No. 635,342. Patented Oct. 24, 1899.

P. E. OBRINK.

CORN PLANTER.

(Application filed Nov. 21, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

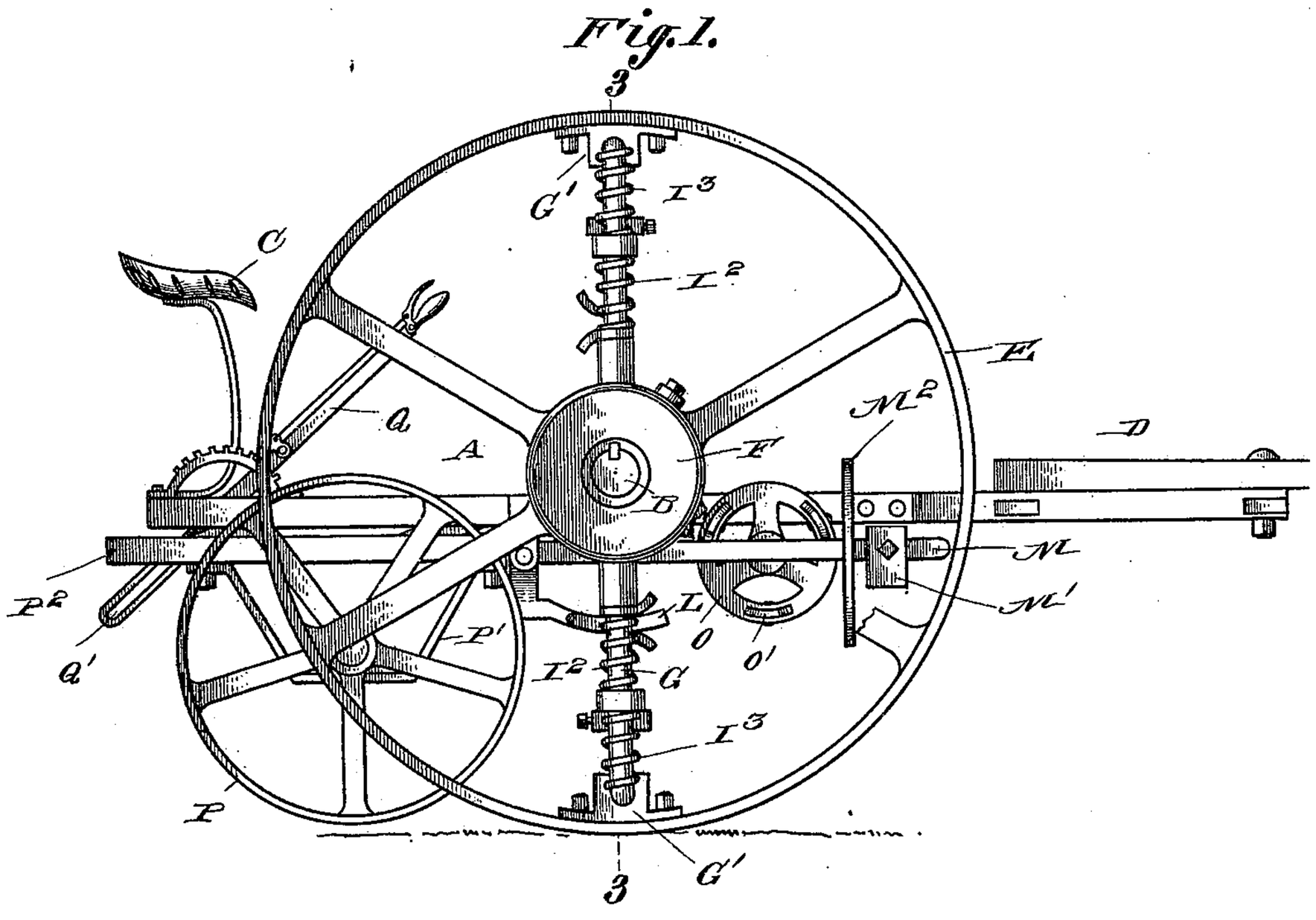


Fig. 4.

