BACON & FOWLER.

Broadcast Seeder.

No. { 1,036, / 32,040. }

Patented Apr. 16, 1861.

Fig. 1.

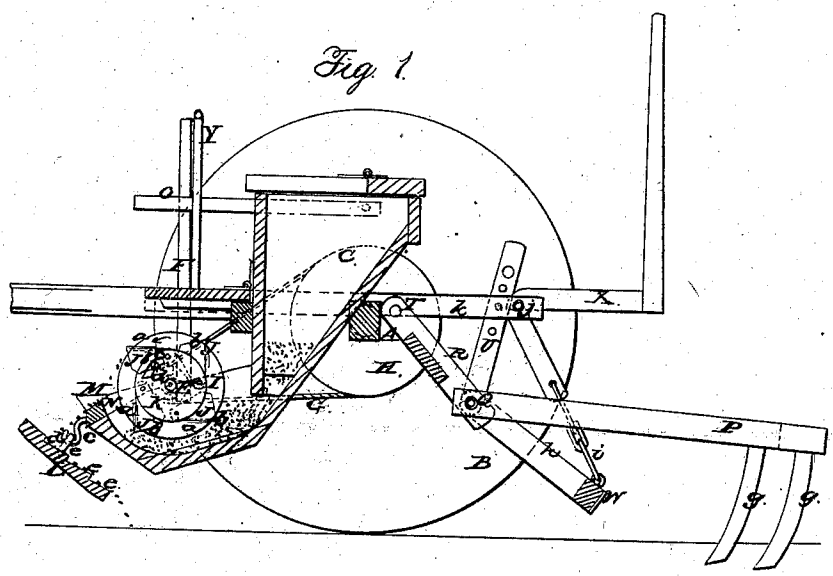


Fig. 2.

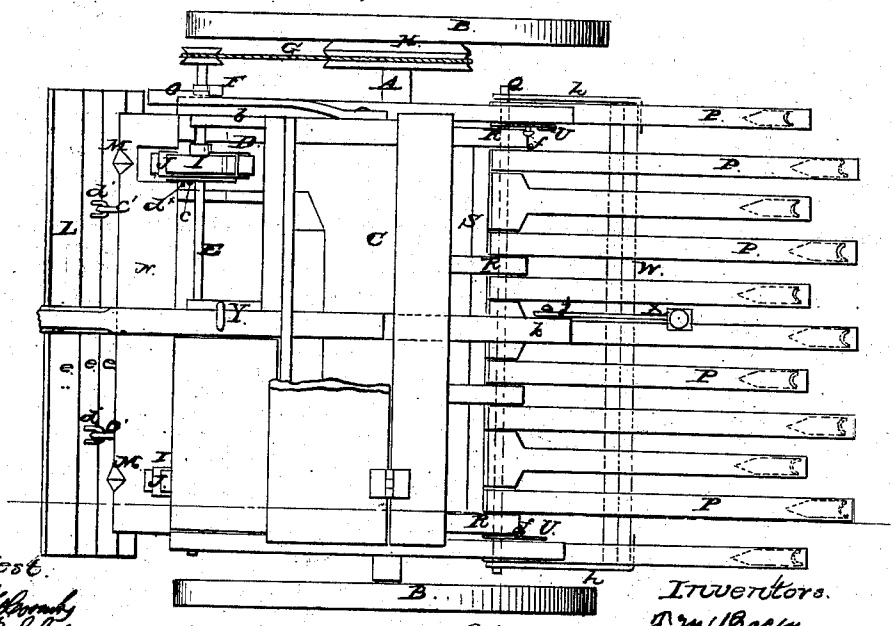


Fig. 3.

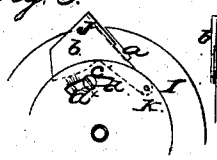
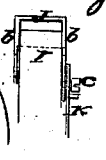


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

F. M. BACON, OF RIPON, AND JOS. FOWLER, OF HARTLAND, WISCONSIN.

IMPROVEMENT IN SEEDING-MACHINES.

Specification forming part of Letters Patent No. 32,040, dated April 16, 1861.

To all whom it may concern:

Be it known that we, F. M. BACON, of Ripon, in the county of Fond du Lac and State of Wisconsin, and JOSEPH FOWLER, of Hartland, in the county of Waukesha, in the same State, have invented a new and Improved Seeding-Machine; and we 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 in which—

Figure 1 is a side sectional view of our invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of the same; Figs. 3 and 4, detached views of portions of one of the seed-distributing wheels.

Similar letters of reference indicate corresponding parts in the several figures.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents an axle, having a wheel, B, at each end, and C is a seed box or hopper which is secured on the axle A, and extends nearly the whole length of the latter.

