

(No Model.)

2 Sheets—Sheet 1.

S. S. GERRISH.  
CULTIVATOR.

No. 485,271.

Patented Nov. 1, 1892.

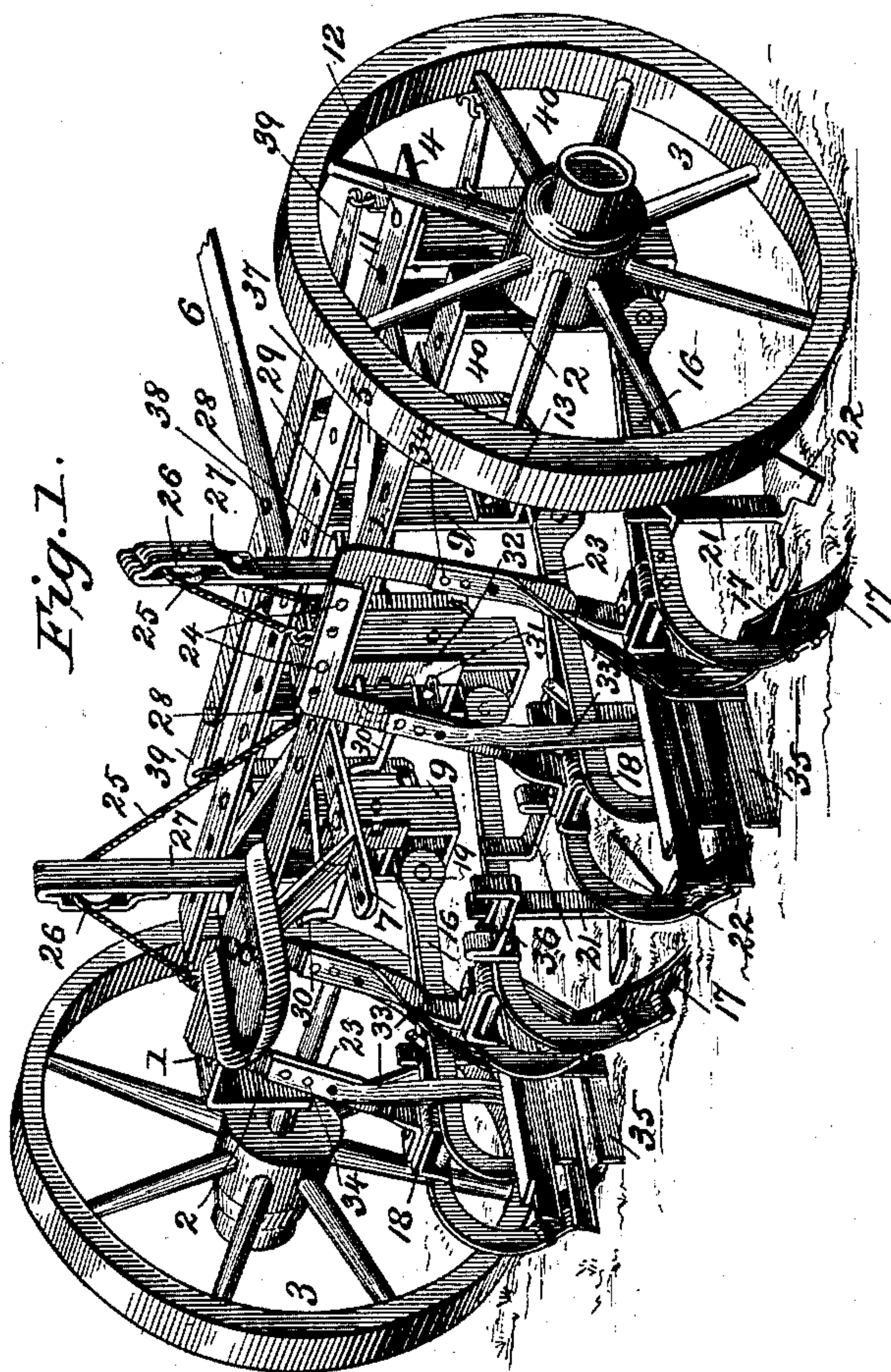
