine. By this construction the spring-hammer E' is drawn back and held by the cam C' until the arm D' reaches the shoulder of the cam C', which releases the said hammer and allows it to spring forward against the slide X, forcing it forward suddenly and allowing the corn and fertilizer in the spout W to drop to the ground. To the other end of the shaft B' is attached a gear-wheel, F, the teeth of which mesh into the teeth of the gear-wheel G', which is pivoted to the side of the forward part of the lower end of the spout W. To the inner side of the gear-wheel G' is attached, or upon it is formed, a wheel, H', in the inner side of which is formed a cam-groove to receive the end of an arm, I', attached to the lower part of the lever J', the upper end of which is pivoted to the upper part of the spout W or to the frame-work of the machine. By this construction, as soon as the corn and fertilizer have been dropped by the forward movement of the slide X, the lever J' is moved to the rearward, forcing the slide X back to its place to again receive the corn and fertilizer, and holding it there until the said slide X is about to be again forced forward by the hammer E', when the lever J' is drawn back, leaving the slide X free. K is the plow for opening the furrow to receive the seed, and which is attached to the standard L', which passes up between guides M' attached to the bars P, and to the upper end of which is attached a cross-bar, N', for the driver to rest his feet upon to hold the plow to its work. O' is the plow-beam, to the rear end of which the standard L' is attached. The beam O' projects for-

ward between the bars P, and is pivoted to the forward part of the frame D or to the rear end of the tongue. The plow-standard L' is sustained against the draft-strain by the brace-rod P', the lower end of which is attached to the lower part of the standard L', and its upper end is attached to the beam O', as shown in Fig. 1. Q' are the covering-plows, which are attached to the lower ends of the standards R', which are connected to each other and held in their proper relative positions by cross-bars S', to the lower one of which is attached the rear end of the beam T'. The beam T' projects forward, and its forward end is pivoted to the bars P or to a cross-bar connecting said beams. The standards R' are strengthened against the draft-strain by the brace-rods U', the lower ends of which are attached to the lower parts of the standards R', and their upper ends are attached to the beam T'. To the shaft J is attached a single tooth, V', which, at each revolution of the said shaft, strikes against a tooth of the wheel W', which is pivoted to a support or casing attached to the frame-work of the machine, and moves it through the space of one tooth. The wheel W' has a single tooth or pin attached to its side, which at each revolution of the wheel W' strikes against a tooth of the gear-wheel X' and moves it through the space of one tooth. To the end of the shaft of each of the wheels W' X' is attached a pointer or index-finger, Y', which indicates, upon a scale formed upon or attached to the support or casing of the indicator, the number of hills planted.

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

The shaft J, having spur I and single tooth V, the shaft having toothed wheel W' with side pin, and the shaft having spur-wheel X' and dial-finger Y', in combination with the spur-wheel F, as and for the purpose described.

WEISEL BEALL.

Witnesses:

DECATUR HEDGES,
DALLAS S. HULL.