

No. 725,487.

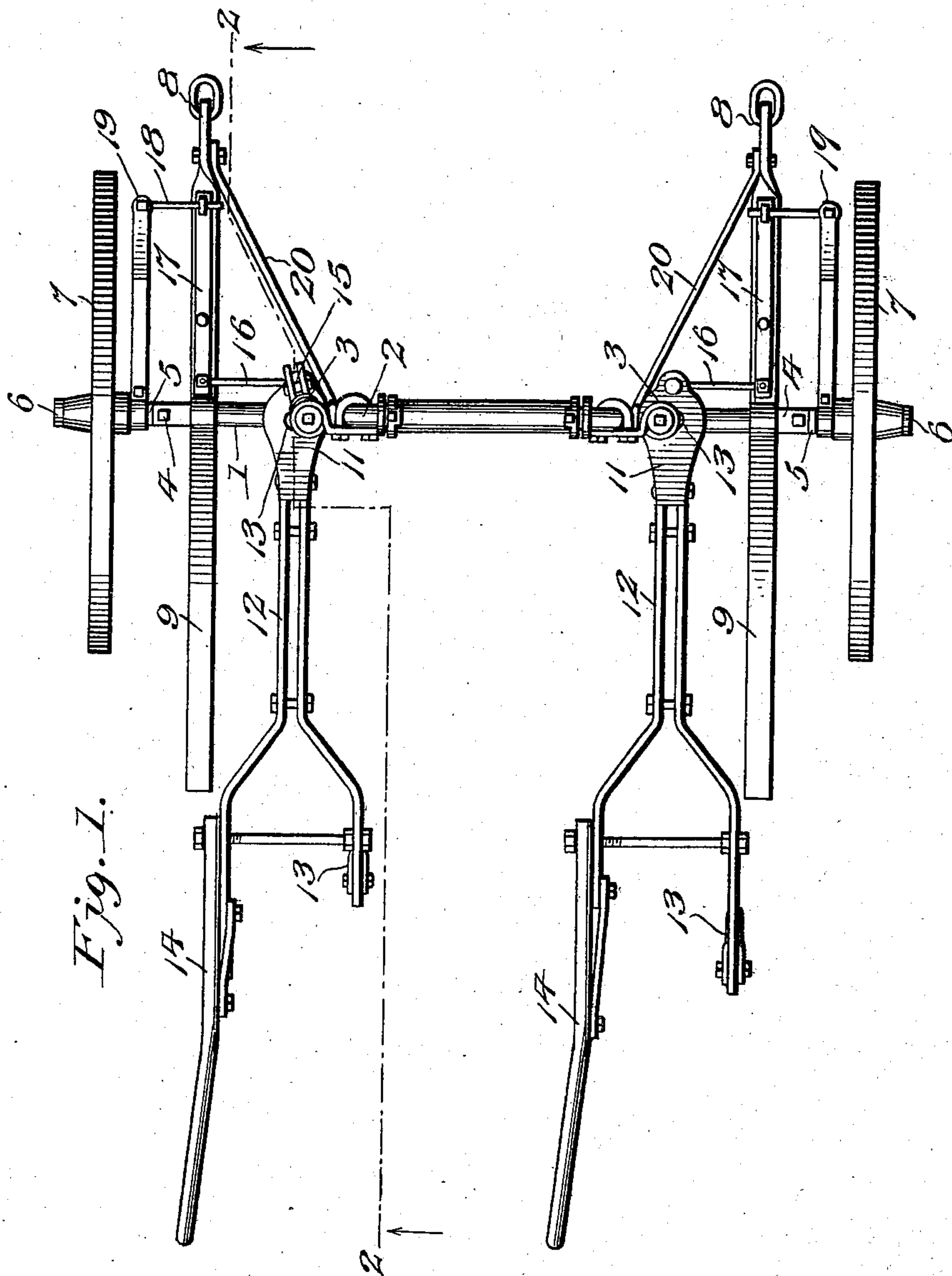
PATENTED APR. 14, 1903.

