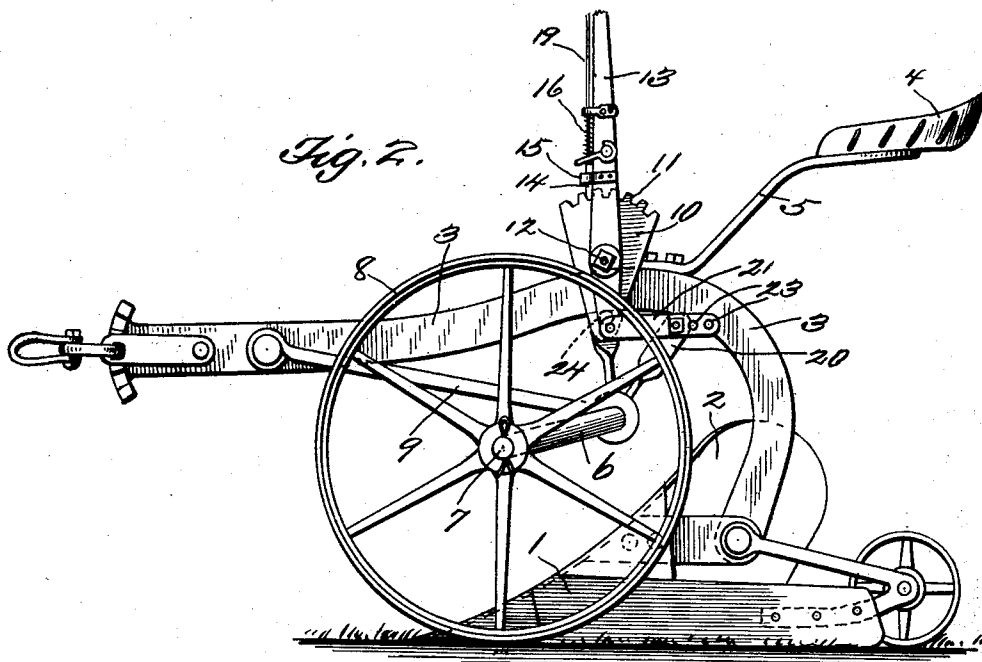
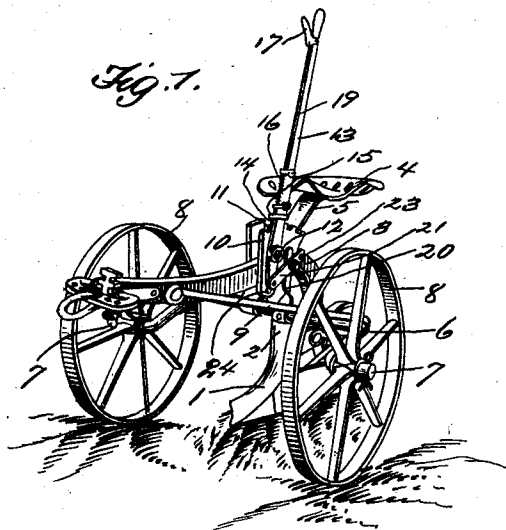


C. PUCALL.
 PLOW ATTACHMENT.
 APPLICATION FILED JUNE 8, 1910.

992,591.

Patented May 16, 1911.

