

(No Model.)

2 Sheets—Sheet 1.

G. SHADDAY, Jr.  
CORN PLANTER.

No. 325,121.

Patented Aug. 25, 1885.

FIG. I.

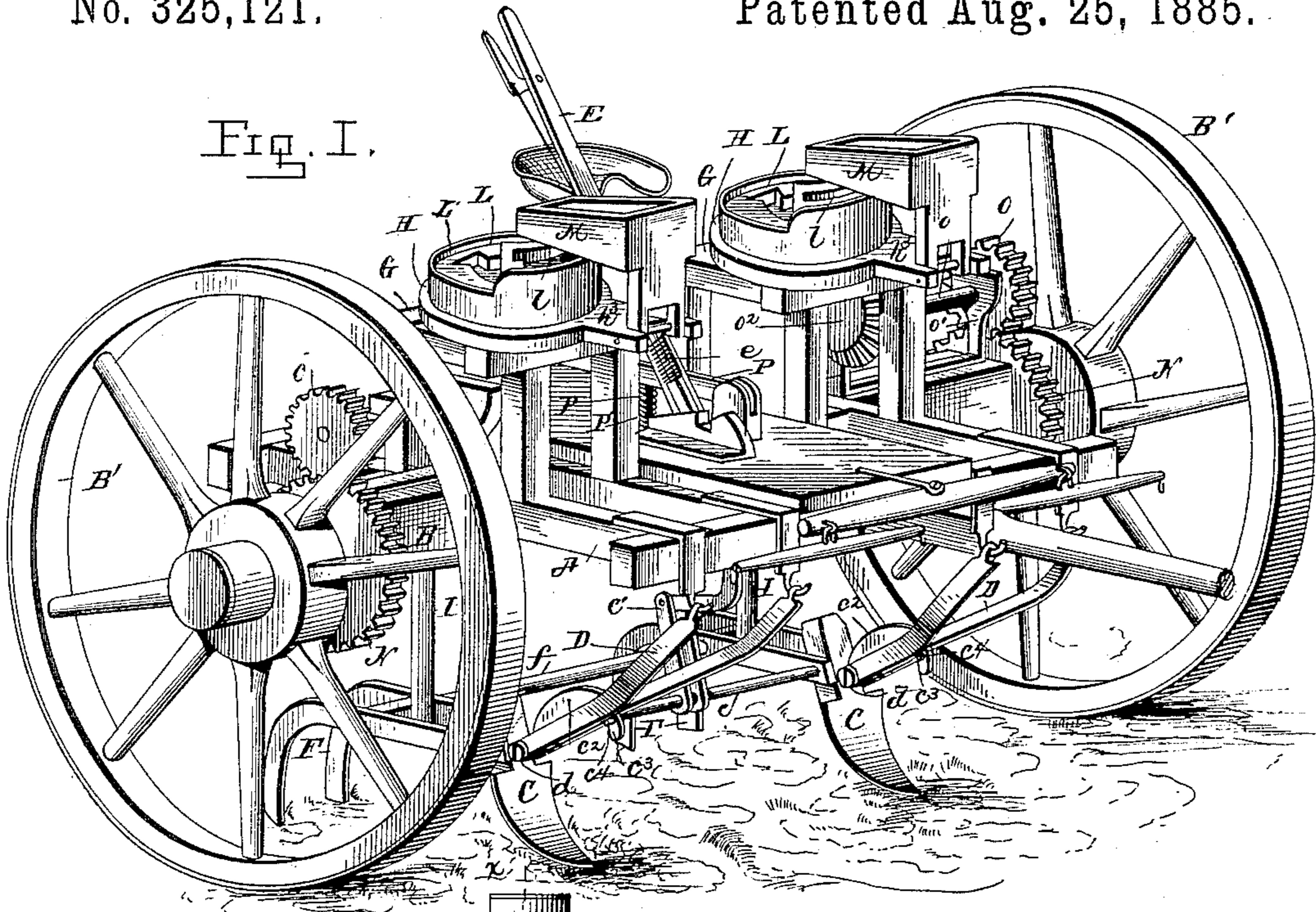
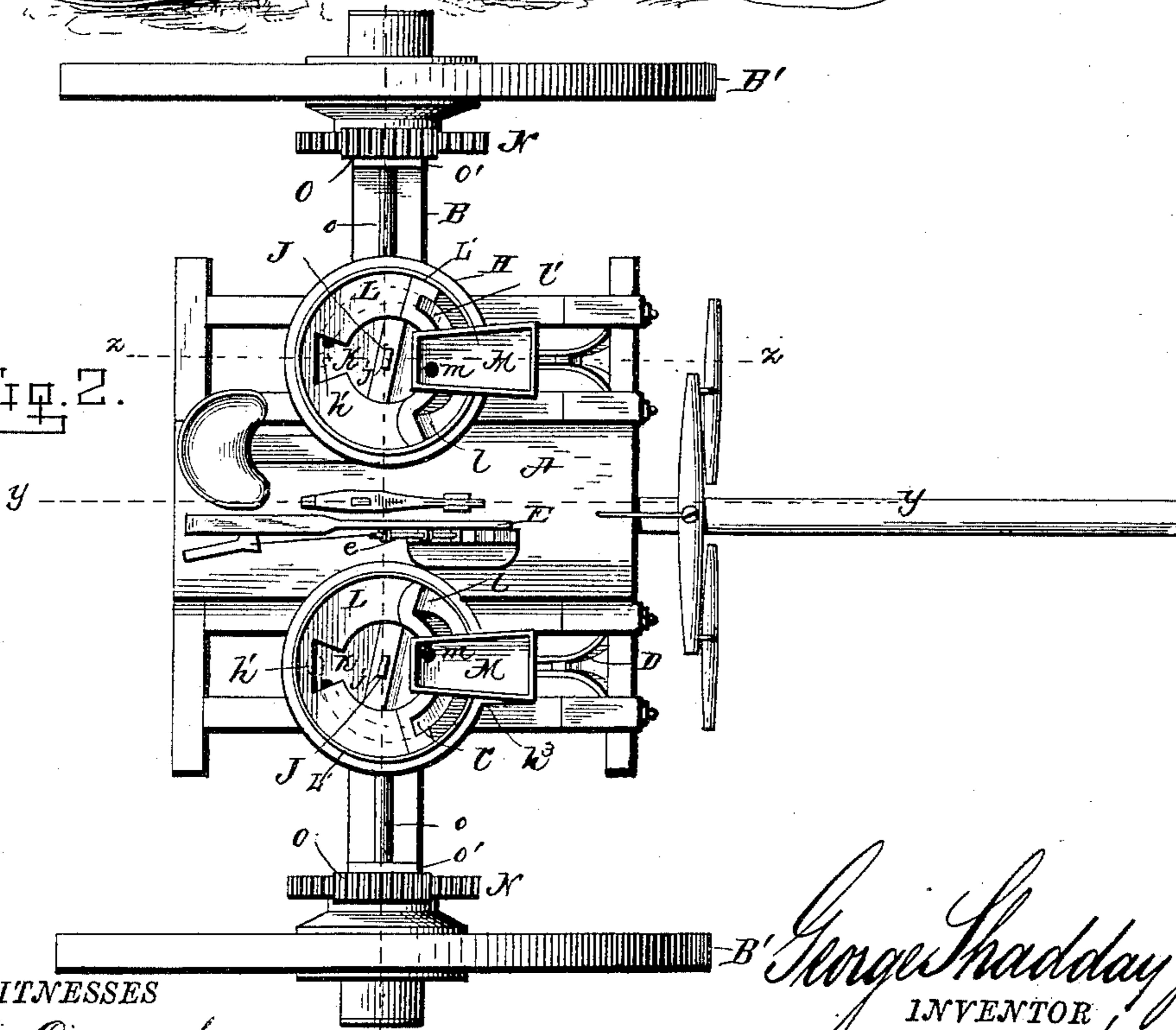


