

(No Model.)

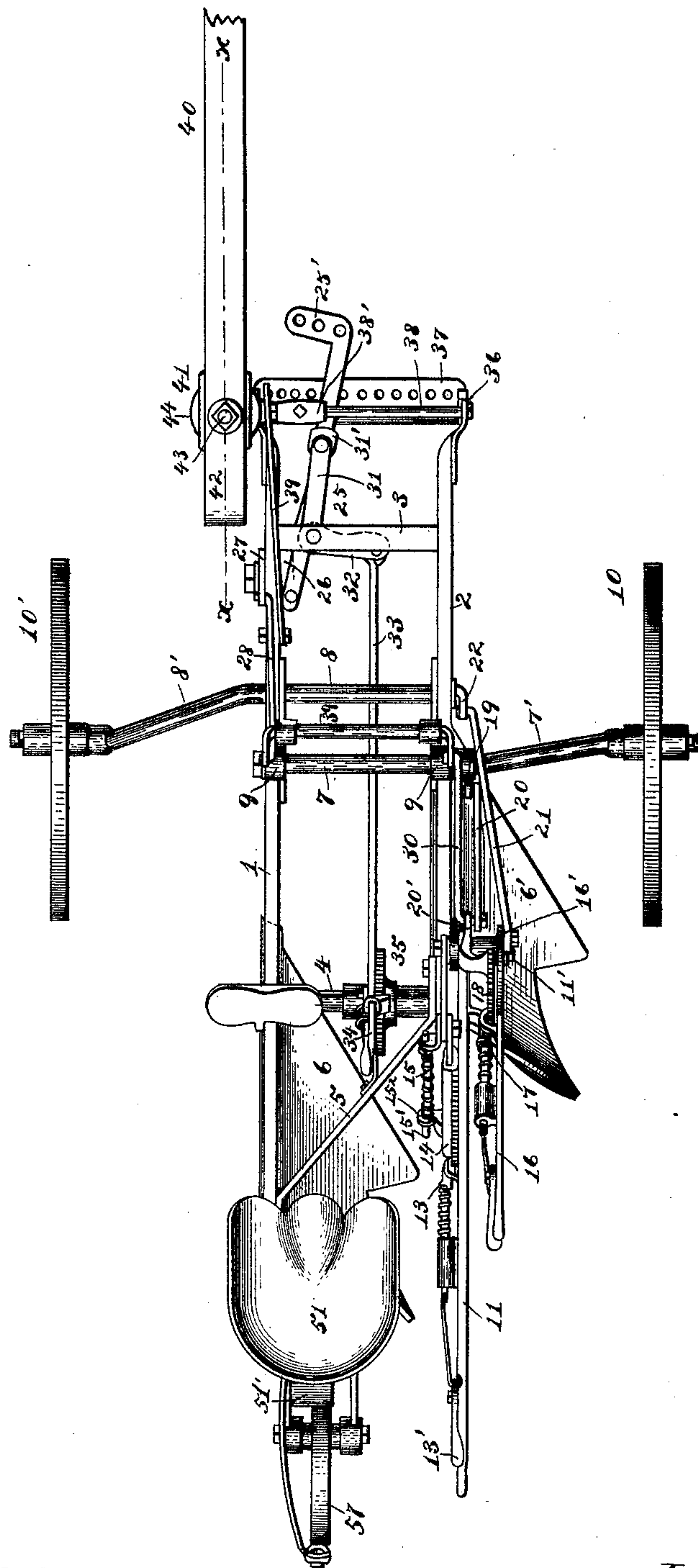
4 Sheets—Sheet 1.

L. LUPPEN.  
WHEEL PLOW.

No. 415,250.

Patented Nov. 19, 1889.

Fig. 1.



Witnesses:  
*Percy C. Bowen.*  
*James S. Smith.*

Inventor:  
*Luppe Luppen.*  
By *Edwin P. Bond*  
Attorneys.

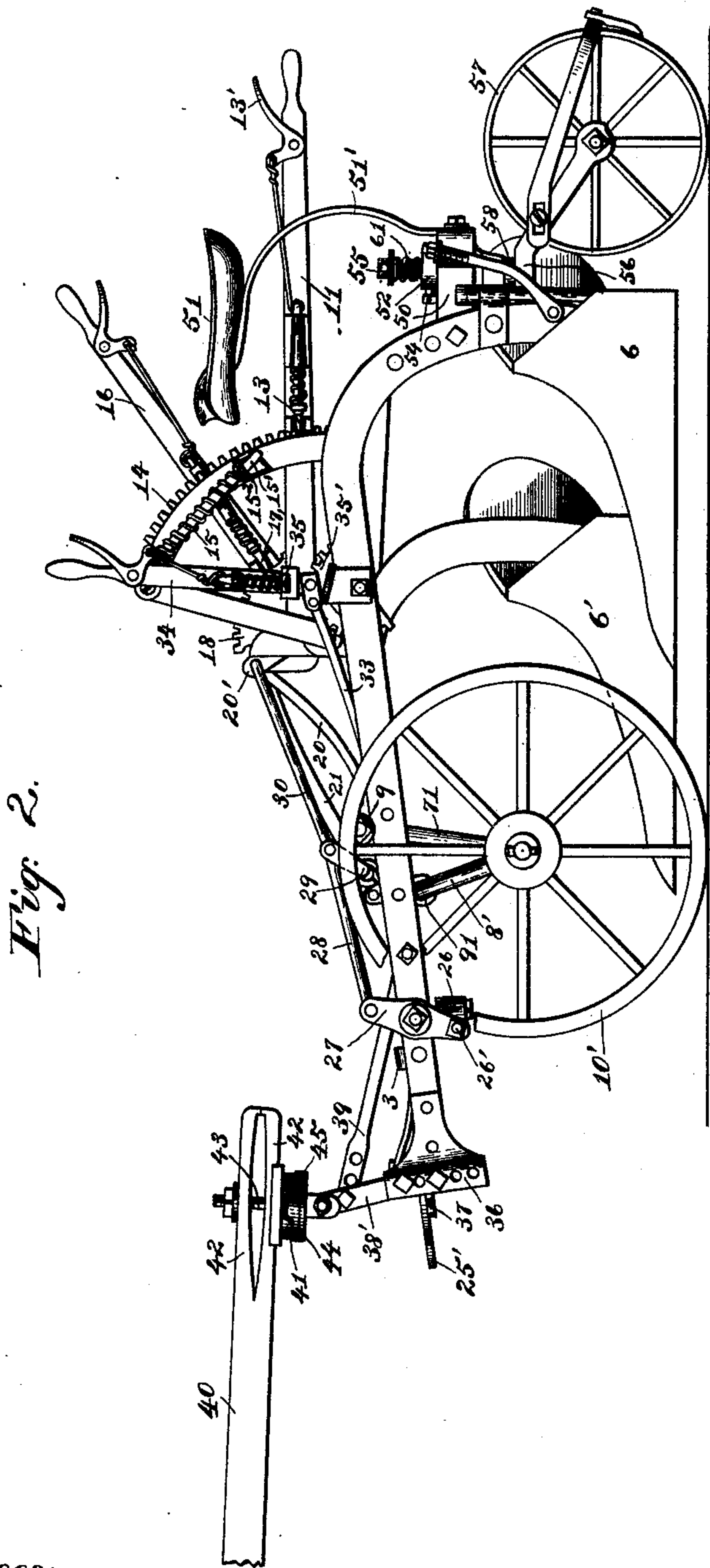
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4 Sheets—Sheet 2.

