No. 835,040. PATENTED NOV. 6, 1906.

E. H. SNYDER.

DROP MECHANISM FOR CORN PLANTERS.

APPLICATION FILED SEPT. 22, 1906.

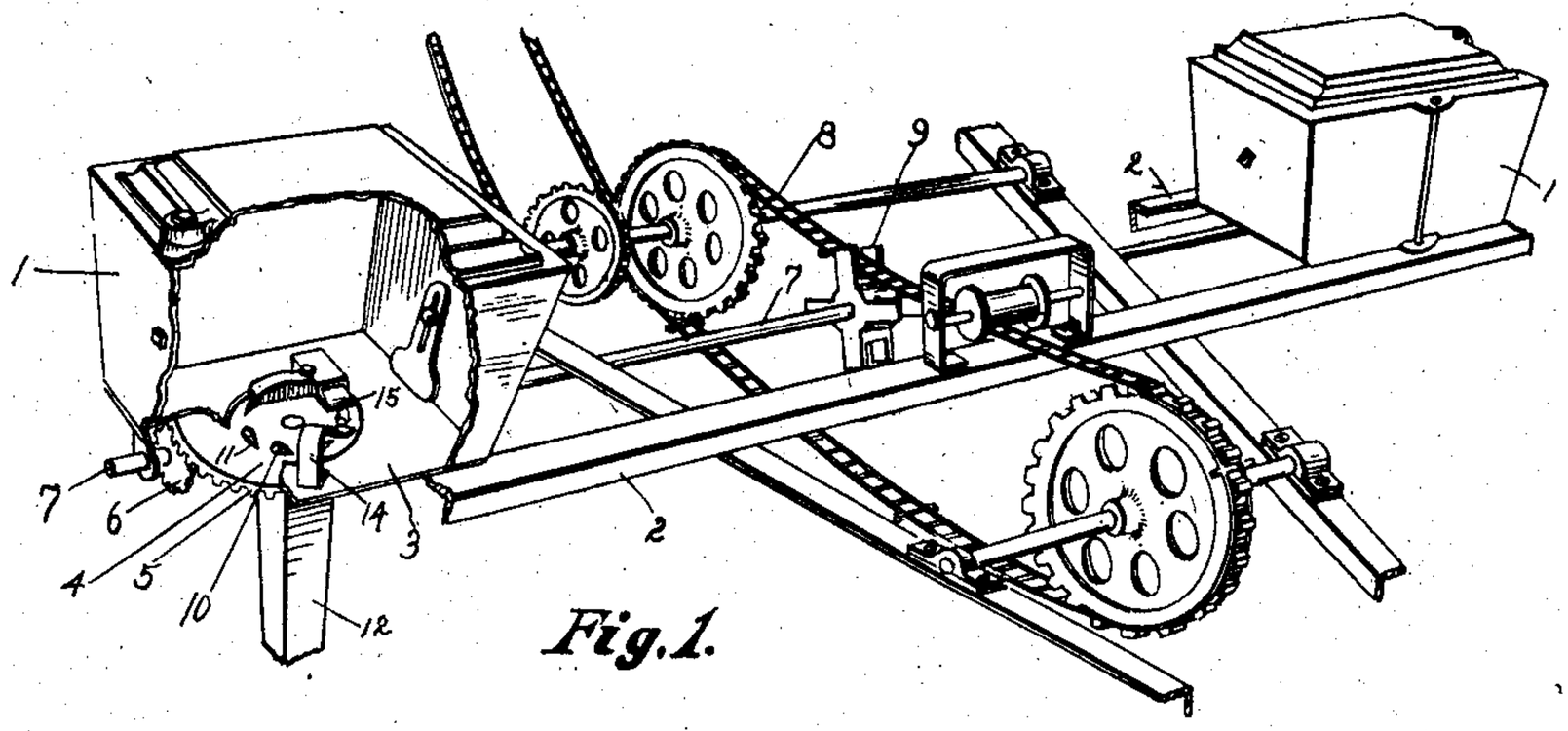


Fig. 1.

Fig. 2.

