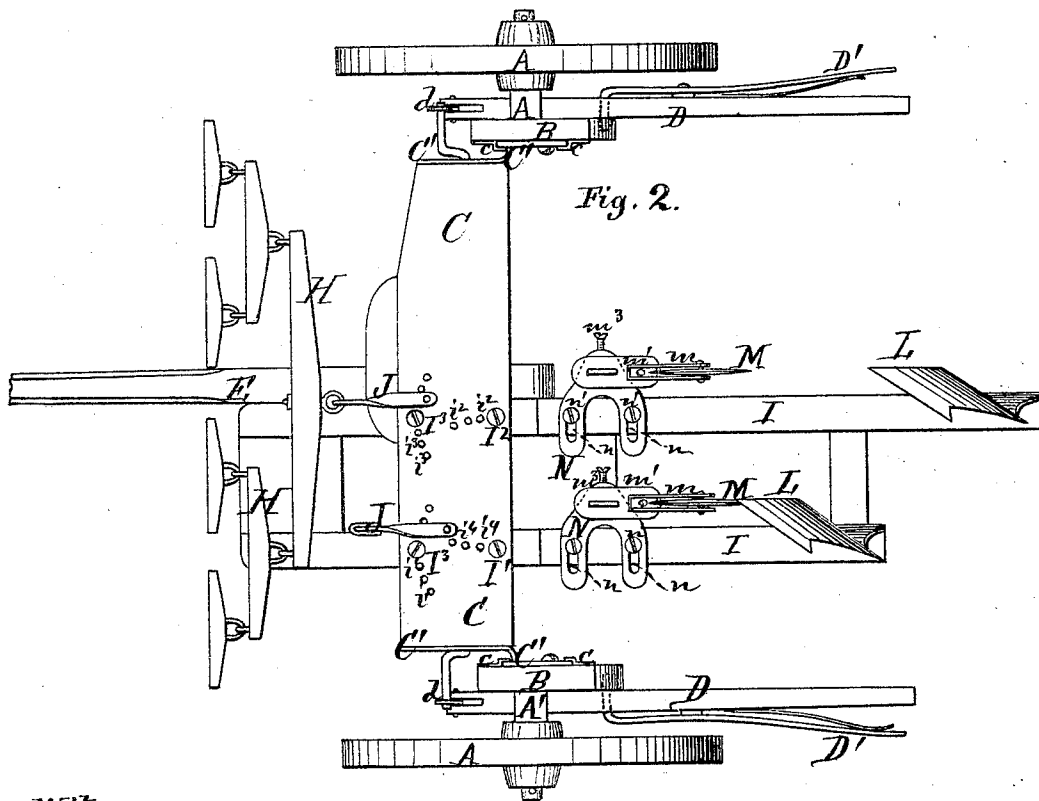
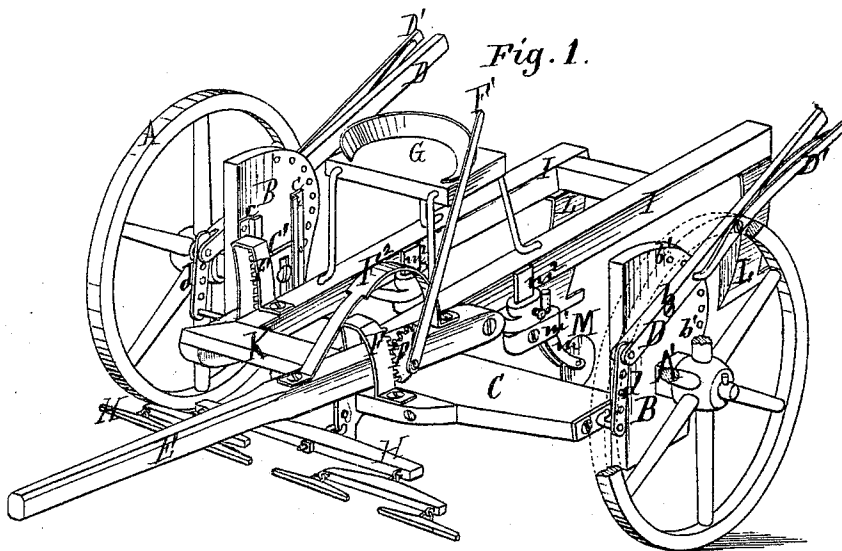


JOSEPH OLER.
Improvement in Gang-Plows.

No. 114,033.

Patented April 25, 1871.



Witnesses.

Shaper Mahon
H. H. Doubleday

Joseph Oler
by his Attorney
A. M. Smith

UNITED STATES PATENT OFFICE.

JOSEPH OLER, OF EAGLE POINT, ILLINOIS.

IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. 114,032, dated April 25, 1871.

To all whom it may concern:

Be it known that I, JOSEPH OLER, of Eagle Point, county of Ogle, and State of Illinois, have invented certain new and useful Improvements in Gang-Plows, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my improved plow with a part of one of the carrying-wheels broken away, and Fig. 2 is a bottom view of the same.

