(No Model.)

2 Sheets—Sheet 1.

G. B. ST. JOHN.

PLOW TRUCK.

No. 254,723. Patented Mar. 7, 1882.

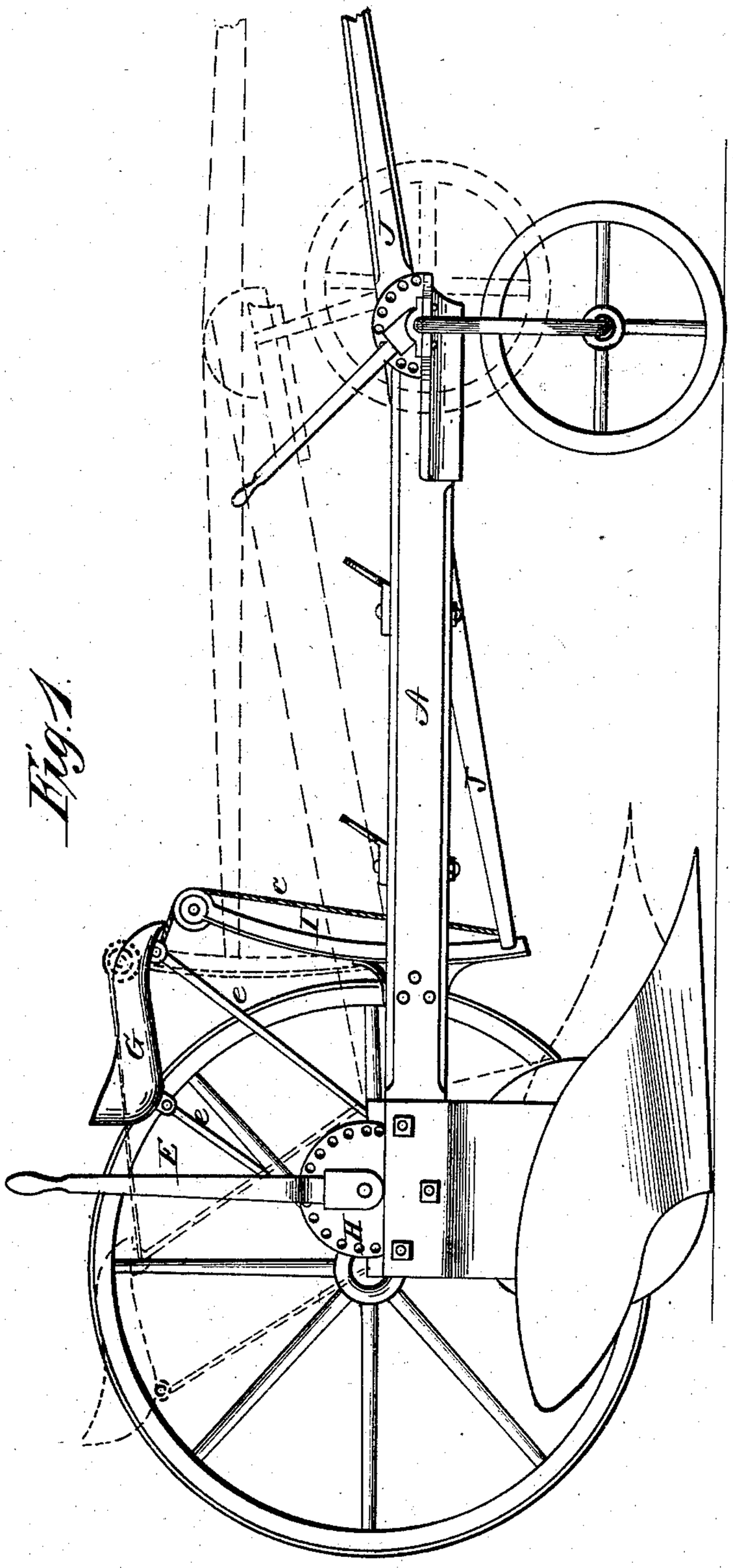

Fig. 1.

