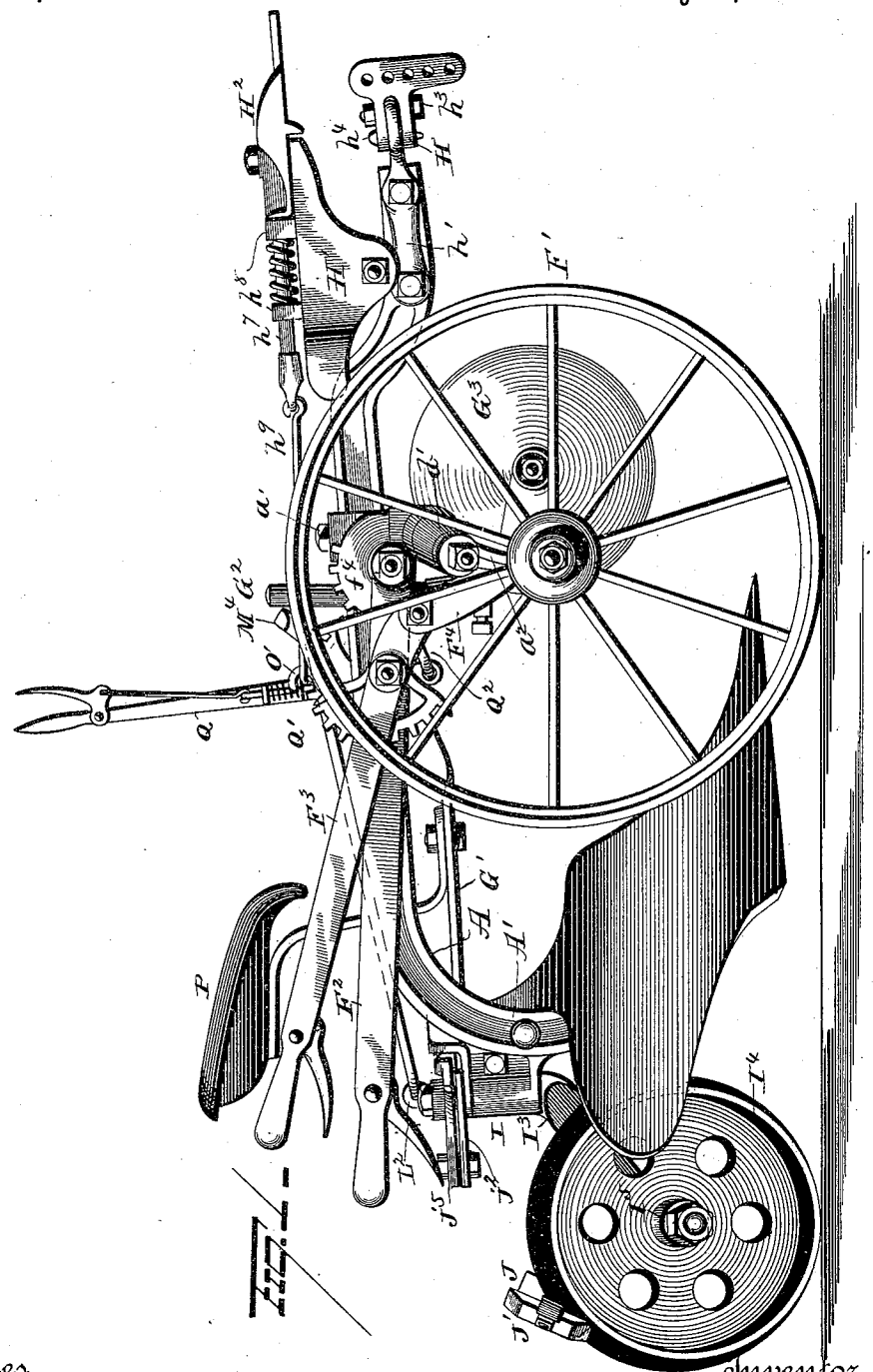
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# C. ANDERSON.

## SULKY PLOW.

No. 431,683. Patented July 8, 1890.