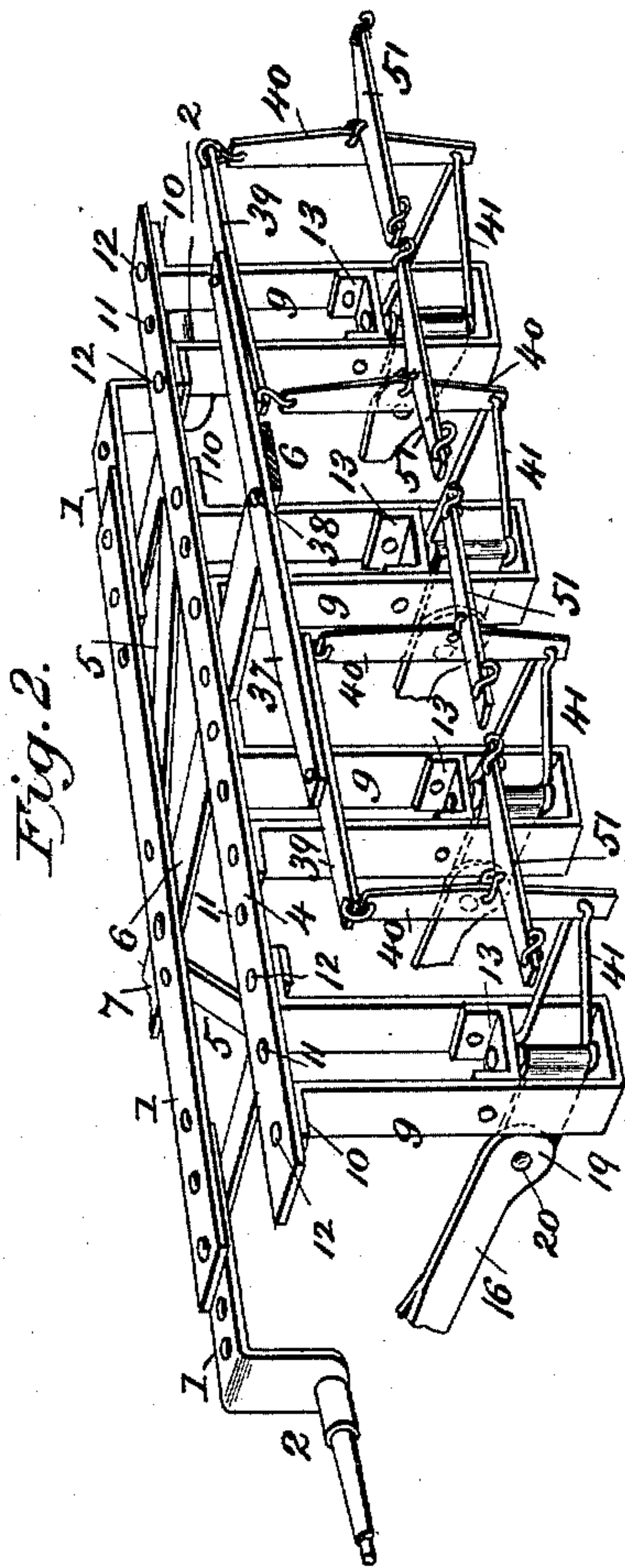
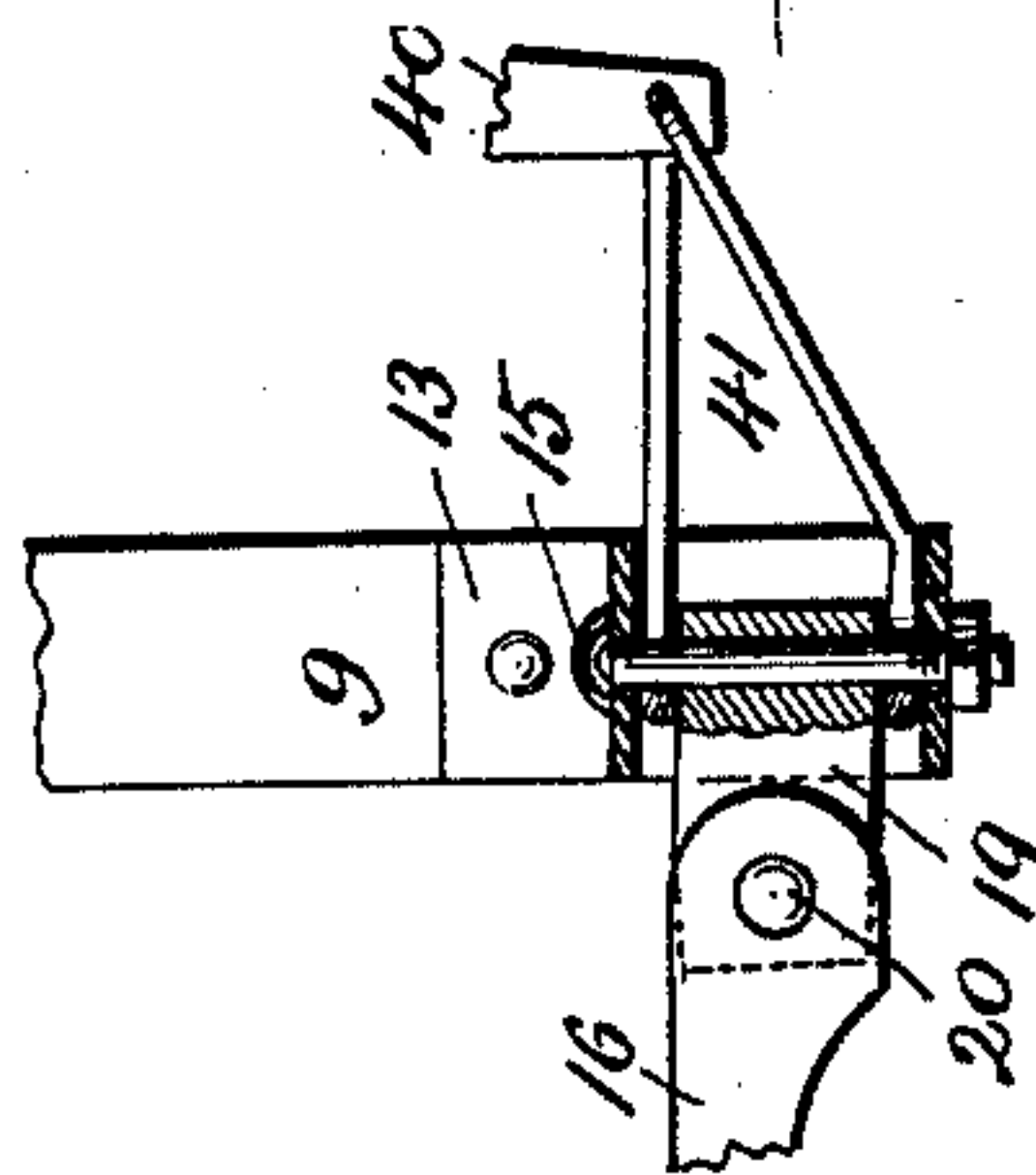