J. SCHALK.
CULTIVATOR.

APPLICATION FILED MAY 28, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

Edwin L. McKee

Chas. S. Hoyer.

By

Victor J. Evans

Attorney

Inventor
John Schalk

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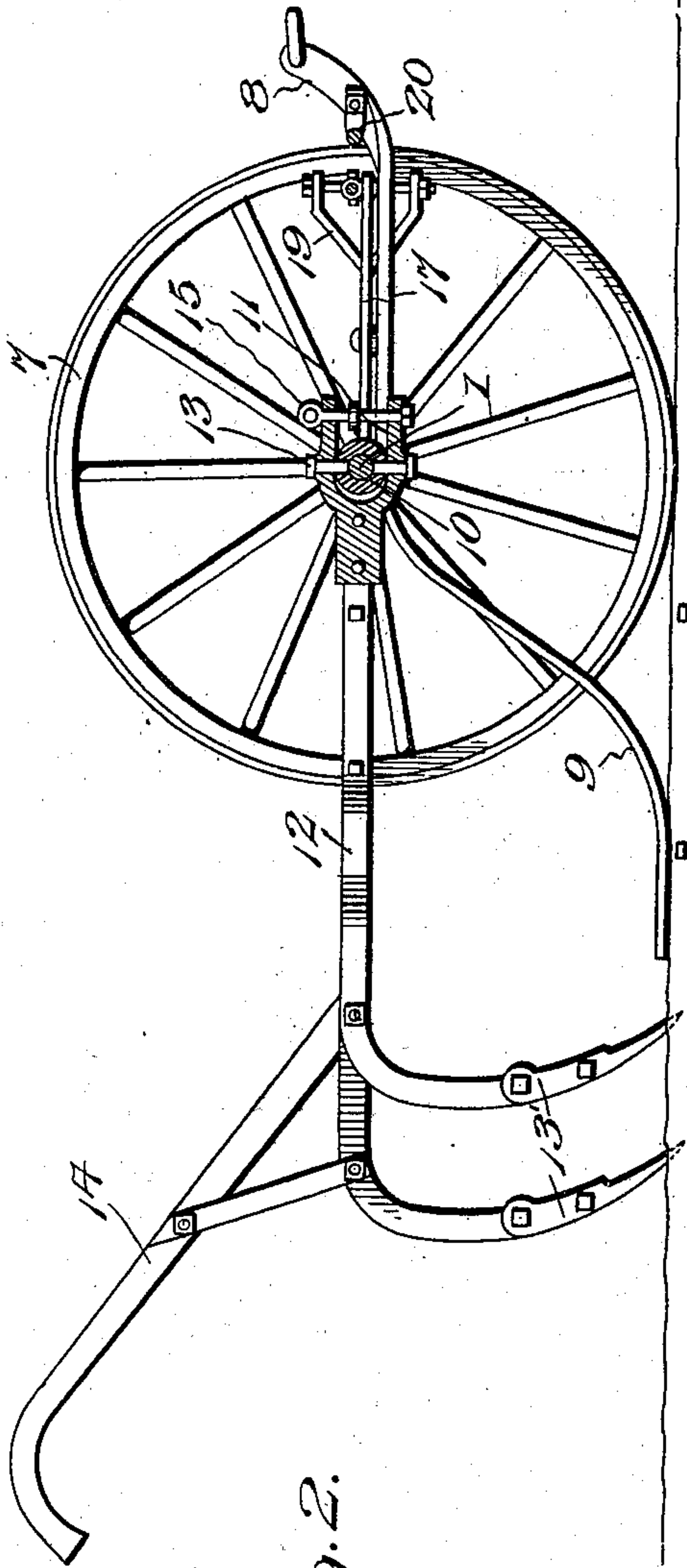


Fig. 2.

