

G. D. HAWORTH.
Corn-Planters.

No. 134,747.

Patented Jan. 14, 1873.

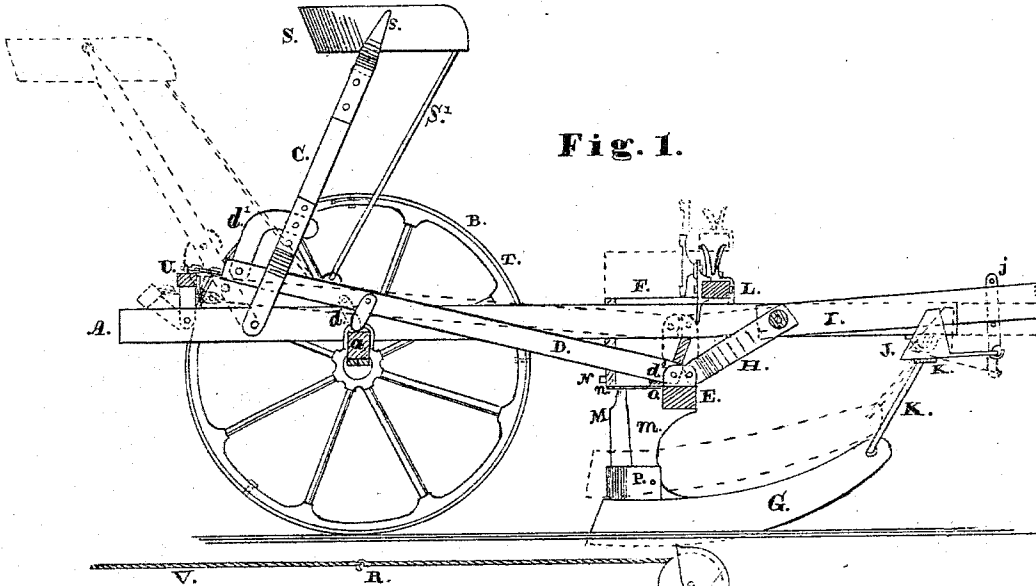


Fig. 1.