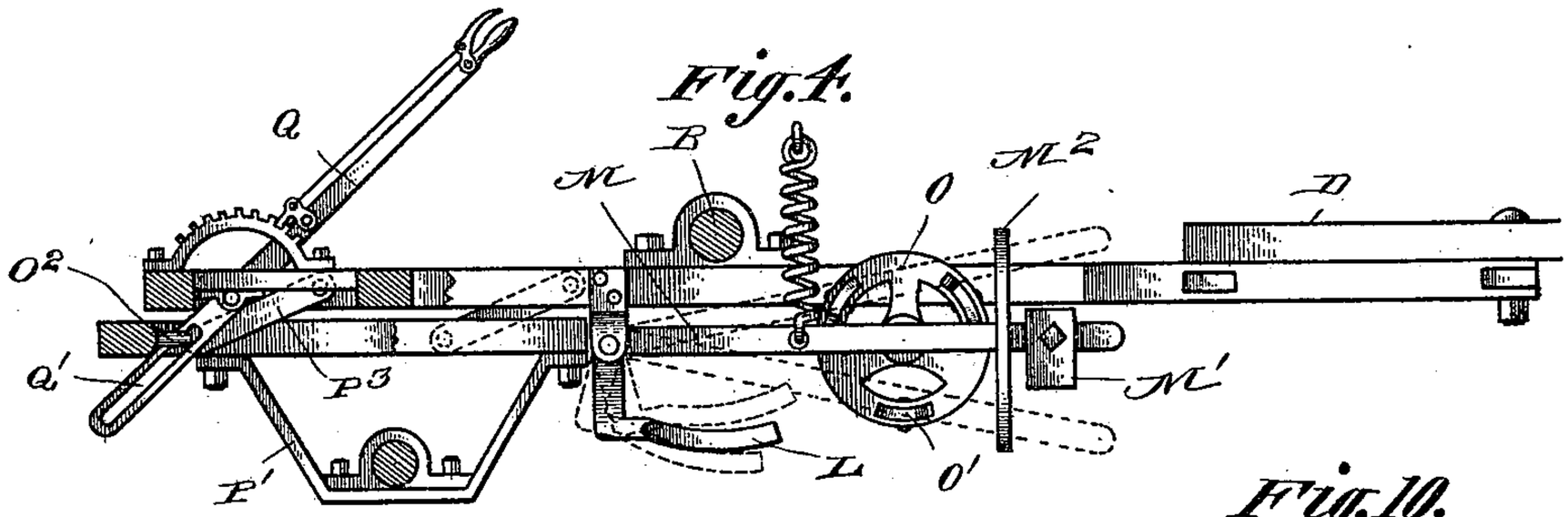


Fig. 11.

Fig. 9.

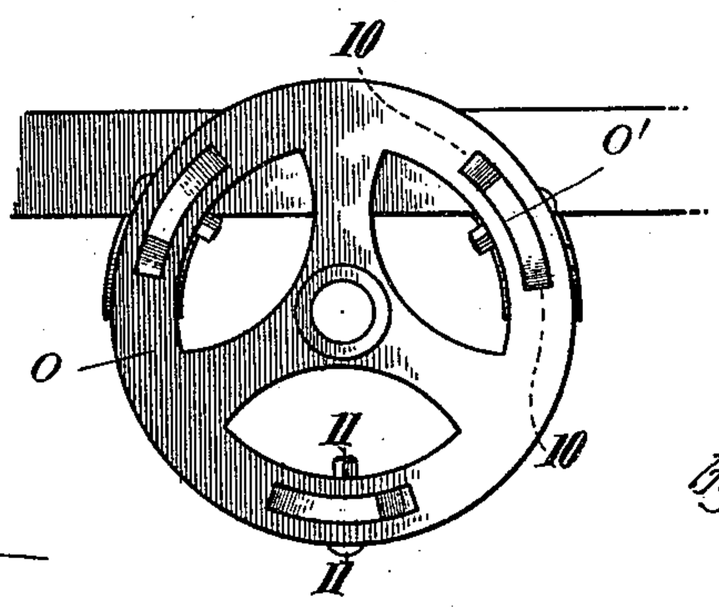
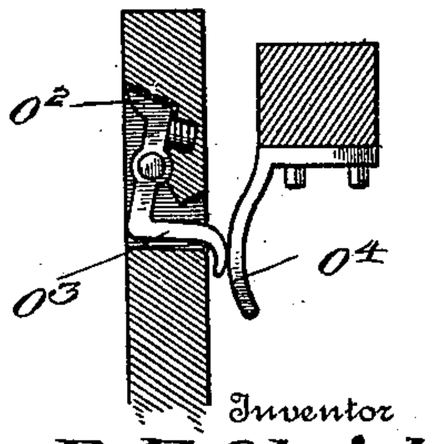


Fig. 10.



