

No. 612,964.

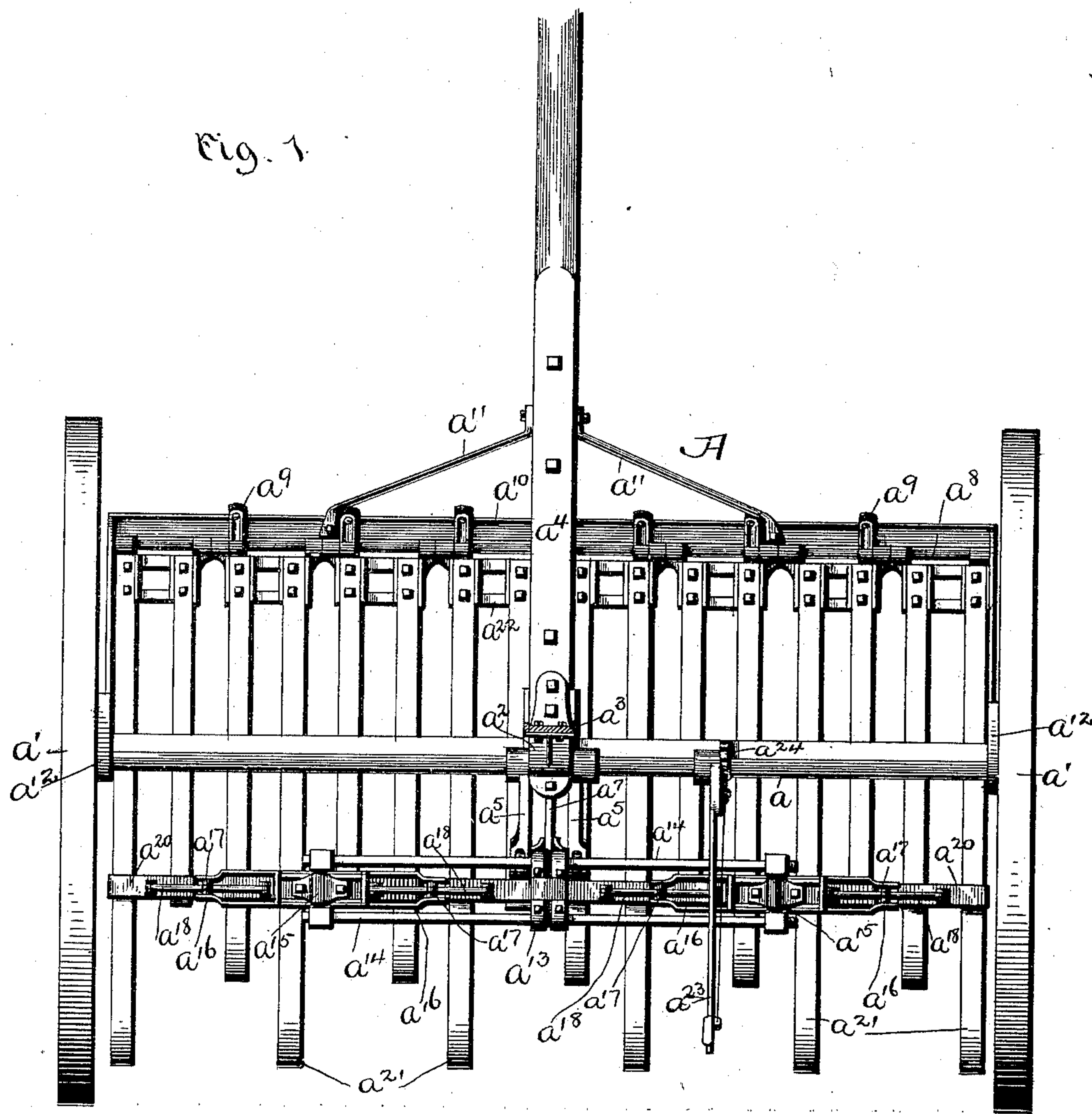
Patented Oct. 25, 1898.

E. DORÉ.
CULTIVATOR.

(Application filed Nov. 23, 1897.)

(No Model.)