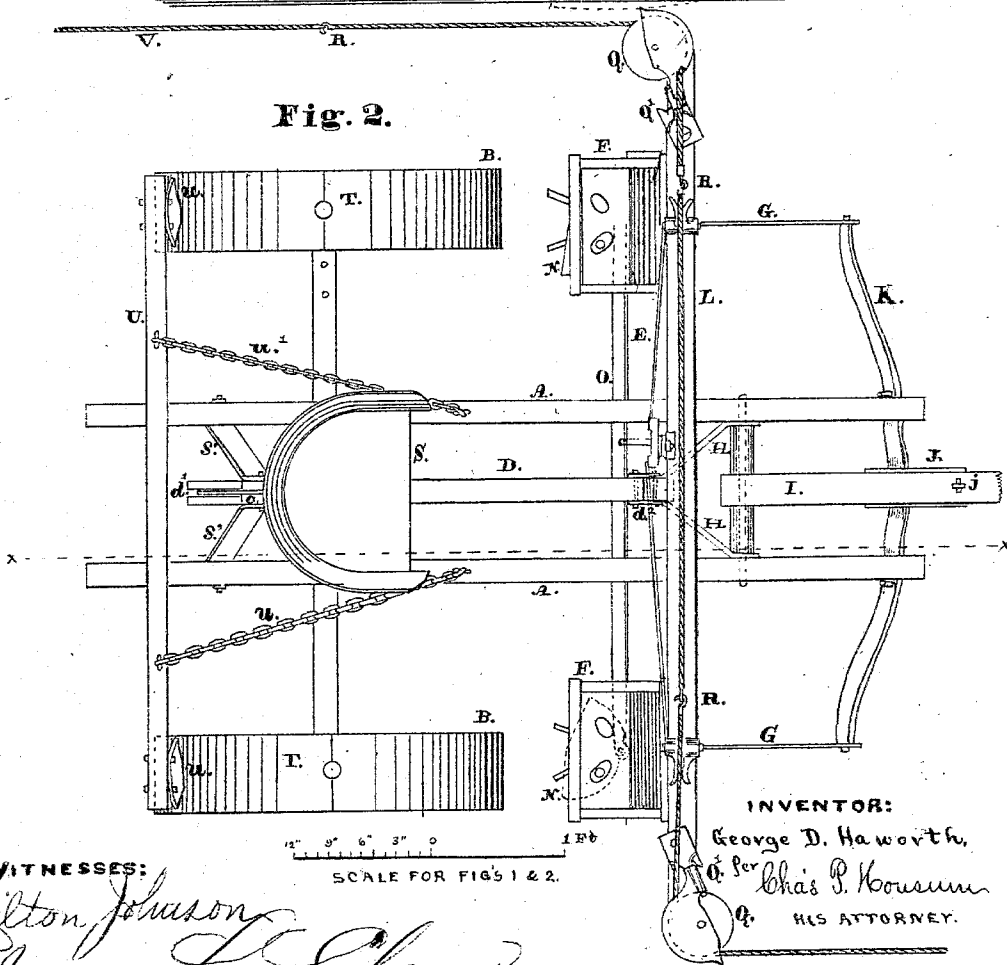


Fig. 2.

12" 9" 6" 3" 0 1 Ft
SCALE FOR FIGS 1 & 2.

WITNESSES:

Alton Johnson
James L. Clark

INVENTOR:

George D. Haworth,

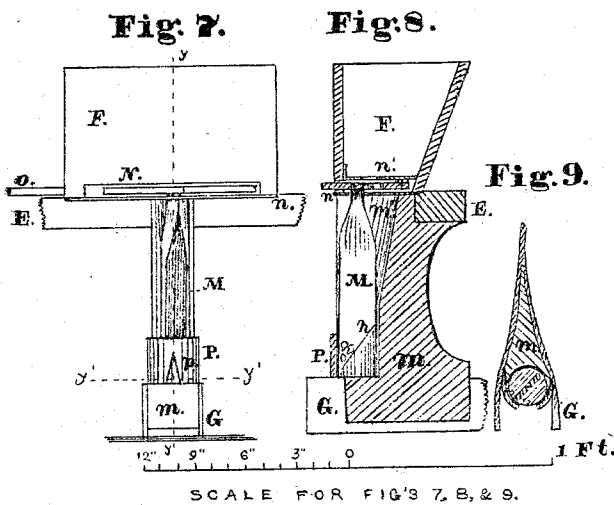
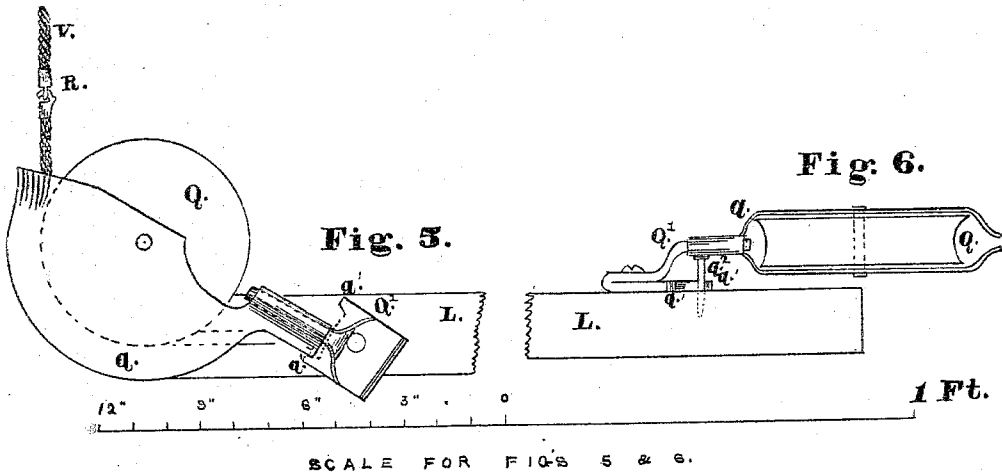
By *Chas. P. Kousum*

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WITNESSES:

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INVENTOR

GEORGE D. HAWORTH.

Per: *Charles P. Housum,*
HIS ATTORNEY.

UNITED STATES PATENT OFFICE.

GEORGE D. HAWORTH, OF DECATUR, ILLINOIS.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 134,747, dated January 14, 1873.

To all whom it may concern:

Be it known that I, GEORGE D. HAWORTH, of Decatur, in the county of Macon and State of Illinois, have invented certain Improvements in Corn-Planters, of which the following is a specification:

My invention relates to an improvement in corn-planters; and consists, first, in the arrangement of the parts so that the seeding part of the planter shall always maintain a horizontal position, notwithstanding the irregularities of the ground; second, the arrangement of an oscillating seat-standard and a lever, so as to raise from or force the furrow-shares in the ground; third, the combination of devices for expediting the passage and scattering the corn on the ground; fourth, a semi-revolving pulley-holder, the semi-revolving pulley-holder being improvements on a patent for corn-planter granted to me February 22, 1870, No. 100,032.