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No. 635,342. Patented Oct. 24, 1899.

P. E. OBRINK.

CORN PLANTER.

(Application filed Nov. 21, 1898.)

(No Model.) 2 Sheets—Sheet 2.

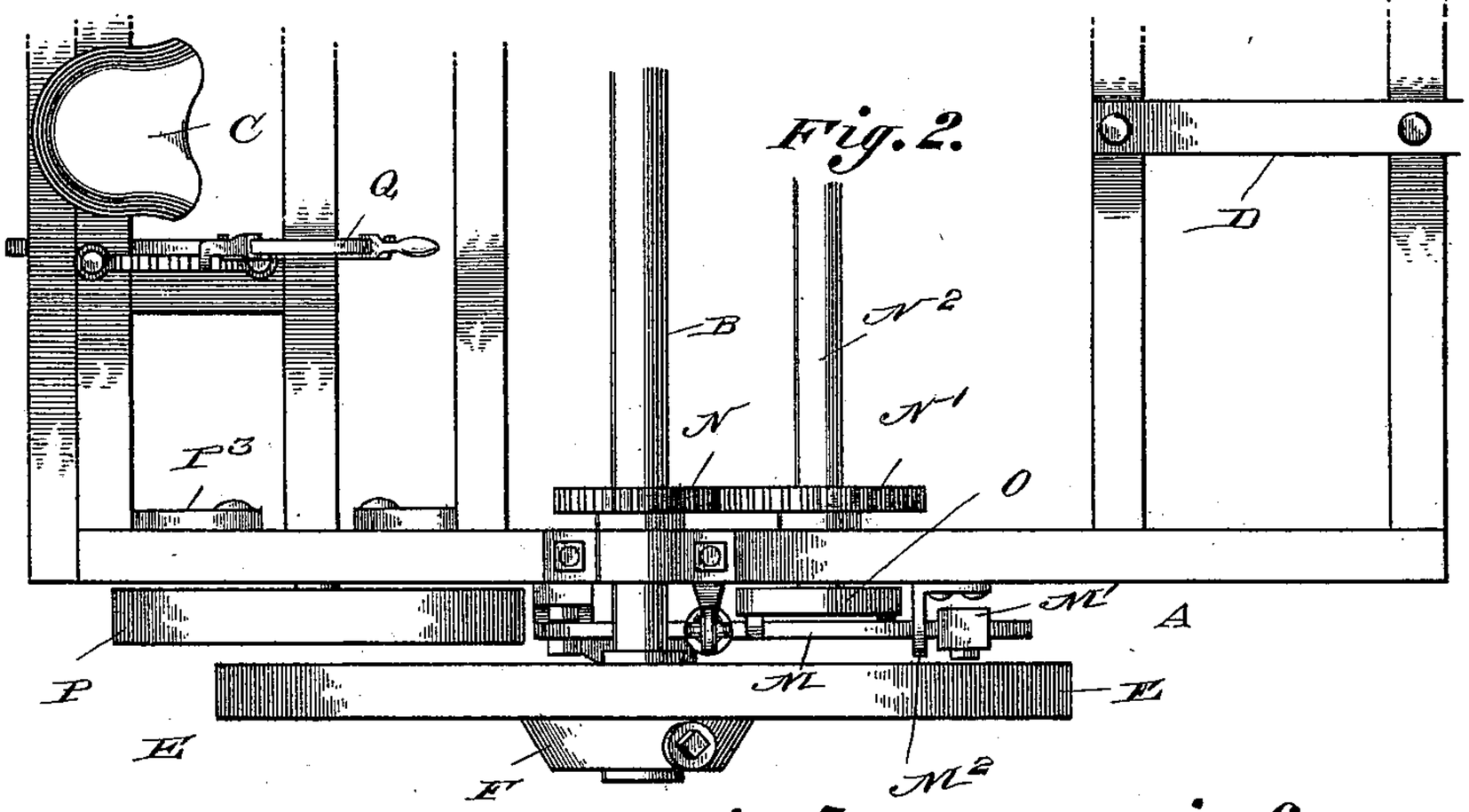


Fig. 2.

Fig. 5.

Fig. 6.