3 Sheets—Sheet I.



Witnesses:
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Arthur P. Sage

Elgear Doré, Inventor
By *Marion Marion*,
Attorneys

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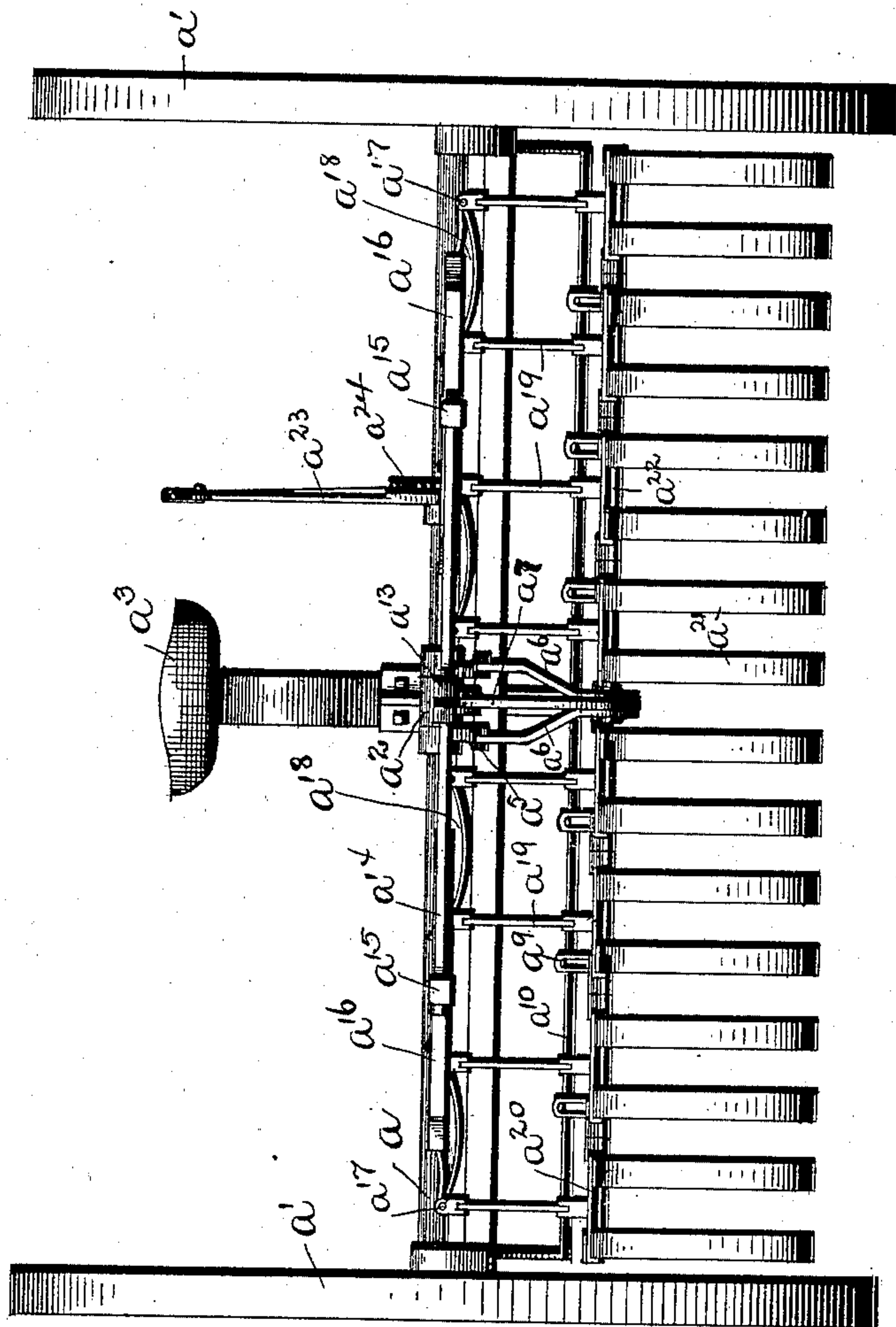
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3 Sheets—Sheet 3.

Fig. 3.



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UNITED STATES PATENT OFFICE.

ELZEAR DORÉ, OF LAPRAIRIE, CANADA.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 612,964, dated October 25, 1898.

Application filed November 23, 1897. Serial No. 659,586. (No model.)

To all whom it may concern:

Be it known that I, ELZEAR DORÉ, a citizen of the Dominion of Canada, residing at Laprairie, county of Laprairie, Province of Quebec, Canada, have invented certain new and useful Improvements in Cultivators; and I do hereby declare the following to be a clear, full, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in cultivators.

The objects of my invention are to provide a device of this character in which the cultivator-teeth will be held in positive contact with the ground being worked regardless of the topography of the top surface.

A further object is to provide a device in which the teeth are arranged in sections, the sections being connected together, the whole forming a flexible operating-cultivator, the entire number of teeth being under the control of the operator.

A further object is to provide a device in which the depth of furrow can be regulated, and when determined and the teeth set they will remain in the set position.

