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W. L. SCHMIDT.

CULTIVATOR ATTACHMENT.

APPLICATION FILED DEC. 27, 1901.

NO MODEL.

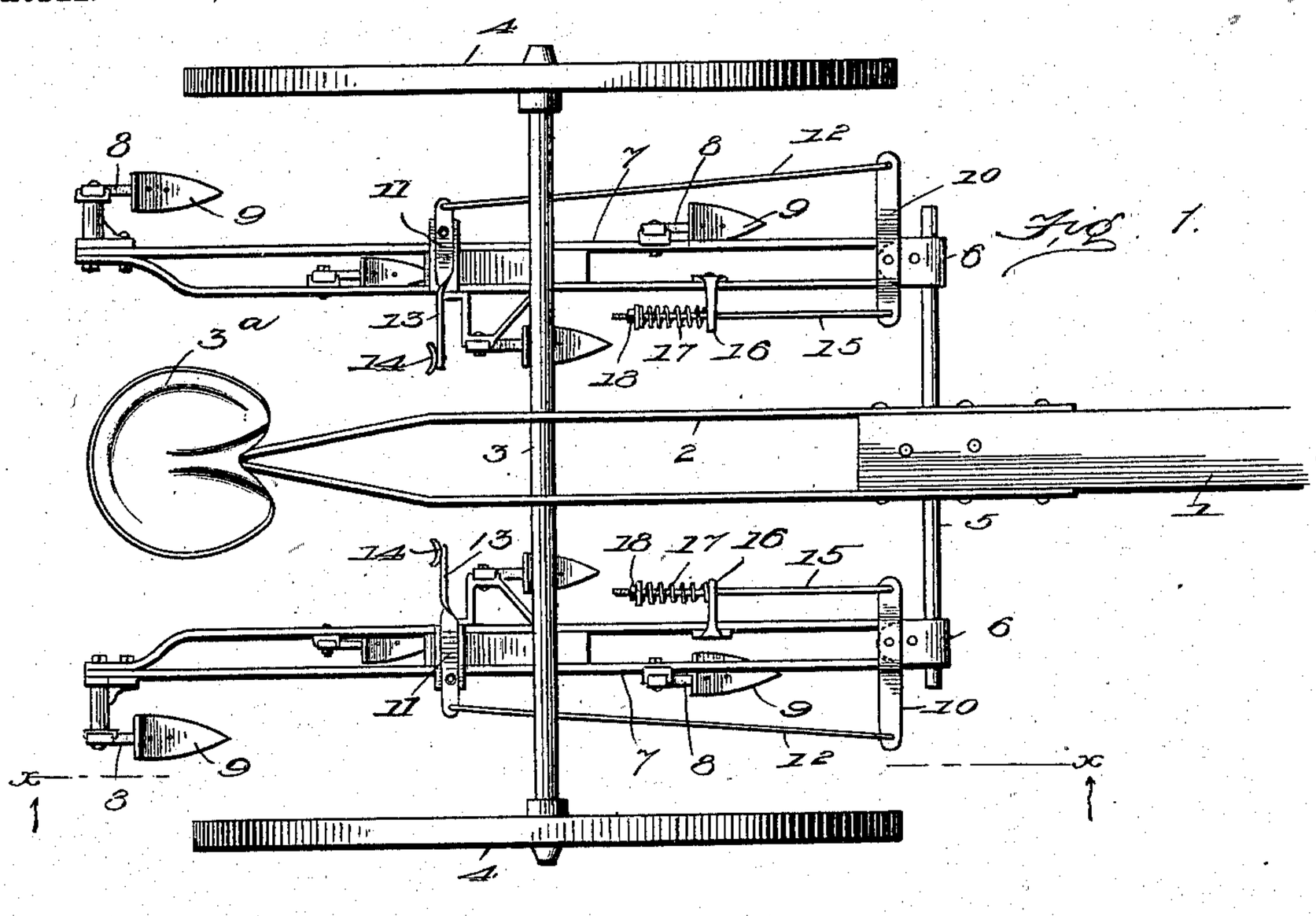

Fig. 1.