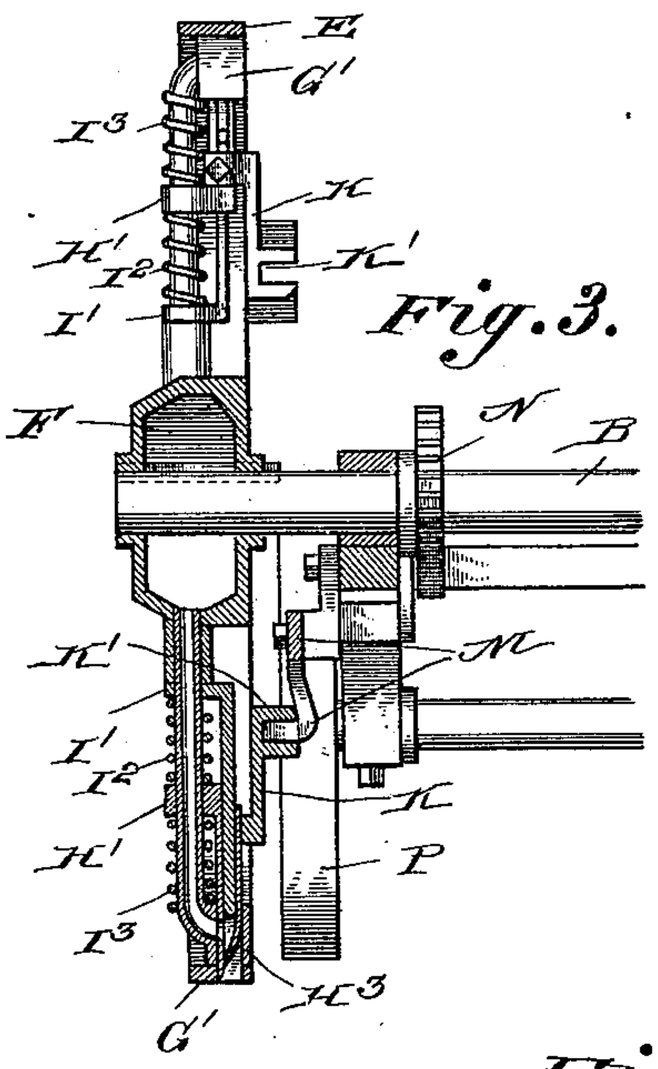
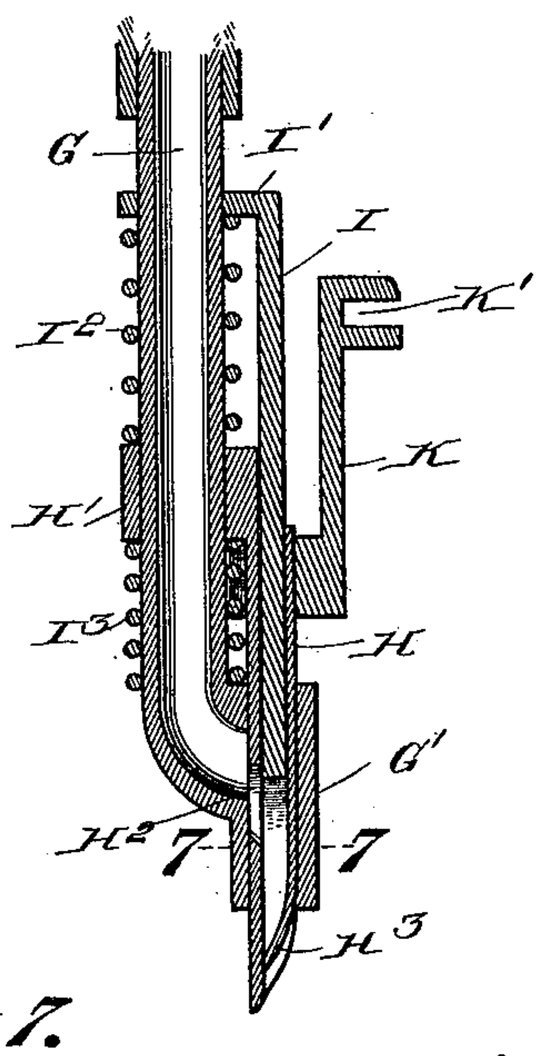


Fig. 3.



