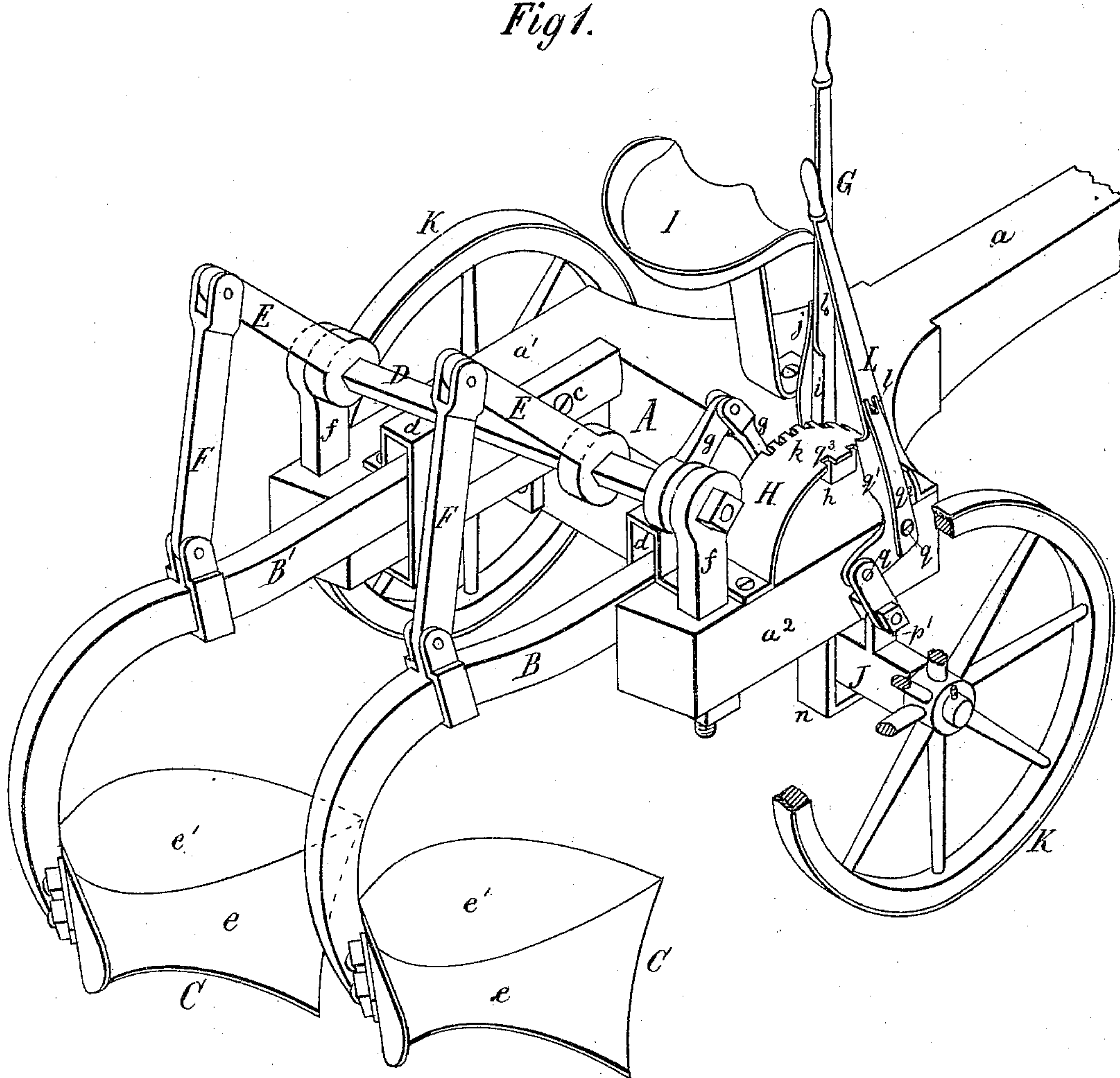


S. H. WOOLDRIDGE.  
Gang Plow.

No. 232,867.

Patented Oct. 5, 1880.

*Fig 1.*



Witnesses:  
J. P. Th. Lang  
J. F. Munson

Inventor:  
Sila H. Wooldridge  
by  
Marion R. Woodruff

S. H. WOOLDRIDGE.  
Gang Plow.

No. 232,867.

Patented Oct. 5, 1880.

Fig 2.