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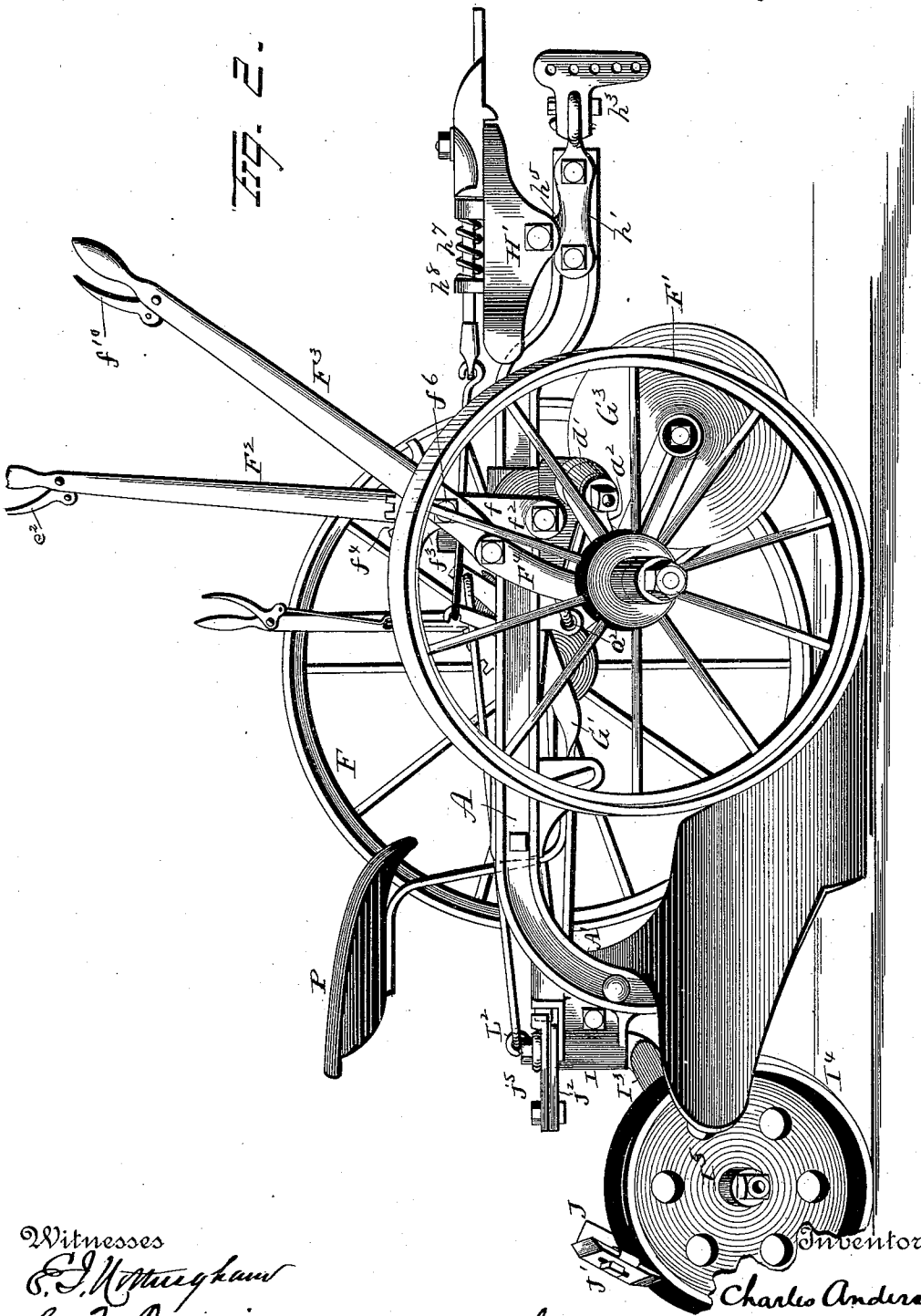
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## SULKY PLOW.

No. 431,683. Patented July 8, 1890.

Fig. 2.



