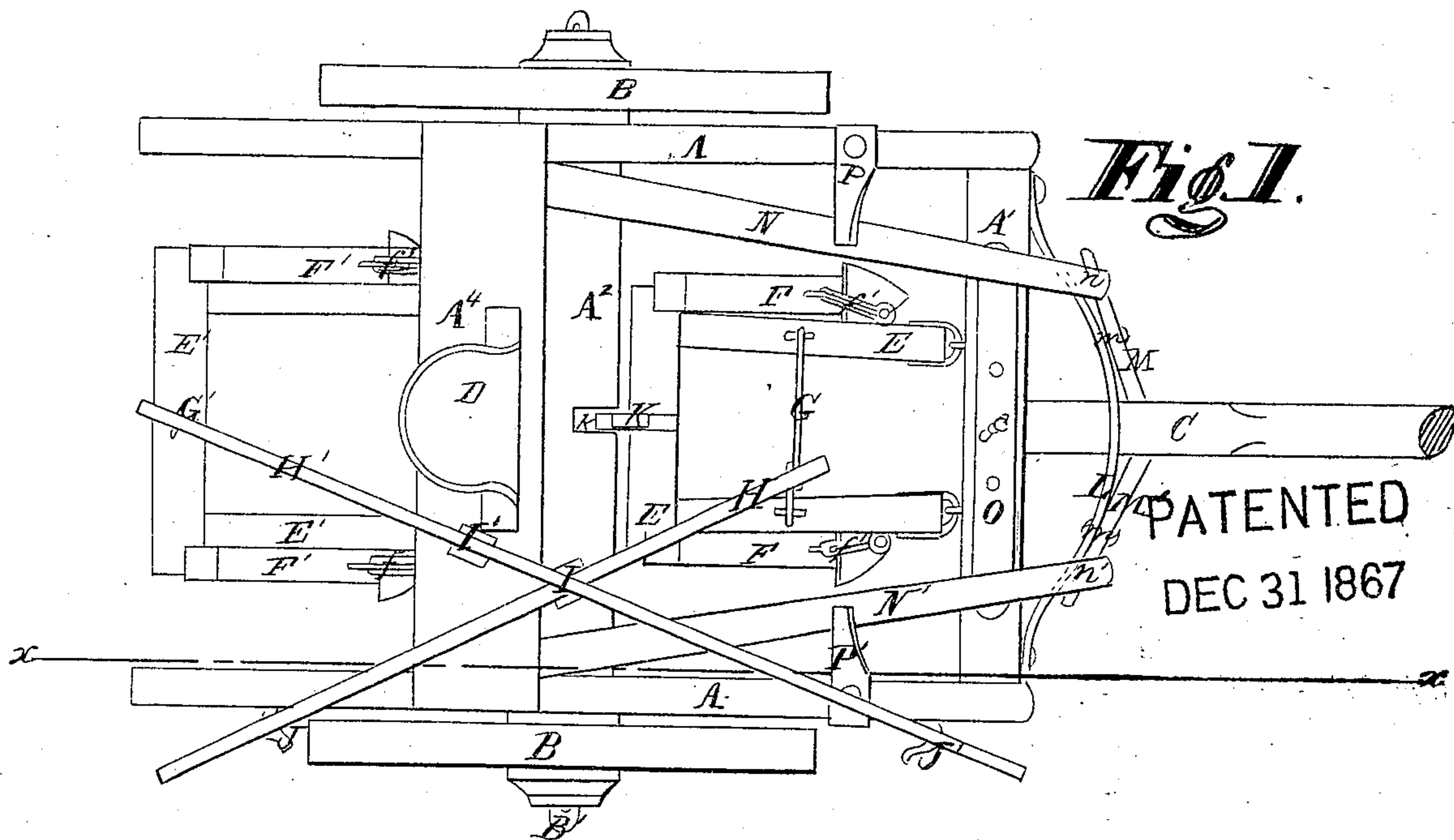


William Foster.