Fig. 3.



Witnesses

John B. Siggers  
Bernice A. Wood

By his Attorneys,

C. A. Snow & Co.

Inventor

S. S. Gerrish

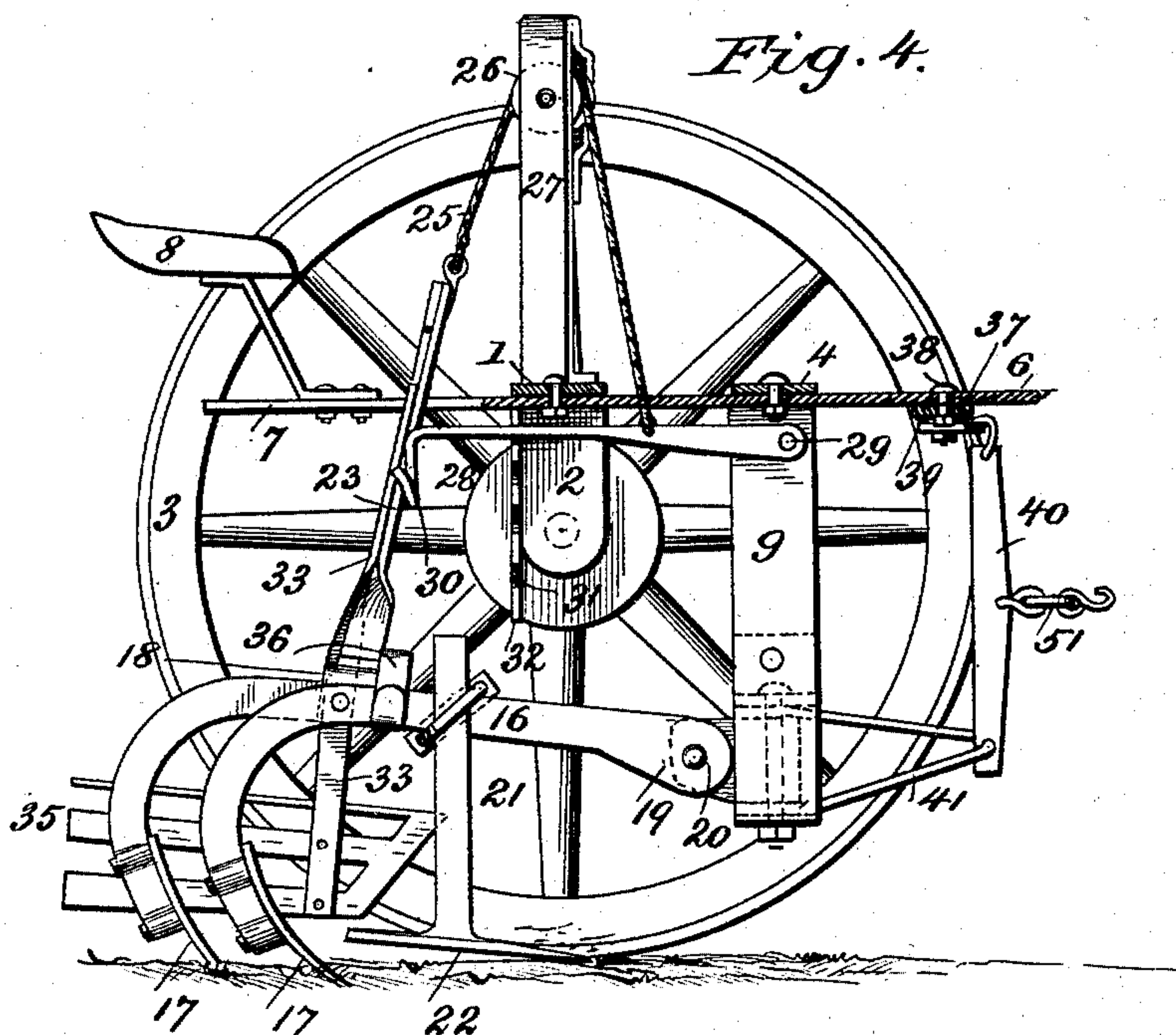