Witnesses
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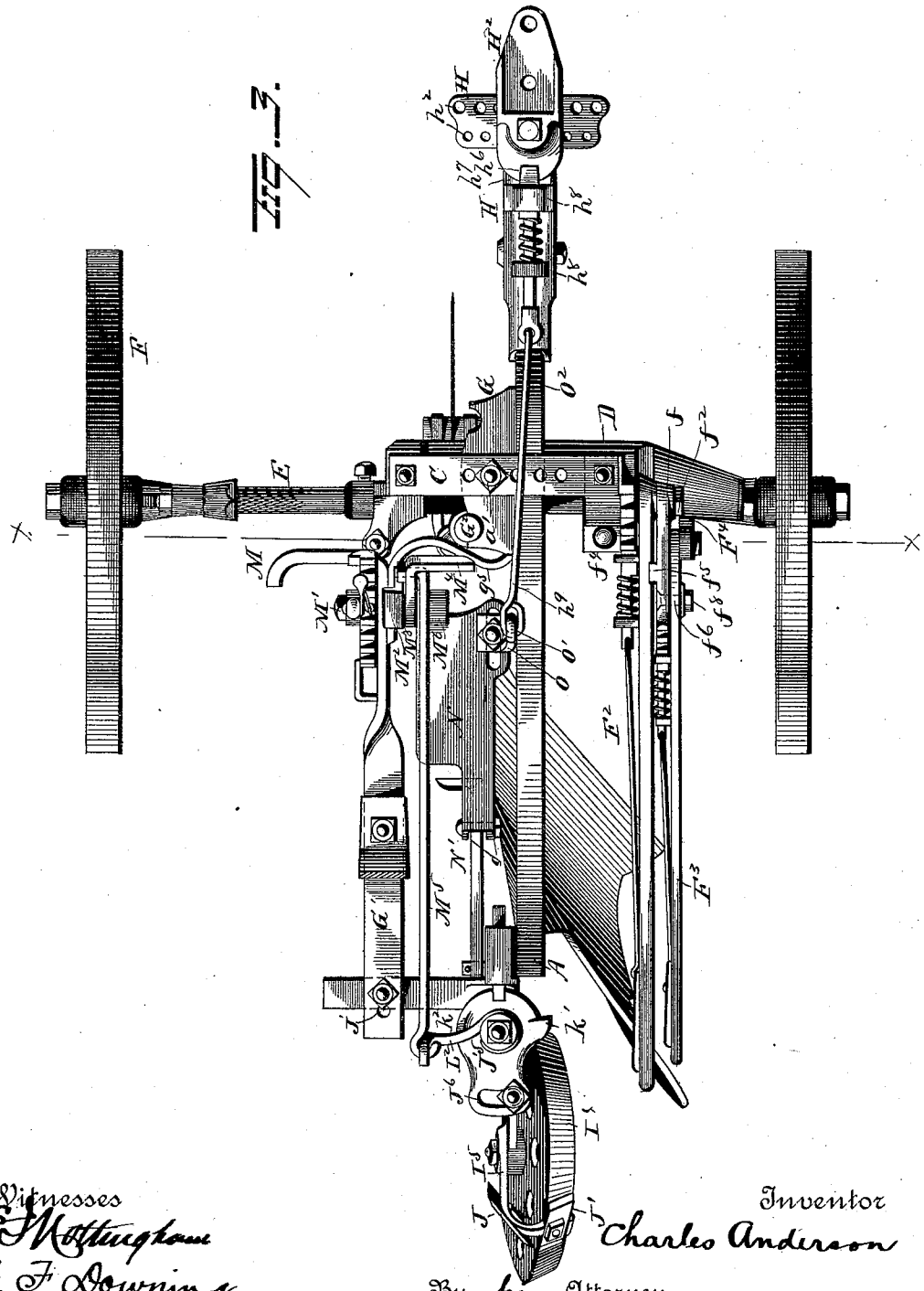
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## SULKY PLOW.

No. 431,683. Patented July 8, 1890.

Fig. 3.



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## SULKY PLOW.

No. 431,683. Patented July 8, 1890.

