(No Model.) 2 Sheets—Sheet 1.

G. W. CROSSLEY, J. W. STOUT & W. RIGDON.

SEEDING MACHINE.

No. 518,835. Patented Apr. 24, 1894.

Fig. 1.

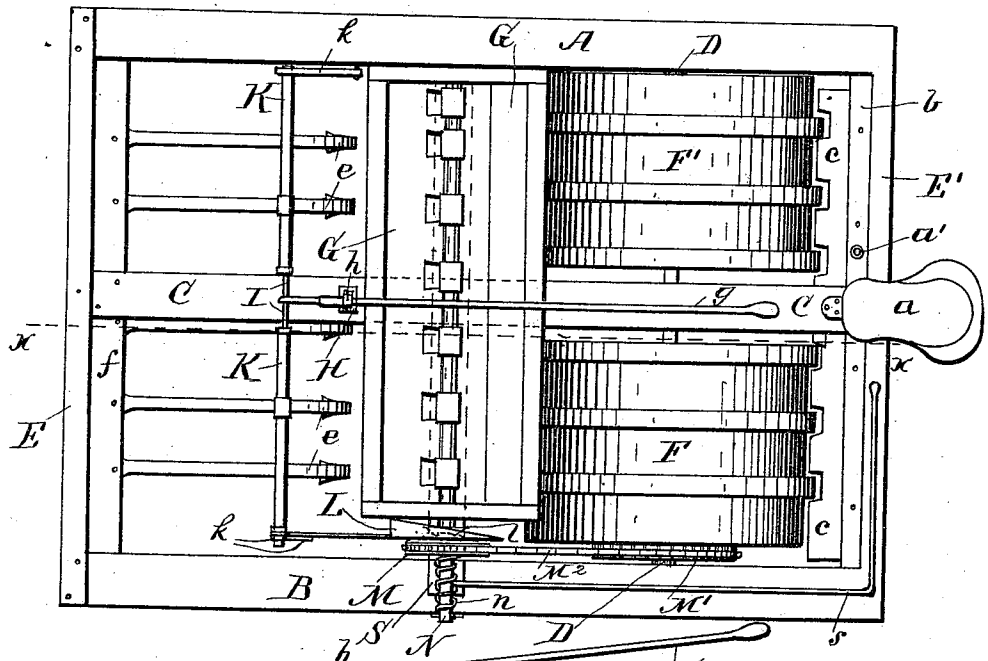
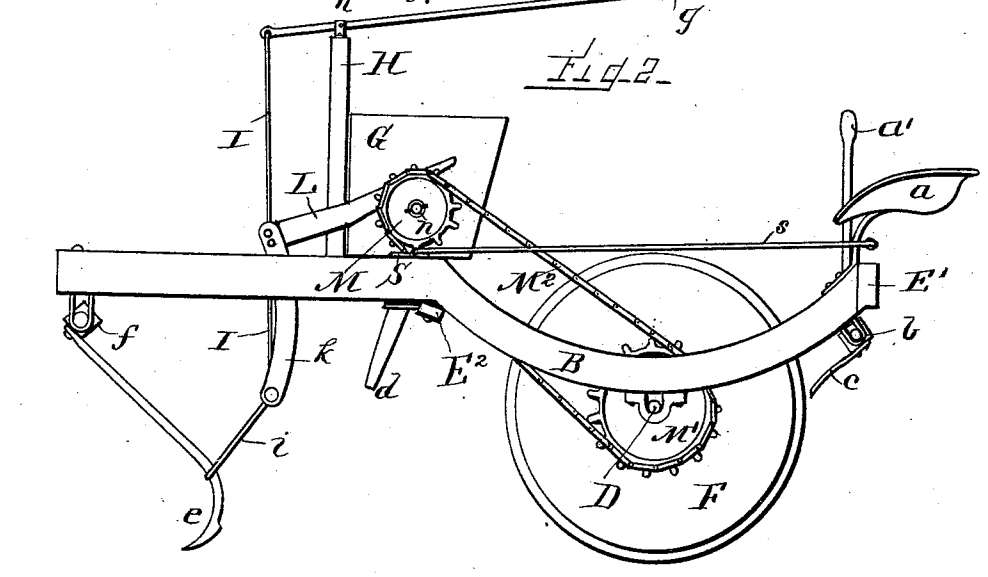


