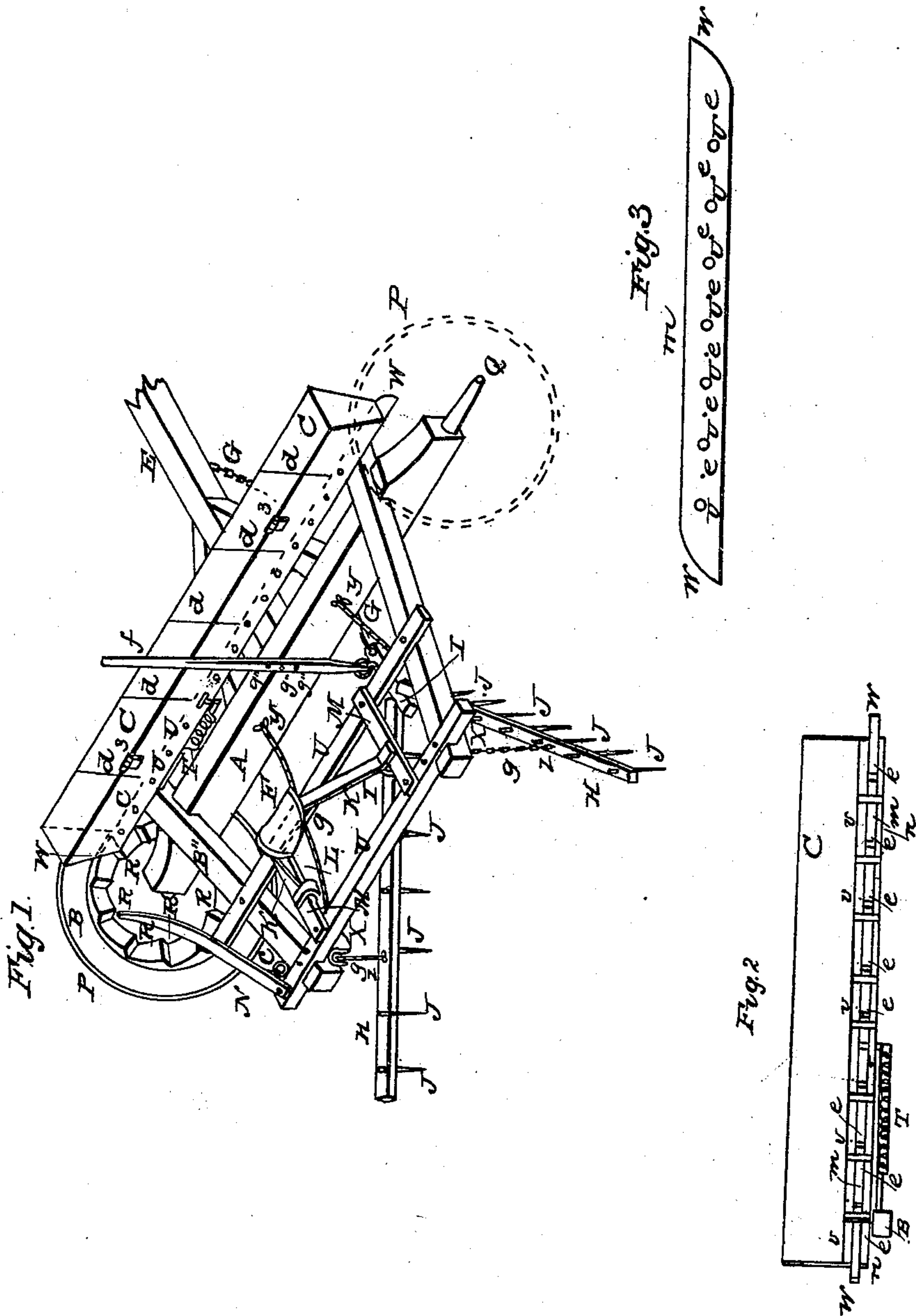


A. HALLAM.
Combined Seed Sower and Harrow.

No. 85,443.

