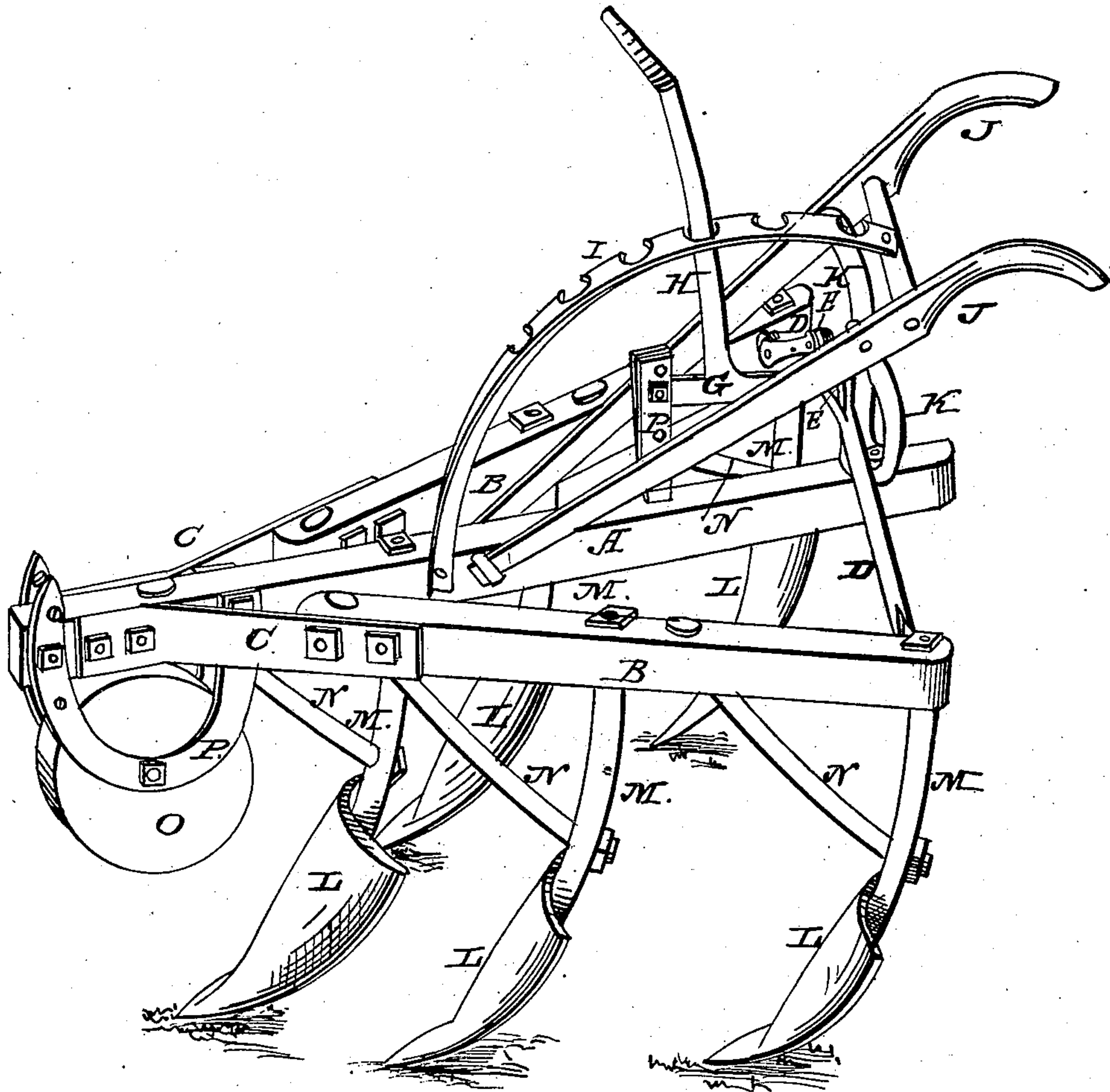


J. MILLARD.

Cultivator.

No. 85,467.

Patented Dec. 29, 1868.



WITNESSES.

Harry King
Leopold Evers

INVENTOR

Joseph Millard
of Alexander Mason
Attorney

United States Patent Office.

JOSEPH MILLARD, OF WINSLOW, INDIANA.

Letters Patent No. 85,467, dated December 29, 1868.

IMPROVEMENT IN CULTIVATORS.

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, JOSEPH MILLARD, of Winslow, in the county of Pike, and in the State of Indiana, have invented certain new and useful Improvements in Cultivators; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the construction and general arrangement of a cultivator, which will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains, to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and which are a perspective view of my invention.

A represents a centre-beam or bar, which, near its front end, is connected with side-bars B B, by means of springs C C, so that the rear ends of said side-bars may be extended from or contracted to the rear end of the centre-bar A at pleasure, and still remain perfectly solid, and, when once adjusted, immovable, except at the will of the operator.

Adjusting these side-bars is accomplished by means of rods D D, hinged to the inner sides of the rear ends of said side-bars.

These rods D D meet at the rear end of the centre-bar A, where they are connected by a smaller rod, E, which is hinged to both of the former rods.

On the centre-beam A is a forked standard, F, in which a bar, G, is pivoted at any height on the same desired, by means of a bolt and nut passing through holes on the standard and on said bar. The other end of the bar G is bent, and surrounds the connecting-rod E.

A lever, H, is secured to the bar G, so that by turning said lever backward or forward, the side-bars are pressed outward or drawn in, as may be desired.

A bent bar, I, is secured at one end to the centre-bar A, and at the other end to the handles J J of the cultivator, which in their turn are also firmly secured to the said centre-bar, by braces K K, and this bent bar I being notched, as seen in the drawings, the lever H may be placed in any of these notches, thus adjusting the side-bars B B at any angle desired.

To the lower sides of the side-bars B B, as well as to the centre-beam A, any number of plowshares L L may be secured, by means of plow-beams or shins M M and braces N N. But I design making mine with five points, one in the centre, on the centre-beam, and two on each side thereof, on the side-bars.

The depth of the cultivator is regulated by the wheel O, which turns on a shaft or axle, said axle having its bearings in two semicircular bars P P, which are pivoted at one end, one on each side of the centre-bar A, at a suitable distance from the front end, and at the other, may be adjusted to any height desired, at the front end of the centre-beam, by means of bolt and nut passing through the same.

It will be seen that by raising or lowering the front ends of the semicircular bars P P, the wheel O is placed at a greater or less distance from the centre-beam A, thus regulating the depth at which the plowshares L L will work in the ground.

Having thus fully described my invention,

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

The arrangement of the side-bars B B, rods D D and E, standard F, bar G, lever H, and bent notched bar I, all as shown and described.

In testimony that I claim the foregoing, I have hereunto set my hand, this 31st day of August, 1863.

JOSEPH MILLARD.

Witnesses:

GEORGE BEE,
JOHN A. BROWN.