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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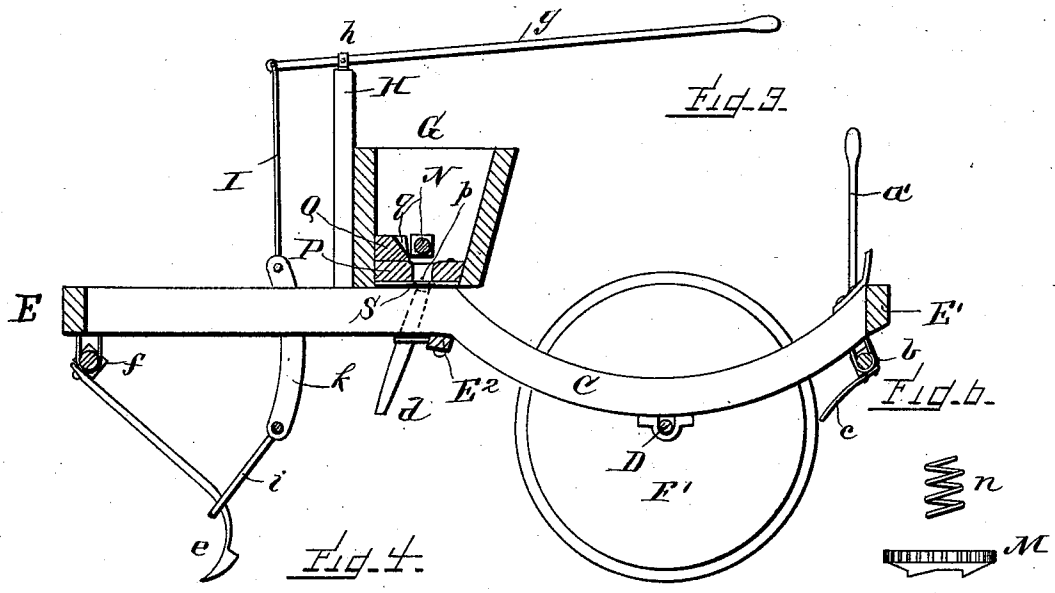


Fig. 3.

Fig. 6.

Fig. 4.

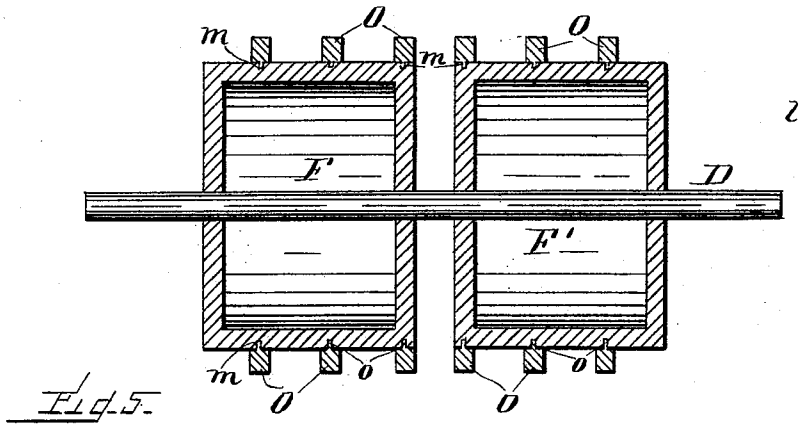


Fig. 5.

