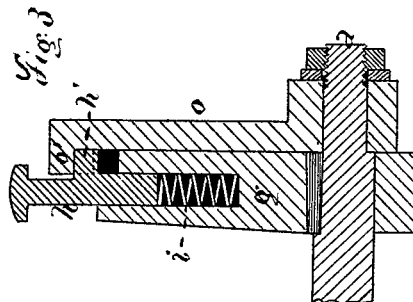
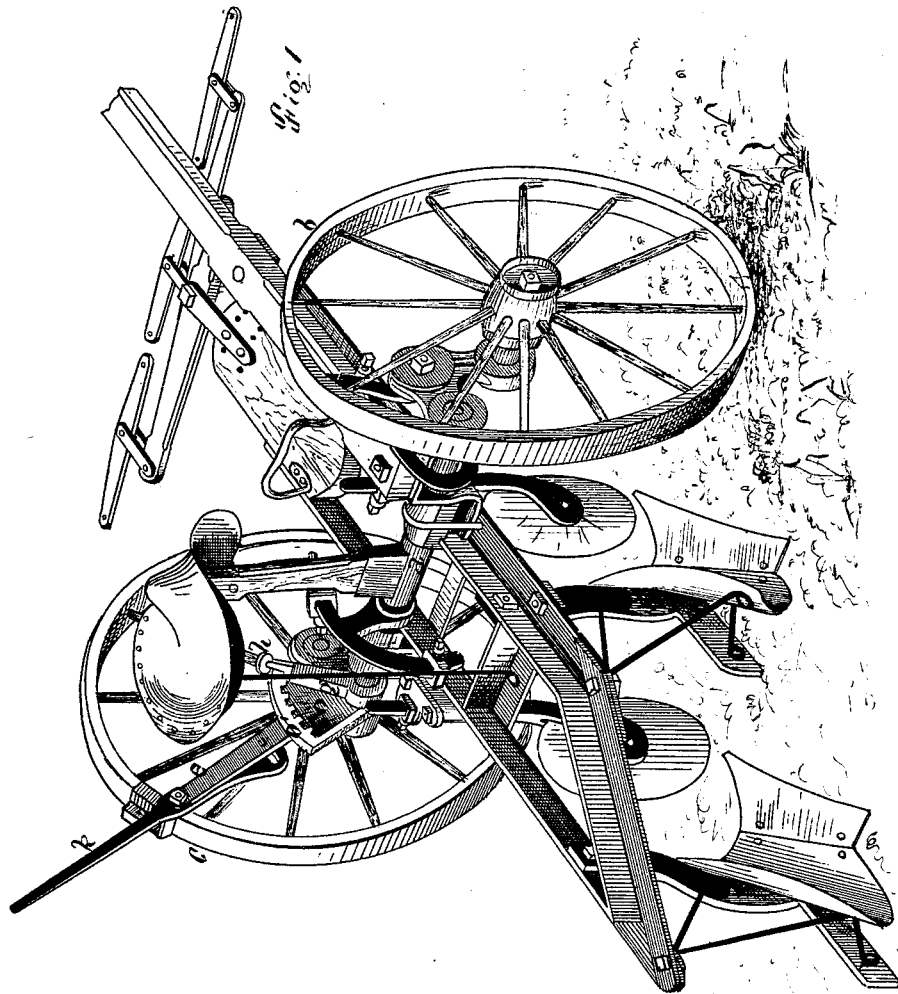


L. CHAPMAN.
GANG-PLOW.

No. 183,794.

Patented Oct. 31, 1876.