WITNESSES

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

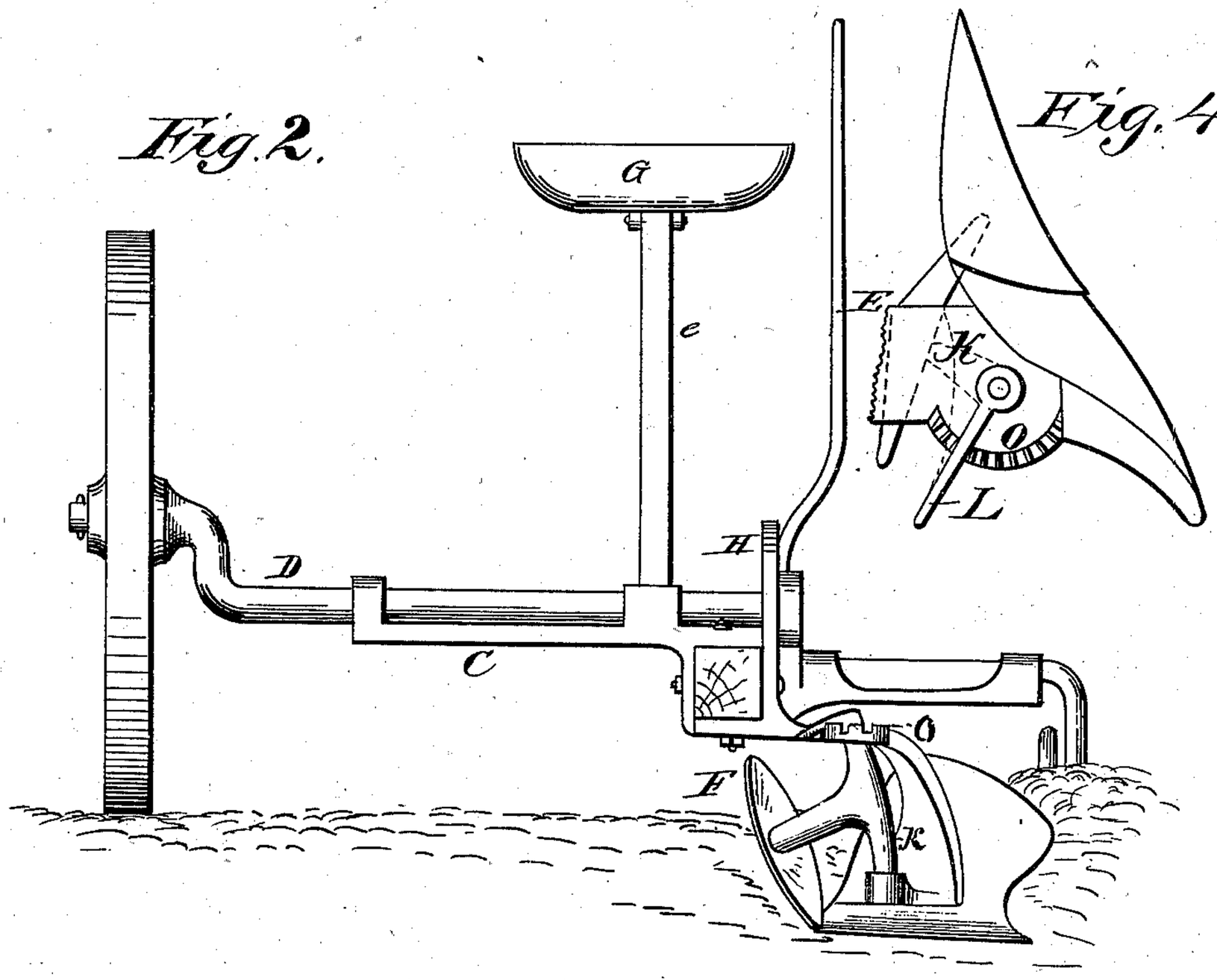
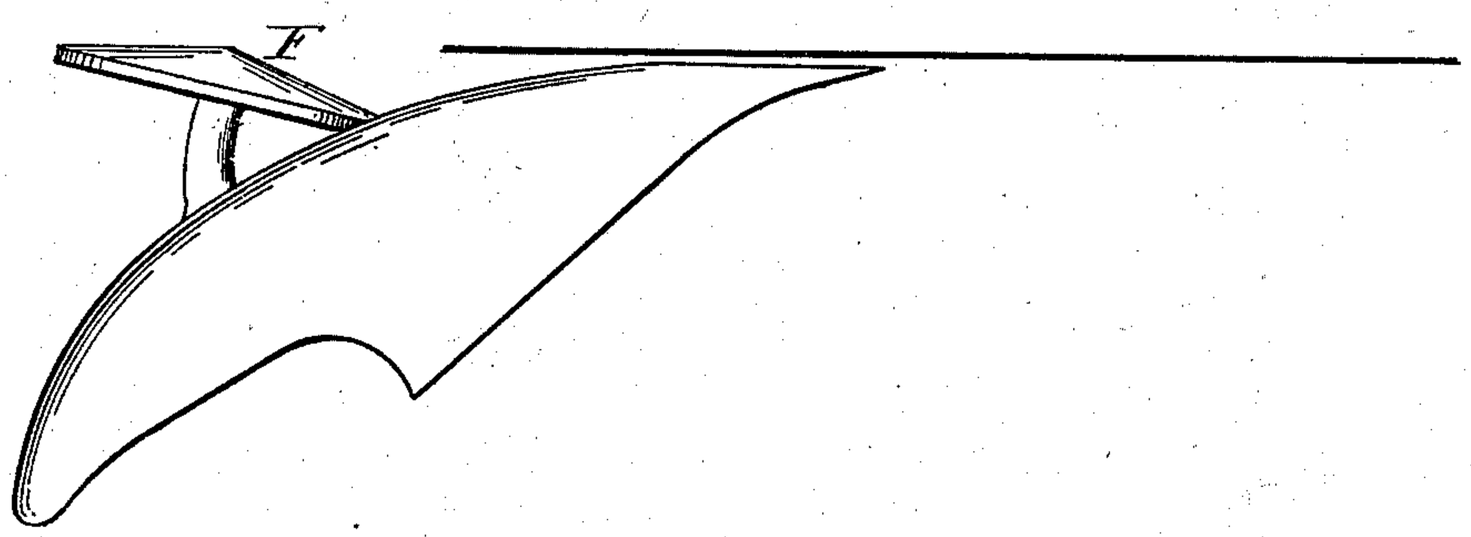


Fig. 4.