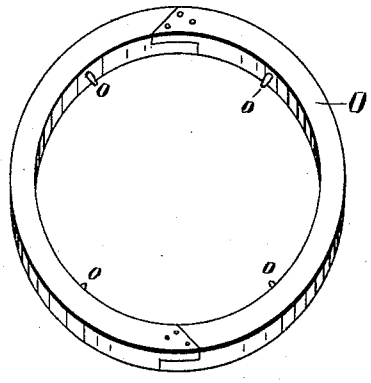
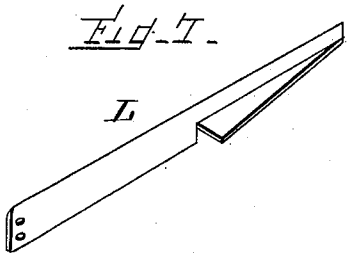
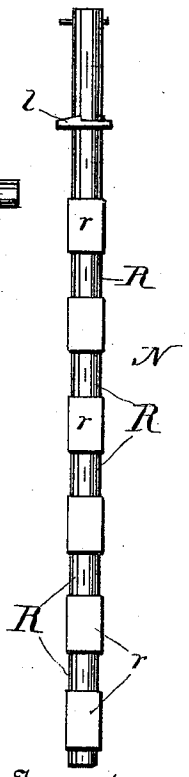


Fig. 7.





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UNITED STATES PATENT OFFICE.

GABRIEL W. CROSSLEY, JOHN W. STOUT, AND WILLIAM RIGDON, OF HUMANSVILLE, MISSOURI.

SEEDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 518,835, dated April 24, 1894.

Application filed July 14, 1893. Serial No. 480,525. (No model.)

To all whom it may concern:

Be it known that we, GABRIEL W. CROSSLEY, JOHN W. STOUT, and WILLIAM RIGDON, citizens of the United States, residing at Humansville, in the county of Polk and State of Missouri, have invented certain new and useful Improvements in Seeding-Machines, of which the following is a specification.

This invention relates to the class of seeders and planters and particularly to a seeder, and its novelty will be fully understood from the following description and claim when taken in connection with the annexed drawings; and the object of the invention is to provide a seeding machine of simple, cheap, and durable construction.

The invention consists in the novel construction and arrangement of parts, as will be hereinafter fully described and set out in the claim.

In the drawings forming part of this application: Figure 1 is a top plan view of the machine. Fig. 2 is a side elevation thereof. Fig. 3 is a sectional view taken on the line *x*—*x* in Fig. 1. Fig. 4 is a longitudinal section of the rollers. Fig. 5 is a perspective view of one of the roller rings. Fig. 6 is a detached view of the feed shaft, and its attachments enlarged. Fig. 7 is an inverted perspective view of the wedge shaped lever.

The same letters of reference denote the same parts throughout the several figures of the drawings.

The frame of the machine consists of the side horizontal beams A, and B, and the central horizontal beam C; these three beams are united by the front, rear, and central cross beams E, E′, and E^2 respectively, which completes the frame. The roller shaft D is journaled upon each of the said horizontal beams, A and B and carries the rollers F, and F′ upon either side of the central beam C, so that the said central beam projects between the rollers, outward, and joins the rear cross beam E′, where the operator's seat *a* is secured. Pivoted at each end to the horizontal beams A and B, just beneath the said beam E′, is a shaft *b*, carrying the roller scraper *c*, and having a handle *a′* in reach of the operator. The seed hopper G, is secured upon the top of the middle cross beam, and just beneath the hopper in communication with it are secured the seed conducting spouts *d*, in close proximity to and behind the plows *e*, but without touching them. The plows *e*, are located beneath the front cross beam E, and are secured to a piece *f*, pivoted at each end to the horizontal beams A and B.