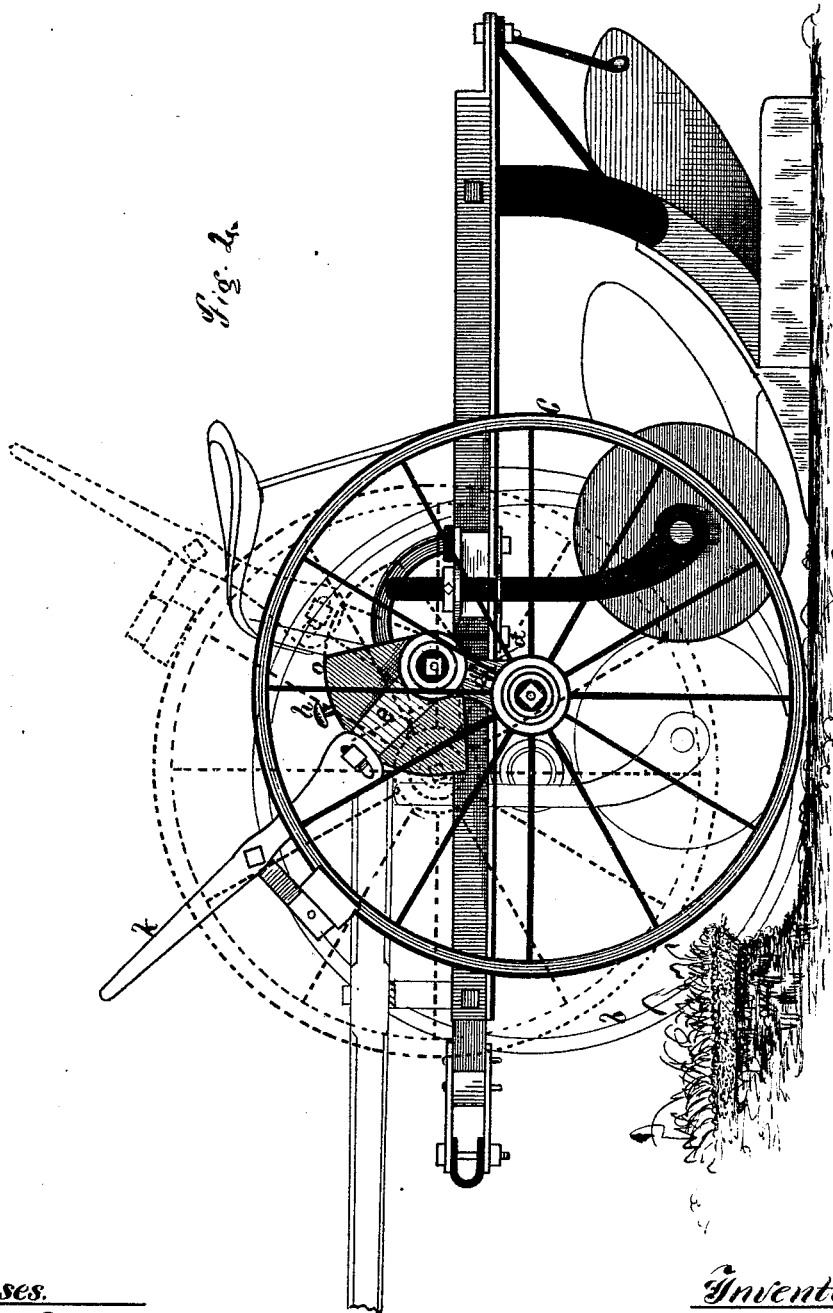
Witnesses
John Pollett
Robt. F. Gaylord

Inventor
Luke Chapman
By W. E. Simons
Atty

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By W. C. Simonds
Att'y.

UNITED STATES PATENT OFFICE.

LUKE CHAPMAN, OF COLLINSVILLE, CONNECTICUT, ASSIGNOR TO THE
COLLINS COMPANY, OF SAME PLACE.

IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. 183,794, dated October 31, 1876; application filed
February 10, 1876.

To all whom it may concern:

Be it known that I, LUKE CHAPMAN, of Collinsville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements pertaining to a Gang-Plow, of which the following is a specification, reference being had to the accompanying drawings, where—

Figure 1 is a perspective view from the rear, and, on the furrow-wheel side, in adjustment for regular work. Fig. 2 is a side elevation from the land-wheel side. Both land-wheel and furrow-wheel are on the same level, each supposed to be running in a furrow. The dotted lines show the land-wheel and other parts prepared to mount, or rather as just having mounted, the "land," through the action of the quadrant-arm, which forms the essential feature of this invention. Fig. 3 is a detail view of the quadrant-arm and adjacent parts in longitudinal central section.

The main features of the machine shown in these drawings have already been patented to me by prior patents; and it is not necessary to go into a description of all the parts and their operation in detail.

The letter *a* denotes the main shaft; *b*, the "furrow-wheel," (meaning the wheel which generally runs in the furrow,) and *c* the "land-wheel," (meaning the wheel which generally runs on the land.) This land-wheel is hung on the arm *d*, which is pivoted on the main shaft. From the arm *d*, and rigid with it, rises the lever *e*. Pivoted on the main shaft, and rigid with the arm *d*, (and, consequently, rigid with lever *e*,) is the quadrant-arm *o*, bearing the interior gear segment or ratchet *o'*. Fast on the main shaft rises the arm *g*, in which plays the reciprocating pawl *h*, pressed outward by spring *i*, pressing the tooth *h'* (borne upon the pawl *h*) into contact and mesh

with the ratchet *o'*. To illustrate the office and action of this quadrant-arm, suppose the whole machine to be adjusted for regular work, as shown in Fig. 1, with the furrow-wheel running in a furrow, and the land-wheel raised, and running on the land, and that, as happens when near the close of a piece of work, the land-wheel is about to drop into a furrow, (a thing which, uprovided for, would probably unseat the rider.) In such case the rider, putting his foot on the top of pawl *h*, presses the tooth *h'* from its mesh with ratchet *o'*, leaving arm *d* and land-wheel *c* to swing free on the main shaft; and, when thus permitted, the land-wheel drops to position shown in Fig. 2, thus keeping the seat erect.

When the land-wheel needs to rise from the furrow to land, (a position of affairs shown in Fig. 2,) the rider with his foot unlocks the quadrant-arm from the main shaft, and, with his hand on lever *k*, (which acts in conjunction with lever *e*,) draws this lever back, as shown in dotted lines in Fig. 2, and thereby raises the land-wheel to the level of the land.

I disclaim, in this application, all that I have shown in my application for patent for gang-plovs filed April 14, 1875, in so far as it resembles the invention herein described.

I claim as my invention—

The wheel *c*, hung on the arm *d*, the lever *e*, and toothed quadrant-arm *o*, all rigidly secured together, in combination with the rigid arm *g*, pawl *h*, and shaft *a*, all constructed and arranged for operation substantially as described.

In witness whereof I hereto set my hand.

LUKE CHAPMAN.

Witnesses:

WM. E. SIMONDS,
R. F. GAYLORD.