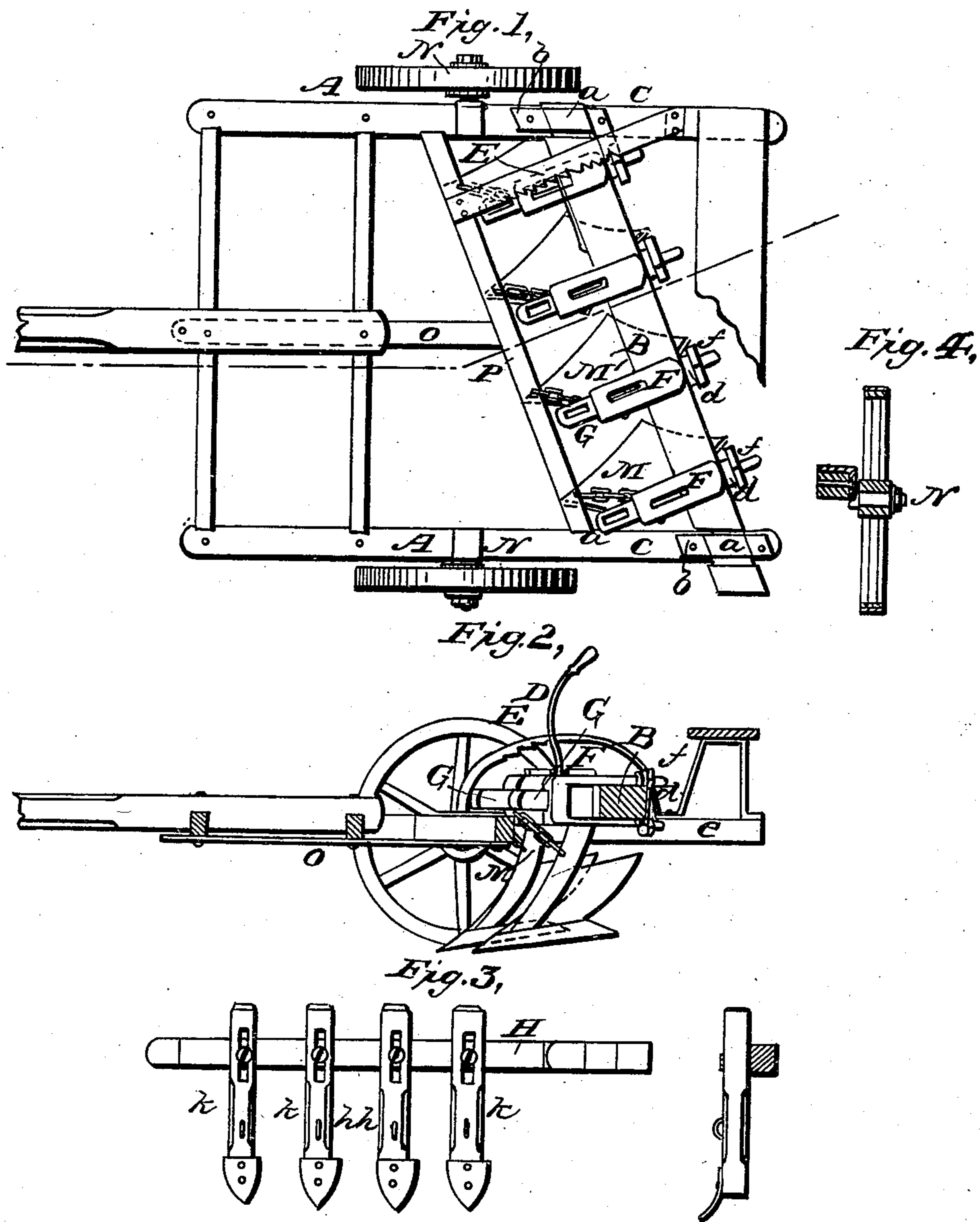


J. CAMPBELL.

Gang Plow.

No. 83,036.

Patented Oct. 13, 1868.



WITNESSES:
N. K. Krueber
H. Conabrock

INVENTOR:
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by his attorney
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United States Patent Office.

JAMES CAMPBELL, OF NEW TOWN, ILLINOIS.

Letters Patent No. 83,036, dated October 13, 1868.

IMPROVEMENT IN PLOWS.

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, JAMES CAMPBELL, of New Town, in the county of Livingston, and State of Illinois, have invented new and useful "Improvements in Plows;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents the plan, and

Figure 2 the side elevation of the plow.

Figure 3 represents the beam with the shovels on.

Like letters designate like parts of the machine.

My machine is a combined corn, stubble, and breaking-plow; and the nature of the invention consists in revolving beams, which, in turn, can be secured to the plow-frame, and to which the plows or the shovels are secured. Each of said beams, when secured to the frame, sets at an acute angle to the line of the draught, and so arranged that it can be easily removed or replaced again, as will be hereinafter fully explained.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is a frame, to which, by means of iron straps *a a* and bolts *b b*, a revolving beam, B, is secured. The beam is strapped to the longitudinal pieces C C of the frame, and is square in shape, with ends turned round, on which it can be partially revolved by means of a lever, D, fitting the notches of the bar E, and thus can set in or draw out of the ground the plows that it carries.

Four twelve-inch plows are secured to the beam B by means of strong iron stirrups, F F, locked up by plates *d d* and screw-nuts *f f*, having openings for the plow-coulters to pass through, and being also provided with the loops G G in front, for the cutters to be secured in, when breaking instead of stubble-plows are attached to the beam B. The beam is set at an acute angle to the line of the draught of the machine, so that the plows can turn over the furrows without interfering with each other.

The coulters of the plows are a little twisted, for the purpose of having the plows to point in proper direction when set on the beam.

When shovels instead of plows have to be used, the beam B, with the plows, is taken off, and the beam H arranged in the same manner as beam B, and carrying four shovels, is strapped in its place to the frame.

The shovels may be secured to the beam H by stirrups or bolts, but the middle shovels should be always secured so as to have lateral motion, for which purpose stirrups, *h h*, are secured to them, which are to be operated by the driver's feet.

Cross-piece P of the frame lies parallel to the beam B, and is provided with hooks, to hook on the brace-chains M M, attached to the coulters of the plows, or the standards of the shovels, the length of the chains being regulated by the depth of the plowing.

The axles N N of the wheels are constructed in an angle-shape, and are bolted to the frame A, and may be turned up or down, so as to place the plow-frame six inches lower or higher, thus allowing the plows to enter the ground deeper or shallower.

A strong iron plate, O, is bolted underneath of and to the cross-pieces of the plow-frame A, making it strong and stiff. A whiffle-tree is attached to the end of this plate.

The operation of the machine consists in this, that for ordinary stubble-plowing ordinary twelve-inch plows are secured to the beam B, but for breaking a new ground, breaking-plows and cutters are substituted instead.

For deep corn-plowing, when the corn is well up, two of the right-hand plows are taken off, and the left-hand plows are substituted, so that two rows of corn can be plowed at once.

When it is desirable to cultivate corn with shovel-plows, the beam B then is taken off, and the beam H is strapped on.

The ordinary plows can be worked with three and the breaking-plows with four horses, plowing a tract of four feet wide.

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

1. The partially-revolving square beam B, carrying plows or shovels, secured to the plow-frame at an acute angle to the line of the draught, constructed and operating substantially as and in the manner set forth.

2. In combination with the above, the stirrups F F, lever D, notched bar E, brace-chains M M, cross-piece P, and the angle-axles N N, the whole arranged and operating substantially as set forth.

JAMES CAMPBELL.

Witnesses:

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