

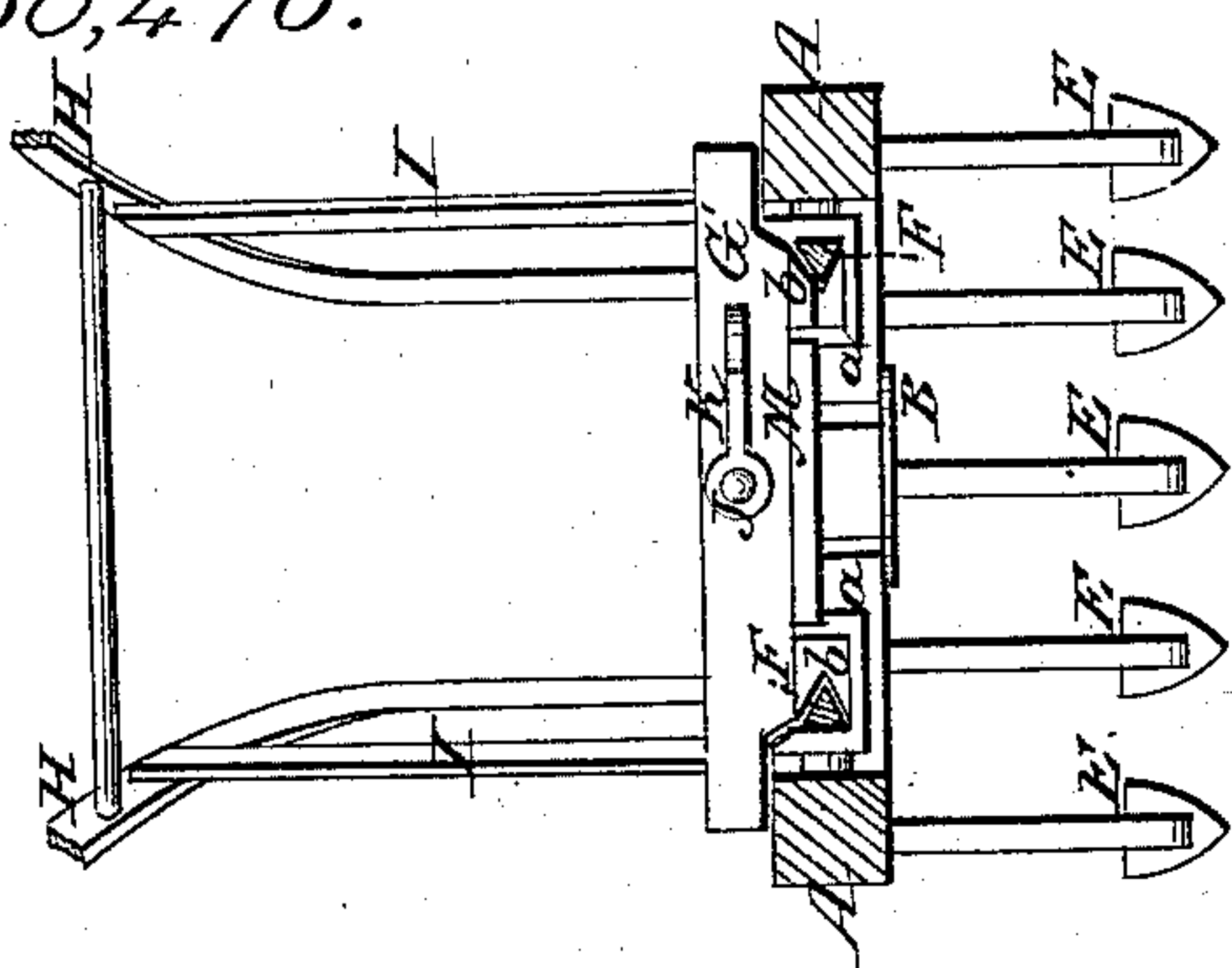
*J. H. Reiner*

*Cultivator.*

*N<sup>o</sup> 58,476.*

*Patented Oct. 2, 1866.*

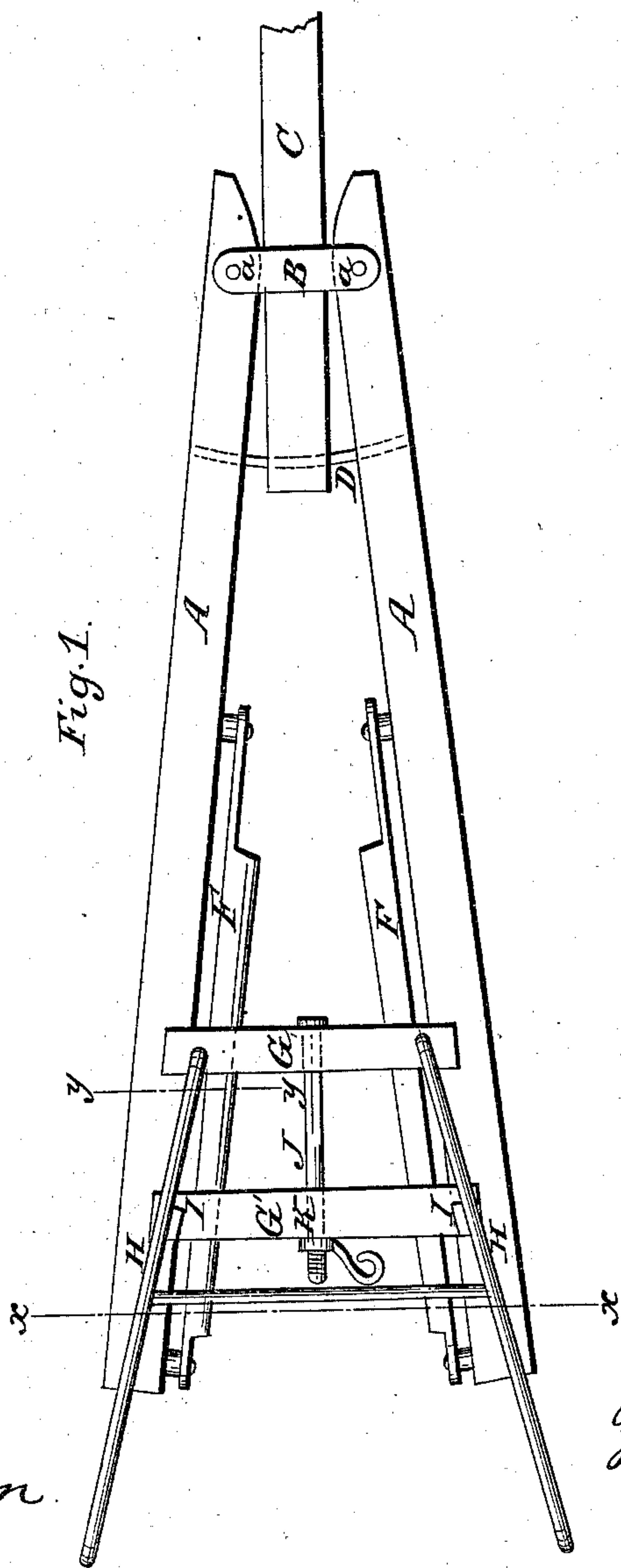
*Fig. 2.*



*Fig. 3.*



*Fig. 1.*



Witnesses

*F. A. Jackson*  
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Inventor

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# UNITED STATES PATENT OFFICE.

JACOB K. REINER, OF LINE LEXINGTON, PENNSYLVANIA.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 58,476, dated October 2, 1866.

*To all whom it may concern:*

Be it known that I, JACOB K. REINER, of Line Lexington, in the county of Montgomery, State of Pennsylvania, have invented a new and Improved Cultivator; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan or top view of my invention; Fig. 2, a transverse vertical section of the same, taken in the line *x x*, Fig. 1; Fig. 3, a transverse vertical section of a portion of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a new and improved cultivator of that class which are provided with adjustable or expanding beams to admit of the latter being adjusted to suit the width of the spaces between the rows of plants.

The invention consists in the novel means employed for adjusting the beams, as hereinafter fully shown and described, whereby said adjustment may be made with facility, and the beams firmly retained in position as adjusted.

A A represents the two beams of the cultivator, the front ends of which are connected by one or more links B, the latter being connected by pivot-bolts *a* to the former, as shown clearly in Fig. 1. C represents a draft-bar, which is fitted between the front ends of the beams A A, and has a curved or segment rod, D, passing through its rear end, the ends of the rod D being fitted in the beams A A.

To the beams A A cultivator-teeth E are attached, of the ordinary or any proper form, and to the inner side of each beam A a metal bar, F, is attached. These bars extend out a little way from the beams A A, and they are made of slightly-taper form, gradually increasing in thickness from their rear to their front ends, as shown clearly in Fig. 1.