FIG. 2.



WITNESSES

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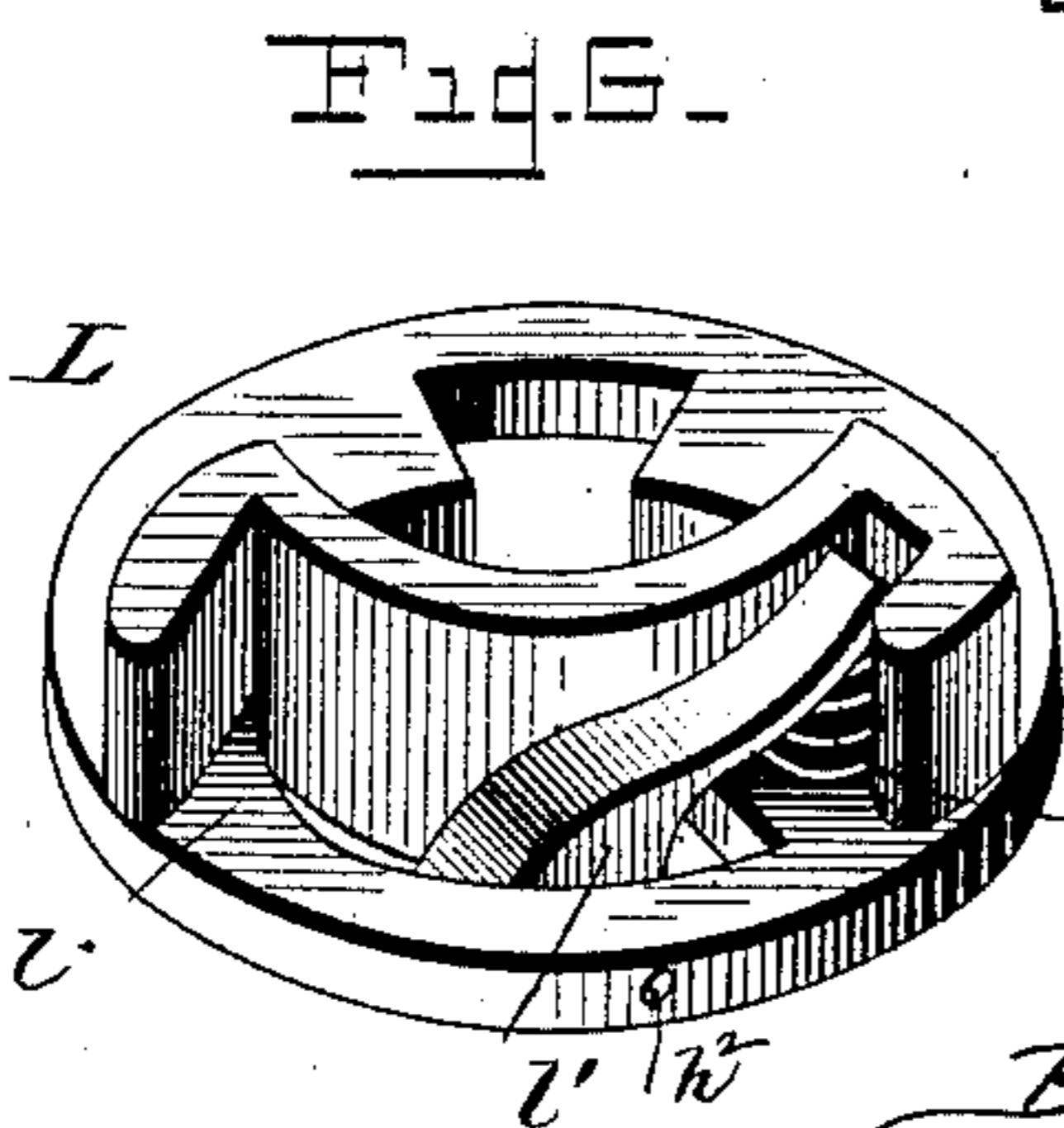