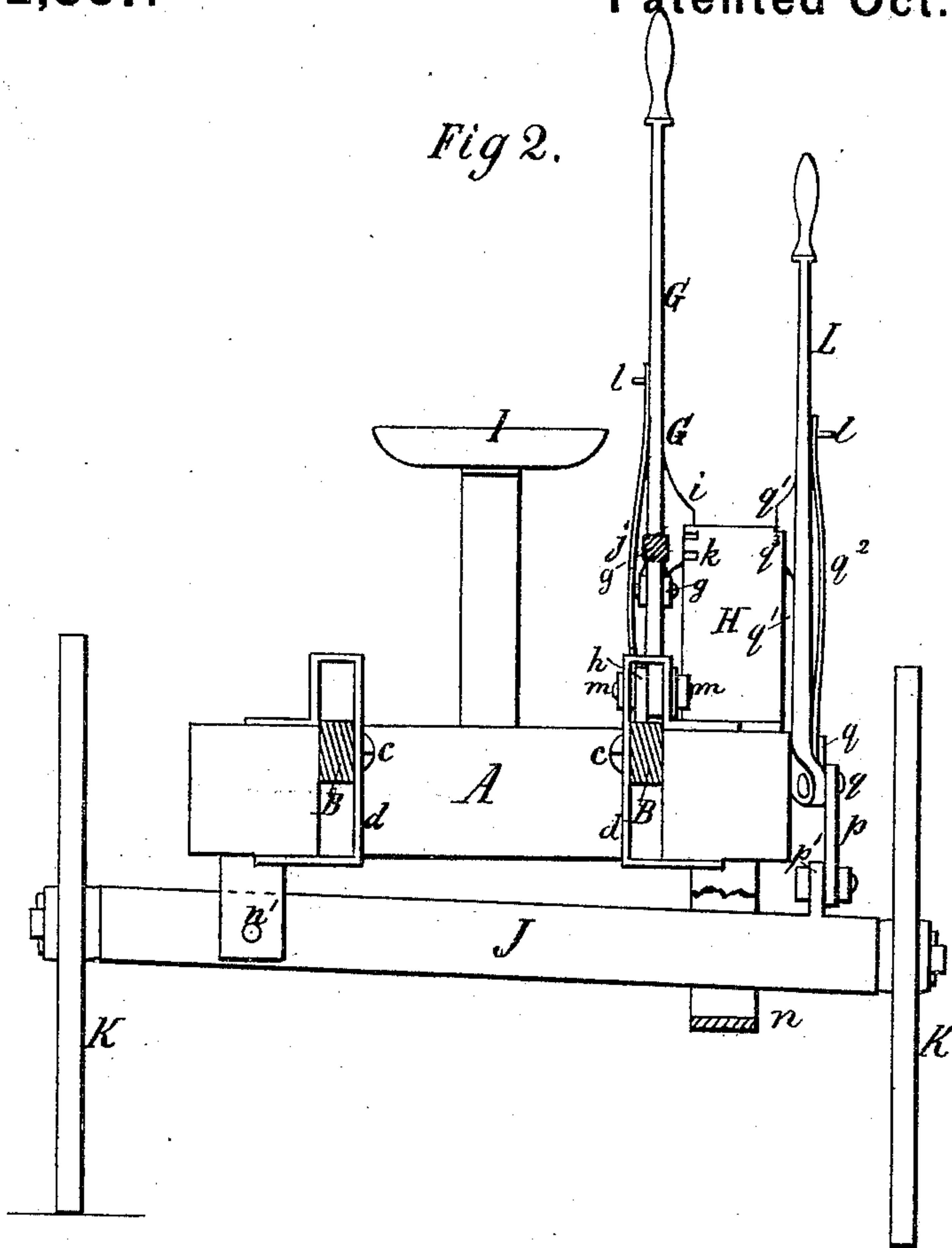
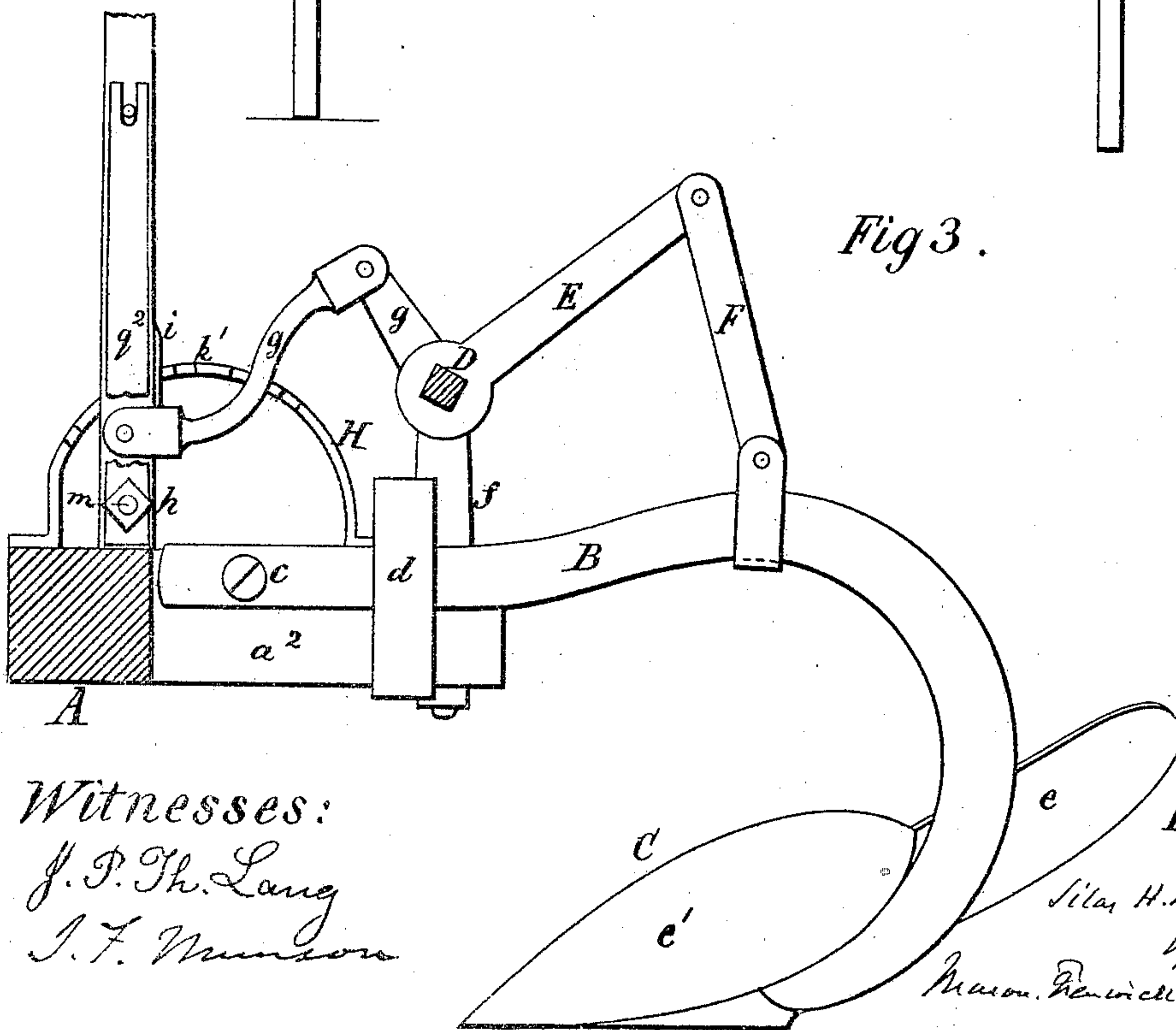