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Witnesses;

*Percy C. Bowen.*  
*James S. Smith.*

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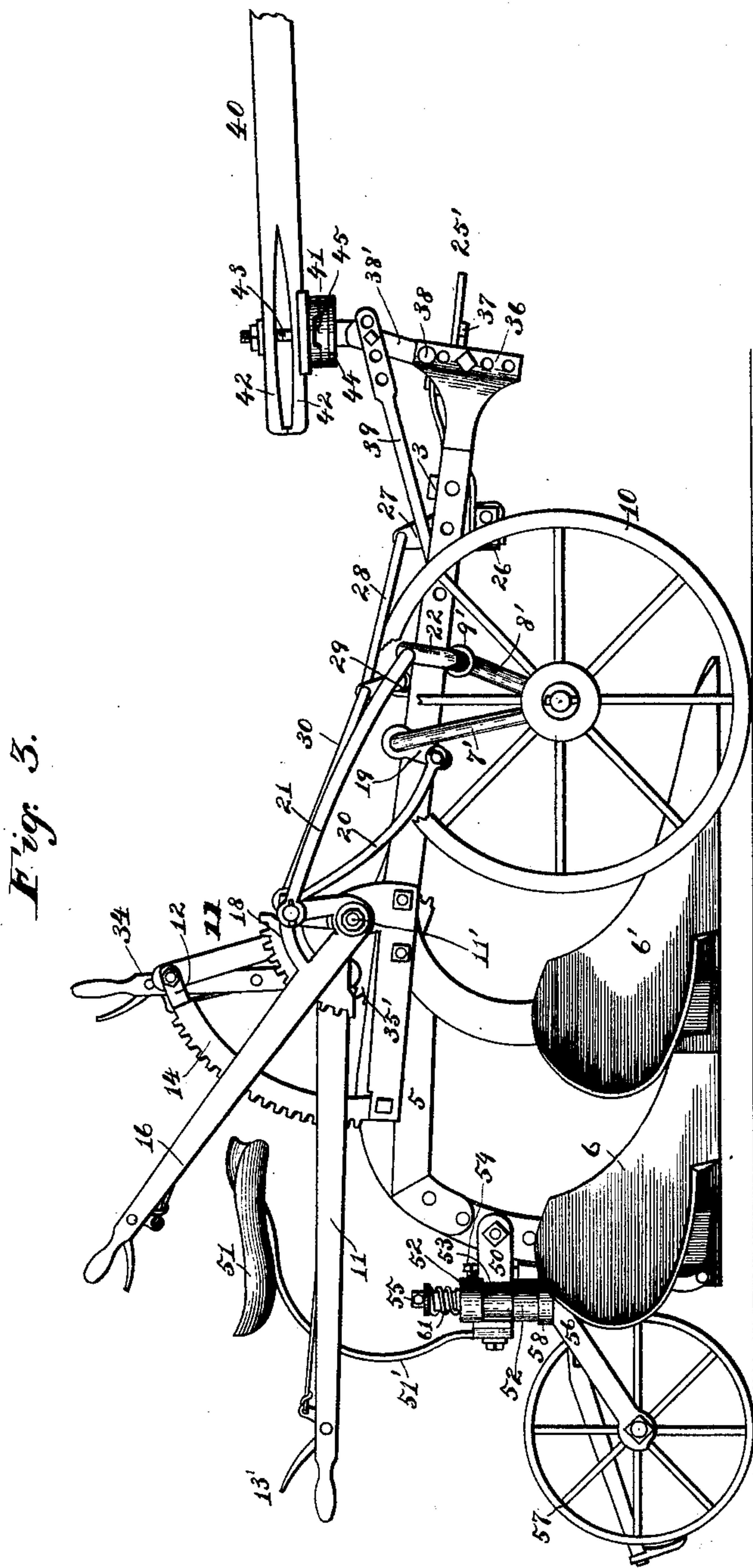
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WHEEL PLOW.

No. 415,250.

Patented Nov. 19, 1889.



*Witnesses;*

Percy C. Bowen,  
James S. Smith.

*Inventor:*

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(No Model.)

