(No Model.) 2 Sheets—Sheet 1.

J. CARSON.

SEEDER.

No. 372,743. Patented Nov. 8, 1887.

Fig. 1.

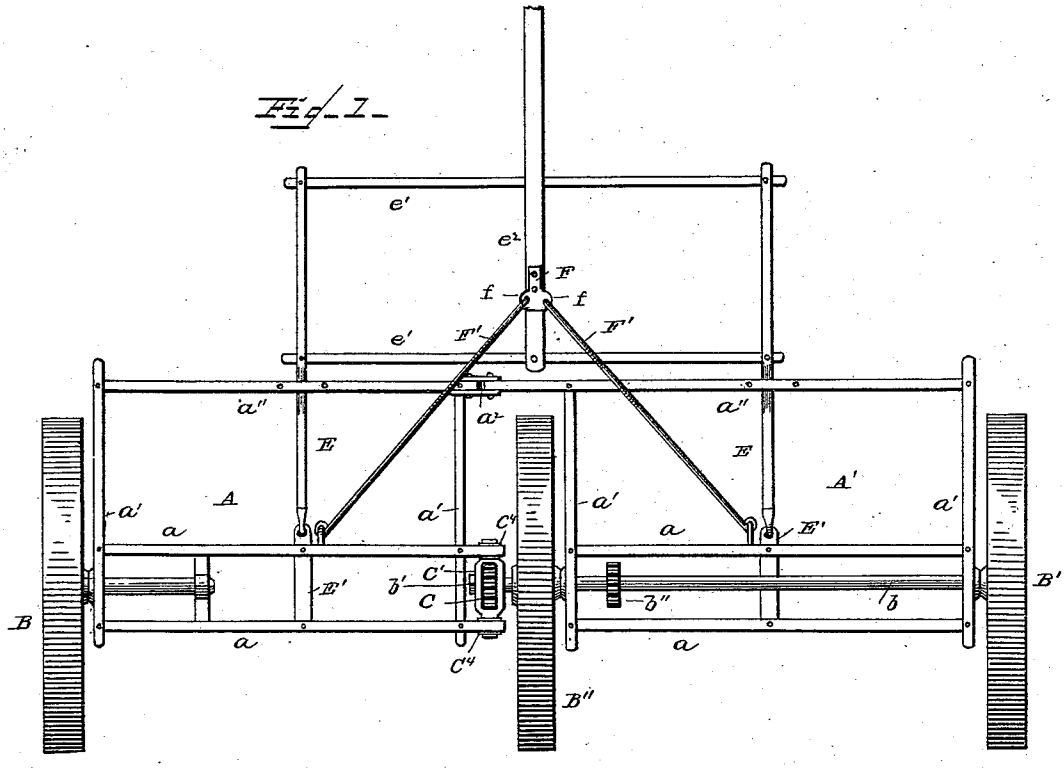
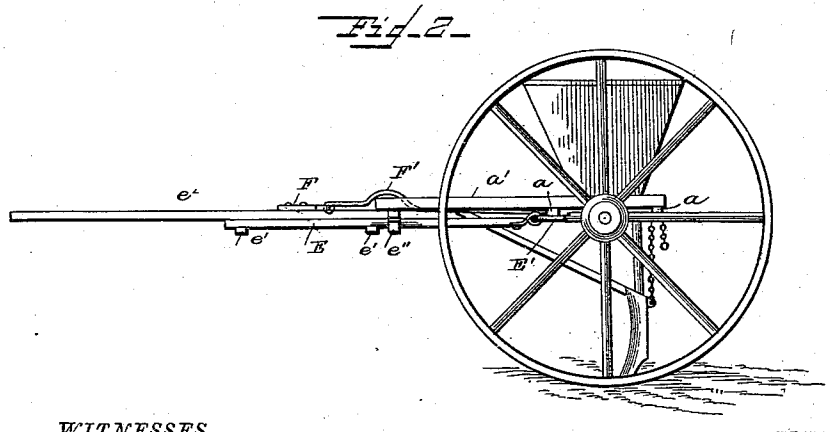