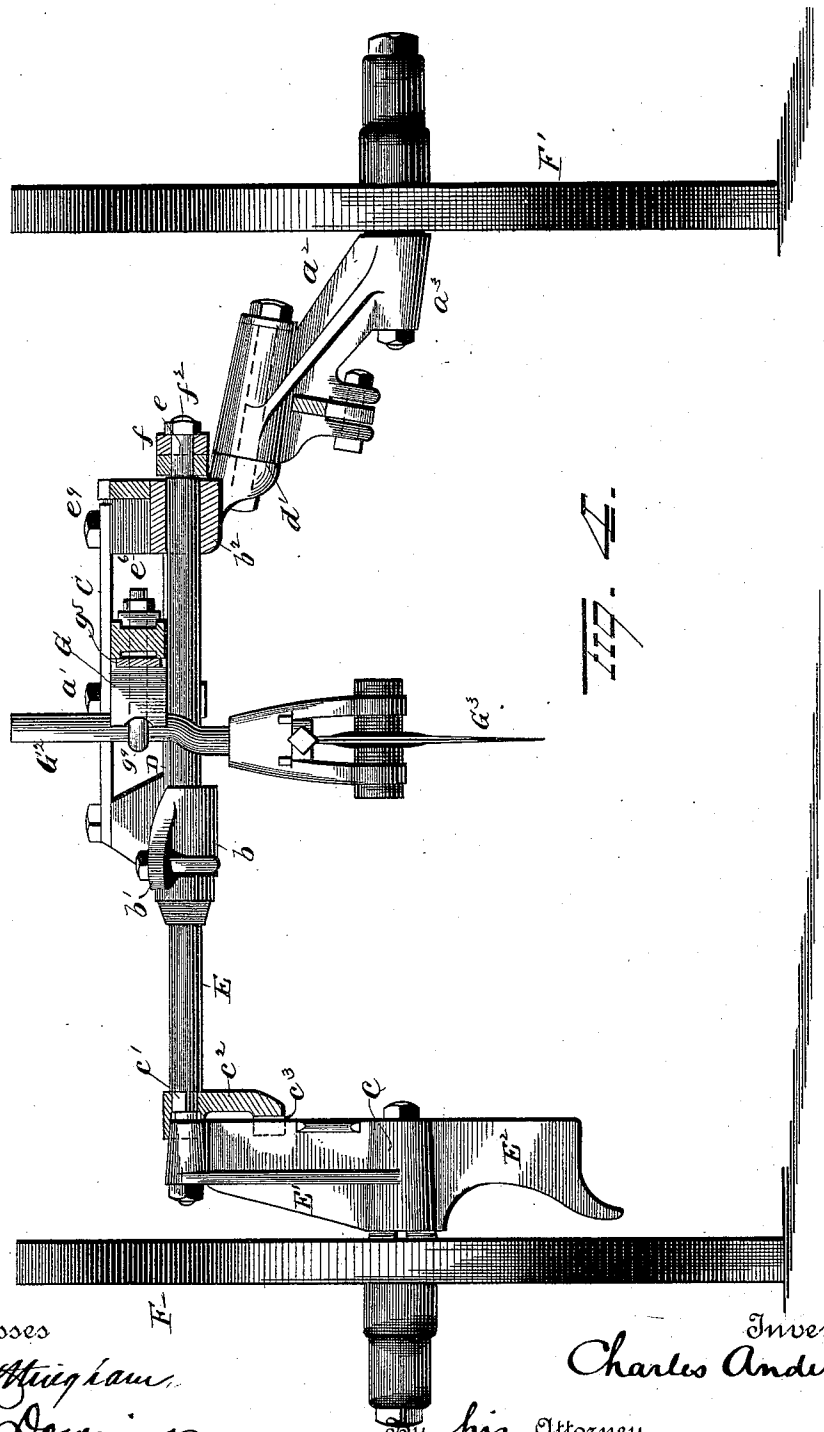



Fig. 4.

Witnesses
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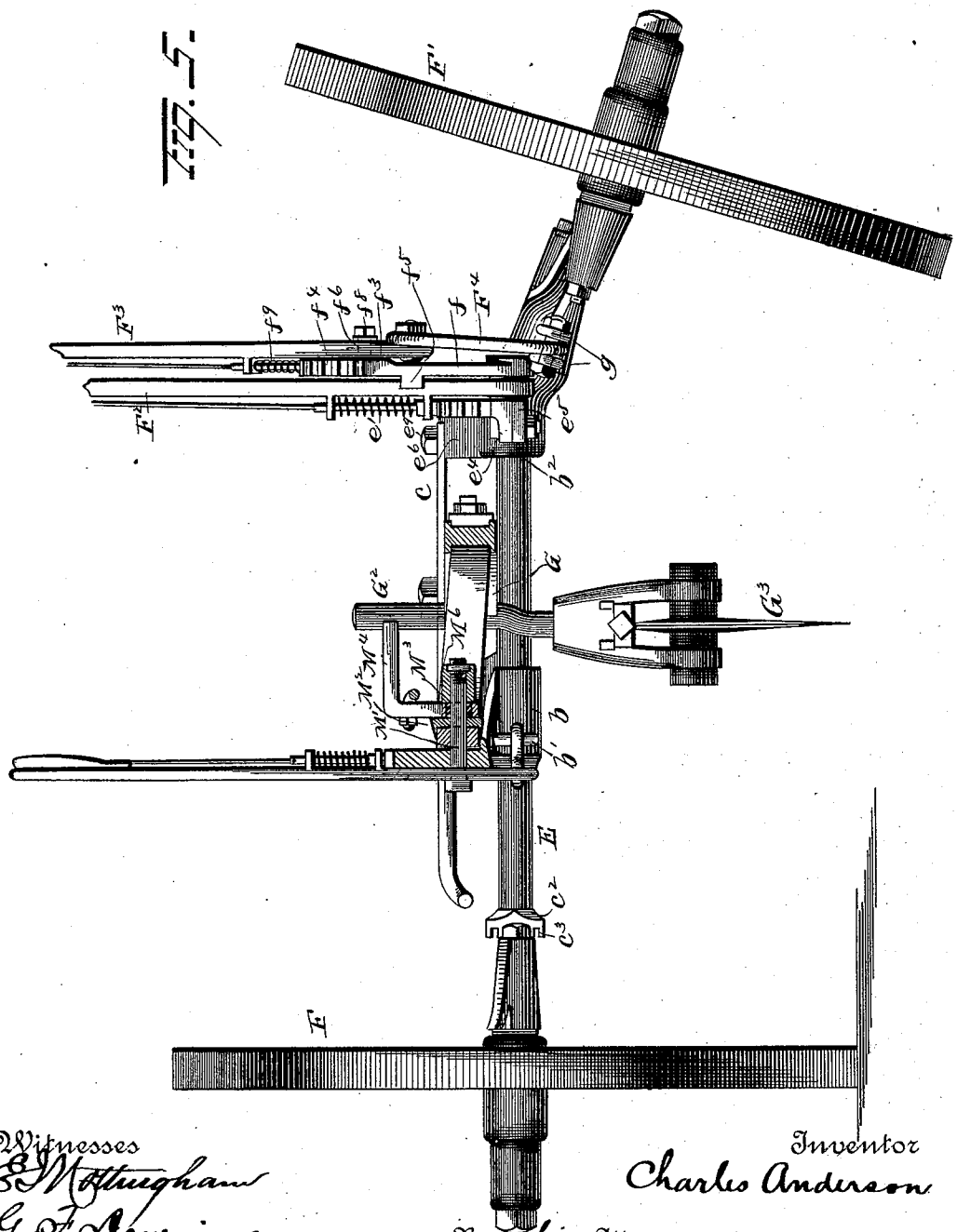
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## SULKY PLOW.