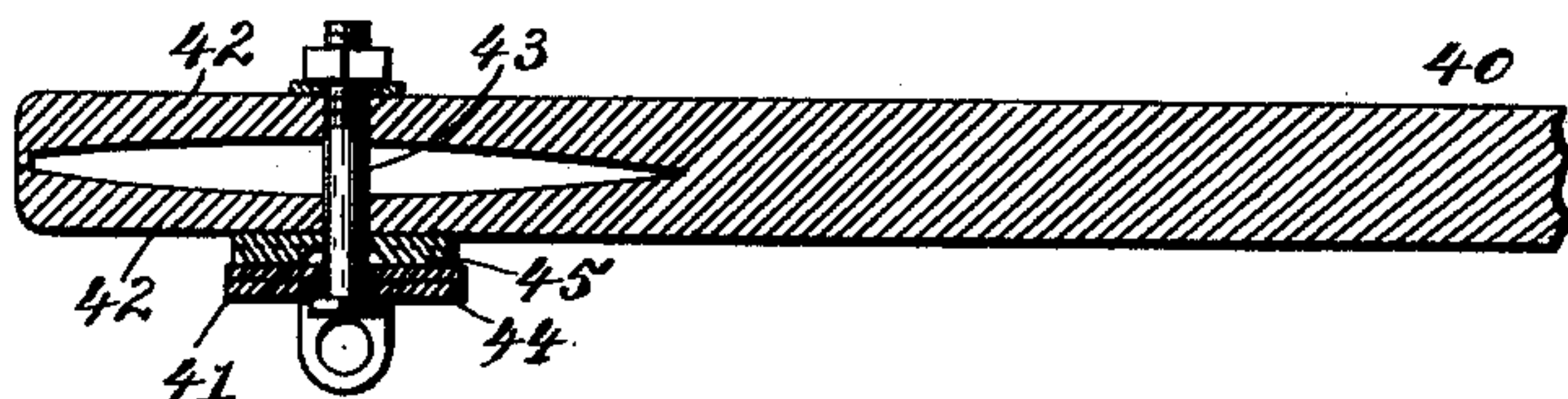
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L. LUPPEN.  
WHEEL PLOW.

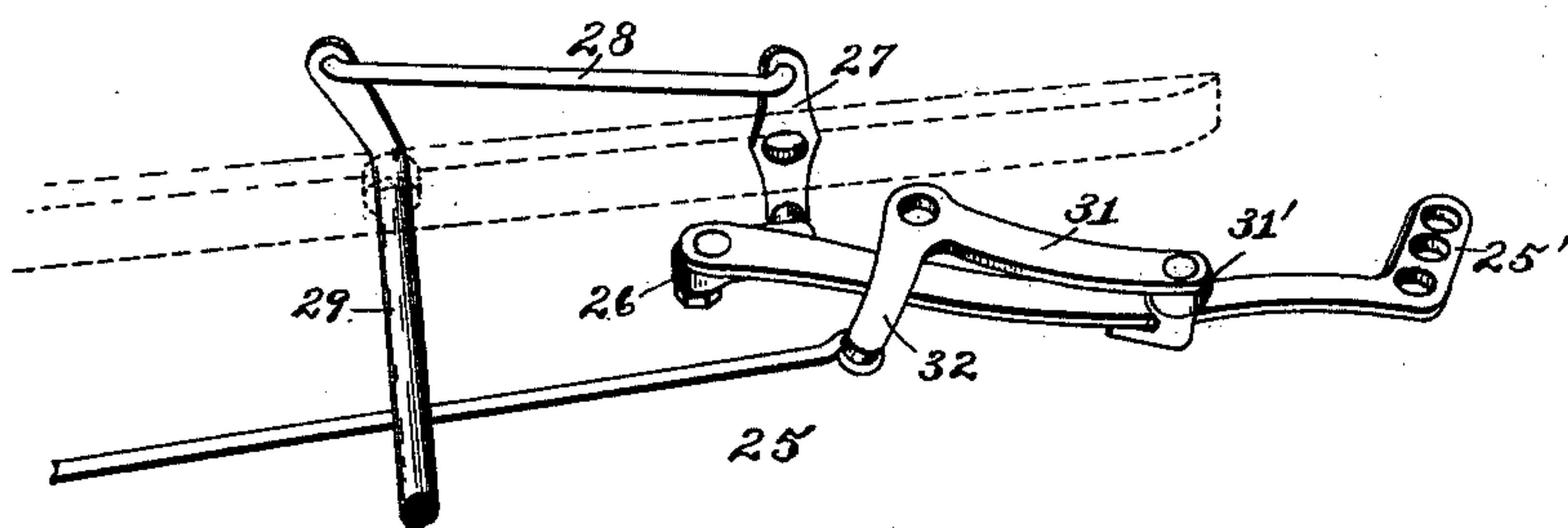
No. 415,250.