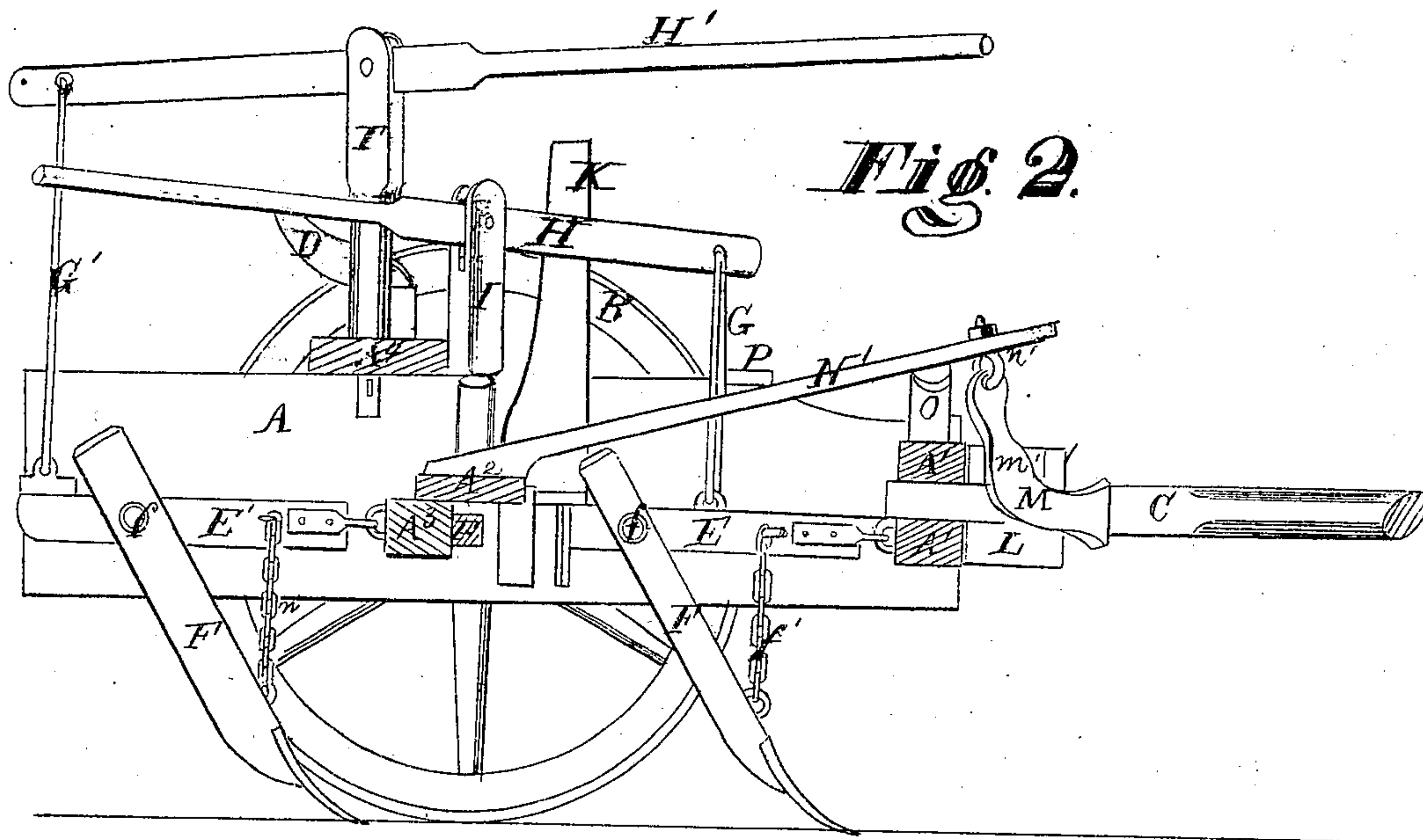
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Gang Plow.



Witnesses.
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United States Patent Office.

WILLIAM FOSTER, OF GREENFIELD, INDIANA.

Letters Patent No. 72,730, dated December 31, 1867.

IMPROVEMENT IN GANG-PLOUGHS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM FOSTER, of Greenfield, in the county of Hancock, and State of Indiana, have invented a new and useful Improvement in Gang-Ploughs; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which are made part of this specification.

The subject of my invention is a sulky-gang plough or cultivator, of novel construction and arrangement, having two or more pairs of separately pivoted shovel-beams, adapted to be raised out of the ground, when desired, by the driver, while sitting in his seat on the frame, and, by means of a pivoted tongue and devices for holding it, adapted to be operated by the feet of the driver, to be more perfectly and easily turned and guided. In the drawings—

Figure 1 is a plan view of my improved gang-plough, and

Figure 2 is a longitudinal section of the same, on the line $x x$, fig. 1.

A A A¹ A² A³ A⁴ may represent the main frame, B B the wheels which support said frame, B' the axle-tree, C the tongue to which the draught is applied, and D the driver's seat. E E' are frames, to which the shovel-beams F F' F' F' are attached, by means of pivots f and chains f' , in the ordinary way. These frames are, respectively, universally hinged to the front end, A¹, and to the central cross-piece, A³, of the main frame, and are connected, by means of metallic bars or chains, G G', to the ends of levers H H', centrally pivoted in uprights I I', said uprights being secured in the cross-pieces A² A⁴ of the main frame, which form, respectively, the foot-board and support for the driver's seat. The ends of the levers H H' are held by the hooks J J', when it is desired to hold the shovels out of the ground. Suitably secured to the frame F is an upright lever, K, having its fulcrum in a slot, k , in the foot-board A². By means of this lever the driver is enabled to dodge the shovels laterally, to avoid ploughing up the plants, its position adapting it to be operated either by the knees or hands of the driver. The end pieces, A¹, of the main frame, between which, at c , the tongue C is pivoted, are each provided with a segmental bar or strap, L, which brace and guide the tongue in its movements. To the upper one of said bars or straps, at $m m'$, are pivoted jaws M M', which, in their normal position, hold the tongue in the centre of the frame. N N' are treadles attached to the foot-rest A², and projecting over the end piece A¹ of the main frame, where they are supported on the ends of the spring O, secured to the top of said end piece, are connected, by eye-bolts $n n'$, to the upper ends of the jaws M M'. P P' are stops, which determine the upward movement of the treadles N N', by the spring O.

When the driver wishes to turn the plough in either direction, he has only to press, with his foot, on the treadle, on the side of the plough to which he desires to turn, when the jaw on that side will be raised, and the tongue be free to turn in that direction, the slot between the end pieces A¹ A¹ and guides L allowing it to be turned nearly at right angles to its former position, without moving the plough. By this means the plough may be turned in the smallest possible space.

The treadles N N' may be rigidly hinged to the foot-board A², or to the axle-tree, as desired, and, when attached as represented in the drawing, if constructed of sufficiently elastic material, the spring O may be dispensed with.

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

1. In combination with the pivoted tongue C, I claim the guide-straps or bars L, pivoted jaws M M', and treadles N N', substantially as and for the purpose described.

2. In combination with the treadles N N' and pivoted jaws M M', I claim the spring O and stops P P', substantially as and for the purpose specified.

3. The upright lever K, in combination with the frame E F $f f'$, and foot-board A² k , arranged and adapted to be operated substantially as and for the purpose set forth.

To the above specification of my improvements in gang-ploughs, I have signed my hand, this 14th day of September, A. D. 1867.

his
WILLIAM X FOSTER.
mark.

Witnesses:

WILLIAM MITCHELL,
JONATHAN TAGUE.