No. 431,683. Patented July 8, 1890.

Fig. 5.




Witnesses
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(No Model.) 8 Sheets—Sheet 6.

# C. ANDERSON.

## SULKY PLOW.

No. 431,683. Patented July 8, 1890.

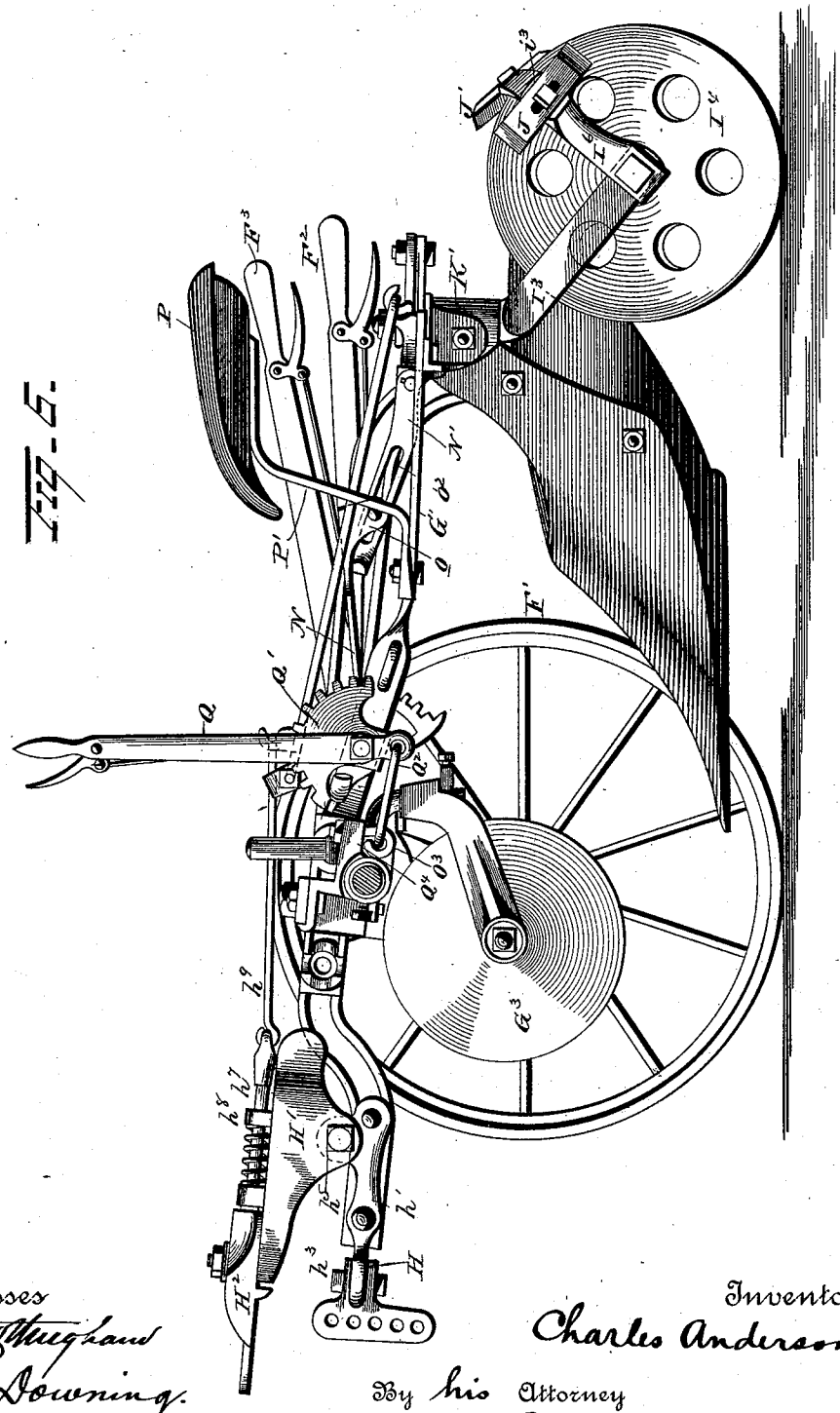


Fig. 6.

Witnesses
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(No Model.) 8 Sheets—Sheet 7.