2 SHEETS—SHEET 1.



Witnesses

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Chas. Pucall,

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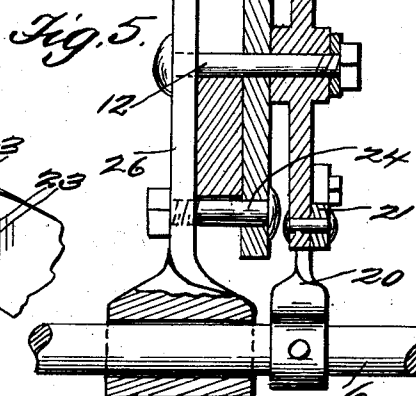
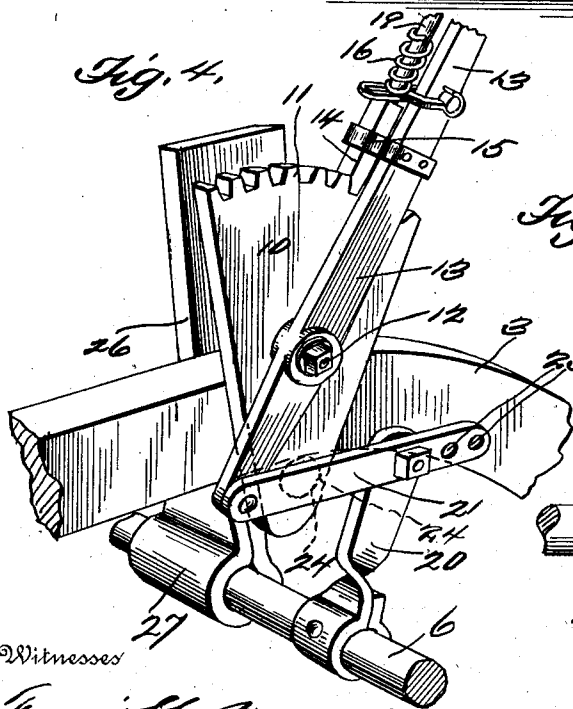
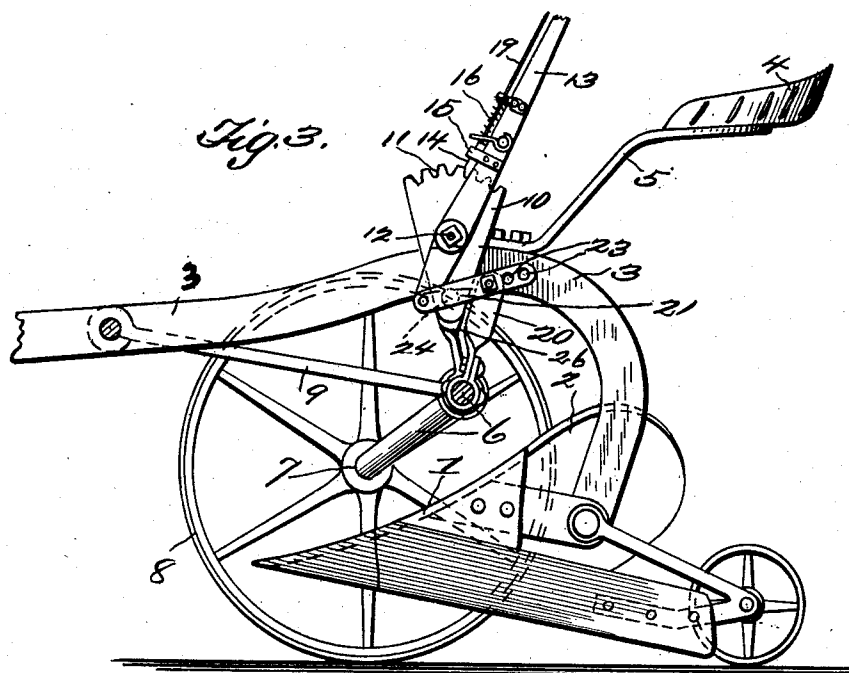
Attorneys

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2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES PUCALL, OF CHEBOYGAN, MICHIGAN.

PLOW ATTACHMENT.

992,591.

Specification of Letters Patent.

Patented May 16, 1911.

Application filed June 8, 1910. Serial No. 565,902.

To all whom it may concern:

Be it known that I, CHARLES PUCALL, a citizen of the United States, residing at Cheboygan, in the county of Cheboygan and State of Michigan, have invented a new and useful Plow Attachment; and I do hereby declare the following to be a full, clear, 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.

This invention belongs to the art of plows, and particularly pertains to a single beam sulky plow, and the object of the invention is to convert a plow having a single beam into a sulky plow, by the provision of an arched shaft or axle having traction wheels, and means coöperating with the beam and the axle or shaft whereby the plow may be readily raised and lowered. In providing a sulky plow of this nature, farmers may easily and readily convert their old plows having either a metal or wooden beam into a sulky plow. In so doing, the means for raising the plow, may be attached to the beam, it being also necessary to mount the usual seat on the beam for the operator. The means for raising and lowering the plow comprises a lever having a dog to coöperate with a quadrant, and connections between the lower end of the lever and the arched shaft or axle.

In the exposition of this specification, a particular design of machine is adhered to but the invention is not to be confined to this special design. Its reduction to practice may require certain changes and alterations which the right is claimed to make, provided such changes and alterations are comprehended by the appended claim.

