

(No Model.)

N. P. & J. W. LEHR.
CULTIVATOR.

No. 364,943.

Patented June 14, 1887.

Fig. 1.

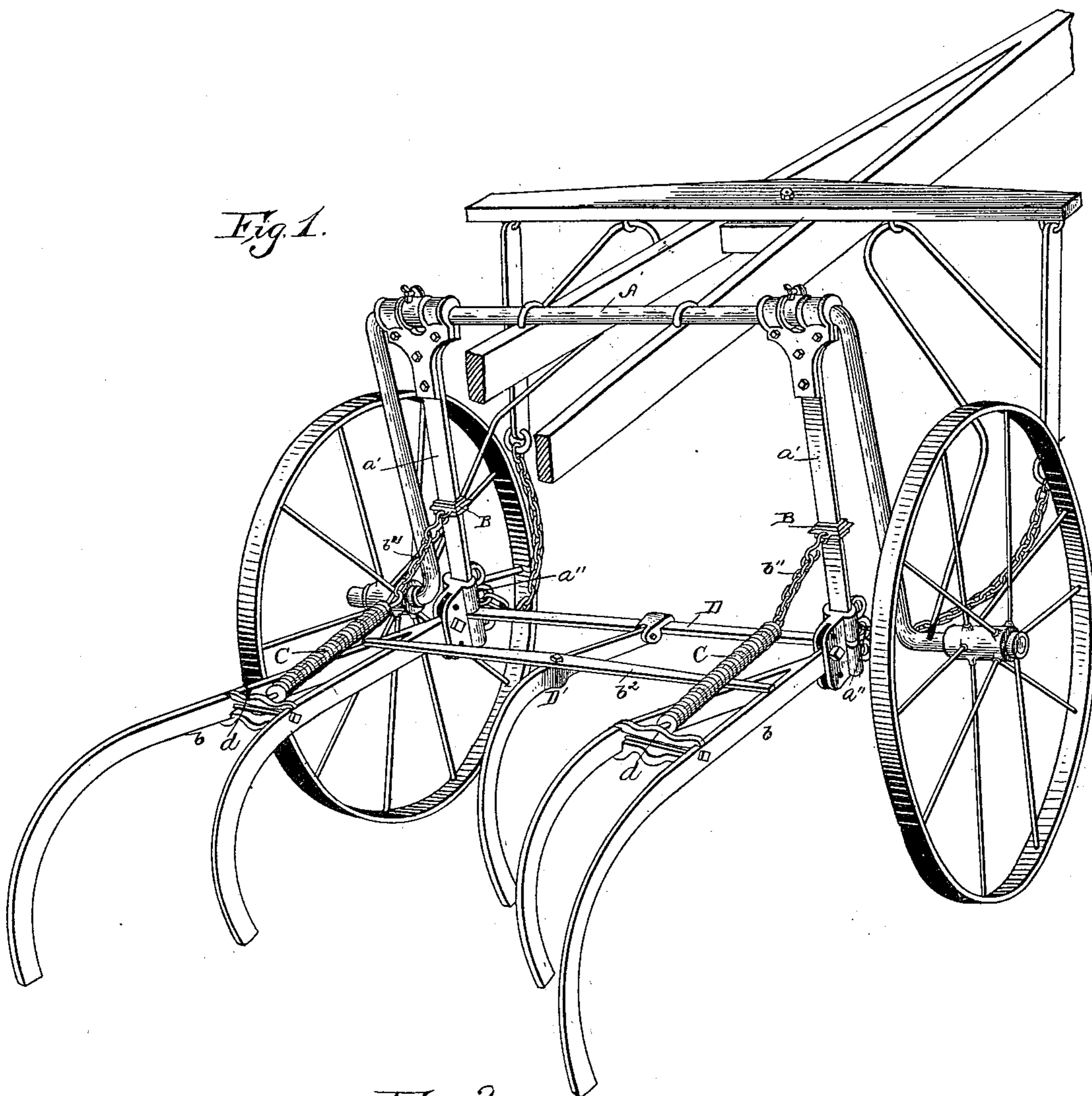
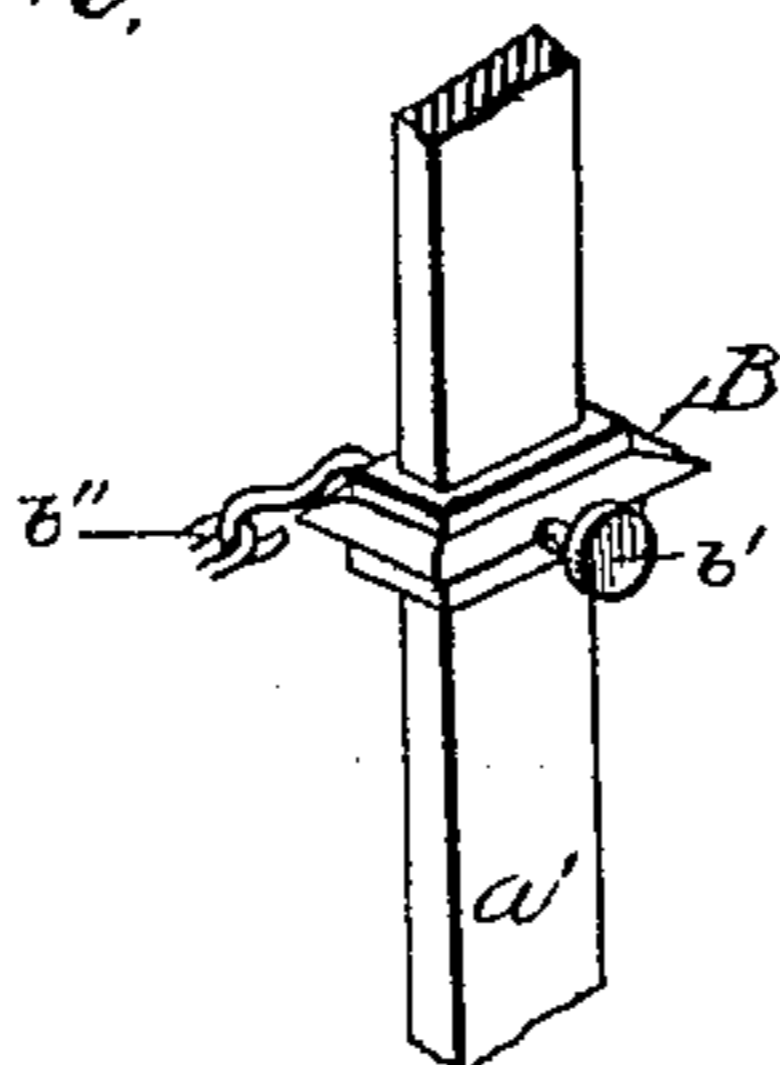