# C. ANDERSON.

## SULKY PLOW.

No. 431,683. Patented July 8, 1890.

Fig. 1.

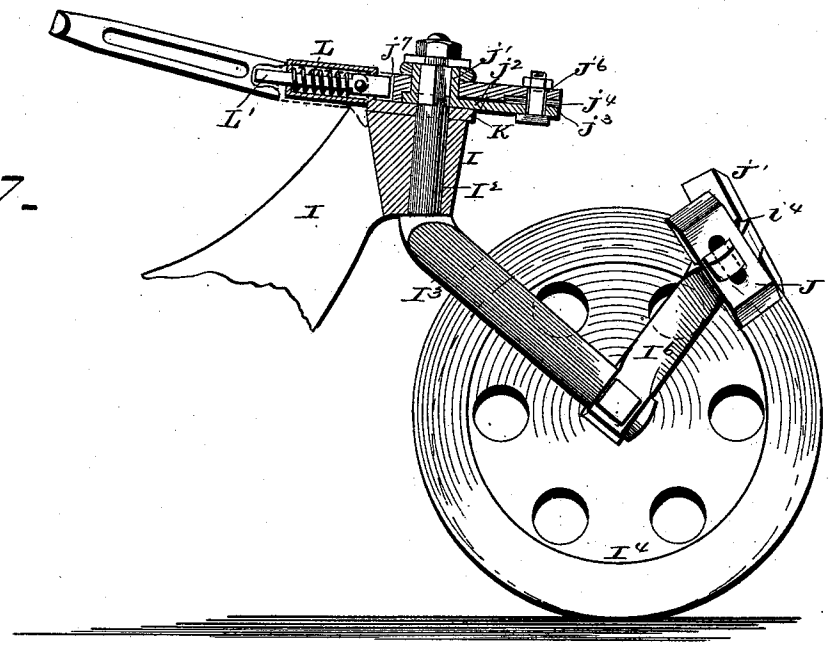



Fig. 2.

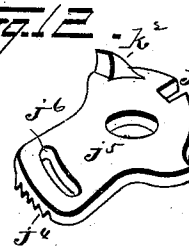



Fig. 3.

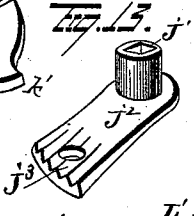
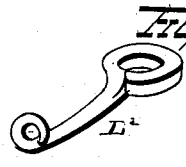



Fig. 4.



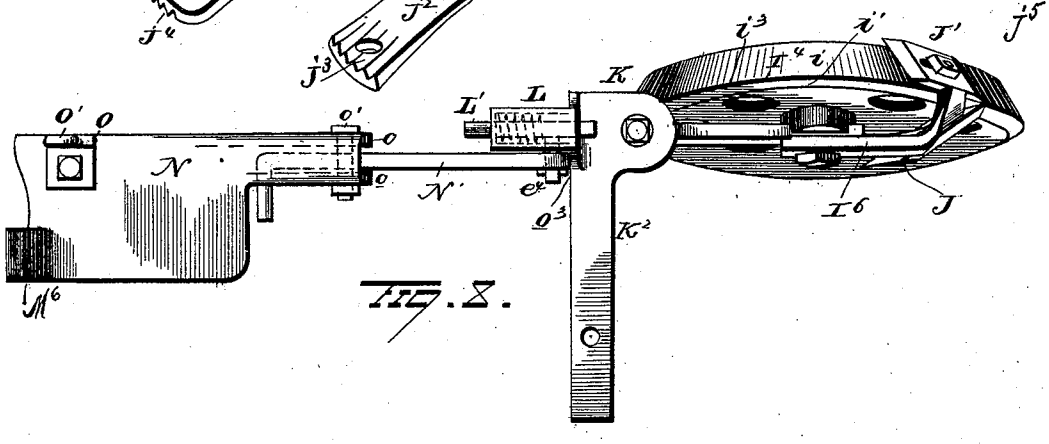




Fig. 5.