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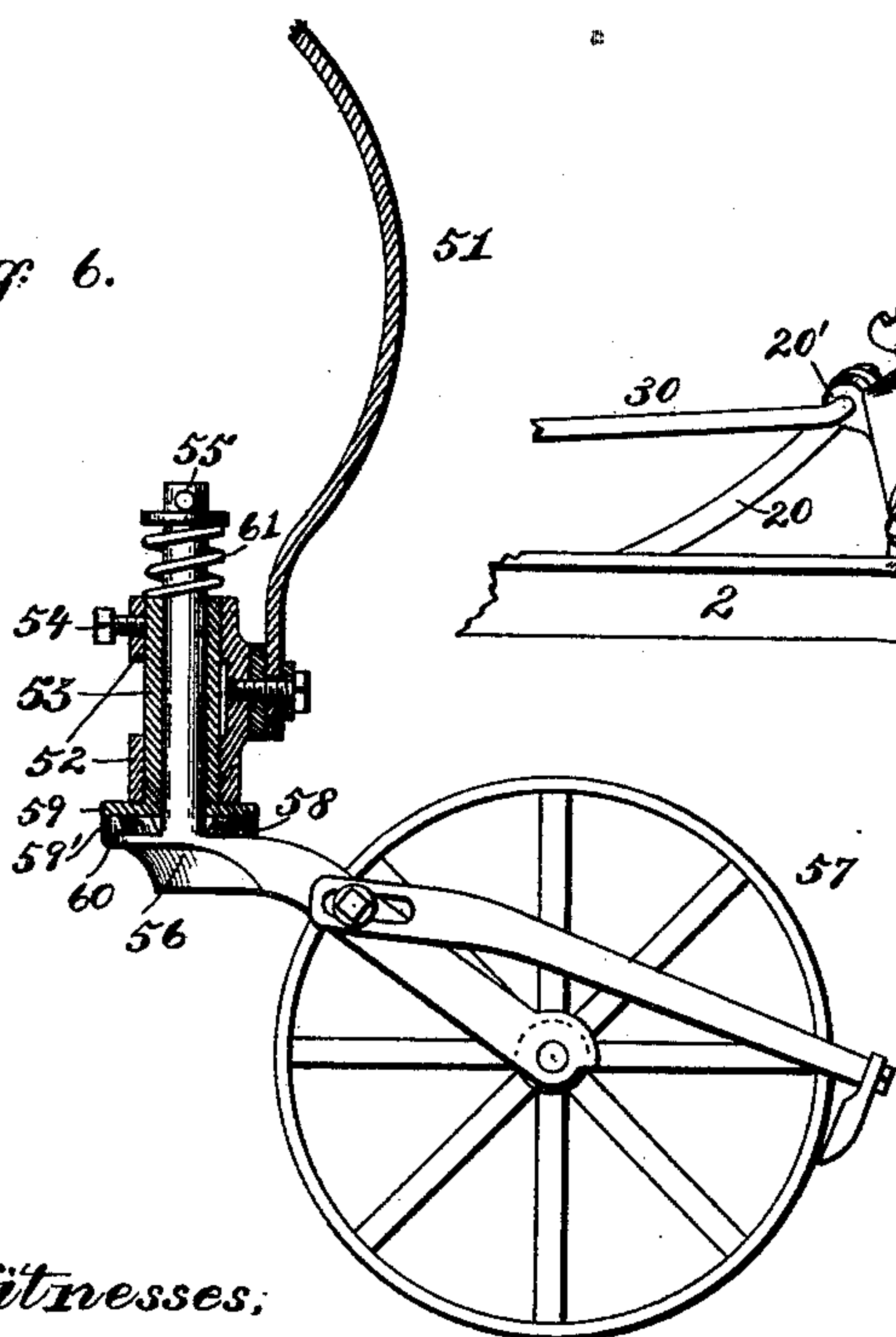
*Fig. 4.*



*Fig. 5.*



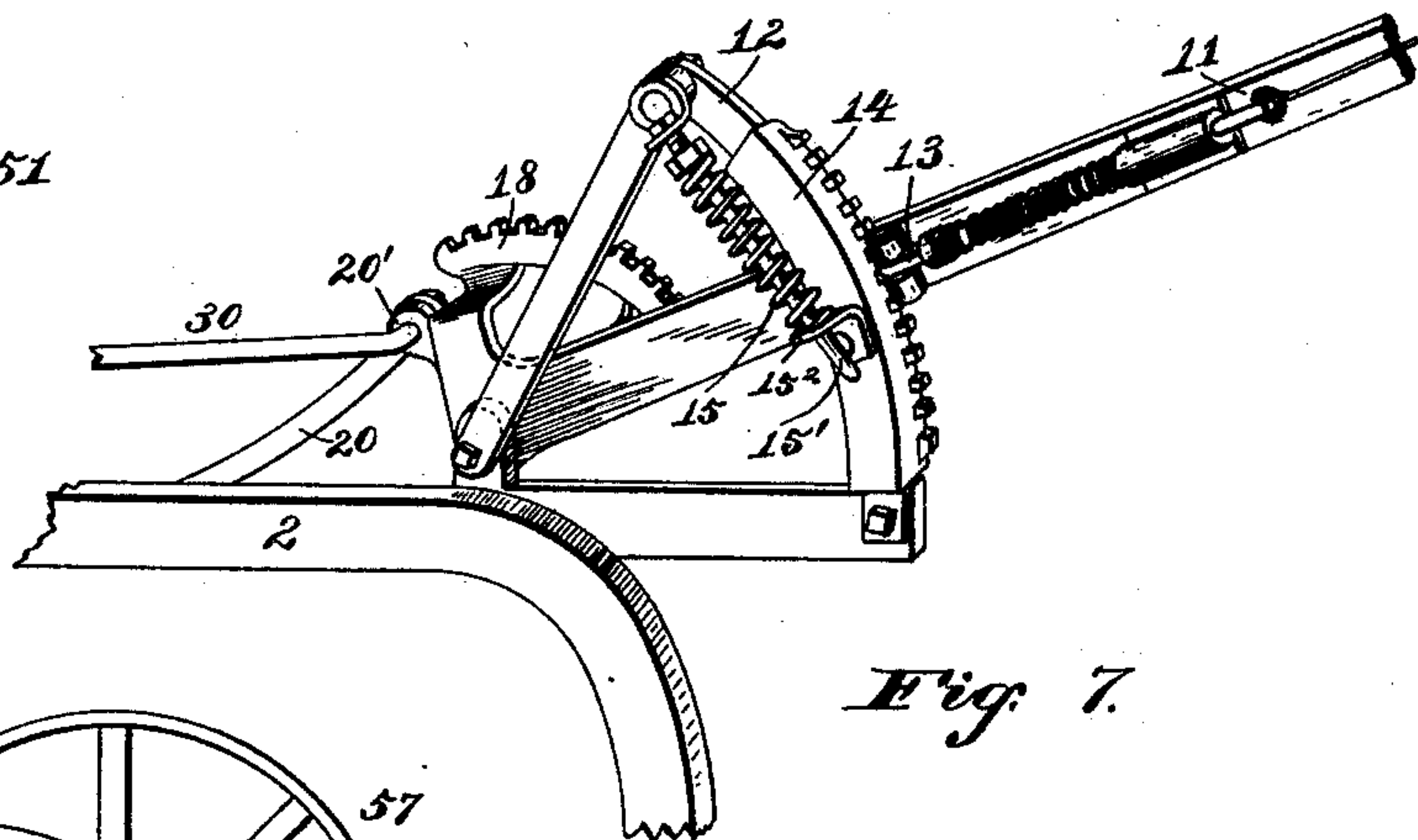
*Fig. 6.*



Witnesses:

*Percy C. Brown.*  
*James S. Smith.*

*Fig. 7.*



Inventor;

*Luppen Luppen*  
By *Edson B. B.*  
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# UNITED STATES PATENT OFFICE.