G G' are the wooden bars, placed transversely on the beams A A parallel with each other. The front bar G has the lower ends of the handles H H attached to it, and these handles are braced by rods I I from the rear bar G'.

J is a screw, the front end of which is at-

tached centrally to the front bar G, said screw passing through the rear bar G', and having a thumb-nut, K, on its outer end.

To the under side of the front bar G there is attached a metal bar, L, having an eye, *a*, at each end of it, and through these eyes *a* the bars F F pass, the eyes being fitted loosely on said bars.

To the under side of the rear bar G' there is attached a metal bar, M, having a notch, *b*, at each end, to receive the bars F F, as shown in Fig. 2.

From the above description it will be seen that by moving the bars G G' forward, the beams A A will be expanded or spread apart, and by drawing said bars backward the beams will be drawn toward each other; and when the beams are adjusted the required distance apart they are secured in position by screwing up the nut K, which causes the bar M to bear or press against the metal bars F F. By this means the beams and handles will be firmly secured in position.

The bars F F are made of taper form, in order to admit of the bar M binding or pressing against them by a very short movement of the rear bar G'. If said bars F were of an equal width throughout, the bars G' would require to be moved quite an appreciable distance to lock the bars G G', and that would affect the inclination of the handles H, which should be about at the same angle at all times.

I do not claim, broadly, a cultivator provided with adjustable or expanding beams, for they are an old and well-known device; but

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

The bars G G', having the handles H H, attached and connected by the screw J, provided with the nut K, in combination with the bars F F, attached to the inner sides of the beams A A, and passing through eyes *a* at the end of a bar, L, secured to the under side of the front bar G, with the clamp-bar M attached to the under side of the rear bar G', all arranged substantially as and for the purpose set forth.

The above specification of my invention signed by me this 3d day of August, 1866.

JACOB K. REINER.

Witnesses:

WM. E. EWING,  
A. H. DELP.