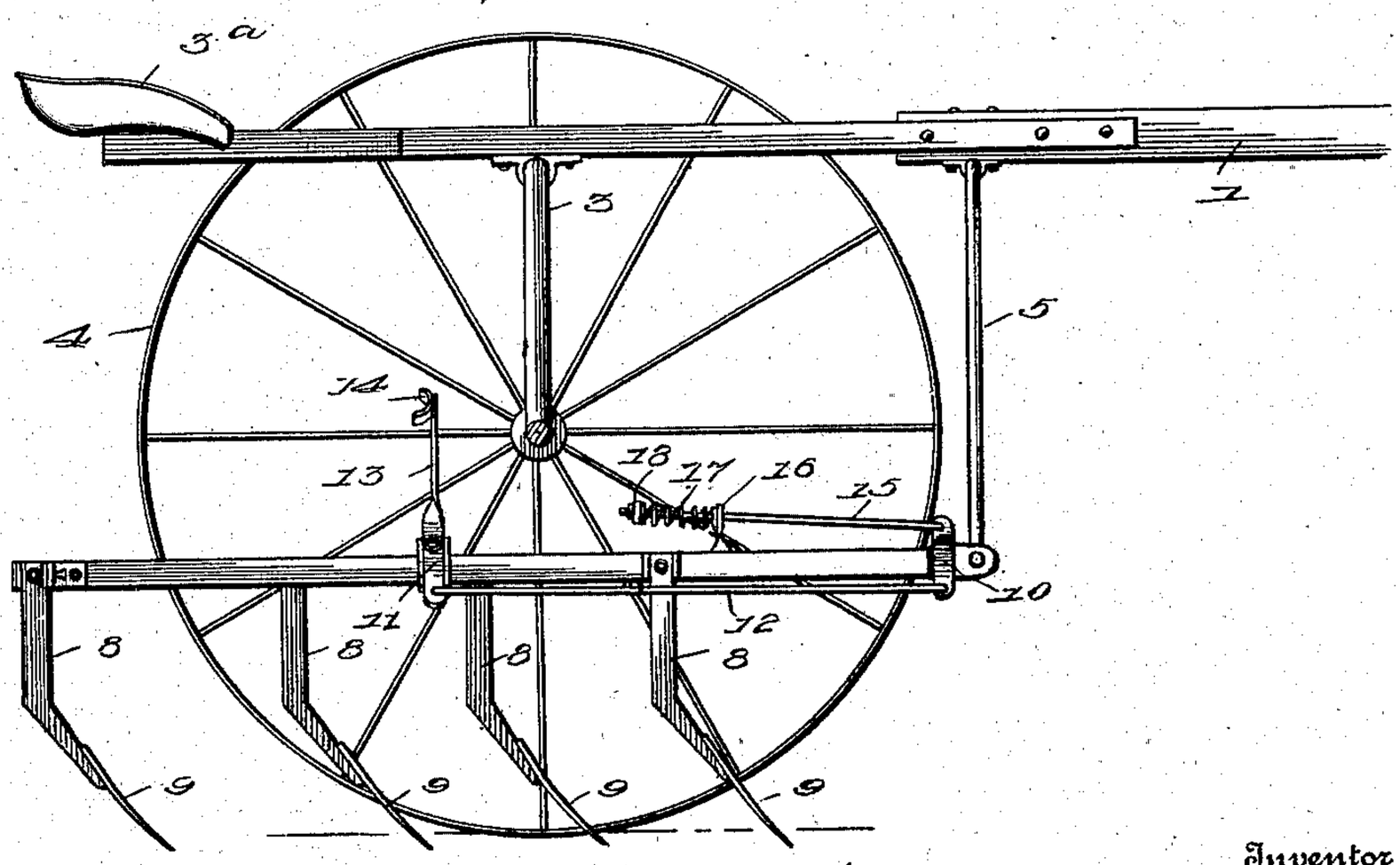

Fig. 2.

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CULTIVATOR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 719,885, dated February 3, 1903.

Application filed December 27, 1901. Serial No. 87,485. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LOUIS SCHMIDT, a citizen of the United States, residing at Vincennes, in the county of Knox and State of Indiana, have invented new and useful Improvements in Cultivator Attachments, of which the following is a specification.

This invention relates to cultivator attachments; and the object of the same, primarily, is to dispose on a cultivator-beam almost exclusively means for shifting said beam outward from and inwardly toward the center of a cultivator to accommodate certain cultivating operations and to have such adjustment under the control of the operator or driver of the machine while seated on the latter, and, furthermore, to permit the adjusting attachments to be simultaneously raised and lowered with the cultivator-beams.

With this and other objects and advantages in view the invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a top plan view of the cultivator embodying the features of the invention. Fig. 2 is a longitudinal vertical section on the line *x x*, Fig. 1.

Similar numerals of reference are employed to indicate corresponding parts in the views.

The numeral 1 designates a tongue having a rear extension 2, carrying an operator's or driver's seat 3 at its rear end. Connected to the extension 2, between the seat and the rear terminal of the tongue 1, is an arched axle 3, on which are mounted ground-wheels 4 of any preferred form of construction.

Attached to the rear under portion of the tongue 1 is a draft-arch 5, which depends a suitable distance below the plane of the tongue and the extension 2, and through the medium of fulcrum-clips 6, mounted on portions of said draft-arch, cultivator-beams 7 are included in the organization of the machine and have their front terminals movably attached to said clips, so as to be capable of swinging or moving laterally to and from the center of the machine and also through the medium of the clips to be raised and lowered by means of suitable mechanism (not shown) to clear the cultivator blades or devices carried by the beams from the ground-surface or to dispose said blades or devices in operative relation to the ground. This adjustment of the cultivator-beams is one well known in the art, and numerous mechanisms have been devised for controlling the vertical adjustment of said beams and to regulate the depth of penetration of the blades or devices carried by the beams. The beams 7 are provided, as usual, with beam-shanks 8 of any preferred form and supplied with shovel or other cultivators 9.