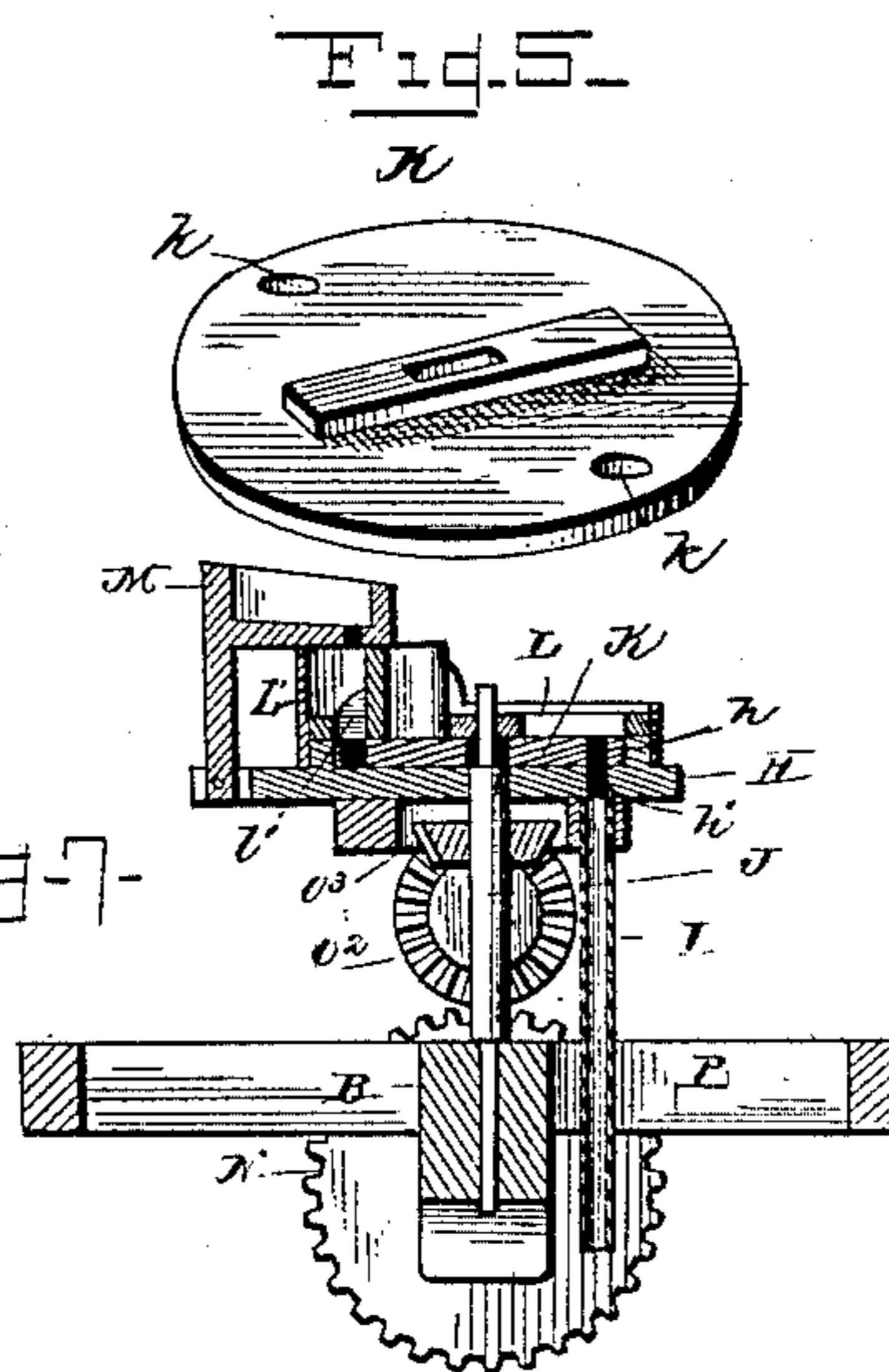
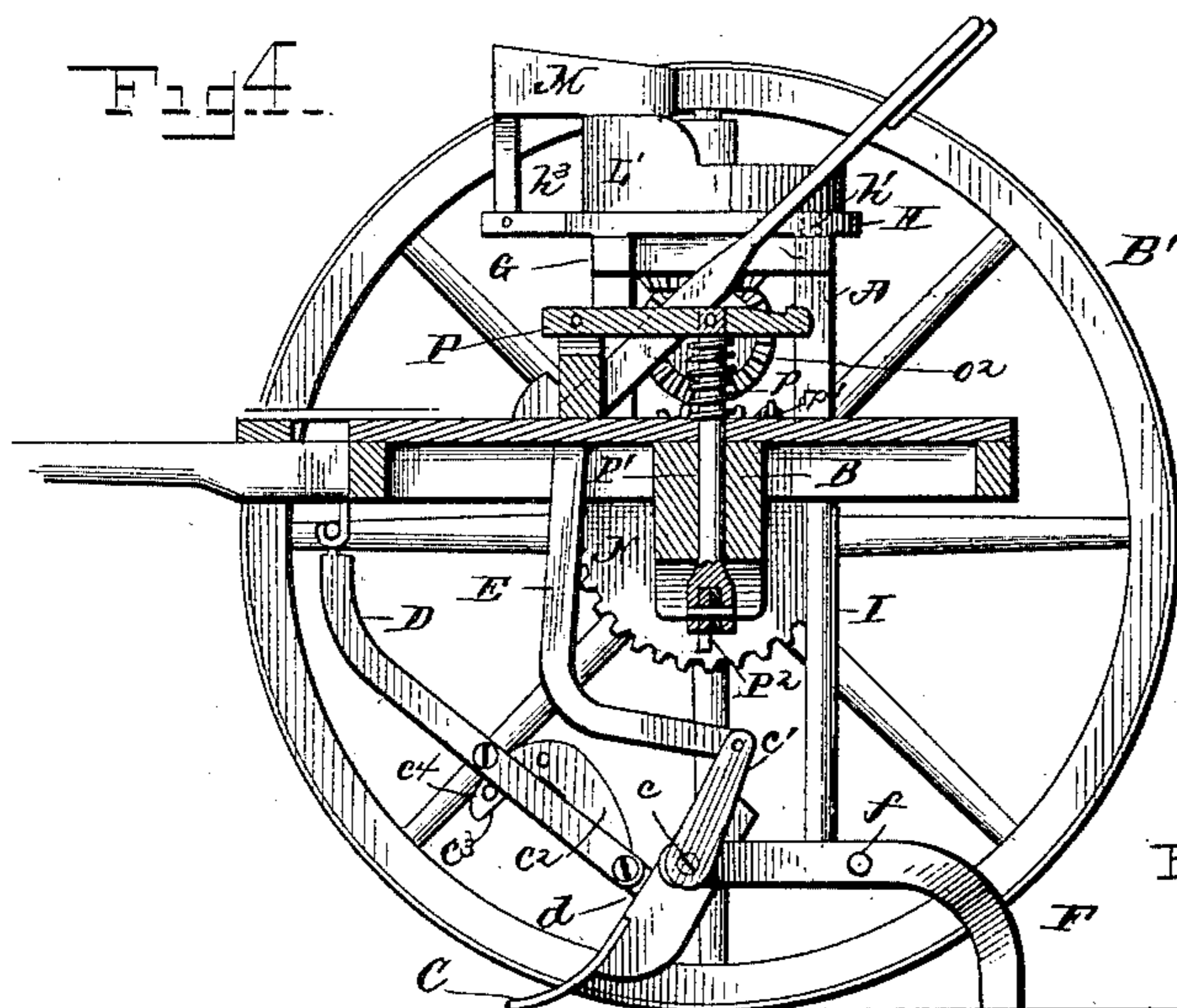