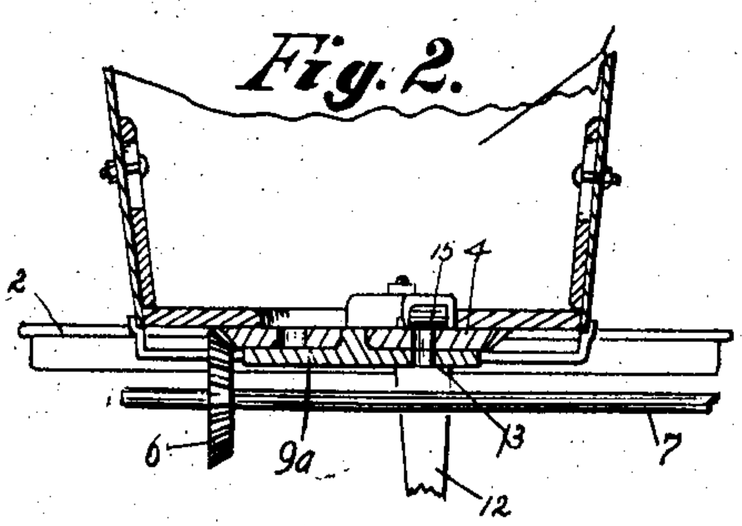
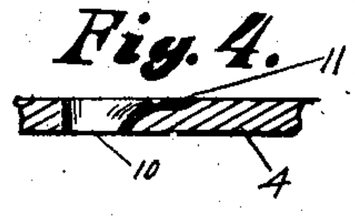


Fig. 3.

Fig. 4.



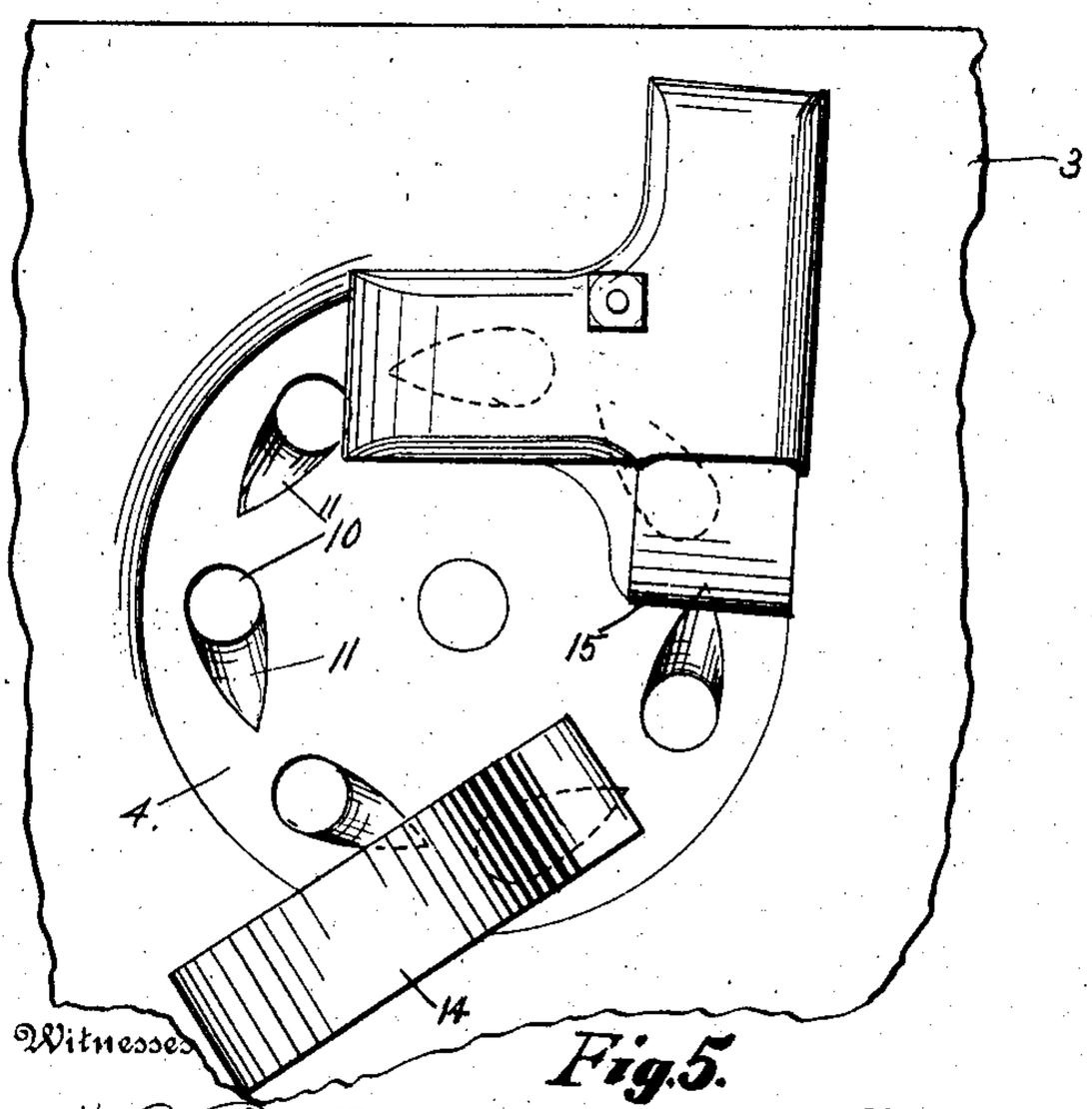


Fig. 5.