A further object is to provide a device which will be neat and attractive in appearance, durable in construction, and which is simple in its operation.

To these ends my invention consists in the improved construction and combination of parts hereinafter fully described, and particularly pointed out in the claims.

In the drawings, in which similar letters of reference indicate similar parts in all of the views, Figure 1 is a top plan view of my improved cultivator. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a rear view.

A designates my improved cultivator, having the axle a and the usual wheels a' . At the center of the axle a bearing a^2 is mounted, to which the seat a^3 is secured, as best shown in Fig. 2. The bearing a^2 also forms a support for the rear end of the tongue a^4 . Secured to the axle a , on opposite sides of the bearing a^2 , are levers a^5 , the rear ends of which are bifurcated to receive the upper end of links a^6 , pivotally mounted in said bifurcated ends, the lower ends of said links a^6

being pivotally connected to an arm a^7 , the front end of which is pivotally mounted on a rod a^8 , secured at the front end of the cultivator. The rod a^8 is connected by means of suitable straps a^9 with a support a^{10} , extending across the front end of the cultivator and held in position by means of braces a^{11} , secured to said support and the tongue a^4 . The ends of the support a^{10} are bent upwardly and rearwardly and are secured to the axle-bearings a^{12} . It will be apparent that any movement of the axle a will serve to move the levers a^5 , and they in turn by reason of the link connection a^6 will cause a corresponding movement of the arm a^7 at its rear end, the front end being held in pivotal connection with the rod a^8 . The rear end of the arm a^7 is bent upwardly, and to this end is pivotally secured the central bearing a^{13} of the cultivator-teeth-regulating mechanism. On opposite sides of the bearing a^{13} are mounted rods a^{14} , extending laterally therefrom on both sides, the ends of the rod being connected together by means of the pivotal bearings a^{15} . Each of these bearings a^{15} is provided with lateral extensions a^{16} , the ends of which form bearings a^{17} , on which the rocking arms a^{18} are mounted. Pivotaly connected to ends of the rocking arms a^{18} are vertical arms a^{19} , formed of spring-steel, to the lower ends of which are secured the clips a^{20} , adapted to hold two adjoining cultivator-teeth against independent movement and forming sections extending entirely across the width of the cultivator, the number of sections corresponding with the number of vertical rods a^{19} . By this construction it will be seen that the entire series of cultivator-teeth are primarily divided into two portions, the dividing-point being the bearing a^{13} . Each of these two portions is again subdivided into two equal portions and these subdivided portions being again divided into two equal portions, the whole forming a flexible mounting for the teeth, yet each section being governed in its movement by the pivotal bearing connecting the adjoining section with it.

a^{21} designates the cultivator-teeth, the front ends of which are secured to suitable bearings a^{22} , mounted on the rod a^8 . Each bearing a^{22} carries the two teeth forming each section.

The axle a is provided with a suitable lever a^{23} , by means of which the axle is rotated, the lever being held in varying position by means of a pawl engaging suitable notches in the periphery of the segment a^{24} .

The operation will be readily understood, and it is only necessary to state that when the lever a^{23} is pressed downward each section of teeth is forced downward, and when the lever is secured in any one position the teeth will be prevented from rising and will be forced into the ground at an evenly-distributed pressure.

While I have shown the connection between the arm a^8 and the cultivator-teeth-regulating mechanism as being located at the rear, I do not limit myself to this construction, but claim the right to place it at any other portion—as, for instance, by the use of bell-crank levers connected to the lever a^{23} and to the front end of the arm a^8 near the front of the cultivator, thereby having the same movement of the teeth, but with a slightly-differing operating mechanism.

It will be seen that I have provided a cultivator which is accurate in its operation, durable in its construction, of extremely light weight, but powerful in its action.

Having thus described my invention, what I claim as new is—

1. A cultivator comprising an axle; wheels rotatively mounted thereon; a framework pivotally mounted on said axle; cultivator-teeth connected to said framework in sections; pressure-equalizing means connected to and operating said sections; a link connection between said axle and said pressure-equalizing means, whereby a movement of said axle will impart a similar movement to the said means; and means for imparting regulated rotatory movement to said axle, substantially as described.

2. A cultivator comprising an axle; wheels rotatively mounted thereon; a framework pivotally mounted on said axle; cultivator-teeth connected to said framework in sections; a flexible pressure-equalizing frame connected to said sections; a support for said frame; connections between said frame and said axle, for imparting a positive movement to said frame; and means for imparting a rotatory movement to said axle, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ELZEAR DORÉ.

Witnesses:

E. HUNT,
HORACE G. SEITZ.