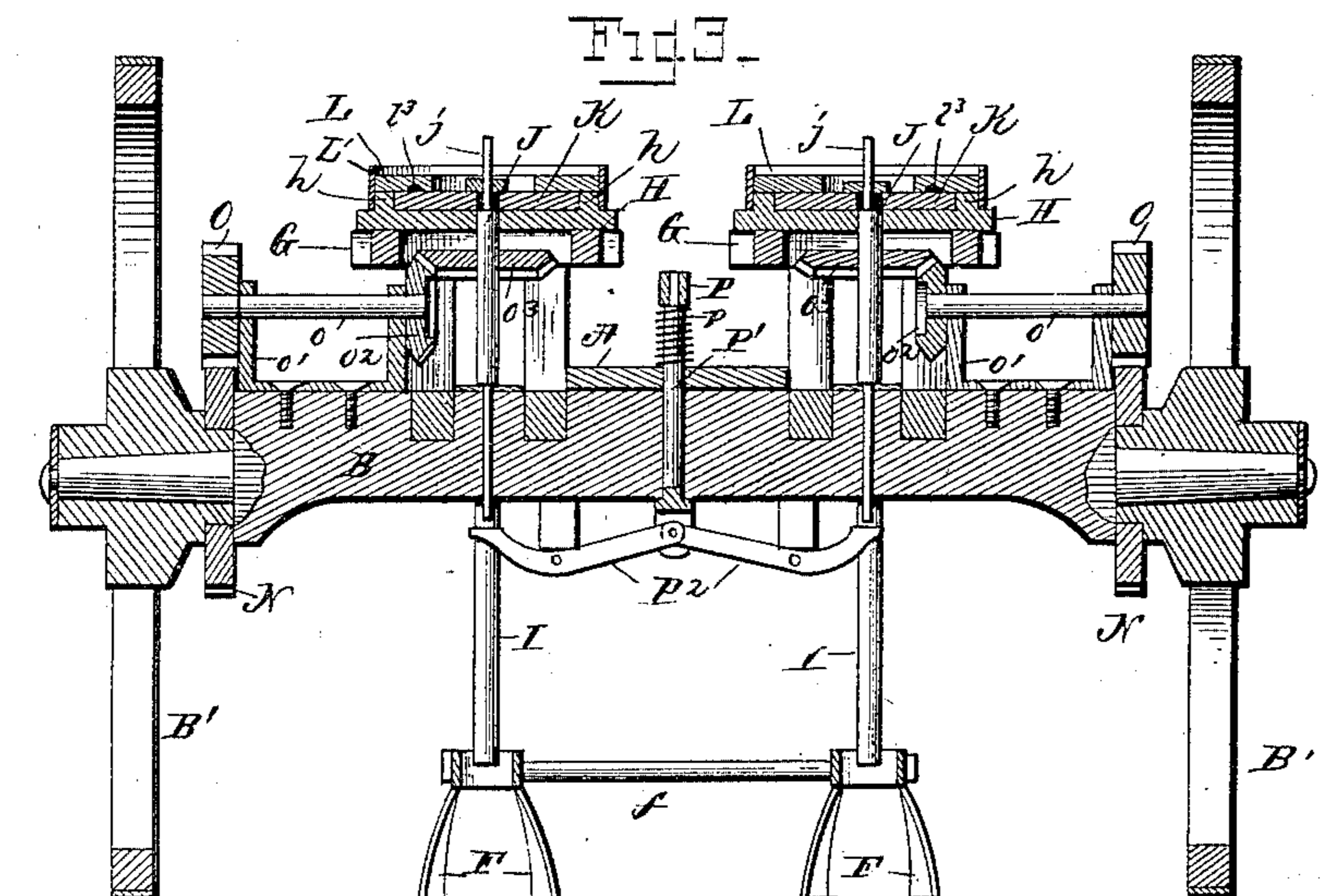
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2 Sheets—Sheet 2.