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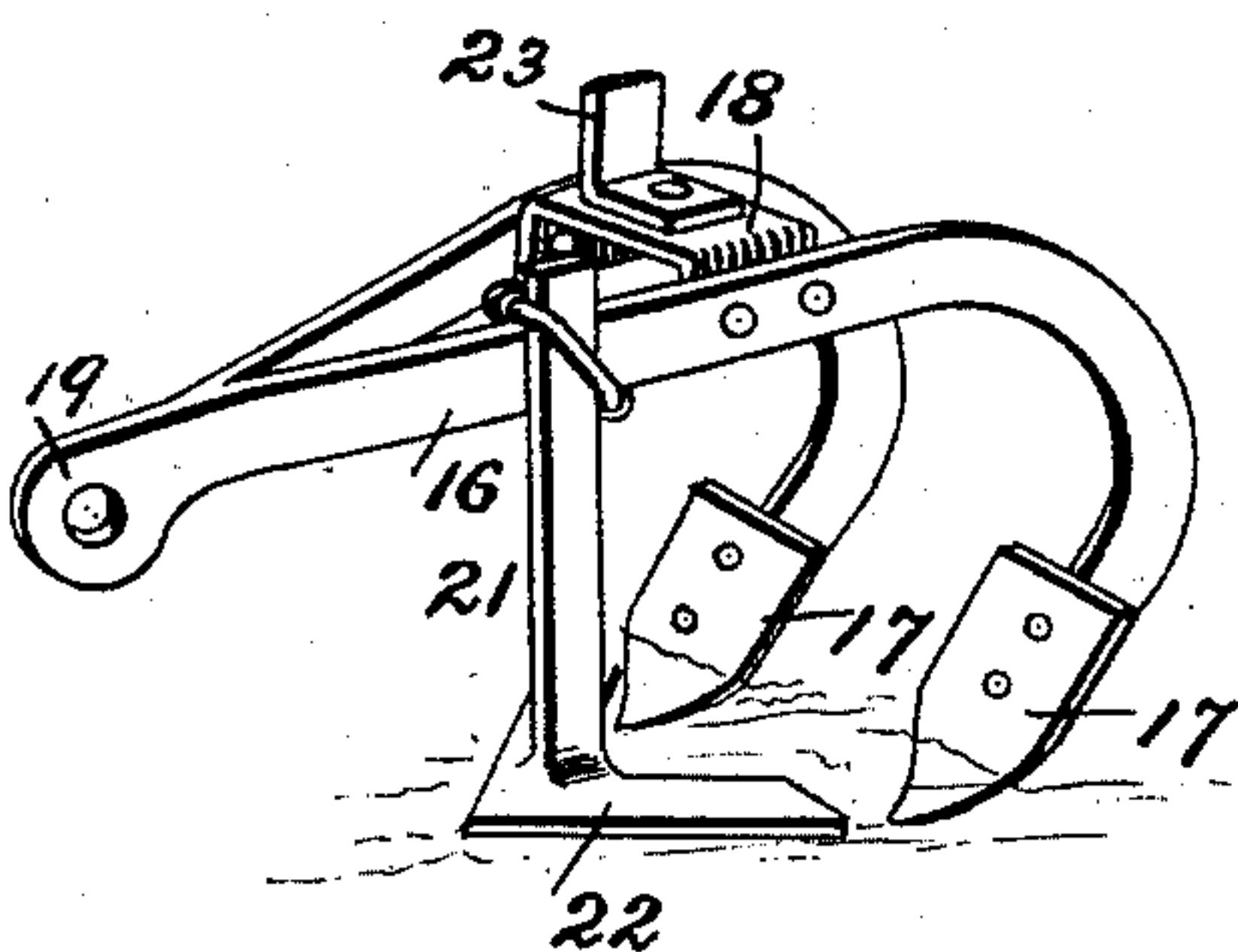
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*Fig. 5*