Patented Dec. 29, 1868.



WITNESSES
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ABSALOM HALLAM, OF MONMOUTH, ILLINOIS.

Letters Patent No. 85,443, dated December 29, 1868.

IMPROVEMENT IN COMBINED SEED-SOWER AND HARROW.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ABSALOM HALLAM, of Monmouth, in the county of Warren, and State of Illinois, have invented a new and improved Combined Seed-Sower, Harrow, Marker, and Cultivator; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, and which will enable others skilled in the art to make and use the machine, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my invention;

Figure 2, a longitudinal sectional view of the hopper; and

Figure 3, a view of the "slide" in the bottom of the hopper.

Similar letters of reference indicate like parts.

The nature of my invention relates to a simple machine which may be easily converted into either a seed-sower, a harrow, a marker of corn-ground, or a cultivator; and

The invention consists in the peculiar arrangement and construction of the different parts, to effect all the above purposes, in one simple machine.

Letter A, in the drawings, represents the axle, and E is the draught-pole.

Letters B B represent pieces framed on to and across the axle A.

Letters V V represent pieces framed on to and across the pieces B B.

Letters M M represent pieces framed on to and across pieces V V.

Letter F represents a seat, supported on the pieces M.

Letters L L represent a clasp on the seat-support, by means of which the seat may be slid forward or back, on the pieces M, for the purpose of balancing the machine.

Letter H represents an ordinary V-shaped harrow, attached to the draught-pole by the chain G.

Letters g g represent chains or cords attached to the harrow-frame, and, passing over the pulleys X, are attached to the axle at y y. By placing his feet on these cords, the driver may raise the harrows at pleasure.

Letter f is a lever pivoted on the axle A, and hinged to the front end of harrow H. By means of lever f the driver may give lateral motion to the harrow H.

Letters g' g' g' represent a series of holes for adjusting the lever f vertically.

Letter C, fig. 2, is a longitudinal vertical sectional view of the hopper.

Letter i, fig. 2, is a false bottom, a little distance above the ordinary bottom.

Letters v v, fig. 2, represent a series of holes through the false and the true bottom, which holes exactly correspond in distance and size.

Letter W represents a slide, a top view of which is seen at fig. 3. This slide W is provided with two series of holes, one larger and one smaller-sized series, and when placed in the hopper in one position, the larger series of holes will correspond with the holes v v, in the hopper, and it may thus be used for sowing the larger-sized grains; then by changing the slide W end for end, the smaller-sized series of holes may be brought to correspond with the holes v v, and it may be used for sowing smaller-sized grain.

The ends of the slide W are shaped as shown at fig. 3, and extend beyond the hopper, nearly to the wheel P.

Letters R R R, fig. 1, represent a series of step-like elevations on the wheel P. These steps are made, by rotating the wheel P in moving the machine, to press the slide into the hopper C and open the holes for the grain to pass through, and as soon as the point of the slide has passed the high part of the step, the spring T will throw it back again, and reclose the hole.

Letter N, fig. 1, represents a catch attached to rear part of frame A B, and the point operating in the steps R R R. This catch N will engage one of the steps R, in backing or turning the machine, and prevent the steps from catching against the slide W.

The machine, as described in full, is ready rigged as a "seed-sower." By taking off the hopper C, it can be used for "harrowing" alone; by taking off the harrow also, and projecting the lever f down to the surface of the ground, it may be used as a "marker" for three rows at a time; and by leaving on the harrow, and knocking out the front tooth, it may be used to run through corn the first time, to smooth the ground, &c., as a cultivator.

What I claim as new, and desire to secure by Letters Patent, is—

The frame A, B, v, and M, of the seat F, harrow H and lever f, cords g g and chain G, and pulley X, when constructed and arranged in the manner described, and for the purpose set forth.

A. HALLAM.

Witnesses:

W. B. RICHARDS,
J. M. MARTIN.