Witnesses

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DROP MECHANISM FOR CORN-PLANTERS.

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Application filed September 22, 1906. Serial No. 335,776.

To all whom it may concern:

Be it known that I, EMMANUELL H. SNYDER, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Drop Mechanism for Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the numerals of reference marked thereon, in which—

Figure 1 is a perspective view illustrating the mechanism for imparting rotary movement to the grain-disks and illustrating one of the seedboxes partly broken away. Fig. 2 is a vertical section of one of the feed-boxes and grain-disks. Fig. 3 is a view showing a portion of one of the grain-disks. Fig. 4 is a sectional view showing a grain-disk, taken on line 3 3, Fig. 3. Fig. 5 is a top view of the grain-disk, showing the same in proper relative position with reference to the bottom of the grain-box and the seed-scraping spring properly located with reference to the disk.

The present invention has relation more particularly to the construction of the grain-disk; and it consists in the novel arrangement and formation of the grain-receiving receptacles formed in the disks, whereby a forced feed is produced.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents the grain-boxes, which may be of the ordinary construction, and are supported and held in fixed position in the usual manner by means of the bars 2 or their equivalents, which bars are connected to the corn-planter frame in the usual manner. The boxes 1 are provided with the ordinary removable bottoms 3, which bottoms are provided with the usual openings, below which openings and below the bottom, but in close proximity thereto, are located the grain-disks 4, which grain-disks are provided with the teeth 5, which teeth mesh with suitable pinions 6, mounted upon the shaft 7, which shaft is rotated by means of the sprocket-chain 8 and the wheel 9. These parts, however, do not form any particular part of the present invention, but are illustrated for the purpose of showing the general arrangement of the mechanism designed to impart rotary motion to the dropper-disks 4. The dropper-disks are supported from the plates 9^a, which plates are held in proper relative position to the grain-boxes 1 in the ordinary manner. The dropper-disks are provided with a series of apertures 10, from which apertures lead the inclined grooves 11, which inclined grooves are formed quite shallow and lead down toward the apertures 10, as best illustrated in Fig. 4. The grooves 11 are tapered from the apertures toward their top or upper terminal points, and are so tapered for the purpose of allowing the kernels of grain to be forced without resistance toward and into the apertures 10, by which arrangement each aperture will have approximately the same number of kernels, and thereby produce a uniform number of kernels, to be dropped into the spout 12 through the aperture 13, formed in the plates 9^a. To the bottom 3 is attached the scraper-spring 14, which scraper-spring is for the purpose of first moving the kernel of grain located in the groove 11 down and into the apertures 10, and also for the purpose of stroking the kernels located entirely above or partially above the apertures 10. After a given aperture has passed from under the scraper-spring 14 it is brought under the scraper-plate 15, which scraper-plate again forces the kernels of grain into the apertures 10 and removes all the grains except those lying in the aperture. The grooves 11 are formed shallow, so as to remove all of the surplus grains of corn from said grooves, by which arrangement a uniform number of grains are carried by each aperture over the aperture 13 and of course permitted to drop through said aperture.

It will be understood that if the grooves 11 are formed of such a depth that the scraper spring and plate will not remove from said grooves all of the surplus kernels there is danger of the kernels lying in the grooves falling into the apertures 10 and passing through the apertures 13, owing to the fact that after a portion of the kernels in the apertures 10 have passed through the apertures 13 the kernels lying in the grooves 11 will follow down the incline bottoms of the grooves and find their way through the apertures 13, thereby preventing the accurate dropping of the kernels as to number; but by my arrangement there are no kernels that can be dropped except the ones lying in the apertures 10, all of the kernels lying in the grooves 11 having been removed.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A corn-planter dropper-disk provided with a series of apertures, inclined grooves leading from said apertures said grooves formed shallow and tapering in width toward their upper or terminal points, and a scraper spring and plate, substantially as and for the purpose specified.

2. In a corn-planter, the combination of planter-disks means for rotating the planter-disks, said planter-disks provided with a series of apertures, grooves leading from the apertures, said grooves formed shallow and tapered vertically and laterally toward their terminating-points, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

EMMANUELL H. SNYDER.

Witnesses:

J. A. JEFFERS,

F. W. BOND.