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

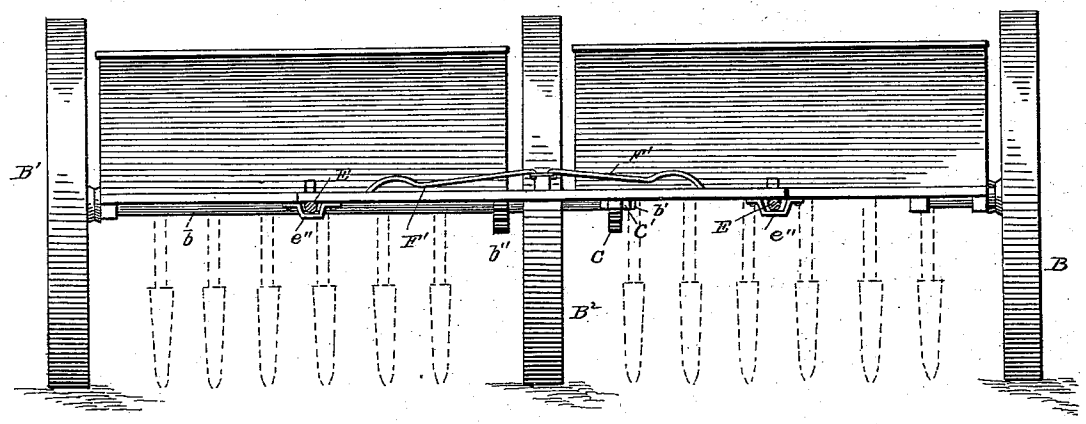


Fig. 4.

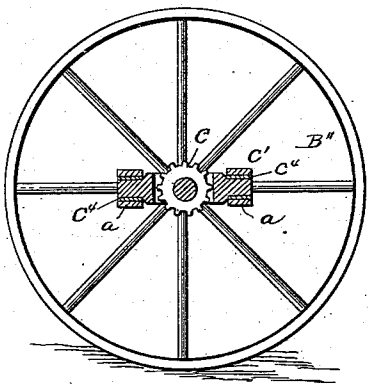
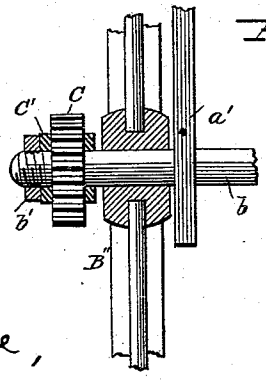


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN CARSON, OF HAMILTON, DAKOTA TERRITORY.

SEEDER.

SPECIFICATION forming part of Letters Patent No. 372,743, dated November 8, 1887.

Application filed August 15, 1887. Serial No. 246,965. (No model.)

To all whom it may concern:

Be it known that I, JOHN CARSON, a citizen of the United States of America, residing at Hamilton, in the county of Pembina and Territory of Dakota, have invented certain new and useful Improvements in Grain-Drills; 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.

This invention pertains to certain new and useful improvements in grain-drills, having for its object to provide simple and efficient means for increasing the distribution of the seed and to permit the drill to conform to any unevenness of the ground; and the invention consists in the detailed construction, combination, and arrangement of the parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my invention. Fig. 2 is a side view thereof. Fig. 3 is a front elevation. Fig. 4 is a vertical transverse section on the line *x x*, Fig. 1; and Fig. 5 is a detail sectional view.

Corresponding parts in the several figures are denoted by the same letters of reference.

This improvement consists, essentially, of two distinct seeders or drills connected with each other and additionally supported by a third centrally-disposed carrying-wheel, the same being rigidly connected on the inner end of the axle of the carrying-wheel of one of the seeders or drills, from which axle motion is transmitted to the ordinary agitating mechanism of each seeder or drill, all of which will now be fully described.

Referring to the drawings, A A′ represent two long horizontally-disposed frames of a seeder or drill composed each of two longitudinal bars, *a a*, to the ends of which are connected forwardly-projecting bars *a′ a′*, having front connecting-bars, *a″ a″*. These front connecting-bars, *a″ a″*, are extended a short distance beyond the inner opposite bars, *a′ a′*, of each seeder or drill frame, and are suitably hinged or otherwise connected together, as shown at a^2, Fig. 1.