LUPPE LUPPEN, OF PEKIN, ILLINOIS.

## WHEEL-PLOW.

SPECIFICATION forming part of Letters Patent No. 415,250, dated November 19, 1889.

Application filed June 17, 1889. Serial No. 314,532. (No model.)

*To all whom it may concern:*

Be it known that I, LUPPE LUPPEN, a citizen of the United States, residing at Pekin, in the county of Tazewell and State of Illinois, have  
5 invented certain new and useful Improvements in Wheel-Plows; 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 ap-  
10 pertains to make and use the same.

My invention relates to improvements in wheel-plows; and it has for its object among other things to provide the plow with means for enabling the draft-animals to turn within  
15 a narrow compass at the end of a furrow or other place; to provide lever mechanism adapted to be operated by the driver seated on the machine for changing the line of draft to adapt the plows to take more or less land,  
20 as desired, and to so construct and arrange said mechanism that the strain or pull exerted by the draft-animals serves to assist the operator in raising the plows out of the ground; to connect the lever mechanism that  
25 controls the carrying-wheels with a spring, which is arranged to take up the shock or jar and relieve the parts of undue strain when one or both of said carrying-wheels strike an obstruction, and thus avoids changing the po-  
30 sition of the plow or plows, and, finally, to provide a caster-wheel which can automatically clear obstructions in its path and is capable of adjustment to adapt it to guide the machine so that it will take more or less land,  
35 as desired.

With these ends in view and such others as pertain to my invention I provide a coupling between the frame of the machine and the tongue which is constructed to enable  
40 the tongue to be turned to a laterally-inclined position, either to the right or left, with relation to the length of the machine when it is desired to turn the horses and machine within a narrow compass at the end of a furrow, said  
45 coupling serving to hold the pole or tongue in a rigid position against lateral play when it is arranged in its normal position in line with the machine. The coupling has one of its sections or members carried by a rocking  
50 plate fitted on a horizontal shaft secured to the front end of the machine-frame, and the

other section of the clutch is fixed rigidly to the rear end of the tongue, said sections or members being pivoted together by a vertical bolt and having interlocking jaws which  
55 are adapted to ride upon each other when the tongue is turned laterally and the spring is compressed. In lieu of using a separate metallic spring, I prefer to divide or slot the rear end of the tongue longitudinally for a  
60 suitable distance and to pass the pivot-bolt of a clutch through said divided end, whereby the tongue parts or members are adapted to yield and be compressed sufficiently when  
65 the tongue is turned laterally in order to enable interlocking jaws on the clutch-sections to clear each other.

The second part of my invention consists of a land-gage, which is adapted to be ad-  
70 justed laterally of the machine in either direction by lever mechanism that is controlled by the driver occupying the seat on the machine. This land-gage consists of a bar pivoted to the frame of the machine in such  
75 manner that it can be swung or turned laterally of the machine, the doubletree to which the draft-animals are hitched being connected to the free end of said land-gage, while the rear end thereof has an arm which extends at  
80 right angles to the bar to form a bell-crank therewith. A lever is fulcrumed on the machine within convenient reach of the operator's seat and connected by an intermediate rod with the arm of the land-gage, whereby  
85 the latter can be readily operated from the driver's seat to change the line of draft and adapt the plows to take more or less land.

As is customary in plows of the class to which my invention relates, I provide two carrying-wheels, which are independently  
90 journaled on two cranked axles that are supported in separate bearings on the frame, both of these axles and wheels being controlled by a single main lever, which is operated for the purpose of lowering the plows in  
95 the ground and for regulating the depth or pitch of the furrow or cut; but the landside-wheel is also adapted to be operated by a separate lever independently of the other carrying-wheel in order that it may be dropped  
100 into the furrow and sustain the machine in the desired position. With this main lever



and the crank-axles of the carrying-wheels I combine what I term a "power-lift," which is so constructed and arranged that the draft exerted by the animals assists the driver in raising the plows out of the ground and thus relieves him of considerable fatiguing labor, said power-lift being operated either in connection with the land-gage or independently of the same. The power-lift comprises, in the preferred embodiment of my invention, an endwise-movable bar, which has a sliding connection with the laterally-movable land-gage, so as to be capable of moving laterally therewith, and at the same time can be reciprocated longitudinally of said land-gage without disturbing the same or in any manner affecting its position, the front end of the power-lift being extended beyond the land-gage and main frame of the machine to adapt the double-tree to be connected to its extended end. The rear end of this endwise-movable bar is linked to a vertically-disposed lever, which is pivoted centrally on the main frame of the machine, and the upper end of this lever is connected by a pitman with a crank on a rock-shaft, which in turn is connected with the main operating-lever. By releasing this lever from its ratchet mechanism and depressing the same it is evident that the draft or strain of the animals on the power-lift bar will serve to draw said bar forward, which movement of the bar is transmitted to the cranked axles through the connections between the bar, the main lever, and the axles, so as to lower the carrying-wheels and cause them to rest uniformly on the ground, whereby the plows will be raised out of the ground by power exerted primarily by the draft-animals.

The fourth part of my invention consists in the combination of a spring with the main and secondary levers for operating the cranked axles and carrying-wheels. These main and secondary levers are independently pivoted on a common shaft, so that the secondary lever can be operated without interference from the main lever when it is released by its individual ratchet mechanism; but the rack of the ratchet mechanism for the secondary lever, however, is fixed to the main lever, so that while the secondary lever can be operated independently of the main lever in order to raise or lower the landside-wheel, yet the main lever, when it is operated, carries with it the secondary lever and serves to adjust both of the carrying-wheels simultaneously.

The novel feature of the fourth part of my invention consists of a movable rack for the main lever, which is supported on a curved fixed segment on the main frame and capable of a limited movement thereon, and a retracting spring connected to said movable rack. By means of this spring-controlled sliding rack for the main lever all undue shock and jar occasioned by either of the carrying-wheels striking an obstruction will be effectually

ally taken up by the spring, and thereby avoid changing the position of the plows and the liability of injury or damage to the parts.