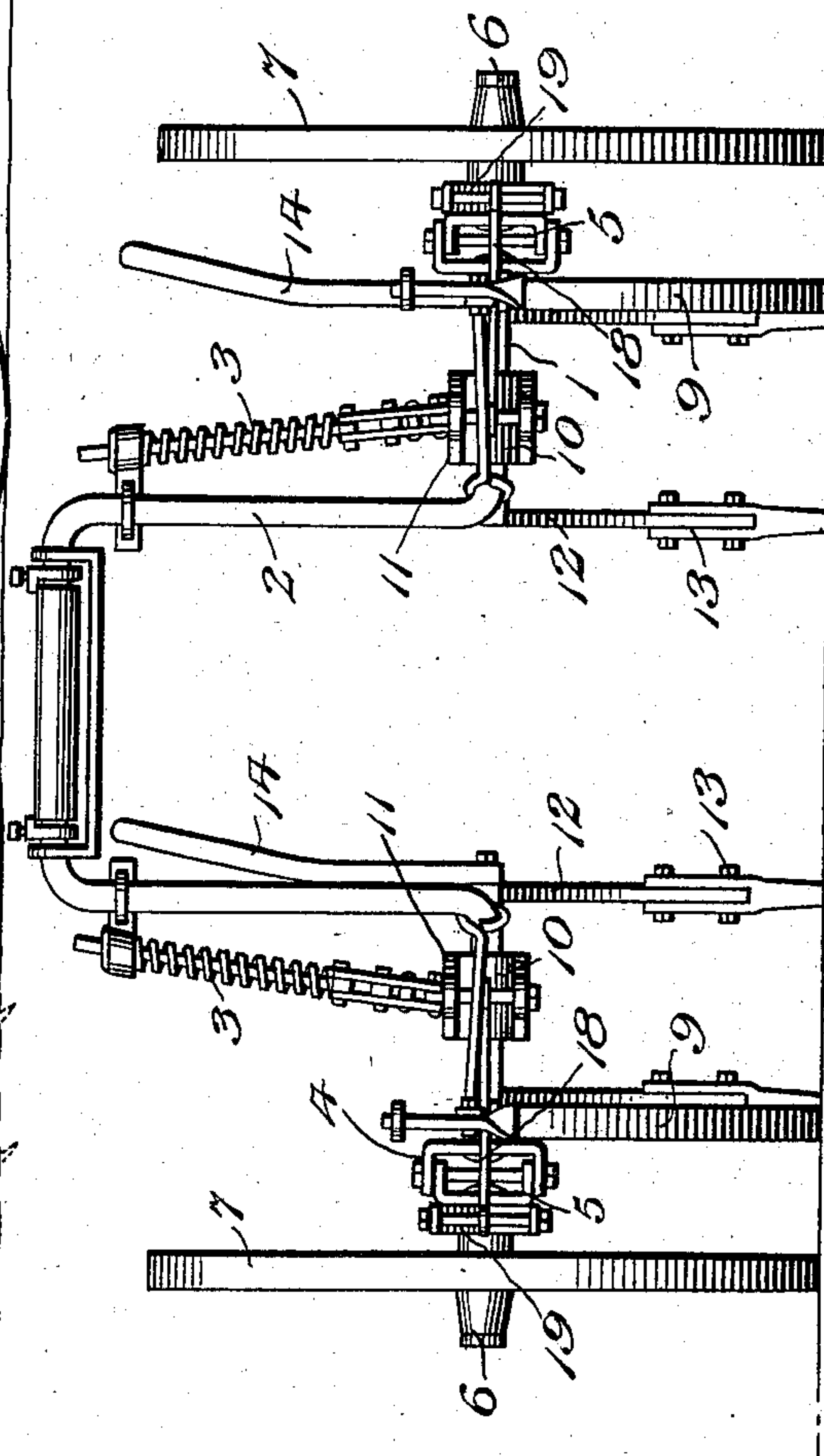


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN SCHALK, OF TWENTYMILE STAND, OHIO.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 725,487, dated April 14, 1903.

Application filed May 28, 1902. Serial No. 109,370. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCHALK, a citizen of the United States, residing at Twentymile Stand, in the county of Warren and State of Ohio, have invented new and useful Improvements in Cultivators, of which the following is a specification.

