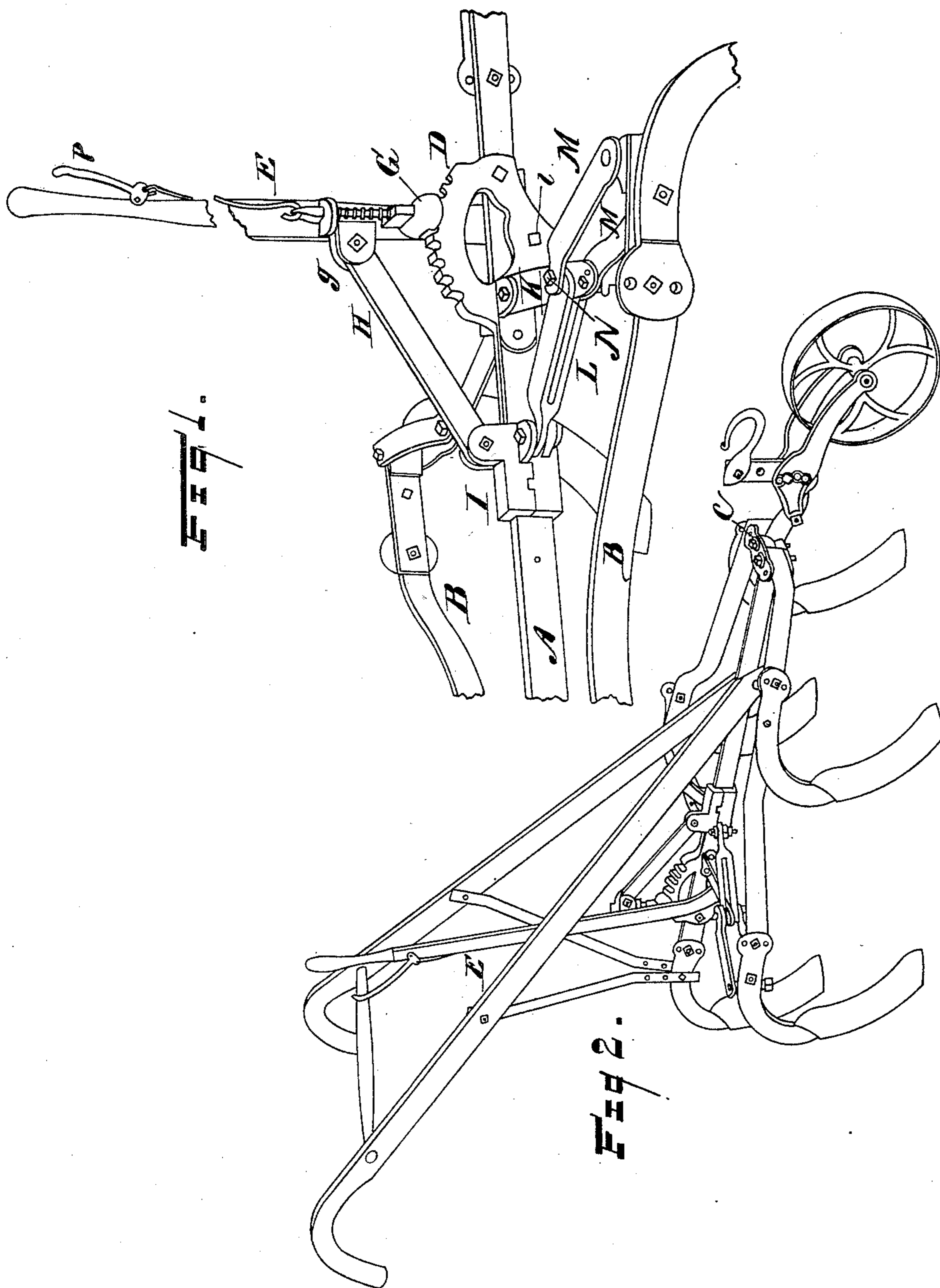


(No Model.)

C. E. BEMENT.
CULTIVATOR.

No. 462,294.

Patented Nov. 3, 1891.



WITNESSES
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UNITED STATES PATENT OFFICE.

CLARENCE E. BEMENT, OF LANSING, MICHIGAN.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 462,294, dated November 3, 1891.

Application filed December 1, 1890. Serial No. 373,179. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE E. BEMENT, a citizen of the United States, residing at Lansing, in the county of Ingham and State of Michigan, have invented a new and useful Improvement in Cultivators, of which the following is a specification.

This invention relates to cultivators. Its object is a device by means of which the operative width of a cultivator may be readily and easily adjusted, and held in adjustment. I apply this device particularly to an iron-frame cultivator consisting of a middle bar and two side bars, each of which is hinged to the middle bar near the forward end of the middle bar.

In the drawings, Figure 1 shows in perspective the complete cultivator. Fig. 2 shown an enlarged detail of the adjusting device.

A represents the middle bar, and B B the side bars hinged to the middle bar at C. Near the rear end of the middle bar I bolt a toothed arc D. To the center of the arc D is bolted a handle E, the bolt *e* forming a hinge upon which the handle turns. On the handle above the toothed arc is a spring-controlled ratchet G and a lug *g*, to which is hinged a link H, extending forward to and hinged to a sliding saddle I. To the toothed rack D is hinged a link K, that reaches sidewise to a point between the middle bar A and the side bar B. To the side of the sliding saddle I is hinged a second link L, extending sidewise to the same point, and to the rear of the side bar B is hinged a third link extending in to the same point. The three links K L M meet at the same point and are there hinged together by a single bolt, which passes through all of them. In order to make a firm hinge at this point, I form one, as K, of a single flat piece of material. Another one, as L, is formed of two pieces, or of one piece forked, so that one of the prongs of the fork L is above and the other is below the link K at the point where the bolt N passes through them. The third of these links M is also formed of two pieces, or of a forked piece, of which one of the prongs is above the sides of L and the other

below at the point where the bolt passes through them. On the opposite side of the bar A is a similar system of links, so that both of the side bars are operated at the same time and in the same way by the movement of the sliding saddle I toward and away from the fixed rack D.

The spring-ratchet G is disengaged from the teeth of the rack D by means of a small hand-lever P, attached to the handle E near the point where the handle E is grasped by the operator. The motion of the handle E around its center changes the location of the saddle I, and at the same time throws the hinge N in or out from the middle bar A, and through the link M throws the side bar B toward or away from the middle bar A, thus varying the width of the cultivator as may be desired.

By bringing all the links K L M to the same hinge or bolt N, I am able to secure a strong mechanism, and one in which the adjustment of the width of the cultivator is never prevented by the links getting into position such that they brace against each other and require to have the brace broken by the operator using force at the hinge, my spreader operating absolutely without bracing or locking at any point.

Having thus described my invention, what I claim as novel, and desire to have secured to me by Letters Patent, is—

The combination, with a cultivator having a central bar and two side bars hinged to it, of a toothed rack fast to the central bar, a saddle sliding on said bar, a spring-lever hinged to said rack and linked to the said saddle, and a system of three links, one of which is hinged to said rack, one of which is hinged to said saddle, and one of which is hinged to the side bar of the cultivator and all meeting at a common point, substantially as and for the purpose described.

CLARENCE E. BEMENT.

In presence of—

J. H. WARDWELL,
A. F. MOLETOR.