Fig. 3



WITNESSES

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UNITED STATES PATENT OFFICE.

GARLAND B. ST. JOHN, OF CEDAR RAPIDS, IOWA.

PLOW-TRUCK.

SPECIFICATION forming part of Letters Patent No. 254,723, dated March 7, 1882.

Application filed September 27, 1881. (No model.)

To all whom it may concern:

Be it known that I, GARLAND B. ST. JOHN, of Cedar Rapids, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Plow-Trucks, of which the following is a specification.

My object is to simplify the truck and render it lighter in draft, easier to manipulate, and more effective in its operation by the use of a landside-wheel, which also serves as a carrying-wheel for the truck and an improved device for raising and depressing the plow.

The invention consists in so constructing a wheel-plow as to have on one side a large wheel to run on the plowed ground, and for the bearing on the opposite side a convex-faced wheel or disk, whose face comes against the land side of the furrow when in use as plow, and which serves as a carrying-wheel for the truck at all times.

It further consists in such an arrangement of the tongue, truck-frame, and seat that a reciprocating motion of the latter raises or depresses the plow without the use of hand-levers for that purpose, all of which will more fully appear in the particular description following.

In the accompanying sheet of drawings, Figure 1 represents a side view of the invention; Fig. 2, a rear view of the same; Fig. 3, a plan view of the landside-wheel, share, and beam, showing its position with respect to them; and Fig. 4 is a detail in plan of the means for operating the furrow-wheel.

Similar letters of reference indicate corresponding parts.

To the beam A is attached an arm, C, which supports an axle, D, oscillated by means of lever E, moving on the quadrant H. The outer end of the axle is offset to regulate the height of the wheel as the axle is turned. The axle is provided with a large wheel, which runs on the unplowed land when the plow is in use. A similar arrangement, but with a smaller wheel, is placed at the front end of the beam, and the wheel thus mounted runs in the furrow and serves as a guide-wheel to the truck. It is raised and depressed in a manner similar to the larger wheel, and thus gages the depth of the furrow. The third wheel, F, is placed behind the plowshare and to the left of the mold-board. It consists in a solid wheel or disk, its left or outer face convex, and so mounted that its lower periphery is in line with the bottom of the plowshare, and the rear half of its face in line with the furrow, as shown in Figs. 2 and 3. The rear half of the lower face of the wheel thus bears against the land side of the furrow and keeps the plow in position, leaving the front half of the wheel entirely free. It thereby forms a perfect landside for the plow, and by reason of its revolution runs easier than the ordinary sliding landside. It also makes a carrying-wheel for the truck. When the plow is raised out of the ground the changed position of the truck throws the weight of the plow on this wheel and leaves the share clear of the ground. In order to make the wheel track perfectly when not engaged in plowing, or should it be desirable to change its angle with respect to the furrow when in operation, the same is effected by means of the pivoted axle K, operated by the lever L, moving on the quadrant *o*, or other suitable device for adjusting the same.

My apparatus for raising or depressing the plow is as follows: The tongue is pivoted at the front end of the truck-frame, allowing it a free vertical movement. The rear end of the tongue extends backward from this point to the upright segment I, which prevents lateral motion, but leaves the tongue free to move up and down. A cord or chain, *c*, connects with this end of the tongue, and passes over a sheave, *a*, at the top of the standard or segment I, and is attached to the seat or its supports. The seat is placed on two parallel supports, *e e*, hinged at top and bottom and kept at a certain ultimate angle forward or backward by suitable stops. It will be seen that any backward movement of the seat tends to raise the tongue, which, having the neck-yoke as a fulcrum, also lifts the front end of the plow, as indicated by the broken lines.

When in use the seat projects forward, as shown in the drawings, and the rider's weight is immediately over the plow, and aids in keeping it steady. On the other hand, when thrown back, his weight behind the axles of the carrying-wheels counterbalances the weight which the plow would otherwise impose upon the horses' necks.

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

1. The seat G, mounted on parallel hinged supports *e e*, regulated by suitable stops, combined with the chain *c*, sheave *a*, segment I, and tongue J, substantially as shown and described.

2. The combination of the landside-wheel F, pivoted axle K, lever L, and quadrant *o*, or their equivalents, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own, witness my hand this 15th day of September, A. D. 1881.

GARLAND B. ST. JOHN.

Attest:
J. M. ST. JOHN,
S. M. ST. JOHN.