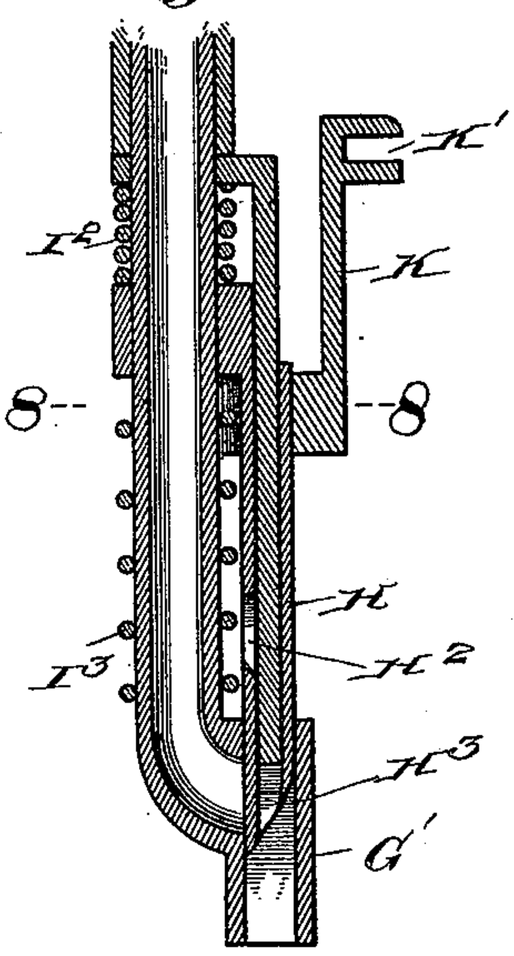


Fig. 7.

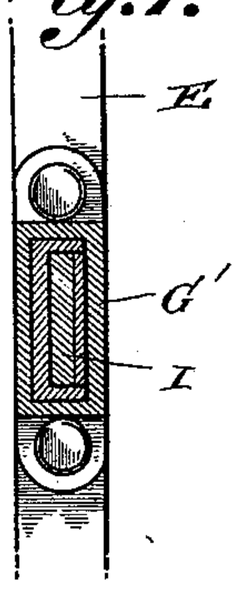
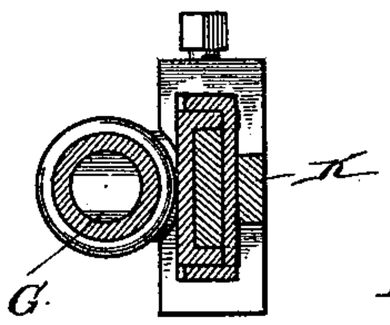


Fig. 8.



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UNITED STATES PATENT OFFICE.

PER ERICK OBRINK, OF POMEROY, IOWA.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 635,342, dated October 24, 1899.

Application filed November 21, 1898. Serial No. 697,118. (No model.)

To all whom it may concern:

Be it known that I, PER ERICK OBRINK, residing at Pomeroy, in the county of Calhoun and State of Iowa, have invented a new and useful Corn-Planter, of which the following is a specification.

This invention relates generally to corn-planters, and more particularly to one adapted to drop the corn at definite intervals, the object being to avoid the use of a check-row wire and at the same time provide a cheap and simple mechanism which will efficiently perform the operations before mentioned.

With these various objects in view the invention consists in the peculiar construction of the various parts and in their novel combination and arrangement, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a side elevation of a corn-planter constructed in accordance with my invention. Fig. 2 is a top plan view of the dropping mechanism. Fig. 3 is a section on the line 3 3 of Fig. 1. Fig. 4 is a detail view of the operating mechanism, the ground-wheel, hopper, and delivery-chutes being removed. Fig. 5 is a detail sectional view of the delivery-chute, showing it in position ready to drop the corn. Fig. 6 is a similar sectional view showing the mouth of the delivery-tube closed. Fig. 7 is a section on the line 7 7 of Fig. 5. Fig. 8 is a section on the line 8 8 of Fig. 6. Fig. 9 is a detail view of the lever-raising wheel. Fig. 10 is a section on the line 10 10 of Fig. 9. Fig. 11 is a section on the line 11 11 of Fig. 9.

