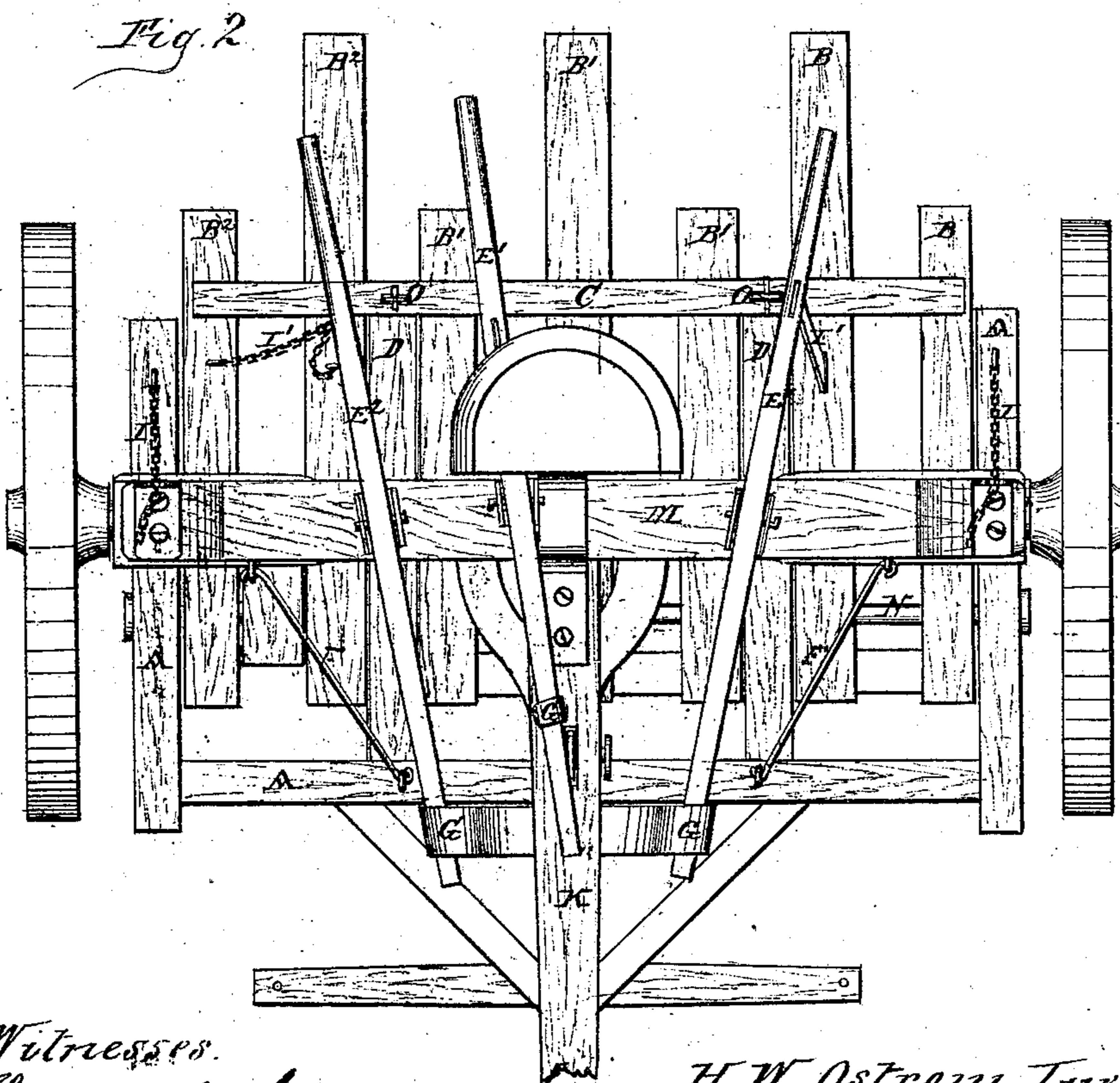
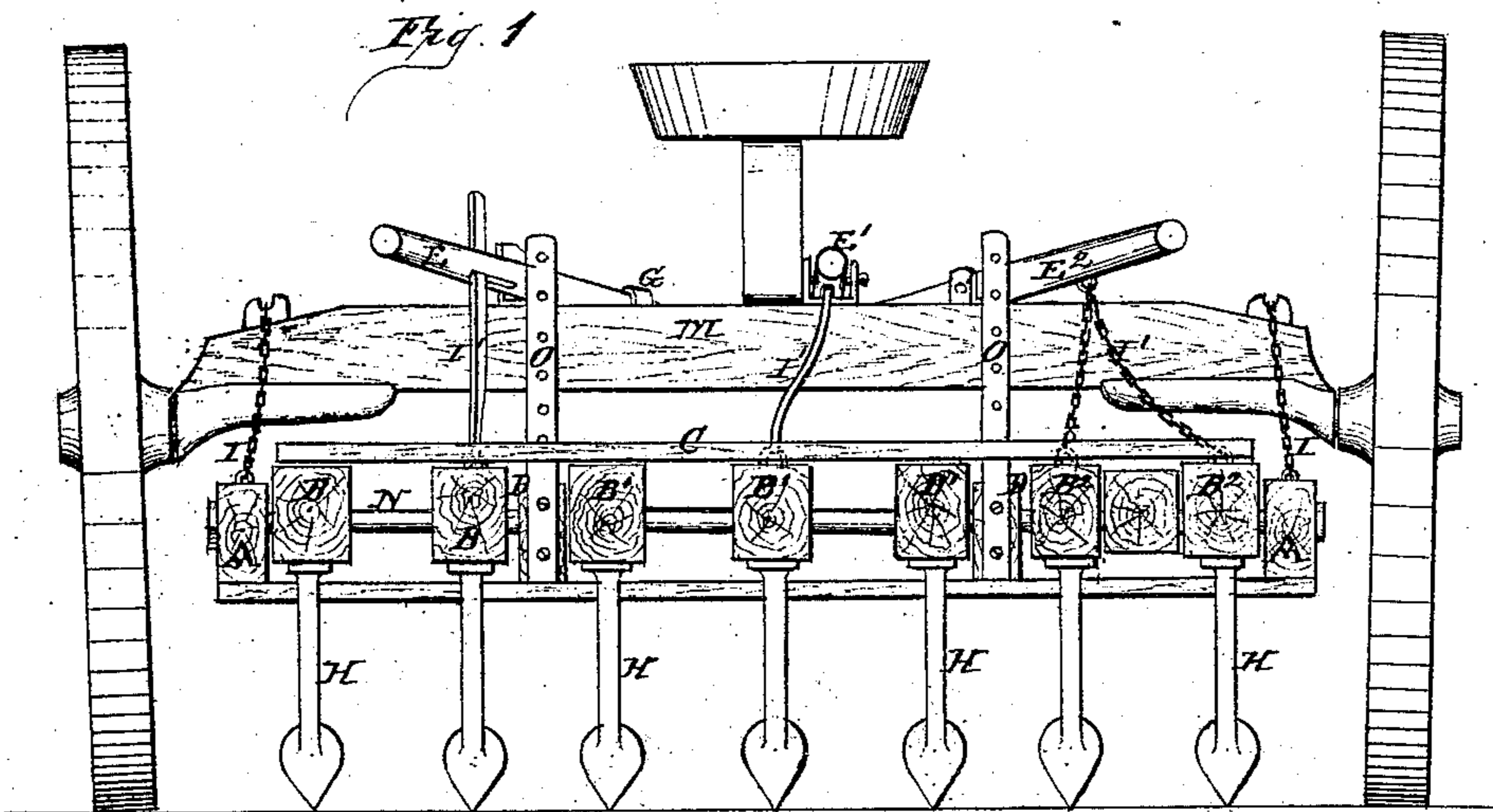