Secured near the central cross beam to the middle horizontal beam C, is a standard H, having a hand lever *g*, pivoted thereto at *h*, and its end projecting beyond the said pivot point *h*, to which is hung a hanger I. The ends of this hanger are secured to a rod K, and to this rod K, two or more of the plows *e* are secured by links *i*. Each end of the rod K, is secured to one end of an arm *k*, pivoted to the beams A and B, while to the other end of one of the said arms *k*, is secured the wedge shaped lever L. The free end of the wedge shaped lever L, engages the cam face of the sprocket wheel M, slidably secured on the end of the feed shaft N, and by having the lever L pressed down between the sprocket wheel and the clutch *l*, on the same end of the feed shaft, causes the said sprocket wheel M, to disengage the said clutch *l*, and when the lever L, is raised, the sprocket wheel is forced back into engagement with the clutch by means of the spiral spring *n*, on the outer end of the feed shaft. The roller F, is provided with a sprocket wheel M′, which is connected to, and operates the sprocket wheel M, by means of a drive chain M^2.

Having described the location of the several parts of the machine and their relation to each other, we will now describe the form or construction of the most important parts of the machine.

The rollers F and F′ are cast hollow, and as thin as possible, with a series of apertures *m*, to receive the teats or small projections *o*, upon the inner side of the rings O, when such rings are placed in position on the rollers to complete the latter. The rings are so placed upon the rollers that they will come opposite to or in line with the plows, so as to roll down the earth in the furrows made by the plows.

The rings O, are made in two parts and joined together as particularly shown in Fig.

5 of the drawings. One or more rings may be removed from the roller according to the number of plows employed.

Referring to the hopper G, its bottom P, has a series of rectangular seed exits *p*, and upon this bottom is secured a piece Q, extending from the front of the hopper to the rear edge of the said exits *p*. The rear edge of the piece Q, has downwardly slanting notches *q*, larger at the top than at the bottom for the purpose of guiding the seed down to the exits. The feed shaft N has alternate round and square portions, R, and *r*, respectively, while its ends which have their bearing in the ends of the hopper G, are round. The square portions *r*, of the shaft N, work in the notches *q*, while the projections between the said notches project out near enough to the round portions R, of the shaft, to keep the seed well agitated as the shaft is revolved. The cut off S, is slidably secured upon the outside bottom of the hopper and has a series of apertures which register with the seed exits *p*, when the machine is seeding, and when it is desired to cut off the seed, the cut off hand lever *s*, is pulled, which causes the cut off S, to slide and close the exits *p*.

The operation of this character of machines is so well known that to describe this, seems unnecessary, but the operation of the automatic mechanism for raising the plows and at the same time preventing the feed shaft from revolving is as follows: It often becomes necessary to skip over stumps or large rocks while operating such machines which ordinarily causes great loss of seed and often disables the machine, to avoid this, the hand lever *g*, is pressed down, which automatically raises the plows and forces the wedge lever in between the sprocket wheel M, and the clutch on the feed shaft, absolutely disengaging the said wheel and clutch, which immediately stops the feed shaft, the cut off lever is pulled, closing the seed exits, and thus preventing any waste of grain or seed in passing over or around stumps, &c. As soon as the hand lever *g*, is released, the wedge lever will disengage the wheel and clutch, and the spiral spring on the outer end of the feed shaft will push the said wheel into engagement with the said clutch, and the feed shaft will be revolved as usual; while the cut off lever is pushed which causes the seed exits to be opened.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination with a seeding machine, of the seed feeding shaft having alternate square and round portions, the clutch secured to the shaft, the spiral spring also secured upon the shaft, the sprocket wheel having a cam face, and slidably secured to the said shaft between the clutch and spring, and adapted to be kept in engagement with the said clutch by the pressure of the said spring, and means such as shown for disengaging the wheel and clutch, substantially as shown and described.

In witness whereof we hereunto set our hands in the presence of two witnesses.

GABRIEL W. CROSSLEY.
JOHN W. STOUT.
WILLIAM RIGDON.

Witnesses:
OTHO BUZZARD,
R. W. PITTS.