Witnesses

*John M. Siggers*  
*Bernice A. Hood*

By *his* Attorneys,

*C. A. Snow & Co.*

Inventor

*S. S. Gerrish*



# UNITED STATES PATENT OFFICE.

SAMUEL S. GERRISH, OF WILSONVILLE, NEBRASKA.

## CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 485,271, dated November 1, 1892.

Application filed July 6, 1892. Serial No. 439,119. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL S. GERRISH, a citizen of the United States, residing at Wilsonville, in the county of Furnas and State of Nebraska, have invented a new and useful Corn-Cultivator, of which the following is a specification.

My invention relates to improvements in corn-cultivators, and of that class employed to cultivate simultaneously several rows of corn.

The objects and advantages of my invention, together with the novel features thereof, will hereinafter appear, and be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a rear perspective view of a cultivator embodying my invention. Fig. 2 is a front perspective view, parts being broken away and the wheels removed. Fig. 3 is a detail, in sectional view, of the joint employed between the front ends of the beams and stirrups. Fig. 4 is a vertical longitudinal sectional view of the cultivator. Fig. 5 is a detail of a pair of cultivator-beams employed.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates an arched axle, the extremities of which are provided with depressed bearings 2, which carry ground-wheels 3 transversely opposite each other. A front cross-bar 4 is connected to the axle 1 through the medium of connecting-bars 5 and a draft-tongue 6. A standard 7 extends rearward from the draft-tongue and supports a seat 8 for the accommodation of the driver, who is thus in rear of the machine, and, as will hereinafter appear, thereby has full control of the cultivating mechanism carried by the machine.

From the cross-bar 4 depends a series of (in this instance four) U-shaped stirrups 9, the upper ends of which are laterally bent in opposite directions and perforated, forming securing-plates 10. At intervals the cross-bar 4 is provided with perforations or bolt-holes 11, and into the pairs of these holes and through the perforated securing-plates of the stirrups securing-bolts 12 are passed. By placing these bolts in various pairs of perforations the stirrups may be adjusted different distances apart, all for a purpose here-

inafter to be described. Cross-bars 13 connect the opposite terminals of each stirrup, near the lower end thereof, and these cross-bars and the bottoms of the stirrups, which latter are transversely disposed, are perforated at their centers and receive the pintles 15, located at the front ends of and serving to pivotally connect a series of pairs of cultivator-beams 16, which beams vary in length—that is to say, the two inner beams of an adjacent pair are shorter. Each beam carries a shovel 17, and each pair of beams is spaced apart by transverse braces or space-blocks 18. Clevises 19 are located at the front ends of the beams, and the same are pivoted to the pintle-plates before mentioned, as indicated at 20. From each pair of beams depends a vertical standard 21, and the same carries an advance trash-clearing shovel 22, which travels ahead of the pairs of cultivator-shovels, as shown. Inverted-U-shaped frames 23 have their terminals secured to the opposite space-blocks of the adjacent pairs of shovel-standards, and said frames are formed in sections, the upper ends of which overlap, are provided with adjusting bolt-holes and connected by bolts 24. Ropes or cables 25 are connected to the frames, pass over pulleys 26, journaled in the upper ends of standards 27, which rise from the axle, and have their front ends connected to a pair of levers 28, which are pivoted at 29 to the under side of the cross-bar 4 in advance of the axle and extend rearward under the same, terminating in feet-receiving stirrups 30 at each side of the standard 7, that supports the seat for the driver. It will be obvious that the driver by placing his feet in these stirrups and depressing the levers may raise and lower the series of standards and their shovels, and by moving the levers laterally into notches 31, formed in the inner edges of depending locking-bars 32, secured to the under side of the axle, the said cultivator-standards may be maintained elevated a desired height from the ground. From the opposite sections of the pair of inverted-U-shaped frames standards 33 depend, which standards are connected adjustably at their upper ends to the frames by means of bolts 34, for the reception of which the standards are perforated. The lower ends of these standards are secured to inverted-U-shaped



slotted fenders 35, which fenders are located between the pair of cultivators and are intended to serve their usual purpose of shielding the young corn during the process of cultivation. Feet-receiving stirrups 36 are located upon the inner pairs of standards, and the driver, sitting upon the seat, may place his feet in the stirrups, and thus guide the cultivator-shovels when the machine is being turned around.