H. W. OSTROM.  
Wheel Cultivator.

No. 103,918.

Patented June 7, 1870.



Witnesses.  
Henry M. Smith  
E. R. Brown

H. W. Ostrom, Inventor  
by Alex. A. b. Klauke & Co.  
his Attorneys.

# United States Patent Office.

HENRY W. OSTROM, OF GRAND RAPIDS, MICHIGAN.

*Letters Patent No. 103,918, dated June 7, 1870.*

## 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, HENRY W. OSTROM, of Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Improvement in Cultivators and Gang-Plows; and I do hereby declare the following to be a full and correct description of the same, sufficient to enable others skilled in the class to which my invention appertains to understand the same, reference being had to the accompanying drawings which make part of this specification, and in which—

Figure 1 is a rear elevation of my improved cultivator, and

Figure 2 is a plan view of the same.

The nature of my invention consists in the arrangement of an independent cross-bar, which may be adjusted higher or lower to prevent the sections from being thrown up violently by the unevenness of the ground, and to afford a bearing for the section beams when operating; also, in the arrangement of the various parts of the cultivator.

A A in the drawings represent a strong square frame, through the sides of which passes an iron rod or bar, N, to which the several sections B B, B<sup>1</sup> B<sup>1</sup>, and B<sup>2</sup> B<sup>2</sup>, of plow-bars are pivoted. These bars carry at their free ends cultivator-teeth or plows H, and each section of bars is connected by means of chains I' to its levers E E<sup>1</sup> E<sup>2</sup>, respectively, which levers are pivoted to the axle-tree M, in any suitable manner, their free ends converging toward each other, and held, when desired, by catches G, secured upon the tongue K.

Upon the rear of cross-bars D of frame A are secured supports or standards O, which pass through a cross-bar, C, situated across the ends of bars B. This cross-bar C can be adjusted higher or lower on the standards O.

I are chains attached to the frame A for the pur-

pose of raising or lowering the same, catches on the axle-tree holding the chains.

The bars B B<sup>1</sup> B<sup>2</sup> are alternately shorter and longer, as shown.

Rods F hold the front end of the frame A to the axle.

By arranging the plow-bars in sections which can be elevated or lowered independently from each other, I am enabled to use my machine either as a cultivator or as a gang-plow. When used as a cultivator, the levers E are removed from under the catches G, which allows the three sections of cultivator-teeth to drop on the ground, the bar C being adjusted to the proper and desired height on standards O. When used as a gang-plow, two sections are elevated by placing their levers under their catches G, and leaving one of the sections down, changing the cultivator-teeth to suitable plowshares. Either of the sections be used as a gang-plow, according to the ground to be gone over.

Having thus described my invention,

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

1. The independent cross-beam C, arranged adjustably on the standards O, substantially as and for the purposes set forth.

2. The combination of the sections of plow-beams B B<sup>1</sup> B<sup>2</sup>, levers E E<sup>1</sup> E<sup>2</sup>, chains I', catches G, on tongue K, standards O, cross-beam C, and chains I, all arranged in frame A, to operate as herein described and shown.

Signed at Hamilton, Ontario, Canada, on the 16th day of August, A. D. 1869, in presence of—

HENRY W. OSTROM.

Witnesses:

JOHN H. YOUNG,  
F. M. BLAKE.