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(No Model.) 8 Sheets—Sheet 8.

# C. ANDERSON.

## SULKY PLOW.

No. 431,683 Patented July 8, 1890.

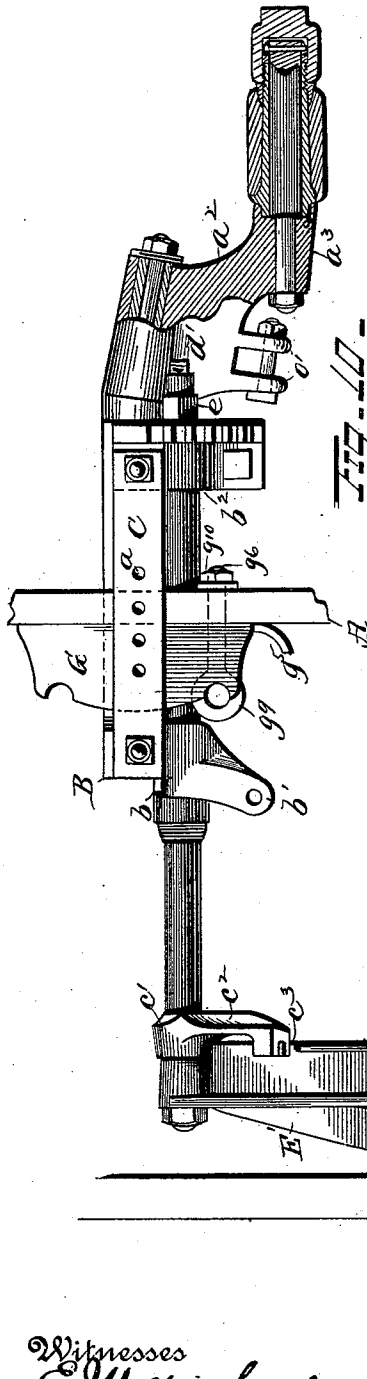


Fig. 1.

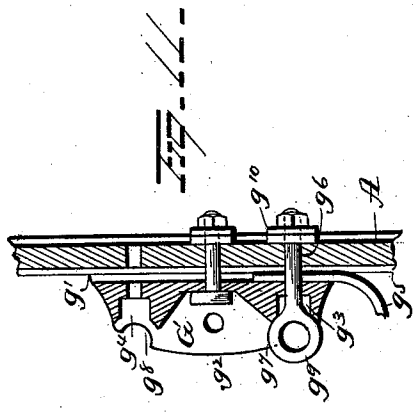


Fig. 2.

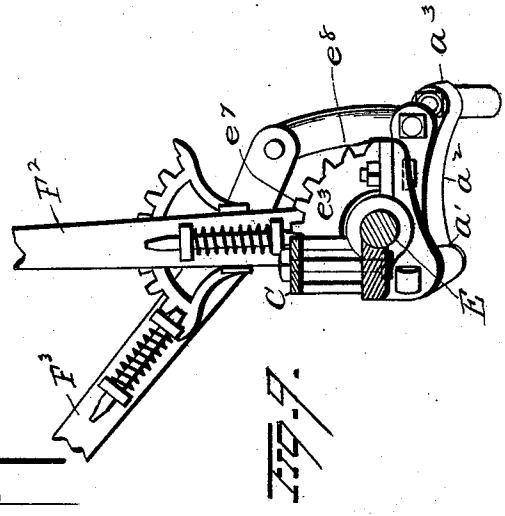


Fig. 3.

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# UNITED STATES PATENT OFFICE.

CHARLES ANDERSON, OF SOUTH BEND, INDIANA, ASSIGNOR TO THE SOUTH BEND IRON WORKS, OF SAME PLACE.

## SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 431,683, dated July 8, 1890.

Application filed October 4, 1889. Serial No. 326,004. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES ANDERSON, a citizen of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Sulky-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 appertains to make and use the same.

My invention relates to an improvement in sulky-plows, and is designed more particularly as an improvement upon that for which Letters Patent were granted to me March 19, 1889, and numbered 399,814.

The object of my present invention is to provide means for inclining the furrow-wheel, whereby it may be adjusted to any desired angle, as needs of work may determine, or be straightened up parallel with the other wheel when the plow is not in operation, so as to permit the machine to be run over a road to and from the field.

A further object is to so construct the caster-wheel and its attachment to the machine as to facilitate a "gee" or "right" turn of the plow in turning a corner with the plow in the ground, such attachment also enabling the caster-wheel to be thrown back again to its normal position.