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WITNESSES  
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# UNITED STATES PATENT OFFICE.

GEORGE SHADDAY, JR., OF REXVILLE, INDIANA.

## CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 325,121, dated August 25, 1885.

Application filed April 22, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE SHADDAY, Jr., a citizen of the United States, and a resident of Rexville, in the county of Ripley and State of Indiana, have invented certain new and useful Improvements in Corn-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.

My invention relates to that class of corn-planters which are so constructed as to adapt the one machine to open the furrow, discharge the corn into the opened furrow, and then cover the loose earth over the grain in the furrow; and it consists in a double planter of the above-described class which is adapted to plant two rows at the same time, and in which the drive-wheels are so located with reference to the planting devices as to serve as automatic markers to indicate the distance between the rows.

My invention further consists in new and useful improvements in the devices for feeding the grain down into the furrow, and in certain other combinations and sub-combinations, which will be hereinafter fully described and claimed.

Referring to the annexed drawings, Figure 1 is a perspective view of my corn-planter. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical sectional view taken on line *x x*, Fig. 2. Fig. 4 is a vertical sectional view taken on line *y y*, Fig. 2. Figs. 5 and 6 are detail views, the nature of which will be hereinafter set forth; and Fig. 7 is a vertical sectional view taken on the line *z z* of Fig. 2.

