

(No Model.)

2 Sheets—Sheet 1.

S. C. COBB.
SEEDING MACHINE.

No. 454,457.

Patented June 23, 1891.

Fig. 1.

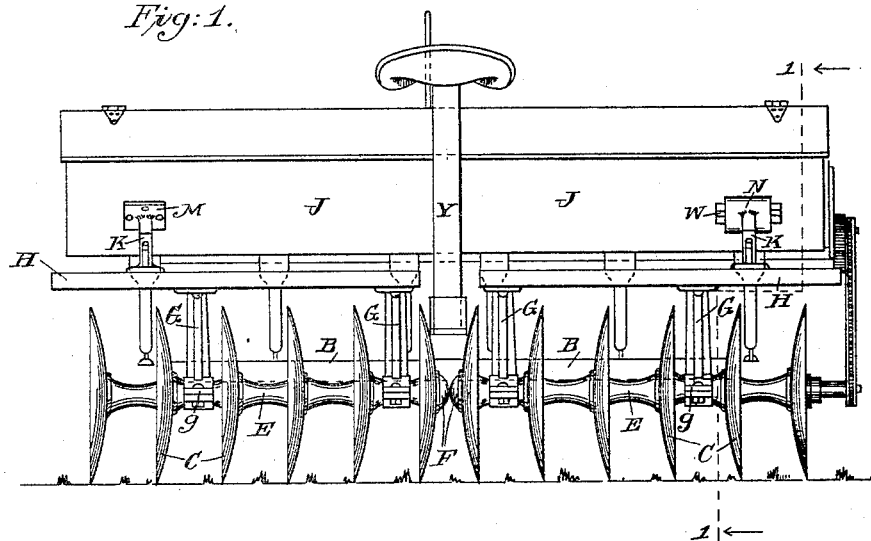
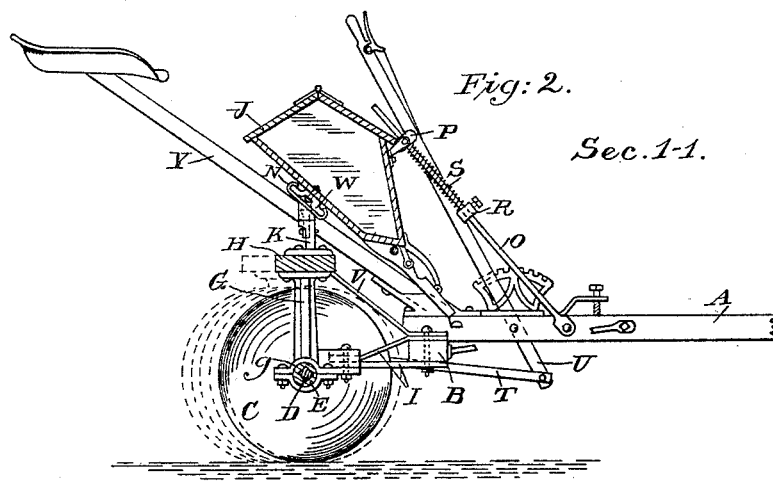


Fig. 2.

Sec. 1-1.



WITNESSES:

John W. Fisher.
Fred. J. Lawrence.

INVENTOR,

Samuel C. Cobb

BY

Robert W. Hardie
ATTORNEY.

S. C. COBB.
SEEDING MACHINE.

No. 454,457.

Patented June 23, 1891.