The fifth and last part of my invention consists of an adjustable gage or caster wheel which is capable of automatically swerving from its path when it strikes an obstruction, and in like manner resuming its normal position after it clears the obstruction, and which can be adjusted manually to cause the plows to take more or less land. This caster or gage wheel is journaled in a frame which has a clutch-coupling with the main frame of the machine, said clutch-coupling having interlocking jaws and connected so as to turn horizontally on each other by a vertical spindle, the lower section of the coupling being fixed to or made integral with the frame of the caster-wheel and has the vertically-movable spindle connected thereto, while the upper section of the clutch or coupling is fixed to or made integral with the lower end of a tubular bearing that is fixed in a horizontal bracket-arm which is fixed in the main frame and supports the driver's seat. The vertical spindle passes through the tubular vertical bearing, which serves to support the caster-wheel and its adjunctive devices, and said tubular bearing can be turned axially for a limited distance in either direction and secured in such positions by means of set-screws, so that the caster or gage wheel will assume an oblique or angular position with relation to the main frame, and thereby cause the latter to travel in such a course as to adapt its plows to take more or less land. The caster-wheel is held in its adjusted position within the tubular vertical bearing by means of its clutch-coupling, and its spindle is normally elevated or raised by a coiled spring, so that the clutch members properly interlock, whereby the caster-wheel, when it strikes a lateral obstruction, is capable of swerving temporarily from its course, as the spring yields sufficiently to enable the interlocking members to ride or turn the desired distance upon one another; but the wheel is returned automatically to its position after it clears the obstruction.

I do not desire to confine myself strictly to the use of the coiled spring, as it is evident that it may be omitted and the weight of the driver utilized to keep the clutch members properly engaged, the seat to be occupied by the driver being supported on the bracket-arm in which the tubular bearing and spindle of the caster-wheel are likewise supported.

To enable others to more readily understand my invention, I will now proceed to a detailed description thereof, in connection with the accompanying drawings, in which—

Figure 1 is a top plan view. Fig. 2 is a side elevation taken from the landside of the plow. Fig. 3 is a similar elevation of the opposite side of the machine. Fig. 4 is an enlarged detail sectional view on the line  $\alpha\alpha$  of Fig. 1, showing the divided tongue and the coupling



for connecting the same to the machine. Fig. 5 is a detail perspective view of the combined land-gage and power-lift. Fig. 6 is a vertical sectional view, on an enlarged scale, through the means for supporting the caster or gage wheel. Fig. 7 is a detail view of the spring-controlled sliding rack for the main operating-lever.

Like numerals of reference denote corresponding parts in all the figures of the drawings, in which—

1 2 designate the parallel beams, which are connected together and braced by transverse pieces or struts 3, 4, and 5, these beams and the struts constituting the main frame of the machine, upon which all of the operative parts are mounted. The parallel beams are provided at their rear ends with curved depending hangers, which carry the plows 6 6' of the ordinary form. Near the middle of the main carrying-frame I arrange two axles 7 8, which are parallel with each other and journaled in suitable bearings 9 9', fixed, respectively, to the upper and lower sides of the main frame, and said axles are provided with cranks 7' 8', respectively, which are bent to form the spindles, upon which the carrying-wheels 10 10' are journaled in any suitable manner.

11 is the main operating-lever, which is loosely fitted at its lower end on a horizontal pivot 11', which is firmly secured to a fixed segment 12, that is secured to the rear end of the beam 2. This main lever carries a sliding spring-actuated latch 13, which is guided in suitable guides on the lever and controlled by a pivoted hand-piece 13', and this latch is adapted to engage with a hollow segmental rack 14, which is fitted to slide on the segment 12 for a limited distance. The sliding rack is normally depressed on the segment by a coiled spring 15; which is secured at one end to a central stem or rod 15', that runs longitudinally through the spring, one end of said rod or stem being secured to the fixed segment, while the other unattached end of the coiled spring bears against a fixed lug 15<sup>2</sup>, that projects laterally from the sliding rack, in order that the spring can exert its force to depress the rack and enable it to slide upwardly on the fixed segment when the main lever is turned by one or both of the carrying-wheels striking an obstruction, whereby the plows are permitted to remain in their adjusted positions, and injury to the several parts connected with the wheels is avoided.

16 is the secondary lever for operating the landside-wheel 10' independently of the other wheel 10, and this lever has a sleeve 16', which is fitted loosely on the fixed horizontal pivot 11' of the main lever, said sleeve of the secondary lever bearing against the main lever and being confined in place by a nut and washer secured to the threaded end of the pivot. This secondary lever carries a spring-actuated latch 17, which normally engages with a rack 18, that is carried by the main lever 11, whereby when the main lever

is turned the secondary lever moves therewith, owing to its rigid connection through the ratchet mechanism 17 18 with said lever 11 and to being loosely fitted on the horizontal fixed pivot 11', so that the two carrying-wheels are simultaneously adjusted when the main lever is turned; but the landside-wheel 10' can be operated independently to drop into the furrow by releasing the latch on the secondary lever from engagement with the rack on the main lever and turning said secondary lever in the proper direction. The axle 7 of the wheel 10 has an arm 19, to which is pivoted a link 20, which has its opposite end connected to a lug 20', formed on the lower end of the main lever near its fulcrum, and the other axle 8, which carries the landside-wheel 10', is connected to the secondary lever through a link 21, which is pivoted at one end to the lever 16 near its fulcrum and at its other end is connected to a crank-arm 22 on the inner end of said axle 8. It is evident that when the secondary lever 16 is released from the main lever it can be turned independently of the main lever to rock the axle and elevate or depress the landside-wheel; but when said secondary lever is connected rigidly to the main lever (as it is normally) the two levers are moved simultaneously to adjust the carrying-wheels and regulate the depth of the cut or pitch of the plows carried by the main frame.

