

(No Model.)

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W. W. SNYDER, executor of J. R. RUDE, deceased.  
WHEEL CULTIVATOR.

No. 321,399.

Patented June 30, 1885.

Fig. 1.

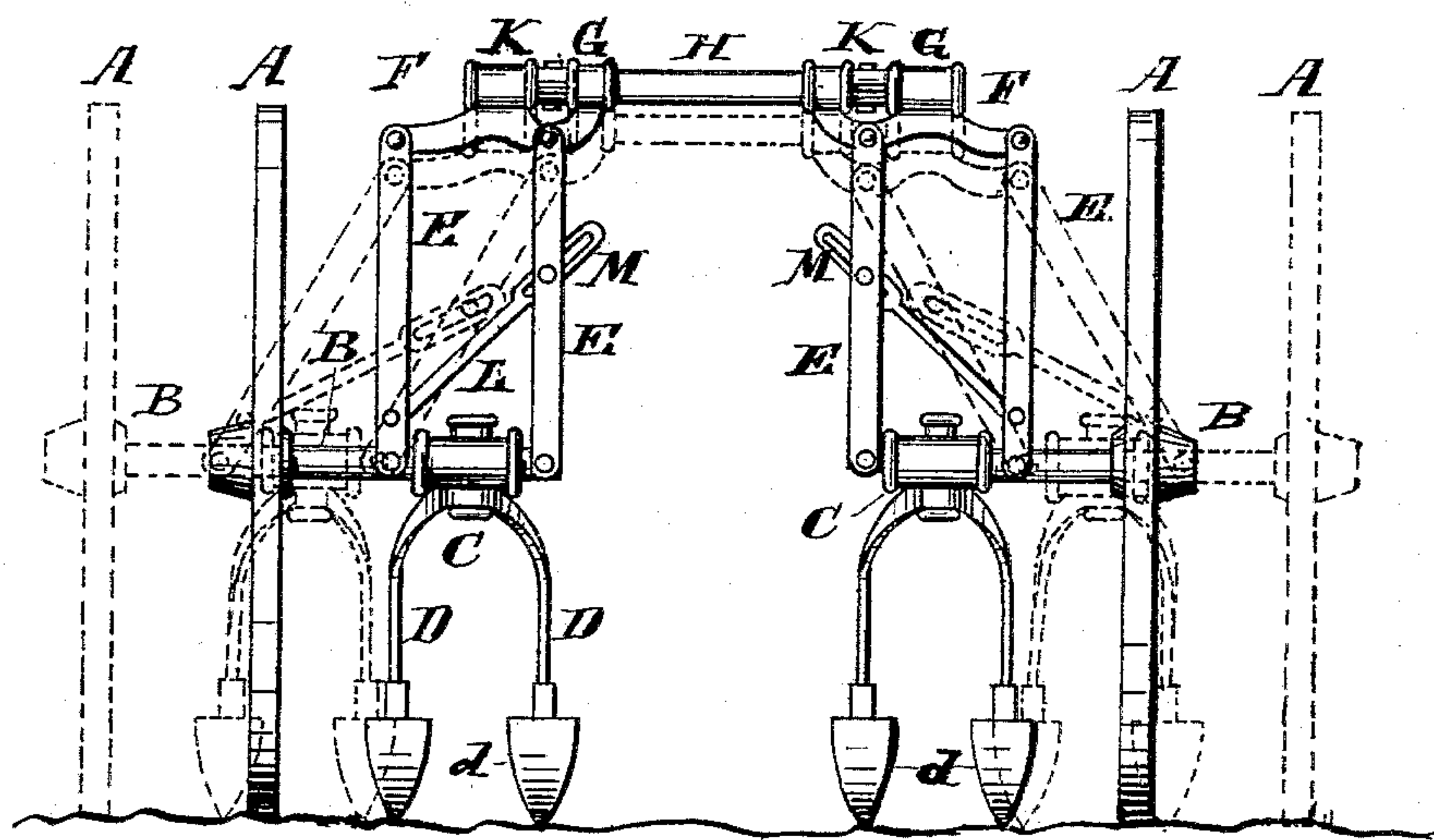
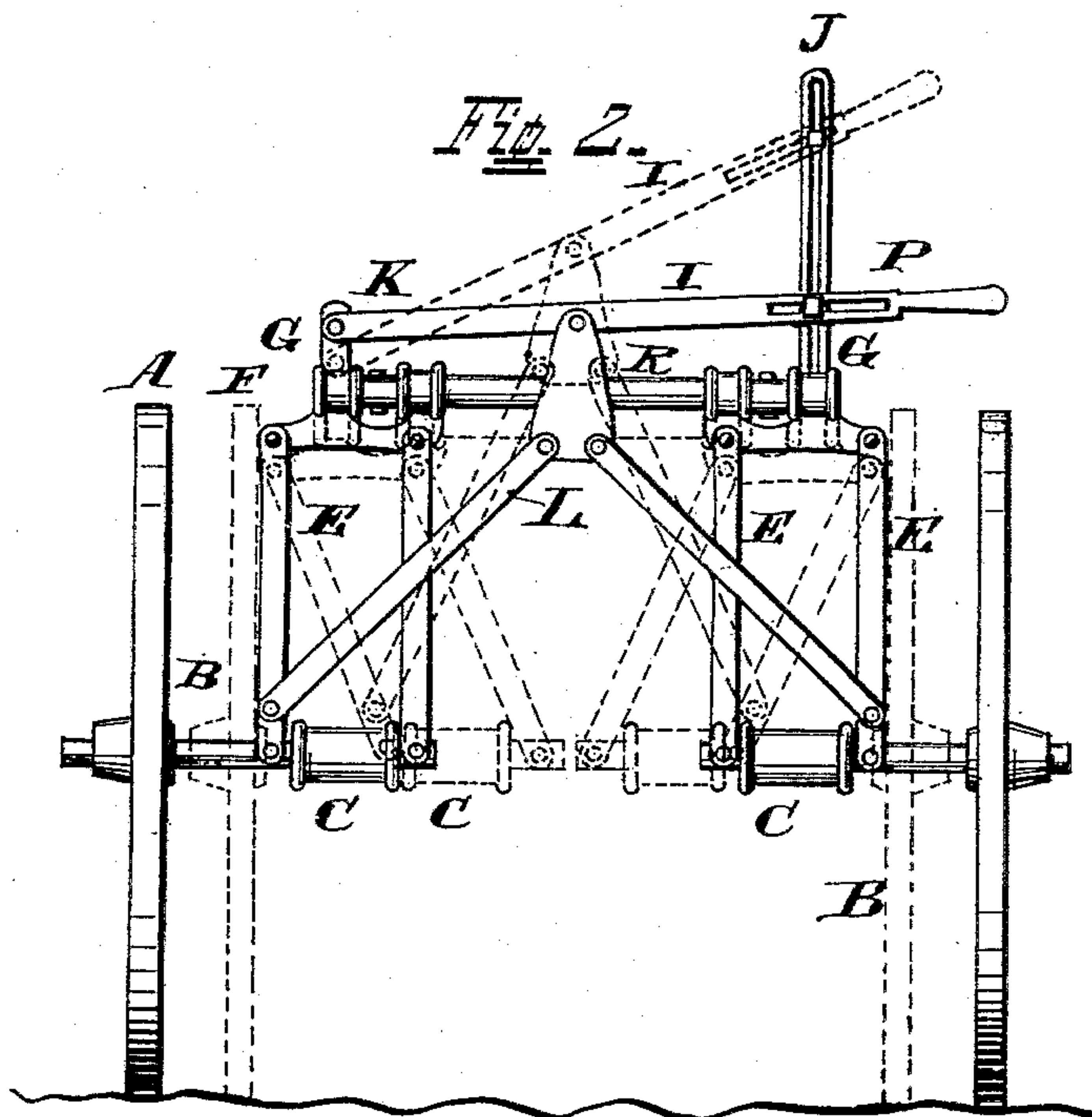