In carrying out my invention I employ a main frame A, mounted upon a central axle B, having the usual driver's seat C and draft-pole D. Ground-wheels E are mounted upon the ends of the axle B, and a corn-hopper F surrounds each end of the axle and virtually constitutes the hub of the wheel, delivery-chutes G extending from said hopper or hub to the rim of the wheel, as most clearly shown in Figs. 1 and 3, the ends of the delivery-chutes being bolted to the wheel, as most clearly shown in Fig. 1. The outer or discharge end of the delivery-tube is formed into a box G′, through which works the cut-off slide or plunger, comprising a flat narrow sleeve H, having a collar H′ at its upper end surrounding the delivery-tube, the outer end of said sleeve having an opening H^2 adjacent thereto and through which the corn is adapted to pass, and a spring-tongue H^3, which closes the end of the sleeve when said sleeve is projected downwardly, as shown in Fig. 5. A plunger-rod I works in the rectangular-shaped sleeve H for the purpose of projecting the corn therefrom, said rod I having a collar I′ upon its upper end surrounding the delivery-tube, and between collars H′ and I′ is arranged a coiled spring I^2, and a similar coiled spring I^3 is arranged between the collar H′ and the curved end of the delivery-tube, the purpose of the said spring being to normally hold the sleeve in the position shown in Fig. 3, wherein the corn can pass through the delivery-tube into the sleeve, but will be prevented from dropping by means of the spring-closed end of said sleeve. In order to discharge the corn so fed, it is first necessary to produce an opening in the ground and then open the end of the sleeve, and in order to do this I project the sleeve downwardly into the ground, thereby making the necessary hole, and then elevate said sleeve and force the corn therefrom into the hole so made, and in order to accomplish this I attach an arm K to the upper end of the sleeve, said arm having an inwardly-projecting bifurcated end K′, adapted to engage a tripping-arm L, carried by an elbow-lever M, pivoted to the main frame and carrying a weight M′ upon its free end. The arm L is so shaped that as the wheel E revolves and carries the corn-dropping mechanism therewith the said arm L will pass into the bifurcated end K′ of the arm K, and by means of a gear N, mounted on the axle B, operating a gear N′, mounted upon a shaft N^2, a lever-lifting wheel O is so operated as to release the lever, and the weight M′, carried thereby, will cause the arm L to be forced down. This operation forces the sleeve H downwardly and makes a hole in the earth. The moment this operation is accomplished the lever has been elevated by the continued revolution of the wheel O, and in so operating the lever the arm L has been raised, and consequently the arm K and the sleeve H are elevated to the position shown in Fig. 6 and the corn forced therefrom by means of the plunger I.

The lever-operating wheel O has a series of spring-actuated pivoted catches O′ pivoted therein, said pivoted catches comprising a head O^2 and a tripping-arm O^3, said tripping-arm being adapted to engage a pendent finger O^4, attached to the side rail of the frame. The normal position of the catch is such that the head O^2 projects beyond the face of the wheel, so that during its revolution it will engage the lever M and lift the same; but in order to drop the said lever at the proper moment the tripping-arm O^3 of the catch engages the pendent arm O^4, which immediately draws the head O^2 within the wheel and releases the lever, and the weight M′ immediately causes the said lever to drop and perform the operations before mentioned. A suitable loop M^2 prevents the lever being carried too far up and down.

It will thus be seen that I provide an extremely cheap and simple construction of corn-planter which will automatically discharge the corn at definite intervals as the machine is drawn forward over the earth.

In order to provide for moving the planter from place to place, I employ supplemental ground-wheels P, mounted in brackets P′, depending from the frame P^2, which are pivotally connected to the main frame by means of links P^3, and whenever it is desired to elevate the planter proper and throw the weight upon the supplemental ground-wheels P, I accomplish said operation through the medium of a lever Q, pivoted to the main frame and having a slot Q′ in the portion extending below the main frame, said slotted portion of the lever engaging a staple Q^2, fastened to the supplemental frame, and by drawing the lever rearwardly the supplemental frame is projected downwardly, thereby bringing the supplemental wheels into use and elevating the main wheels, said lever of course being locked through the medium of a ratchet-bar and thumb-latch.

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

1. In a corn-planter of the kind described, the combination with the arm K for operating the feed tube or sleeve, of the arm L carried by the weighted lever and the elevating-wheel for elevating the said lever, substantially as shown and described.

2. In a corn-planter of the kind described, the combination with the delivery-chute and feed-tube, of the arm K connecting the said tube, the arm L adapted to engage the bifurcated end of the arm K, the elbow-lever M for operating the arm L and the elevating-wheel O having a series of spring-catches O′ all arranged and adapted to operate, substantially as shown and described.

PER ERICK OBRINK.

Witnesses:
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