25 designates the power-lift, which is connected to the main lever 11, and is adapted to have the doubletree attached thereto in order to utilize the draft of the animals in raising the plows out of the ground and thus relieve the operator of fatiguing labor. This power-lift comprises an endwise-movable bar arranged at the front end of the main frame and having at its front end a perforated head 25', to which the doubletree can be attached, the rear end of said lift-bar being pivoted to a link 26, which in turn is pivoted on a wrist-pin 26', attached to the lower end of a vertically-disposed lever 27. This lever is arranged laterally of the main frame, and is pivoted at its middle to one of the beams 1 thereof, the upper end of said lever being linked, as at 28, to a rock-shaft 29, which is journaled on the main frame, and has its opposite end connected by a link 30 to the main operating-lever 11 at a point near its fulcrum. This lift-bar is pivoted in such a manner as to swing laterally with a land-gage, presently described, through which it can slide freely in the direction of its length; but it is connected to the main lever in such a manner that when the latch of the lever is released from its rack and the lever is depressed the forward pull or draft exerted by the animals on the lift-bar serves to draw said bar forward beyond the normal position in which it is maintained by the lever 11, whereby the draft will be transmitted from said lift-bar through the lever and the several intermediate connections to the cranked axles to de-



press the carrying-wheels, and thus raise the plows out of the ground, which relieves the operator to a great extent of the labor of raising the plows manually.

5 The land-gage 31 is arranged at the front end of the machine to swing laterally thereof, either to the right or left, to change the line of draft, and it is connected with the power-lift bar to move the latter in either direction, 10 and at the same time enable said power-lift bar to have its necessary endwise movement without interference from the land-gage. It consists of a bar arranged above the power-lift bar, pivoted at its rear end to the trans- 15 verse piece 3 of the main frame, and having a guide or keeper 31 at its front end, through which the power-lift bar passes. The rear end of this gage-bar has a right-angled arm 32 at or near its fulcrum, and to the outer 20 end of this arm is connected the forward end of a rod 33, which extends to the rear end of the machine and connects with a hand-lever 34, fulcrumed on the main frame within convenient reach of the driver occupying the seat 25 and carrying a spring-latch 35, that is adapted to engage a fixed rack 35' on the main frame. It will be observed that by throwing the lever 34 forward the land-gage 31 and the power-lift bar will be moved on their pivots toward 30 the left of the main frame in the line of draft, and that a reverse movement of the lever 34 operates to adjust said bars toward the right of the frame, and thereby change the line of draft and cause the plows to take more or less 35 land, as desired. This adjustment of the land-gage and change of the line of draft can be readily effected by the driver without stopping the machine or dismounting therefrom and without interfering with the free move- 40 ment or operation of the power-lift bar should it become desirable, as is oftentimes the case, to raise the plows while the power-lift and land-gage are swung or moved laterally of the line of draft through the machine.

45 To the extreme front ends of the side beams of the main frame are secured vertical perforated plates 36, in which is adjustably secured a horizontal plate 37, on which rests the front end of the power-lift bar. Above this 50 perforated plate 37, I provide a bar 38, which is secured adjustably in the vertical perforated plates 36, and this bar carries a vertical bracket 38', which extends laterally beyond the land side of the main frame a short distance, said bracket being braced by means of 55 an inclined bar 39, which is bolted to the bracket and the frame. The tongue 40 is connected by a vertical bolt and a coupling 41 to the lateral extension of the bracket in such a manner that it is held rigid when par- 60 allel with the frame and the line of draft; but it can be turned at an angle thereto when the machine is at the end of the furrow to enable the animals and machine to turn within a narrow compass. The rear end of the tongue 65 is slotted and divided longitudinally to provide two yielding or compressible parts or

arms 42, which contact at their extreme rear ends, and through these parts or arms passes a vertical bolt 43, which also passes through 70 the coupling 41. This coupling has one member rigidly secured to the lower side of the tongue, and its other member likewise secured to an oscillating plate 44, which has 75 depending lugs that are loosely fitted on the horizontal extension of the vertical fixed bracket, whereby the tongue can be moved or turned freely in vertical planes on the bracket and thus allow the same to drop to 80 the ground when the animals are unhitched therefrom. The members of the coupling are provided on their opposing faces with interlocking jaws 45, which are adapted to turn or ride upon each other when the pole is turned 85 at an angle to the machine, out of line therewith, the divided parts or arms of the tongue being compressed, so as to enable the jaw on the section that turns with the pole to ride upon the jaw on the other section. The di- 90 vided parts or arms of the tongue have sufficient elasticity to force the jaws of the coupling firmly together, and thus hold the tongue rigid when it is in line with the machine; but when said tongue is turned the parts or arms of the tongue yield, as and for the purpose 95 before explained.

To the rear end of the beam 1, forming a part of the main frame, is firmly secured a horizontal arm 50, which carries the seat 51 100 and its supporting-bar 51'. This supporting-arm has aligned sleeves 52 formed integral therewith, and a vertical tubular bearing 53 is fitted in said sleeves and clamped rigidly to the bar by means of binding-screws 54, 105 which work in threaded apertures in the sleeves and bind against said tubular bearing. A vertical spindle 55 extends longitudinally through the tubular bearing, and at its lower end is rigidly secured to or made 110 integral with the adjustable supporting-frame 56, which inclines rearwardly from the spindle and has a caster or gage wheel 57 journaled therein. This supporting-frame and the caster-wheel are held in a secure 115 and rigid manner in relation to the rear plow and the frame by means of a coupling or clutch 58 intermediate of the adjustable frame and the rigid bracket-arm 50, said clutch permitting the caster-wheel to swerve temporarily out of its path when it strikes 120 an obstruction. The members 59 and 59' of this clutch are secured rigidly to or made integral with the lower end of the tubular bearing and adjustable frame of the caster-wheel, respectively, and said clutch-sections 125 are provided on their opposite faces with interlocking jaws 60, which are normally in engagement with each other. I prefer to employ a coiled spring 61, which is fitted around the spindle and housed either par- 130 tially or wholly in the fixed tubular bearing for the purpose of holding said clutch-sections in engagement with each other, and thus maintain the caster-wheel in its proper



position and permit it to swerve laterally to clear obstructions; but it is evident that the spring can be omitted and the clutch-sections forced into contact by the weight of the seat and the driver thereon, in which event the bracket-arm should be connected to the main frame, so as to allow a limited vertical play. To cause the plows to take more or less land, the tubular vertical bearing can be turned axially for a suitable distance in either direction, so as to incline the castor-wheel at an angle to the main frame, said bearing being held rigidly in its adjusted position by means of the binding-screws.