The same letters of reference indicate corresponding parts in all the figures.

Referring to the several parts by letter, A represents the main frame of my machine, which is mounted upon the axle B, and, together with this axle, supports the operative parts of the machine.

C C indicate the two plows or shovel-blades, which are connected by the metal rod *c*, and supported from the front cross-bar of the main frame A by the hinged double standards D. The central portion of the connecting-rod *c* is

pivotally connected, through the links *c'*, to the lower end of the long lever E, pivoted in a suitable bearing upon the central portion of the main frame, and provided with a suitable spring-actuated stop or detent, *e*, for securing the lever in its adjusted position. By means of this lever the plows may be lifted out of the ground when it is desired to turn the machine at the end of a row, or in moving the machine from place to place.

To the rear end of the plow-beams are pivotally connected the coverers F, of ordinary construction, connected together by a brace-rod, *f*, the said coverers serving to close the furrow after the grain has been deposited therein, through the mechanism which will be hereinafter described.

Each plow-beam has secured upon its outer face a curved connecting-bar, *c''*, which is pivotally secured at *d* between its double standard D, while its free portion *c'''* is curved, so as to pass between the said standard at nearly right angles, so that by moving this curved portion back or forth, and securing it at any desired point by means of the pins *c'''*, passing through suitable apertures in the said curved portion, the inclination at which the shovel-blades enter the ground may be adjusted to suit the nature of the soil, &c., the plow-beams turning freely on the connecting-rod *c* to admit of this movement. The coverers F are also pivotally secured to the plow-beam by the connecting-rod *c*, which passes through their forward ends in such a manner as to admit of their adjusting themselves by their own weight to the adjusted position of the plows.

G G represent upright frames supported upon the main frame A at each side thereof, as shown, each of these upright frames having secured upon it a circular plate, H, having a circular flange or rib, *h*, cast upon its upper side, and provided at a point near its periphery, but within this flange, with an aperture, *h'*, registering with the upper end of the discharge-tube I, which conveys the corn down to the furrow at a point between each plow-blade and its coverer, respectively.

A vertical rod, J, round in cross-section, passes up through the axle, with its upper end extending up through a central vertical aperture in the plate H, while that portion of its upper extremity which extends above the up-

per face of the said plate is cut away on both of its opposite sides or squared, as at *j*, to adapt it to fit tightly within the rectangular vertical aperture of a metallic plate which is secured upon the upper side of the disk K, which is adapted to be rotated upon the shaft J within the circular flange of the stationary plate H. This revolving plate has two (or more) vertical apertures, *k*, located at such points near the periphery of the disk as to register alternately with the aperture *h'* in the stationary plate, for the purpose hereinafter set forth.

L indicates the top plate, which rests upon and is secured to the flange *h* of the stationary plate by means of the rim or hoop L, and is provided with the seed-receptacle *l*, having the automatic "cut-off" or valve *l'*, pivoted at *h<sup>2</sup>*, with its upper end bearing upon the spring *l<sup>2</sup>*, as shown in Fig. 6, and which serves to keep its lower end bearing lightly upon the revolving plate near its periphery. The stationary plate H is provided with the forward projection, *h<sup>3</sup>*, upon which is pivotally secured the hopper M, provided with an aperture, *m*, at its lower rear end, through which the grain falls down into the receptacle *l*, in which the valve *l'* is located, the grain then passing down into the apertures of the revolving plate K as these apertures pass beneath the said opening, the valve *l'* preventing any grain except that which fills the apertures *k* from passing around and out with the revolving plate. To permit of the passage of extra large grains or of two small ones that may become crowded into the apertures *k*, the lower side of the top plate, L, is provided with a channel or groove, *l<sup>3</sup>*, extending from the seed-receptacle to the seed-exit upon the other side. As the plate K revolves, the holes *k* in turn register with the aperture *h'* of the stationary plate H, the grain in the feed-openings *k* then passing down through the discharge-tubes I into the open furrow immediately behind the shovel-blades, when the coverers turn the earth over the seed.