The invention relates to that class of plows known as "gang" or "sulky" plows; and it consists in, first, a novel construction of the devices by means of which the disk-colters are supported, whereby they may be readily adjusted, both vertically and laterally; second, making the tongue and the lifting devices connected therewith movable, so that they can be transferred from one side of the plow-beam to the other, in order to adapt the plow for using two horses or four; third, in a peculiar arrangement of the bolt-holes through which the plow-beam is secured to the platform, whereby the angle of said beam relative to the platform may be changed as desired; and, fourth, in a new method of supporting the platform upon the carrying-wheels.

In the drawings, A A are the wheels, mounted upon stub-axes A' A', which are supported firmly in vertical sector supporting-plates B.

C is the platform, each end of this platform being connected with a metallic sliding plate, C', which may be secured to the platform in any desired manner. Plate C' is attached to sector-plate B by means of ways *c* in such manner that it (the plate) is free to slide vertically when actuated by lever D and link *d*. Said lever is pivoted upon sector-plate B at *b*, and is provided with a spring-latch, D', the inner end of which engages with a series of holes, *b'*, in sector-plate B. Thus either end of the platform C can be maintained at the desired height from the ground, as will be readily understood without further explanation.

E is the tongue pivoted to the platform at *e*.

F F are toothed tongue-loops, one of which is attached to the front part of the platform or plow-beam, or both upon each side of the plow-beams. They perform a double function—that is, they assist in keeping the tongue in position, and they also, in combination with

the cogged sector-lever F', serve to rock or tilt platform C upon the axes A' as a center, for a purpose which will soon be explained.

F² is an arched ratcheted standard, with which lever F' is made to engage to maintain the platform C in such position as it may have been placed by tongue-loop F and the lever F'.

G is the seat, supported upon such part of the plow as may be thought best.

H are the whiffletrees.

J J are clevises by which the whiffletrees are attached to the platform.

I I are the plow-beams, secured to the platform by means of bolts I' I' I'. There is a number of bolt-holes, *i' i'*, each series being in an arc of a circle, for a purpose which will be hereinafter explained.

K is a foot-board or foot rest upon the plow-beam I I.

L L are the plows, secured to the beam in any usual or desired manner.

M M are disk-colters supported in forked standards *m*. These standards *m* terminate at their upper ends in round shanks or stems, which are mounted in what I call "colter-blocks" *m'*.

N N (see Fig. 2) are U-shaped yokes or brackets, slotted as at *n*, and adjustably secured to plow-beam I by bolts *n'*, or their equivalents. Each colter-block *m'* is provided with a vertical shank, *m²*, (shown plainly in Fig. 1,) which passes through a slot made for its reception in the yoke N, and is adjustably secured therein by means of a set-screw, *m³*.

In operating my plow the location of the tongue is governed by the number of horses I wish to employ. If working with two, I place it upon the right-hand side of the driver as he sits in the seat; but with four, I place it upon his left hand, in the position in which it is shown in the drawings. The manner in which these changes can be made by merely removing a few bolts is so apparent from an inspection of the drawings that it will not be necessary to describe it in detail.

In moving the plow from the field I can raise the platform-beams and plows by means of lever D and the devices connected therewith, and can also still further elevate the rear end of the plow-beam and the plows by means of tongue-loop F and segment-lever F', as is customary in this class of plows.

When the tongue is changed from one side

of the plow-beams to the other, it is usually desirable to change the angle of the plow-beams relative to the platform. This adjustment can be made by moving the bolts I' or I'' from one to another of the holes $i' i''$, these holes being arranged in arcs of circles, the center of the arc described by holes $i' i''$ being I' , the center of the arc $i'' i'''$ being at I'' .

Should it be found necessary, provision may be made for a little play where the tongue-loops are joined to the platform or beams to allow for this adjustment of the beam, but under ordinary circumstances it will not probably be required.

When it is desired to adjust the colters either vertically or horizontally, they may be so adjusted horizontally by means of yokes N , or vertically through the shanks or standards m'' , in a manner that will be readily understood without further explanation.

In Fig. 1 it will be seen that the clevis J is provided with perforations, in order that the wiffletrees may be raised or lowered, and they may be adjusted laterally upon the platform as desired.

It is of course necessary that the curved standard F'' should be ratcheted upon both

sides, or else it must be taken off and reversed when the tongue is changed from one side to the other; and even if this be done the direction of the ratchets must be reversed, in order to provide for changing the segment-lever from one side of the tongue to the other. It will also be noticed that the tongue-loops are both toothed upon their outer sides or legs to adapt them to the above-named changes.

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

1. In combination with the laterally-adjustable plow-beams, the laterally-adjustable colters, substantially as set forth.

2. The combination of the platform C , the movable tongue E , the double or reversible ratchet-standard F'' , sector-lever F' , and the tongue-loops $F F'$, substantially as set forth.

3. The combination, in a gang-plow, of yoke N , colter-block m' , forked standard m , and colter M .

JOSEPH OLER.

Witnesses:

JAMES C. LUCKEY,
J. H. ELWARD.