My invention relates to new and useful improvements in cultivators or plows of that character employing wheels for supporting the beams of the shovels.

The object is to employ means whereby when the shovels are swung to either side of the machine the wheels are turned in unison therewith and in the same direction. In this manner the machine can be readily guided by the operator independently of the position of the draft-animal in front thereof.

To the above end the invention consists in providing an axle each end of which is provided with a pivoted section adapted to be swung horizontally and serving as a bearing for a traction-wheel. The beams of the shovels are pivoted to the stationary portion of the axle, and their forward ends are connected, by means of links, to levers pivoted upon the tongues of the cultivator. The remaining ends of these levers are connected in a similar manner to arms extending from and rigidly secured to the pivoted sections of the axle, and the shovel beams and wheels are thus so connected as to swing laterally in unison.

In the accompanying drawings I have shown the preferred form of my invention used in connection with an ordinary form of cultivator in which an arched axle is employed and a spring-counterpoise is provided for each beam.

In the drawings, Figure 1 is a plan view. Fig. 2 is a section on line 2 2, Fig. 1, and Fig. 3 is a front elevation.

Referring to the figures by numerals of reference, 1 is an axle having a crown 2 in the center thereof, to each side of which is secured a spring-counterpoise 3, of ordinary form, connected to a shovel-beam of the character hereinafter described. To each end of the axle 1 is secured a vertically-arranged yoke 4, within which is pivoted a similar yoke 5, secured to the inner end of a short

spindle 6, upon which a traction-wheel 7 is mounted. A tongue 8 extends horizontally forward from the axle 1, adjacent to each yoke 4, and a downwardly-curved runner 9 extends rearward from and is preferably formed integral with each tongue 8. Mounted upon the axle between each tongue 8 and the crown 2 is a revoluble sleeve 10, upon which is mounted the forked end 11 of a shovel-beam 12. Vertically-arranged pivot-beams 13 project through the members of the forked end 11 into opposite sides of sleeve 10, and the beam 12 is adapted to swing thereon in a horizontal plane. The beams may be of any desired form, and in the drawings I have shown them constructed of metal strips, to which shovels 13' are secured. A handle 14 may be provided for each beam 12; but where a sulky-plow is used the beams can be either shifted laterally or depressed by the feet of the operator. A pin 15 connects the ends of each fork 11 and acts as a pivot for a link 16. This link is pivoted to the inner end of a lever 17, fulcrumed at a point between its ends upon a tongue 8. The other end of the lever is connected, by means of a link 18, to an arm 19, parallel with lever 17 and rigidly secured to the inner end of a spindle 6.

The tongues 8 are preferably braced to the axle 1 in any suitable manner, as by means of rods 20.

A draft-animal may be secured to either or both of the tongues 8, and as the cultivator is drawn forward it can be readily guided by the operator independently of the position of the draft-animal by simply shifting the beams 12 in the desired direction. For example, when the beams are swung to the right upon their pins 13 the arms 19 and the levers 17 are drawn in the same direction by the links 16 and 18 and the spindles 6 are swung upon their pivots with their arms and carry the wheels 7 therewith.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing any of the advantages thereof, and I therefore reserve the right to make all such changes as fairly fall within the scope of the invention.

Having thus fully described the invention, what is claimed as new is—

5 In a machine of the class described, the combination with an arched axle having horizontal extremities, of wheels movably secured on the terminals of said extremities and permitted to swing laterally, draft devices rigidly connected to the extremities of the axle, plow-beams having their forward ends piv-
10 oted to the extremities of the axle and adapted to be shifted in horizontal planes in lateral directions, longitudinal arms rigidly connected to portions of the axle engaged by the

wheels, levers fulcrumed at intermediate points on the draft devices and normally parallel with said arms, and links attached to the forward ends of the arms and levers and to the rear ends of the levers and front ends of the plow-beams.

In testimony whereof I affix my signature 20 in presence of two witnesses.

JOHN SCHALK.

Witnesses:

W. S. FOSTER,
J. M. RALSTON.