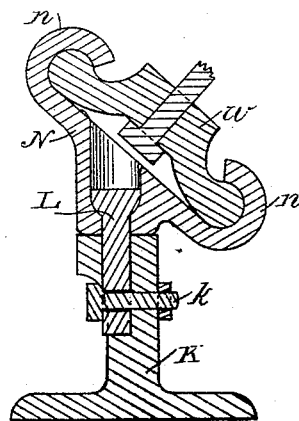
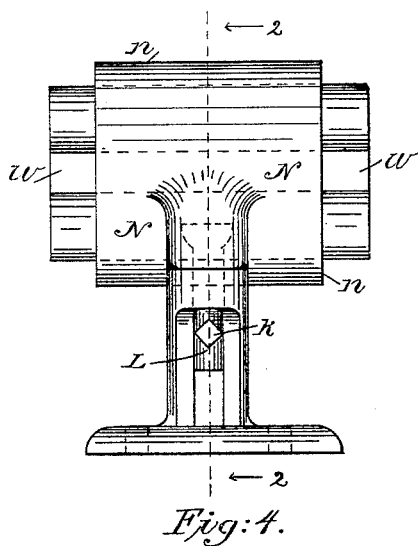
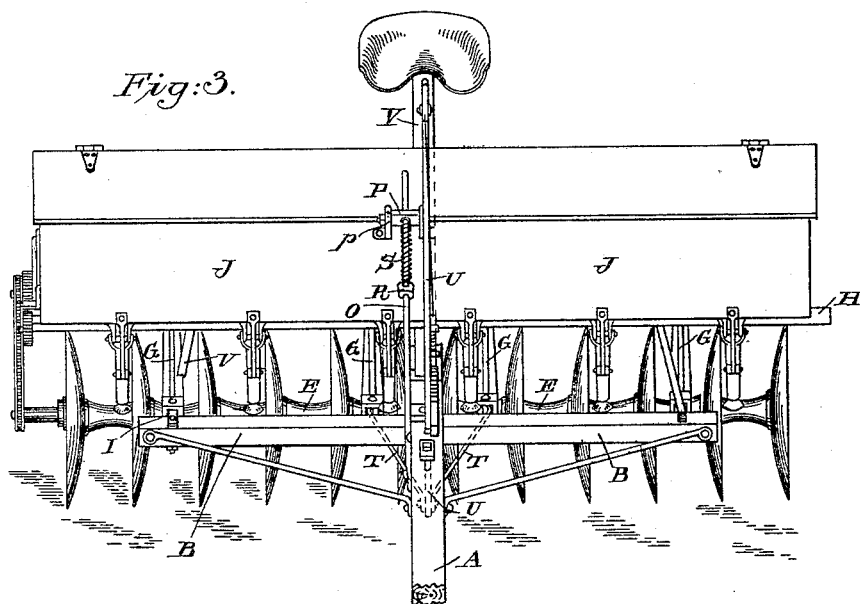


Fig:5. Sec.2-2

WITNESSES:

John W. Fisher.
Fred. J. Lawrence.

INVENTOR

Samuel C. Cobb.
BY
Robert W. Healdie.
ATTORNEY

UNITED STATES PATENT OFFICE.

SAMUEL C. COBB, OF JANESVILLE, WISCONSIN.

SEEDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 454,457, dated June 23, 1891.

Application filed April 6, 1891. Serial No. 387,850. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL C. COBB, a citizen of the United States, residing at Janesville, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Seeding-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The objects of my invention are, first, to provide means for supporting a seed-box upon gangs of revolving cutters which have a slight bodily endwise movement independently of the main frame. This I accomplish by supporting one end of the seed-box upon a fixed standard and the other end upon a standard which permits of a lateral adjustment of said end of the box.

A further object of my invention is to provide means for supporting the front edge of the seed-box so that its position will be substantially uniform when the gangs are arranged in either a right or an oblique line. To this end I attach a standard to the main frame and to the seed-box, and provide the standard with a spring which automatically adjusts the box in position.

In the accompanying drawings, Figure 1 is a rear view of a machine embodying my invention. Fig. 2 is a vertical cross-section of the same, taken on line 1 1 of Fig. 1. Fig. 3 is a front view of the machine shown in Fig. 1. Fig. 4 is a rear view of one of the standards which supports the seed-box. Fig. 5 is a vertical cross-section of the same, taken on line 2 2 of Fig. 4.

As illustrated in the drawings, the main frame of the machine is composed of a pole A, having a cross-bar B extending laterally therefrom. The disk or cutter gangs each consist of a series of disks C, separated by spools E, and mounted upon an axle-rod D. The inner end of each gang is provided with an enlarged head or buffer F, for the purpose hereinafter described. The disk-gangs are also provided with standards G, the upper ends of which are connected by means of a cross-bar H, and the lower ends of the standards are provided with boxes g, which engage with the spools E to form journal-bearings for the disk-gangs.