The seeder or drill frame A is supported at its outer end by a carrying-wheel, B, the axle of which is suitably secured in boxing of ordinary construction disposed between the longitudinal bars *a a* of said frame, as clearly shown in Fig. 1. The seeder or drill frame A′ has likewise secured to its outer end a wheel, B′, the axle *b* of which projects longitudinally through the frame A′ and extends a short distance beyond the inner end thereof, and on this end of the axle is rigidly secured a third central carrying-wheel, B″, the same being designed to rotate within the space formed between the inner opposite bars, *a′*, of the seeder or drill frames A A′. This projecting end of the axle *b* has also secured thereon a pinion or gear-wheel, C, working in an approximately oblong slot or opening formed in the center of a box, C′, also secured on said end of the shaft, the same, together with the pinion, being retained in proper position by means of a nut, *b′*, screwed on the end of the axle and bearing against the side of said oscillating box, as shown. The narrowed projecting ends of this box C′ have sleeves C^4 adapted to oscillate therein, said sleeves being fitted in suitable openings or apertures, formed in the projecting ends of the longitudinal bars *a a* of the seeder or drill frame A, as shown.

On the axle *b*, within the frame A′, is rigidly secured a small pinion or gear wheel, *b″*, similar to the pinion or gear-wheel C above referred to. From these pinions or gear-wheels C *b″* motion is transmitted (by reason of the turning of the axle *b*) to the seed or grain agitating mechanism disposed within the ordinary hoppers designed to be suitably secured on the frames A A′; but as these features form no part of my invention, further reference thereto or any illustration thereof is not necessary, the same being of any ordinary construction.

It will be understood, of course, that the seed or grain hoppers above referred to are, as customary, provided with the usual drills and pipes or tubes for conveying the grain from said hoppers.

E E are two parallel forwardly-projecting bars having rear hooked ends designed to engage with eyes or apertured ends of two bars

or straps, E′, secured to the under side of the longitudinal bars *a* at about the center thereof. These parallel bars E are connected at their outer ends and at their centers by cross-bars *e′ e′*, the same extending parallel with the front connecting-bars of the frames A A′. To the center of these cross-bars *e′* is connected the central tongue or pole, e^2, as shown in Fig. 1. The parallel bars E E are secured in position against the under side of the front connecting-bars, *a″ a″*, by means of stirrups *e″ e″*, the same being sufficiently large to permit of the free movement of said bars, occasioned by the vibration of the hoppers and frames, said bars being rounded at the points where passed through the stirrups to enable them to readily move, as stated.

To the tongue or pole e^2, at a point about midway the cross-bars *e′*, is secured a plate, F, having at its rear end two apertured ears or lugs, *f f*, to which are connected the forward ends of two similarly-constructed rods, F′ F′, which rods extend rearwardly in opposite directions, and are secured to suitable staples at the center of each seeder or drill frame A A′. These rods F′ are slightly bent or upwardly curved where passed over the front connecting-bars of the frames A A′ and the central cross-bar, *e′*, so as not to interfere with the upward and downward movement of the said seeder or drill frames.

From what has been said it will be seen that my invention provides for increased distribution capacity by the employment of two distinct seeders or drill frames for supporting the hoppers and distributing mechanism; that the same are properly supported and carried at their inner opposite ends by a central carrying-wheel; and that by means of the oscillating box-connection between the axle of one frame and the ends of the longitudinal bars of the other frame, and the connection between the front connecting-bars, the two frames are permitted to have a free vibratory motion, the connections with the tongue or pole being so arranged as not to interfere therewith, as previously stated.

I claim as my invention—

1. The combination, with the two seeder or drill frames, of the third central carrying-wheel secured on the projecting end of the axle of one carrying-wheel and having a box-connection with one of said frames, substantially as shown and described.

2. In a grain-drill of the class herein described, the combination, with the frames and their carrying-wheels, of the central supporting-wheel secured upon the axle of one of said carrying-wheels, the box-connection between one end of said axle and the adjoining frame, and the hinge-connection between the front cross-bars of said frames, substantially as shown and described.

3. The combination of the two frames having the two longitudinal bars, the carrying-wheels having their axles projected between said bars, the third carrying-wheel supported upon the inner end of one of said axles, the box-connection upon said axle, and the hinge-connection between the front connecting-bars of said frames, substantially as shown and described.

4. The combination, with the seeder or drill frames having their front cross-bars connected together, of the central carrying-wheels, the forwardly-projecting parallel bars connected to said frames, the cross-bars, the tongue or pole, and the rods having curved portions, substantially as shown and described, said parallel bars being passed through stirrups of the front bars of said frames, as stated.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN CARSON.

Witnesses:
C. L. PARKER,
N. C. YOUNG.