BROWN & SLIMPERT.

Gang-Plow.

No. 48,049. Patented June 6, 1865.

Fig. 2.

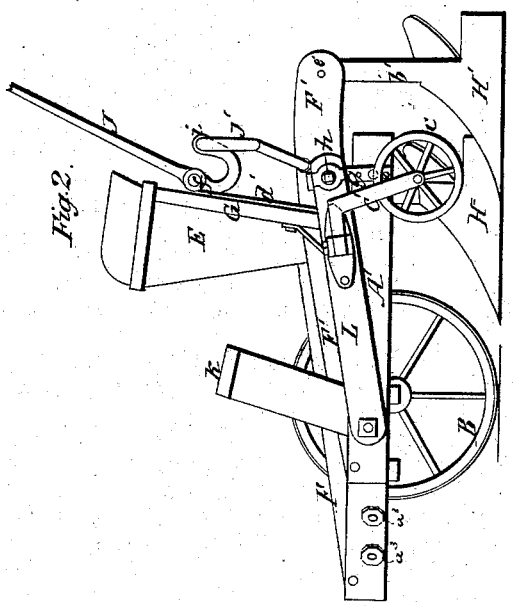


Fig. 4.

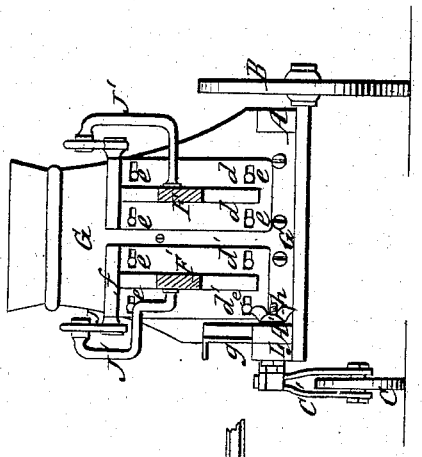


Fig. 1.

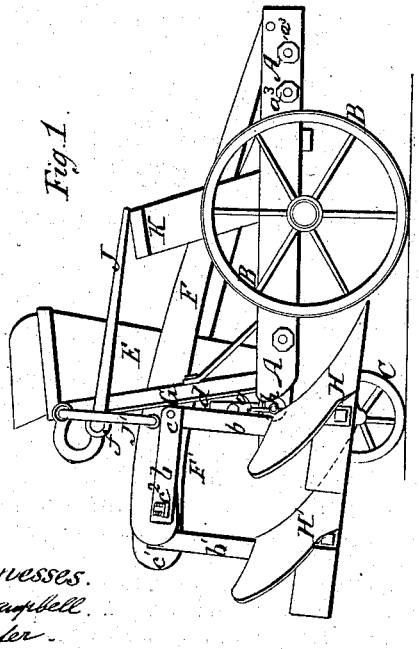
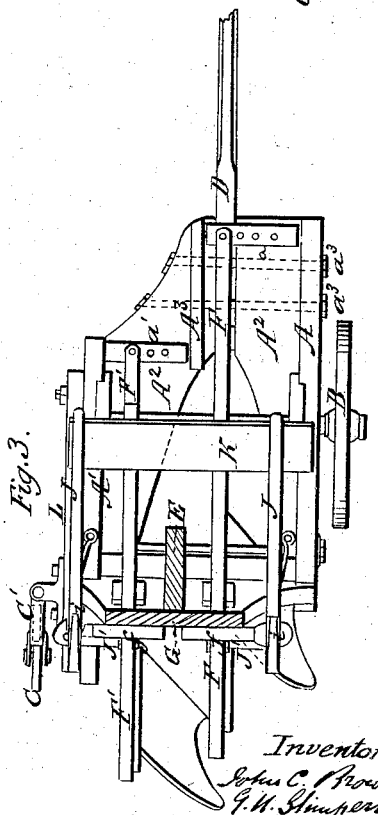


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN C. BROWN AND G. H. SLIMPERT, OF PINCKNEYVILLE, ILLINOIS.

IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. **48,049**, dated June 6, 1865.

To all whom it may concern:

Be it known that we, JOHN C. BROWN and G. H. SLIMPERT, both of Pinckneyville, in the county of Perry and State of Illinois, have invented a new and Improved Gang-Plow; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an elevation of one side of our improved plow. Fig. 2 is an elevation of the opposite side of the machine. Fig. 3 is a top view of the machine with the driver's seat removed. Fig. 4 is an elevation of the rear end of the machine with the ends of the plow-beams broken away.

Similar letters of reference indicate corresponding parts in the several figures.

Our invention relates to that class of machines in which two transporting-wheels are employed in conjunction with plows which are arranged in gangs one behind the other, the wheels being so constructed and applied to the frame of the machine that one of them will run over the unplowed land and the other in the furrow, at the same time keeping the machine level.

One object of our invention is to prevent the plows from being lifted out of the ground when the land-wheel moves over rising and falling land or across corn furrowed land.

Another object of our invention is to facilitate the turning of the machine by making the land-wheel a caster-wheel and locating it in rear of the axle of the furrow-wheel and alongside of the plow which is on the landside of the machine, as will be hereinafter described.

Another object of our invention is to employ self-locking levers in conjunction with plow-beams whose ends are allowed to rise or fall, said levers being so arranged and applied that the driver, while riding upon the machine, can elevate the plows and lock them in such position or depress the plows, and, when desired, adjust them toward or from the landside of the machine at pleasure, as will be hereinafter described.

Another object of our invention is to secure the plows to beams which are pivoted to the frame of the machine in such manner that the points of both plows are about the same distance from the pivotal connections of their respective beams for the purpose of enabling both plows to run at the same depth in the ground, as will be hereinafter described.

Another object of our invention is to provide for leveling the frame of the machine upon level ground when not plowing, and also to level the machine at whatever depth it may be desired to run the plow, as will be hereinafter described.

To enable others skilled in the art to understand our invention, we will describe its construction and operation.

The frame of the machine consists of two longitudinal beams, A A′, which are secured in position parallel to each other by transverse braces, which braces also sustain a platform, A^2. This frame is mounted upon two transporting-wheels, B and C, and constructed with a view of applying the draft-pole to it in such manner as to avoid side draft upon the team as much as possible. This draft-pole D is secured to the frame by means of transverse bolts a^3 a^3, which also assist in strengthening the frame.

The driver's seat is mounted upon a standard, E, at the back of which is a frame, G, having two vertical slots through it, through which the plow-beams F F′ pass, as shown in Figs. 3 and 4. These slots are of sufficient length to allow the plows to be lifted up free from the ground, as shown in Fig. 1, or depressed and made to run in the ground, as in Fig. 2, and the slots are of sufficient width to admit of all the lateral adjustments of the plow-beams required. The plow-beam F, which is on the furrow side of the machine, is pivoted or connected by a bolt to a perforated rocking bar, *a*, which is pivoted at its ends to the longitudinal beam A and an intermediate longitudinal beam, A^3, as shown in Fig. 3, and the plow-beam F′, which is on the landside of the machine, is pivoted or otherwise connected to a transverse rocking bar, *a′*, which is pivoted, some distance in rear of bar *a*, to the beams A′ and A^3. The two plow-beams F F′ vary in length in proportion to the distance between the two rocking bars *a a′*, and carry on their rear ends the plows H H′, which may be made of the most approved form.

The standards *b b'* of the plows consist respectively of a vertical portion and a horizontal portion, which latter is used in securing the plows in the desired position to the beams. These standards are secured by pivots at *c c'* and by set-screws at c^2 c^3, which latter pass through slots which are made through the standards. By loosening the screws c^2 c^3 the plows can be set at any desired pitch without detaching them from their standards. The plows are secured to their standards so that one plow, H, will be in advance of the other, H', and so that they will be at equal (or nearly so) distances from the pivots of their respective beams. By this arrangement of the plows and beams the former can be raised out of the ground or made to enter the ground together. They will also run at a uniform depth in the ground, whereas if the plow-beams were of different lengths, or the plows attached to them, as hitherto, the latter would not enter or leave the ground simultaneously.