Fig 3.



Witnesses:

J. P. Th. Lang

J. F. Munson

Inventor:

Silas H. Wooldridge

by  
Mason, Penick & Lawrence



# UNITED STATES PATENT OFFICE.

SILAS H. WOOLDRIDGE, OF VENICE, ILLINOIS.

## GANG-PLOW.

SPECIFICATION forming part of Letters Patent No. 232,867, dated October 5, 1880.

Application filed February 14, 1880.

*To all whom it may concern:*

Be it known that I, SILAS H. WOOLDRIDGE, a citizen of the United States, residing at Venice, in the county of Madison and State of Illinois, have invented a new and Improved Gang-Plow; and I do hereby declare that the following is a specification thereof.

My invention relates to gang-plows which are arranged upon wheels; and the objects of my improvements are, first, to provide a frame pivoted to the axle at one side and raised by a lever on the other in a guide-hanger, to level the frame; second, to provide a rock-shaft set diagonally upon the frame, with rigid arms and links to both lever and plow-beams. These objects I obtain by the mechanism shown in the drawings, in which—

Figure 1 is a perspective view of the entire gang-plow, a portion of one of the carriage-wheels being broken out in order to expose parts behind it. Fig. 2 is a vertical cross-section of the same, and Fig. 3 is a longitudinal section of a portion of the gang-plow detached from the axle and wheels.