The operation and advantages of my invention will be readily understood and appreciated by those skilled in the art from the foregoing description, taken in connection with the drawings.

I would have it understood that I do not restrict myself to the details of construction and form and proportion of parts herein shown and described as the preferred embodiment of my invention, as I am aware that numerous changes therein can be made without departing from the spirit or sacrificing the advantages of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a wheel-plow, the combination, with a main frame and the cranked axles carrying the wheels, of a lever 11, for controlling the positions of said axles and having mechanism for locking itself against movement, a rock-shaft 29, connected to said lever, and an endwise-movable power-lift bar 25, located at the front end of the main frame and connected by intermediate devices with said rock-shaft to turn the latter, the lever 11, and the cranked axles when the lever 11 is released from its locking mechanism, substantially as described, for the purpose set forth.

2. In a wheel-plow, the combination, with a main frame, the cranked axles carrying the wheels, and a lever 11, connected to said axles, of a rock-shaft 29, linked to said lever, an endwise-movable power-lift bar 25, located at the front end of the main frame, and a vertical lever 27, fulcrumed on said main frame and connected to the lift-bar and the rock-shaft, substantially as described, for the purpose set forth.

3. In a wheel-plow, the combination, with a frame and the axles carrying the wheels, of a lever for adjusting the axles and wheels, an endwise-movable power-lift bar 25, located at the front end of the main frame and adapted to have a draft attachment connected thereto, a vertical lever 27, linked to the rear end of said lift-bar, and a rock-shaft 29, connected with said vertical and operating levers, all arranged and combined substantially as and for the purpose described.

4. In a wheel-plow, the combination, with the axles carrying the wheels and a main lever for controlling said axles, of an endwise-

movable lift-bar having a pivotal connection with the mechanism for connecting the same to the main lever, an adjustable land-gage having a sliding connection with said lift-bar, and an operating-lever connected to said land-gage for moving the latter and the lift-bar laterally of the machine, substantially as and for the purpose described.

5. In a wheel-plow, the combination, with the axles carrying the wheels and a main lever connected with said axles for controlling the same, of a power-lift bar connected with said main lever and capable of lateral movement, a land-gage having a loose connection with said lift-bar to insure lateral movement of said bar with the gage, and an operating-lever connected to the gage, substantially as and for the purpose described.

6. In a wheel-plow, the combination, with the axles carrying the wheels and a frame, of a main lever connected to said axles, an endwise-movable power-lift bar having a pivotal connection with the mechanism for connecting said bar with the main lever, a pivoted land-gage having a guide through which the lift-bar plays freely, and an operating-lever connected with said land-gage, substantially as and for the purpose described.

7. In a wheel-plow, the combination, with a frame and a coupling having the interlocking jaws, of a longitudinally-divided tongue having one jaw or member of the coupling rigidly secured thereto and a vertical pivot-bolt which passes axially through said coupling and the divided part of the tongue, substantially as described, for the purpose set forth.

8. In a wheel-plow, the combination, with a frame and a rigid bracket thereon, of a longitudinally-divided tongue, a coupling pivoted by a horizontal shaft or bolt on said rigid bracket to adapt it to turn in a vertical direction thereon and having the interlocking jaws or members, one of which is rigidly secured to the tongue, and a vertical pivot-bolt passing axially through said members of the coupling and the divided ends of the tongue, substantially as described, for the purpose set forth.

9. In a wheel-plow, the combination of a bracket, a divided tongue, a coupling having a vertical pivot which passes axially through the members of the coupling and the divided part of the tongue, and a horizontal pivot-shaft supported in the bracket and connected to the coupling in such a manner as to avoid the vertical pivot thereof, whereby the coupling is free to turn on the shaft in a vertical direction without regard to the positions of the interlocking jaws with relation to each other, substantially as described.

10. In a wheel-plow, the combination, with an axle carrying a wheel and a lever connected to said axle and having a latch, of a sliding rack fitted on a fixed guide on the frame of the machine and free to slide thereon for a limited distance and a spring con-



nected to sliding rack to normally depress the same and hold it stationary, substantially as described.

11. In a wheel-plow, the combination, with  
5 an axle carrying the wheel, of a lever connected to said axle and having a latch, a fixed segment supported on the frame of the machine, a sliding rack fitted on said segment to slide longitudinally thereon, and a spring  
10 connected to said sliding rack for normally holding the same in a fixed position, substantially as and for the purpose described.

12. In a wheel-plow, the combination of a main frame, a seat-supporting bracket supported thereon at the rear end and carrying  
15 a seat-standard, as described, a caster-wheel having its vertical pivot supported in said bracket, and a clutch intermediate of the caster-wheel frame and the seat-supporting  
20 bracket, substantially as described, for the purpose set forth.

13. In a wheel-plow, the combination of a bracket, a vertical tubular bearing secured therein and capable of being adjusted axially,  
25 means for rigidly holding said tubular bearing in the bracket, and a caster-wheel carried by said bearing and having automatic locking and releasing devices, substantially as and for the purpose described.

14. In a wheel-plow, the combination of a  
30 supporting-bracket, a vertical tubular bearing fitted therein and axially adjustable and having means for rigidly holding the same in position in the bracket, a wheel-supporting  
35 frame having a vertical spindle which is fitted loosely in the vertical bearing, a coiled spring connected to the spindle and the tubular bearing, a caster-wheel journaled in the  
40 wheel-supporting frame, and a clutch or coupling intermediate of the tubular bearing and the wheel-supporting frame, substantially as described, for the purpose set forth.

15. In a wheel-plow, the combination of a bracket, a tubular vertical bearing supported therein, a caster-wheel having a vertical  
45 spindle fitted in said bearing, and a clutch having its members rigid with the caster-wheel-supporting frame and the vertical bearing and provided with the interlocking jaws, and a coiled spring fitted around the vertical  
50 spindle of the caster-wheel, substantially as and for the purpose described.

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

LUPPE LUPPEN.

Witnesses:

JOHN W. MATTHESSON,  
H. F. TROEBE.