On the rear side of the frame G are two slotted guides, *d d'*, through the slots of which the plow-beams pass, as shown in Fig. 4. These plates are both laterally adjustable, and are secured to frame G by means of screws *e e e e*, which pass through transverse slots through the plates *d d'*, which when loosened can be moved to the right or left, as occasion requires. The forward ends of the plow-beams can be also moved laterally and secured at any desired point to their respective bars *a a'*, a number of holes being made in said bars to admit of such adjustments.

The upper ends of the laterally-adjustable plates or bars or guides *d d'* have bearings *f f* for two levers, J J, which are formed with hooks on their short arms, and to the extremities of these hooks rods J' J' are pivoted, as shown at *i i*. The lower ends of the rods J' J' are pivoted to the plow-beams. When the levers J J are thrown forward, as shown in Figs. 1 and 3, so that their long arms rest upon the foot-stand K, the points *i i* will be moved forward of the points *f f* or fulcra of the levers, and the beams F F' will be sustained positively in an elevated position, as shown in Figs. 1 and 4. When the long arms of levers J J are moved backward and the points *i i* pass back of vertical plane intersecting the fulcra of the levers the beams F F' will descend and assume the position shown in Fig. 2. Either one or both plow-beams may be raised or depressed at pleasure, and this can be done by the driver while sitting upon his seat. By sustaining the levers J J upon the adjustable slotted guides *d d'* it will be seen that the plow-beams can be adjusted, as above described, without interfering with the proper working of the levers.

The landside-wheel C is connected by a bent standard, C', to an adjustable beam, L, which is pivoted at its forward end to the side of the longitudinal beam A', as shown in Figs. 2 and 3. The rear end of the beam L is connected to a sector-plate and support, *g*, which is secured to and projects from the beam A'. The upper end of this sector-plate is bent over so as to rest upon the beam L when the parts are adjusted for operation, as shown in Fig. 2. The beam L is secured at the desired point to the sector by means of a bolt, *h*, which is passed through one or the other of the holes through this sector *g*, and when the beam L is in a line with the beam A' the frame of the machine will be leveled for running over level surfaces, as shown in Fig. 4; but when this beam L is adjusted as shown in Fig. 2 the machine is ready for plowing. The wheel C being applied to a standard, C', which is pivoted to the beam L, as shown in the drawings, it will be seen that it forms a caster-wheel and admits of the machine being turned short around with very little difficulty. It will also be seen, by reference to the drawings, Figs. 1, 2, and 3, that the land-wheel C is located in a position opposite to the forward plow and some distance in rear of the furrow-wheel. The latter wheel is arranged in front of the forward plow, and is intended to run in the furrow made in the previous round, while the former or land wheel is intended to run on the unplowed ground. By arranging these wheels B and C as above described the depth which it is desired to run the plows can be regulated and the plows prevented from rising out of the ground in consequence of the wheel C passing over corn furrowed land, or land which is otherwise very uneven.

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

1. While not claiming a caster-wheel for the purpose of adjusting the plow, we do claim the arrangement of the hinged adjustable beam L with a caster-wheel, C, in the manner and for the purpose herein described.

2. The use of self-locking levers J J for raising or depressing the plows, applied to the adjustable guides *d d'*, substantially as described.

3. Connecting the hooked locking-levers J J to the plow-beams by means of bent swinging rods, substantially as described.

4. The laterally-adjustable slotted plates *d d'*, applied to the slotted frame G, and adapted to serve as guides for the plow-beams F F', and also as bearings for levers which are used to raise and depress said beams, substantially as described.

5. Pivoting the forward ends of the plow-beams to rocking bars *a a'*, which are arranged one in advance of the other, and applying the plows to said beams at about equal distances from their respective pivotal connections, substantially as described.

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