Similar letters refer to similar parts throughout all the views.

The frame A consists of a tongue portion, *a*, and two rear-extending side beams, *a'* *a''*, united at front by a widened rear portion of the tongue proper. On the inner side of the beams *a'* *a''* plow-beams B B' are arranged, and these beams are pivoted to the frame-beams near their front ends, as indicated at *c*, and they are confined against sidewise movement in rear of the pivots *c* by strap-loops *d* fastened to the inner sides of the frame-beams.

The plow-beams are of different lengths, and their rear portions are curved to form standards, and on the curved portions plows C C are placed and fastened in the usual manner. The plows C C respectively consist of an ordinary mold-board, *e*, and a colter, *e'*, which serves the offices of landside and colter. The colter *e'* conforms on its lower edge to the land-side edge of the mold-board, and extends from the point of the plow to the inner top edge of the mold-board, being quite deep, standing vertical, and having its upper edge curved in form of the belly of a fish, and sharp. This colter serves for cutting brush and other obstacles, and it insures the falling of the sod

or furrow-slice in the proper direction away from the landside, and while it dispenses with the ordinary landside it prevents choking of the plow with weeds and trash.

D is a rock-shaft placed in upright bearings *f f* of the frame-beams *a'* *a''*, said bearings being set one in rear of the other on the respective beams *a'* *a''*, in order that the rock-shaft shall lie diagonally across the frame A, and thereby have one of its ends stand nearer to the middle of the long plow-beam B' than its other end, and by this means avoid the inconvenience arising from the employment of arms of unequal lengths on the rock-shaft for raising and lowering the plow-beams.

The rock-shaft D has two lever-arms, E E, of equal length, attached to it, and to these arms link-bars F F are pivoted, to the rear ends of which the plow-beams are connected by loops slipped upon the beams and pivoted to the link-bars, as shown.

G is a hand-lever, connected to the rock-shaft by means of a toggle-joint lever, *g g*, said hand-lever being pivoted to a stand, *h*, of the frame A, and provided with a locking tooth or catch, *i*, and a pressure-spring, *j*, as shown.

H is a notched arc fastened to the frame A on one side of the standard of the attendant's seat I, with which the levers G and L are held in engagement by the spring *j* and a spring, *q*.

By the combination of the diagonal rock-shaft, hand-lever, and the intermediate toggle-levers, *g f*, and the locking devices, the gang of plows can be very easily and conveniently raised and lowered by the attendant from his seat on the carriage.

The axle J is pivoted near one of its ends to a hanger, *n'*, of the frame A by means of a longitudinal pivot, said axle being left free to rise and fall at its other end, and an oblong vertical loop or hanger, *n*, guiding and controlling it at its free end. The loop *n* is suspended from the under side of the frame A, and the axle is passed through it, as shown in the drawings.

To the axle, near its free end, another hand-lever, L, is connected by means of a link-bar, *p*, which is pivoted to a bracket, *p'*, of the axle, and to the short end of the angular hand-lever L, as shown. The lever serves to lower the gang of plows and frame together when it is

desired to adjust the gang-plow for operating with one wheel running in the furrow and the other on the land.

Both of the hand-levers are in close relation to the attendant's seat I, and one arc answers for both levers; and the attendant while sitting upon his seat can either raise or lower the plows, or raise or lower one of the wheels or the frame, the latter operations being effected by moving the frame or the axle on the longitudinal pivot of the hanger *n'*, while its free end is guided by the loop.

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

15 1. The frame A, pivoted to the axle at *n'*, and provided with the hanger *n* and lever L, in combination with the diagonal rock-shaft

D, with rigid arms E *g*, lever G, and connecting-links, and plow-beams B B', substantially as shown and described.

20 2. The frame A, in combination with two or more independently-pivoted plow-beams, B B', of unequal length, said beams being pivoted to the inner sides of the beams *a'* *a''* of the frame, and confined by oblong loops, as at *e* and *d*, and occupying a position above the axle, and also being connected with a diagonal rock-shaft, D, and to a hand-lever, G, by devices F E and *g g*, substantially in the manner and for the purpose described.

SILAS H. WOOLDRIDGE.

Witnesses:

SEABORN MILLER,  
DAVID K. TALLEY.