Fig. 2.



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NICHOLAS P. LEHR AND JOSEPH W. LEHR, OF FREMONT, OHIO.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 364,943, dated June 14, 1887.

Application filed March 29, 1887. Serial No. 232,886. (No model.)

To all whom it may concern:

Be it known that we, NICHOLAS P. LEHR and JOSEPH W. LEHR, citizens of the United States of America, residing at Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Cultivators, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention pertains to certain new and useful improvements in cultivators; and it consists in the detailed construction, combination, and arrangement of the parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of our invention, and Fig. 2 is an enlarged detail thereof.

The object of this invention is, first, to provide means for regulating the tension of the spring secured to the plow-standards according to the depth of penetration desired to be obtained, and, secondly, for the employment of a central supplementary plow standard and shovel for attaining a perfect central draft.

In carrying out our invention to accomplish the above object, we secure to the upper horizontal part of a cultivator axle or frame, A, the upper-sleeved ends of the swinging hangers a' , composed each of a single, double, or slot-
bar, as may be desired, said ends of hangers being held as against lateral movement by means of thumb-screws passed through suitable collars, as shown. On the lower bolt-like end of each of these hangers is secured a clevis, a'' , to which is attached the forward united ends of cultivator-shovel standards b , which will be referred to farther on.

B B are sleeves slipped on the approximately-vertical portions of the hangers a' , and held at any desired point thereon by set screws b' , working through the sides of said sleeves and bearing against the said hangers, or said sleeves can be secured by means of clamps or small cams in lieu of set-screws, if preferred. To each of these sleeves is connected one end of a chain, b'' , connected at its other end to a coil-spring, C, attached to a cross-bar, d , secured between any two of the shovel-standards, as shown. A horizontally-disposed cross-bar, D, is secured on the bolt-like ends of the hang-

ers a' , through an aperture in the body of the clevises a'' , said bar having an aperture in each end, through which said bolt-like ends are passed. To the center of this horizontally-disposed bar D is secured, by a joint-like connection, the forward end of a central cultivator-shovel standard or beam, D' , which is additionally secured or held in position by a cross-bar, b^2 , attached thereto, and to the cultivator-shovel beams, as shown. By this construction and disposition of parts a perfect central draft is attained in connection with the two or three shovel-standards disposed on either side of said central standard, D' .

From what has gone before it will be seen that by means of the thumb-screws of the sleeves B the latter can be adjusted and secured at any desired point on the hangers, according as it may be desired to regulate the depth of penetration of the cultivator shovels by tightening or loosening the tension of the coil-springs attached to said standards.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination, with the vertical hangers, the cultivator-shovel beams secured thereto, and the springs connected to said beams, of the adjustable sleeves fitted on said hangers, having projecting hooks on one side thereof, and the set-screws working in the opposite sides of said sleeves and bearing against said hangers, substantially as shown and described.

2. The combination, with the vertical hangers, the cultivator-shovel beams, and the clevises secured on said hangers, of the horizontally-disposed cross-bar secured on the lower ends of said hangers in apertures of said clevises, and the central cultivator-shovel standard having a joint-like connection with said cross-bar, substantially as shown and described, said central standard being additionally held in position by a second cross-bar, as shown.

In testimony whereof we affix our signatures in presence of two witnesses.

NICHOLAS P. LEHR.
JOSEPH W. LEHR.

Witnesses:

GEO. KINNEY,
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