A gear-wheel, N, is secured upon the inner face of the hub of each of the main or drive wheels B', and meshes with a pinion, O, on the outer end of the horizontal shaft *o*, supported in a suitable bearing, *o'*, on the axle, the inner end of the shaft *o* carrying a bevel-pinion, *o<sup>2</sup>*, adapted to mesh with a similar pinion, *o<sup>3</sup>*, keyed upon the vertical shaft J. It will be seen that by this arrangement the motive power for rotating the revolving plate K is supplied by the drive-wheels themselves.

Upon the frame A is pivotally secured, at one of its ends, a lever, P, and pivoted at about its center to the upper end of a vertical rod, P', which passes down through a suitable opening in the axle, and has pivotally secured to its lower end the inner ends of two centrally-pivoted levers, P<sup>2</sup>, upon the under side of the axle, the free ends of these levers bearing up against the lower ends of the vertical revolving shafts J. A spiral spring, *p*, serves to hold the free end of the lever P raised in its normal position, while by depressing the free

end of the said lever the free ends of the centrally-pivoted levers P<sup>2</sup> on the under side of the axle are, through the intervening connections described, elevated so as to raise the vertical rods J sufficiently to disengage their bevel-pinions *o<sup>3</sup>* from the corresponding pinions with which they mesh, thereby throwing the grain-delivering mechanism out of gear, which is desirable while moving the machine from place to place. A catch, *p'*, serves to hold the free end of the lever P in its depressed position.

The plows C C are so located with reference to the main wheels B' that the space between each wheel and the plows is exactly one-half of the space between the plows themselves, so that on turning the machine at the end of a row it is only necessary to drive for the next row with one wheel in the outer wheel's track, by which arrangement the rows will be spaced the same distance apart exactly.

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

1. In a corn-planter, the combination, with a suitable frame, of two hoppers secured thereon, each of said hoppers consisting of a rigid bottom piece having an annular flange upon its upper side, and an aperture within said flange through which the seed is discharged, a plate provided with seed-receptacles revolving within said flange, an annular cover or top provided with a channel or groove upon its under side secured to said flange, and having an opening through which the seed passes to the seed-receptacles in the revolving plate, a seed-hopper provided with an opening registering with said opening in the top plate, and mechanism for operating said seed-plate, substantially as and for the purpose set forth.

2. In a corn-planter, the combination, with a suitable frame, of two hoppers secured thereon, each of said hoppers consisting of a rigid bottom piece having an annular flange upon its upper side, and a projection extending from a portion of its periphery, and an aperture within said flange through which the seed is discharged, a plate provided with seed-receptacles revolving within said flange, an annular cover or top provided with a channel or groove upon its under side secured to said flange, and having a segmental opening through which the seed passes to the seed-receptacles in the revolving plate, a hoop or rim around said top piece, a cut-off pivoted within said segmental opening, a spring under one end of said cut-off, a seed hopper or receptacle hinged to said projection upon said bottom piece, and having an opening registering with said segmental opening in the top piece, and suitable means for operating said revolving plate, substantially as and for the purpose set forth.

3. In a corn-planter, the combination, with the above-described frame and hoppers, of two upright shafts, the lower end of each of which is journaled in and rests upon the axle of the machine, and the upper ends pass through the

said bottom pieces and engage with the said revolving plates, and means for rotating said shafts, and suitable means for moving them vertically, substantially as and for the purpose set forth.

4. In a corn-planter, the combination, with the above-described frame and hoppers, of two upright shafts, the lower ends of which are journaled in and rest upon the axle of the machine, and the upper ends of which are squared and pass through openings in the said bottom pieces and engage with the revolving seed-plates, bevel-pinions secured upon said shafts engaging with bevel-wheels secured upon said frame, and operated by the driving-wheels,

two pivoted arms secured upon the under side of said axle, the outer ends of which engage with the lower ends of said shafts, an upright post secured to the inner ends of said pivoted pieces, a spring-actuated lever for operating said upright post and pivoted levers, and a pair of suitable opening and covering plows, 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.

GEORGE SHADDAY, JR.

Witnesses:

JAS. M. PARDUN,  
LEO BENHAM.