Fig. 2.



Attest  
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# UNITED STATES PATENT OFFICE.

HORACE G. SWOPE AND WILLIAM W. SNYDER, (EXECUTOR OF JOHN R. RUDE, DECEASED,) OF LIBERTY, INDIANA, ASSIGNORS TO THE RUDE BROTHERS MANUFACTURING COMPANY, OF SAME PLACE.

## WHEEL-CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 321,399, dated June 30, 1885.

Application filed February 9, 1885. (No model.)

*To all whom it may concern:*

Be it known that HORACE G. SWOPE, a citizen of the United States, residing at Liberty, in the county of Union and State of Indiana, and JOHN R. RUDE, (deceased,) formerly of Liberty, in the county and State aforesaid, did invent certain new and useful Improvements in Wheel-Cultivators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an improvement in adjustable frames or arches for wheel-cultivators in which two gangs or sets of cultivator shoes or shovels are carried by wheels and arranged to straddle the row of corn to be cultivated, and in which it is often necessary to adjust the shovels laterally on either side of the row, so as to bring them nearer together or place them farther apart.

It consists of two sets of parallel bars pivoted at their lower ends to the short axles of the supporting-wheels, and at their upper ends to a transverse bar, each set of parallel bars being connected or controlled by a cross-rod pivoted to one bar at or near its end and capable of being moved to adjust the two sets of parallel bars at any angle to one another; also, in a lock-lever so connected with the cross-rods which control the parallel bars that the lever may be used to adjust and lock the parallel bars and cultivators in any desired position.

In the accompanying drawings, Figure 1 is a front elevation of our improved cultivator-frame without the lever or yoke. Fig. 2 is a front elevation of the same with the lever and yoke.

The same letters of reference are used to indicate identical parts in all the figures.

A A are the wheels of an ordinary wheel-cultivator.

B B are short axles, upon which the wheels A A turn. On these axles are carried the knuckles C C, to which the beams of the cultivators D D, Fig. 1, are attached.

d d are the cultivator-shovels arranged in the usual way, one a little in the rear of the other.

To each axle B are pivoted two or more

parallel bars, E E, so as to swing laterally. The upper ends of these bars are also pivoted to the castings F F, which are fastened to the spools G G on the transverse bar H; or the parallel bars may be pivoted direct to the transverse bar H.

K K are small castings or clamps on the bar H, provided with set-screws k, by which the spools G G, which are loose on the bar H, may be adjusted at any point and held in place.

Near one end of the parallel bars E E, preferably the lower end of the outer bars, as shown in the drawings, are pivoted the cross-rods L. These cross-rods L connect the parallel bars together and stand at an angle to both. They are provided with slots which fit over bolts at M, Fig. 1, on the bar, to which they are not pivoted. These bolts are provided with nuts, by which the rods L may be fastened rigidly at any point. Any convenient form of set-screw may be used for these bolts.

To adjust the cultivators nearer together, the rods L are drawn up on the bolts M, when they bring the frame into the position shown by the dotted lines, Fig. 2, and are there fastened by the bolts or set-screws M. To adjust the shovels farther apart, the cross-rods L are pushed down into the position shown by the dotted lines in Fig. 1. Each set of bars E E, being pivoted at both ends, as shown, remain always parallel, and permit almost any lateral adjustment of the shovels or frame of the cultivator, and may be rigidly fastened in any desired position.

In addition to the adjustable arch or frame a lever may be used for operating and controlling it. This lever is shown in Fig. 2.

At one end of the transverse bar H, either to one of the spools G or to the rod itself, is fulcrumed a lever, I. At the other end of the bar H is an upright support, J, having a longitudinal slot. The lever is also provided with a similar slot, and is attached to the standard J by a bolt or set screw, P, which passes through both slots, and by which the lever I may be rigidly attached to the standard J at any point.

Near the middle of the lever I is pivoted a



yoke, R, of any convenient shape, to the lower end of which are pivoted the upper ends of the cross-rods L. When the lever is used for adjusting the arch, as in Fig. 2, these cross-rods L are not attached to both parallel bars E, but only pivoted to one of them. As the lever I is moved upward to the position shown by dotted lines in Fig. 2, the rods L are drawn up and the arch is contracted and the cultivators drawn together. Moving the lever downward, of course, expands the arch and throws the cultivators apart. It is not necessary to use the yoke R, as the rods L may be connected to the lever in any convenient manner, a yoke being the most convenient.

Having thus fully described our invention, we claim—

1. In an adjustable frame or arch for wheel-cultivators, two sets of parallel vertical bars pivoted at one end to the short axles and at the other to a transverse bar, in combination with cross-rods for setting and locking the parallel bars in any desired position, substantially as described.

2. In an adjustable arch for wheel-cultivators, the parallel vertical bars E E, with cross-bars for locking the parallel bars in any desired position with the adjustable spools G G, substantially as and for the purpose specified.

3. In an adjustable frame for wheel-cultivators, two sets of parallel vertical bars pivoted to the short axles, and a transverse bar, with cross-bars pivoted to a yoke arranged to be operated by a lever for adjusting the cultivators laterally and locking them in any desired position, as and for the purpose specified.

4. In an adjustable frame for wheel-cultivators, the slotted lever I and yoke R, in combination with the slotted standard J and set-screw P, substantially as and for the purpose described.

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Witnesses:

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ARTHUR STERN.