As is well known in the art of cultivators, movable cultivator-beams, in what is known as a "riding-cultivator," have a tendency to follow the line of draft, and ordinarily these beams are not controllable by the operator or driver, and in such arrangements where they are adjustable the adjusting attachments have been in part carried by or connected to the cultivator-beams and to an adjacent portion of the frame and obstruct the vertical movement of said beam.

On each coupling 6 an arm 10 is secured and has the longer extremity relatively to the fastening thereof projected outwardly a suitable distance. An operating-lever or pedal device 11 is also suitably fulcrumed with the shorter extremity thereof relative to the fulcrum projected outwardly, the outward extremities of the arm 10 and lever 11 being connected by a rod 12. The inner longer extremity of the lever 11 is continued into an elevated arm 13, to which is fixed a foot-stirrup 14 within convenient reaching distance of the seat 3 to be occupied by the driver or operator. The inner shorter extremity of the arm 10 has the front end of a slide-rod 15 attached thereto, the said rod being freely movable through an inwardly-projecting bracket 16, and between said bracket and the rear end of the slide-rod a spring 17 is disposed and held in adjusted relation to the bracket by an adjusting-nut 18 on the rear terminal of said slide-rod. By adjusting the nut 18 the tension of the spring 17 can be readily controlled and the power of said spring increased or decreased as may be desired or found necessary.

As before indicated, each of the beams 7 is

supplied with the improved attachment, and the stirrups 14 are disposed on opposite sides of the center of the machine for engagement by the feet of the operator or driver. When the driver or operator presses forwardly on either one or both of the arms 13 continued inwardly from the levers 11, the connecting-rod 12 will force the beam or beams outwardly away from the center of the machine and at an angle to the line of draft, and said operation is pursued against the resistance set up by the springs 17 or either one of the latter, said spring or springs being compressed as long as the foot-pressure of the driver or operator is applied to either one of the attachments. As soon as the pressure is relieved from either one of the stirrups and the lever or levers 11 the spring or springs 17 immediately restore the parts to normal position and serve to draw the beams 7 inwardly, as shown. When the driver is resting on the seat 3ª, he may rest his feet in the stirrups 14 to brace himself sufficiently to render his position secure, as in the ordinary work of the machine the resistance offered against adjustment of the beams will be sufficient to permit this bracing application of the driver's feet, and by applying extra force through either foot or limb to the stirrup on the beam desired to be adjusted such beam will quickly respond and move as may be found necessary.

The improved attachment will be found exceptionally convenient and advantageous and may be applied to any form of cultivator now in use without requiring a disorganization of the same, and by the use of the springs 17, which serve as return-springs, the cultivator-beams are caused to return to the line of draft in much less time than said beams would return under ordinary circumstances. Furthermore, by the use of the return-springs the necessity for attaching the beams to each other is avoided, as the return to the center of draft does not depend upon the lever of the opposite gang, as is the case in the usual type of attachments of somewhat similar arrangements.

Changes in the form, proportions, dimensions, and minor details may be resorted to without in the least departing from the principle of the invention.

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

1. The combination with a cultivator-frame, having a depending member, of a beam, a coupling attached to the said member and to which the front end of the beam is also pivoted whereby the beam may be elevated and depressed as well as moved in opposite lateral directions, a pedal device mounted on the beam in rear of the forward end thereof and having a shorter extremity projected outwardly and an inner longer extremity formed with a foot-receiving stirrup, an arm projected from the coupling, a connection between the pedal device and arm, and resilient resisting mechanism attached to the arm and a portion of the beam.

2. The combination with a cultivator-frame, of a pair of beams, couplings pivotally secured to the forward extremities of the beams and movably connected to a part of the frame whereby the beams may be elevated and depressed as well as moved in opposite lateral directions, the beams being independently adjustable, pedal devices fulcrumed on the beams in rear of the front ends of the latter and having shorter extremities projected outwardly relatively to the fulcrum thereof and the inner longer extremities provided with foot-receiving stirrups, arms secured on the couplings for the beams in advance of the front ends of said beams and having their longer extremities projected outwardly, connecting devices between the outer ends of the arms and the pedal devices, and rods under spring-resistance control attached to the inner ends of the arms and to portions of the beams in rear of said arms.

3. The combination with a cultivator-beam, of a front cross-arm secured on the coupling for said beam, a rear operating-lever, a connection between the outer ends of the arm and lever, and a resilient resisting device attached to the inner end of the said arm.

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

WILLIAM LOUIS SCHMIDT.

Witnesses:
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