Figure 1 represents a longitudinal sectional elevation of my improved machine on the dotted lines *x x*, Fig. 2; Fig. 2 is a plan of the same; Fig. 5, a plan of pulley-holder; Fig. 6, a side view of the same; Fig. 7, a rear view of seed-depositing apparatus; Fig. 8, a vertical section of the same on the dotted lines *y y*, Fig. 7; and Fig. 9 is a transverse section on the dotted lines *y' y'*, Fig. 7.

A A are two horizontal longitudinal bars that support the axle *a* and the seeding part of the planter. *I* is the pole pivoted near the rear end on a rod through the bars *A A*. *J* is a shoe, in which slides, vertically and longitudinally, the pole. One end of said shoe is hooked to the perpendicular bar *j*, and the lower side is fastened to the bent bar *K*. This bent bar is pivoted in staples under the bars *A A*, and also pivoted to the outer ends of the furrow-shares *G G*. *H H* are arms pivoted to the shoe *d'* on the transverse bar *E*, and also on the rod on which the pole is pivoted. This arrangement and pivoting of the parts allow of a vertical play of the furrow-shares and the seeding part of the planter, so that they shall always maintain a horizontal position, notwithstanding the irregularities of the ground. *C* is an oscillating standard supporting the driver's seat *S*. Two arms at the lower end of said standard are pivoted to the bars *A A*.

d' is a bent bar pivoted in slots in the standard and in the lever *D*. This lever is pivoted in the shoe *d'* and has its fulcrum in a vibrating shoe, *d*, on the axle *a*. As the standard is thrown back, as shown by the dotted lines, the furrow-shares are raised from the ground, and also, when thrown back so that the bar *d'*, when pivoted in the standard, is back of where it is pivoted in the lever, a lock is formed, holding the furrow-shares clear of the ground; and by bringing the standard forward the furrow-shares are pressed into the ground. The position of the driver regulating the depth of the furrow-shares in the ground. *M* is a shaft that is pivoted on a projection on the lower part of the shank *m*. The shank is concave, as shown at *m'*, which serves as a passage for the corn. At the upper end of the shaft is the seed-slide *N* fastened thereto and operated with the connecting-bar *O*. This slide works between the plates *n n'*. Said slides and plates are provided with suitable cells and openings for the passage of the corn, which lodges against the sloping shoulders *h h*, and is held on them and against the loop *P* until the shaft is turned, when the corn is thrown out of the opening *p*, each of the shoulders being presented alternately at the opening as the connecting-bar is thrown to the right or left in the operation of the machine, and scattered so that the corn shall not all fall in one spot, and its passage expedited to the ground. *Q* is a pulley pivoted in the plates *q q*. These plates encircle and are pivoted on the pulley-support *Q'*, which is pivoted to the bar *L* of the "check-rower." A pin, *q'*, serves as a support to the plate *q*, so that the same shall be held in a horizontal position. By this arrangement it is not necessary to remove the cord *V* from the pulleys when the machine is turned at the end of the field. The pulleys are turned by drawing on the cord, and the support turned so as to have the pin *q'* support the plate and strike against the shoulder *q'*. *S* is a hammock-seat pivoted on the arms *s s* that are attached to the oscillating standard *C*. *s'* is a rod connecting the front part of the seat to the lever *D*.

I claim as my invention—

1. The bar *K* pivoted on the horizontal bars *A A* and arms *H H*, in combination with the shoe *J*, furrow-shares *G G*, pole *I*, and the

seeding part of a corn-planter, substantially as described.

2. The oscillating seat-standard C, pivoted lever D with bent bar *d*¹ pivoted to the seat-standard and lever, in combination with the furrow-shares G G and the seeding part of a corn-planter, substantially as described.

3. The shaft M, constructed, as described, with the sloping shoulders *h h*, loop P, and slot *p*, in combination with the seed-tube *m'*, seed-

slide N, and connecting-bar O, substantially as described.

4. The semi-revolving pulley-holder, substantially as described, and for the purpose set forth.

GEORGE D. HAWORTH.

Witnesses:

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JACOB I. BEAR.