Draw-bars I are pivoted at their forward end to the main frame, and at their rear end to the disk-gangs, and brace-bars V are pivotally attached at their upper end to the cross-bar H, and at their lower end to the cross-bar B of the main frame.

When the machine is not in use, the disk-gangs are arranged in a line at a right angle to the line of progression of the machine, as shown in Figs. 1 and 3; but when in operation the free ends of the gangs are thrown backward, and the gangs arranged obliquely to the line of progression, as indicated by dotted lines in Fig. 2. This is accomplished by means of a lever U, which is mounted on the pole A and connected with the inner ends of the gangs by means of draft-rods T.

The inner ends of the disk-gangs, when thrown backward, move in the arc of a circle and thereby separate and leave considerable space between the gangs; but the pressure of the earth on the concave faces of the disks thrusts the gangs inward bodily, bringing the buffers F together, so that each gang resists the side thrust or pressure of its opposing gang, and the gangs thereby revolve without the lateral friction.

The standards which support the seed-box J are constructed in two sections. The lower sections of both standards are alike in construction, and are preferably secured to the cross-bars H. The upper section of each standard is secured to the lower section by means of a bolt L, which is held in position by means of a transverse bolt k. The upper section N of one of the standards is rigidly secured to the seed-box J, but is free to turn slightly on the bolt L, which connects the upper and lower sections. The upper section N of the opposite standard is provided with ways n, which engage with a sliding piece W, secured to the seed-box J.

The seed-box J is supported in front by means of a brace-bar O, which is pivoted at its lower end to the main frame and at its upper end to the seed-box J, by means of a hinge-pin P, having its ends journaled in the ears p, and its central portion provided with an aperture with which the end of the bar O engages. A spring S is secured to the rod O by means of a collar R, by which the tension of the spring is regulated. The collar is held

adjustably in place by means of a set-screw of ordinary construction.

When the gangs of a disk-harrow of the construction described are changed from a right to an oblique line, or reversed, the distance between the standards which supports the seed-box changes; but the endwise-adjustable connection between the upper section N of one of the standards and the seed-box compensates for the changed relation of the standards and holds the seed-box in a uniform position. When the free ends of the gangs are thrown backward so as to place the gangs in an oblique line, the upper front edge of the seed-box is thrown forward and downward by the changed position of the parts, leaving the box unbalanced and with its support weakened. This result is overcome by means of the standard O, which, being pivotally connected with the main frame and seed-box, operates uniformly in all positions in which the box is placed, while the spring S automatically adjusts the front edge of the box to its proper position, and furnishes a yielding support which takes up any shocks that may be communicated to the seed-box.

I do not desire to be limited to the specific construction of the adjustable standard which supports the free end of the seed-box, or of the adjustable spring-standard which supports the front of the box. Other means having similar capabilities may be used without departing from my invention.

What I claim is—

1. The combination, with a main frame, of disk-gangs pivoted thereto, and a seed-box mounted on standards secured to the disk-

gangs and adjustable endwise on one of said standards, substantially as shown and described.

2. The combination, with a main frame, of disk-gangs pivoted thereto, and a seed-box mounted on standards secured to the disk-gangs, one of said standards having a sliding engagement with one end of said box, substantially as shown and described.

3. The combination, with a main frame and disk-gangs pivoted thereto, of a seed-box mounted on standards secured to the disk-gangs, and a standard pivoted at its lower end to the main frame and at its upper end to the seed-box, substantially as shown and described.

4. The combination, with a main frame and disk-gangs pivoted thereto, of a seed-box mounted on standards secured to the main frame, and a yielding support secured at its lower end to the main frame and at its upper end to the seed-box, substantially as shown and described.

5. The combination, with a main frame and disk-gangs pivoted thereto, of a seed-box mounted on standards secured to the disk-gangs, a standard pivotally secured at its lower end to the main frame and at its upper end to the seed-box and provided with a spring, and means for adjusting the tension of said spring, substantially as shown and described.

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

SAMUEL C. COBB.

Witnesses:

ROBERT W. HARDIE,
COLIN C. McLEAN.