37 designates an eveners-bar, which is pivoted at its center to the tongue 6, as indicated at 38, in advance of the axle. This eveners-bar has loosely connected to its ends double-trees 39, and from the ends of each double-tree depend bars 40, which have their lower ends connected by links 41 with the lower ends of the front stirrups 9 and their cross-bars. To the depending bars singletrees to the number of four are connected, the same being indicated as 51, and to these the draft-animals are hitched. It will thus be seen that each animal is located in front of one of the stirrups 9 and pair of cultivators and that by the arrangement of eveners the draft is evenly divided, as will be evident. As the machine moves along, the cultivators having been lowered by the driver, it will be seen that it straddles three rows of corn, the cultivators working the soil at the two outside rows, leaving the middle row to be cultivated on the return trip.

The trash-clearers in advance of the cultivators may or may not be employed, they being detachable; but when employed they serve to clear away the accumulations of trash that gather in between the corn-rows.

Having described my invention, what I claim is—

1. In a machine of the class described, the combination, with the transverse axle, the cross-bar in front of the same, a series of perforations in the cross-bar, and connections between the cross-bar and axle, of a series of depending U-shaped stirrups having their upper ends bent to form securing-plates, bolts for adjustably connecting the stirrups to the cross-bar, a draft-pole extending forwardly from the cross-bar, a series of cultivator-beams loosely connected to the stirrups, an equalizing-bar pivoted on the draft-bar, doubletrees pivoted to the ends of the equalizing-bar, rods loosely depending from the ends of the doubletrees opposite the stirrups, connections between the lower ends of the rods and the stirrups, and singletrees loosely connected to the depending bars, substantially as specified.

2. In a machine of the class described, the combination, with the transverse axle, the ground-wheels, the transverse cross-bar con-

nected with the axle, the draft-pole projecting forwardly from the cross-bar, and the series of depending U-shaped stirrups secured to the cross-bar, of the equalizing-bar pivoted to the pole, the doubletrees pivoted to the ends of the equalizing-bar, singletrees carried by the doubletrees, connections between the same and the stirrups, and a series of cultivator-beams loosely connected at their front ends to the stirrups, substantially as specified.

3. In a machine of the class described, the combination, with the framework and the series of depending U-shaped stirrups, of a draft-equalizer located on the framework in advance of the stirrups, doubletrees carried by the equalizer, singletrees carrying rods depending from the ends of the doubletrees, connections between the same at their lower ends and those of the stirrups, and cultivator-beams connected loosely at their front ends to the said stirrups, substantially as specified.

4. In a machine of the class described, the combination, with the framework and the series of cultivator-beams, of means for adjustably connecting the front ends of the cultivator-beams to the front of the framework, pulley-carrying standards rising from the framework, opposite pairs of inverted-U-shaped sectional frames having their upper ends overlapping, perforated, and adjustably connected and their lower ends connected to the cultivator-beams, ropes connected to the upper ends of the frames and passed over the pulleys, and levers pivoted at their front ends to the frame, located between the frames, connected to the ropes, and adapted for locking, substantially as specified.

5. In a machine of the class described, the combination, with the framework, the supporting-wheels, the series of pairs of shovel-carrying cultivator-beams, and means for adjustably connecting the same at their front ends, of the inverted-U-shaped beam suspension-frames overlapping at their inner ends and formed in sections, the upper ends of which are perforated and adjustably connected by bolts and the lower ends of which are adjustably connected to the beams, means for raising and lowering the suspension-beams, straps adjustably connected to the frames, and fenders located between the outer pairs of beams and connected to the lower ends of the straps, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL S. GERRISH.

Witnesses:

C. H. PIERCE,  
W. P. PIERCE.