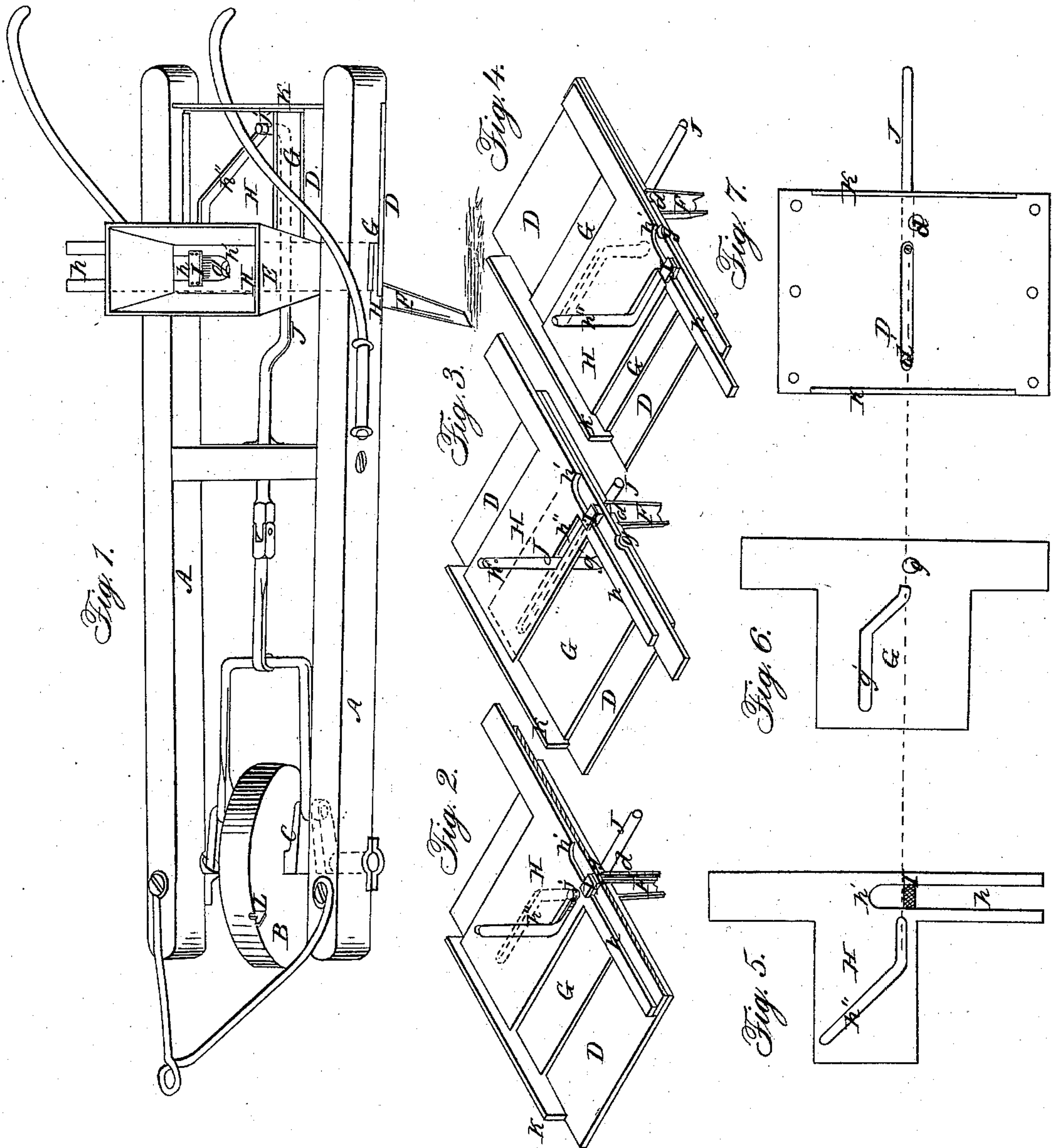


D. HUMPHREYS.

Seed-Planter.

No. } 1,061, {
32,065. }

Patented Apr. 16, 1861.



Witnesses:

L. W. Benson
Attorney at Law

Inventor:

D. Humphreys
per Knight & Proctor

UNITED STATES PATENT OFFICE.

DAVID HUMPHREYS, OF CINCINNATI, OHIO.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 32,065, dated April 16, 1861.

To all whom it may concern:

Be it known that I, DAVID HUMPHREYS, of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Corn-Planters; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

My invention relates to devices for insuring a uniform and certain measurement and delivery of the grain.

In the accompanying drawings, Figure 1 is a perspective view of a machine embodying my improvement. Figs. 2, 3, and 4 are diagrams which represent the several movements of the slides. Figs. 5, 6, and 7 are detached views of the bottom, the slide, and the "cut-off."

The front end of the frame A rests upon a ground-wheel, B, having a crank-axle, C. The bottom D of the hopper E has the customary ventage or discharging duct, *d*, leading into the tube F. Upon the bottom D rests the measuring-slide G. The slide G contains the measuring-aperture *g*. Upon the slide G rests another slide, H, called the "cut-off." The slide H has a long slot, *h*, rounded at one end, *h'*, and a cross-bar, I, whose under side should be furnished with a brush of the kind common on grain-planters. A wrist, J', on a rod, J, from the ground-wheel axle, occupies slots *d'* *g'* *h''* in the bottom and slides respectively, so as by its reciprocation to impart an intermittent sliding movement to the slides. The slides G and H are restricted to a rectilinear reciprocating motion at right angles to that of the wrist by means of guides K.

Operation: In Fig. 2 the seeding mechanism, having just discharged a measure of grain, is prepared to receive another charge. The wrist J', having reached the extremity of its stroke, now returns, as per arrow, and first acts to shift the slide G to position, Fig. 3, thus giving the aperture *g* chance or opportunity to become charged with grain. The slide G now remains quiescent, and the slide

H, being now advanced by the wrist, the brush or cross-bar I sweeps over the aperture *g*, so as to give another chance of filling the same. This action of the brush is succeeded by a crowding action upon the grain by the semi-circular or rounded extremity *h'*, which action gives the third chance of charging the grain-measuring aperture. The relative position of the parts at this stage is seen in Fig. 4. The wrist J', having reached its other terminus, now moves backward and acts to cause the brush I to again sweep over the aperture, but in the opposite direction, giving the fourth chance of supplying the said aperture with its complement of grains. The positions at this stage are shown in Fig. 3. The brush I having now reached a point immediately over the ventage, the last slide movement is a return movement of the measuring-slide, which brings it for the third time under the brush I, so as to give a fifth chance of filling, the brush, also acting to limit the number of grains. The measuring-aperture having now reached the ventage parts with its charge of grain, the motions are then repeated for the succeeding delivery. A marker, L, is fixed to the ground-wheel B, and adapted to mark the ground at each revolution at the time of the dropping of each hill of grain, the marking being devised to assist the operator in planting regular straight rows.

Various well-known devices may be used to stop or disconnect the ground-wheel from the dropping mechanism when it is necessary for the machine at times to pass over certain portions of ground without dropping.

I claim as new and of my invention herein—

The arrangement of cut-off H *h h' h''* I, measuring-slide G *g g'*, and ventage *d*, operated from a ground-wheel, B, in the manner and for the purposes set forth.

In testimony of which invention I hereunto set my hand.

DAVID HUMPHREYS.

Witnesses:

GEO. H. KNIGHT,
FRANCIS MILLWARD.