To the lower part of the seed-box C there are attached troughs D, one near each end of the seed-box. These troughs communicate with the seed-box, and are at its front end.

E is a shaft, one end of which has its bearing on one of the troughs D, the opposite end having its bearing in the lower part of a lever, F, which is attached by a fulcrum-pin to a cross-bar, *b*, on the axle A. The shaft E is rotated by a belt, G, from a pulley, H, attached to the inner side of one of the wheels B.

On the shaft E there are placed two wheels, I I, and these wheels rotate within the troughs D D. Each wheel I has a slot, *a*, made tangentially in it, (see more particularly Fig. 3,) and in each slot *a* the outer side of a seed-cup, J, is fitted and allowed to slide freely. There are three or more seed-cups fitted to each wheel. The seed-cups are formed of a simple plate bent so as to form sides *b*, as shown in Fig. 4. The back parts of the cups J of each wheel are attached to a circular plate, K. These plates are placed loosely on the shaft E at the inner sides of the wheels I I, and the plates are secured to said wheels by means of screws *c*, which pass through curved slots *d* in the plates K K. By turning the plates K and adjusting them at different points on the shaft E, the seed-cups J of each wheel are simultaneously moved a greater or less distance out from the peripheries of the wheels I, and increased or diminished in capacity, as may be required, the seed-cups being secured in the desired position by fastening the plates K to the wheels I through the medium of the screws *c*. The plates K at the edges of the slots *d* may be graduated, and an index, $d^{\times}$, attached to the wheels I, pass through the the slots *d*. By this means the seed-cups may be very nicely adjusted. (See Fig. 3.)

To the ends of the troughs D D a seed-scattering board, L, is attached by hooks and staples *c' d'*. This board L is suspended at such points that it will have an inclined position by virtue of its own gravity. (See Fig. 1.) The inner surface of the board L is grooved or rabbeted longitudinally, so as to form projecting ledges *e*, which extend the whole length of the board.

On the upper parts of the troughs D D, and just in front of the wheels I I, there are placed double-inclined blocks M M. These blocks serve as deflectors, and they are attached to an inclined board, N, which is secured to the front parts of the troughs.

The upper end of the lever F, which supports one end of the shaft E, is secured in the proper position by a catch, O. By releasing the lever F from the catch O, the belt G will be slackened, and the rotation of the shaft E and its wheels I I consequently stopped whenever desired.

From the above description it will be seen that as the machine is drawn along the seed-cups J will take up the seed from the troughs D D, and as the cups pass over the axes of the wheels the seed will be discharged therefrom and fall on the blocks M M, which deflect it down on the scattering-board L, the seed falling from the board in a scattered or broadcast state on the ground. The board L, in consequence of having the projections *e* on its inner surface, scatters the seed very effectually, and insures it being planted in a very even state.

P represents a series of parallel bars, the front ends of which are fitted loosely on a shaft, Q, parallel with the axle A. The shaft Q is fitted or placed in the lower ends of bars R, which are connected by a traverse-bar, S, and

have their upper ends fitted loosely on a shaft, T, which is just behind the axle A. To the lower part of each outer bar, R, there is secured a plate, U, and the upper parts of these plates are perforated and secured to bars R by pins or screws *f*. The bars P are of unequal lengths, the alternate ones being longer than the intermediate ones. Each bar has a tooth, *g*, attached to its outer end. These teeth may be of any desired form. W is a bar which extends underneath the bars P, and is connected at its ends to the ends of the shaft Q by arms *h h*. The bar W is connected at its center by a link, *i*, to the lower end of a bent lever, X, which is attached by a fulcrum-pin, *j*, to a bar, *k*. The teeth *g* serve as coverers for the seed, and by adjusting the plates U higher or lower the teeth *g* may be made to penetrate the earth a greater or less depth, as may be required. Each bar P, in consequence of being allowed to swing or work independently, is allowed to conform to the inequalities of the surface of the ground, and the seed will consequently be all covered, and in case of any large obstruction being in the path of the teeth, or in case of moving or transporting the machine from place to place, the driver, by actuating the lever X, may raise all the bars P, so that the teeth *g* will be above the surface of the ground, the lever X being retained by a hook, Y.

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

1. The arrangement of the graduated adjustable plates K with the tangentially-moving seed-cups J and wheels I, substantially as herein shown and described, whereby by moving the said plates K all the cups will be simultaneously adjusted and regulated, as set forth.

2. The arrangement, with the seed-wheels I I and troughs D, of the self-adjusting step-like suspended seed-scattering board L, inclined board N, and blocks M, the whole constructed and operated as herein shown and described, for the purposes set forth.

3. The arrangement of the adjusting-plates U, bars P W, teeth *g*, and shaft Q with the lever X, swinging bars R, shaft T, and frame A, all in the manner and for the purposes herein shown and described.

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