In the drawings:—Figure 1 is a perspective view of a plow, disclosing the essential features of the invention. Fig. 2 is a side elevation of the plow. Fig. 3 is a longitudinal sectional view through the plow showing the plow raised. Fig. 4 is a detail perspective view on an enlarged scale of the means for raising and lowering the plow. Fig. 5 is a sectional detail.

As to the annexed illustrations, 1 represents the plow having the usual mold board 2 and the beam 3, which extends upwardly and forwardly. The beam 3 may be of any suitable metal or material and designed to support the seat 4 for the operator, which is arranged approximately over the plow.

This seat is supported upon a spring member 5 which connects with the beam 3.

6 represents the arched shaft or axle, each end of which terminates into spindles or right angled portions 7, on which the traction wheels 8 are journaled. This arched shaft or axle is braced with regard to the beam 3 by means of the angular arranged rods 9. The forward ends of the rods 9 connect with the beam adjacent the forward portion thereof, while the other ends of the rods connect with the arched portion of the shaft or axle, to provide a horizontal triangular shaped bracing structure, between the arch of the axle and the beam, the rods 9 diverging rearwardly.

The rear portion of the beam arches upwardly, and the rods 9 in diverging rearwardly are disposed below the arch of the beam, at the point where they connect with the arch of the axle. The plate 26 (which is fastened to the beam by means of the bolts 24 and 12) is extended downwardly to and rotatably connected to the arch of the axle. By so connecting the plate 26 between the beam and the arch of the axle, a vertical triangular shaped braced structure is provided, which together with the horizontal braced structure affords a frame comprising great strength and rigidity.

Carried securely by the beam 3 is a plate 10 (which is vertically arranged) having a toothed upper periphery 11, in order to provide a rack quadrant. Mounted upon the side or base of the plate by means of the pivot pin or bolt 12, is an operating lever 13, which is provided with a dog 14. This dog is mounted in bearings 15, in order to have vertical movement, and is actuated by the dog spring 16, in order to engage the teeth of the quadrant. To raise the coil out of engagement with the teeth, a hand grip 17 is carried by the upper portion of the lever adjacent the handle thereof, which is connected to the dog by means of the rod 19. Projecting rigidly from the arched portion of the axle or shaft, is an arm 20 which through the medium of the link 21 is connected to the lower extremity of the operating lever. The link 21 at one end is provided with one or more apertures 23, the object of which is to lengthen or shorten the distance between the connections of the link with the lever and the arm, whereby the raising and lowering of the plow may be regu-

lated. The plate 10, forming the quadrant, is secured to the beam by means of the bolts 24 and 12 and their engaging nuts, and the plate 26.

5 By operating the lever forwardly, the lower end thereof will move in a rearward direction, and through the medium of the link connection with the arm, the arched shaft or axle will be rocked, and the crank
10 portion of the shaft or axle will approach approximately a vertical position, and in so doing the plow will rise. By reversing the movement of the lever, it is evident that the plow may be lowered. The operating lever
15 is arranged in a close position with regard to the operator's seat, where it may be readily and easily manipulated.

The invention having been set forth, what is claimed as new and useful is:—

20 In a single beam sulky plow, the combination of the plow beam and the transversely arranged arched axle, of a vertical plate upon one side of the beam including a swiveled connection with the arch of the axle,
25 and a rack plate between which and the first plate the beam is clamped, bolts extending

transversely of the plates one below and one above the beam; a lever fulcrumed to the upper bolt and including means to cooperate with the rack plate to hold it in adjusted po- 30
sitions, an arm fixed to the arch of the axle, a link pivoted to the lower end of the lever and provided with adjustable connections to the arm, and braces one upon each side of the beam and connected to the forward 35
portion thereof and diverging rearwardly and below the arch of the beam, the braces having eyes to receive the arch of the axle, the first named plate bracing between the arch of the axle and the arch of the beam 40
together with the braces constituting a vertical triangular shaped braced structure, while the said divergent braces constituting a horizontal triangular shaped braced structure.

In testimony whereof I have signed my 45
name to this specification in the presence of two subscribing witnesses.

CHARLES PUCALL.

Witnesses:

V. D. SPRAGUE,
MABEL G. TRAIN.