A further object is to so construct the adjusting devices of the caster-wheel that the three wheels may be lined up with each other and not crowd the corner of the furrow, thereby lessening the draft.

A further object is to provide an improved scraping device for the caster-wheel, whereby said wheel is constantly kept clean and dirt prevented from clogging thereon.

A further object is to provide an improved saddle and to so attach it to the plow-beam that considerable clearance will be afforded between the plow and plow-beam.

A further object is to improve the construction generally of the device and to provide a sulky-plow which shall be easy of manipulation and effective in operation.

With these objects in view my invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation of the plow. Fig. 2 is a side elevation with the share in position for plowing. Fig. 3 is a plan view. Fig. 4 is a transverse sectional view on the line $x\,x$ of Fig. 3. Fig. 5 is a similar view on the same line with the plowshare in working position. Fig. 6 is a left side elevation. Fig. 7 is an enlarged view of the caster-wheel and attached parts. Fig. 8 is a plan view of the same. Fig. 9 is a view of a portion of the shifting mechanism. Fig. 10 is a view of the block which holds the cutting-disk in its position on the axle. Fig. 11 is a horizontal section through this block. Figs. 12, 13, and 14 are views illustrating certain details.

A represents the plow-beam, preferably formed with ribbed edges to afford proper strength. At its rear the beam is bent downwardly to form a standard A′ for the attachment of the plow proper. The forward end of the beam is supported by the axle and wheels, as hereinafter explained. The beam is adjustably supported on the axle by means of a saddle B. This saddle is composed in the main of two plates C and D, connected at their ends and receiving the beam A between them, said plates being provided with aligned perforations $a$ for the reception of a headed bolt $a'$, the purpose of which will be explained farther on.

Formed integral with one end of the plate D of saddle B is an outwardly and rearwardly extending perforated boss $b$, and projecting rearwardly from said boss is a perforated lug $b'$. Another perforated boss $b^2$ is made integral with the opposite end of saddle-plate D in line with the perforation of the boss $b$. In these bosses the crank-axle E is mounted, and from the boss $b$ said axle is extended some distance beyond the end of the saddle and provided at its free end with a rigidly-attached ribbed arm E′, which projects laterally therefrom. The outer end of the arm E′ is provided with a spindle-box $c$, and wheel F is mounted on a sleeve supported by a suitable spindle, which latter is supported by the arm E′.

On the inner end of the arm E′ an integral extension is made and serves as a foot-lever $E^2$. A collar $c'$ is secured upon the axle E near the arm E′ and provided with an integral arm $c^2$, having a series of teeth $c^3$, adapted to engage one edge of the arm. By this means arm E′ and axle E may be adjusted relative to each other.

Projecting downwardly and outwardly from saddle-plate D, slightly beneath and in advance of the boss $b^2$, is a tapered skein, on which a tapered hub $d'$, which forms one section of the sectional crank-axle, is loosely mounted, a bolt having a washer on one end for holding the hub in place being inserted through the skein, where it is held by a nut screwed on the other end. A web $a^2$ is formed integral with one side of the hub, and the other end of this web terminates in an outwardly-projecting ribbed axle-supporting arm $a^3$, which latter carries the spindle of wheel F′. The end of the section E of the crank-axle nearer the wheel F′ projects slightly beyond the saddle B, and is provided with a squared end $e$. A hand-lever $F^2$ is provided at one end with an angular perforation adapted to receive the squared end $e$ of the section E of the axle, and it is furnished with the usual spring-latch $e'$ and connected finger-levers $e^2$ to engage the edge of a sector $e^3$, on a portion of which rack-teeth $e^7$ are furnished, and upon the balance of the upper edge ratchet-teeth $e^8$ are provided. The purpose of this arrangement will be adverted to later. The sector $e^3$ is located alongside the lever $F^2$ and in position to be engaged by the spring-latch $e'$. A lug $e^4$ projects at right angles to the lower end of the sector $e^3$ and rests upon a corresponding lug $e^5$, projecting from the saddle B, and a bolt passed through the two lugs, thus securing the lower end of the sector-plate to the saddle. The upper end of the sector-plate is provided with an integral block $e^6$, which projects therefrom at right angles and rests upon the saddle-plate D. The upper saddle-plate C rests upon the top of this box, and a bolt $e^9$, passing through the block $e^6$ and plates C and D of the saddle, secures said parts together and the upper end of the sector $e^3$ to the saddle. The extremity of the section E of the crank-axle beyond the squared portion thereof is screw-threaded. An arm $f$, having a perforation at its lower end, is placed loosely upon the screw-threaded end of axle E and a securing-nut $f^2$ screwed upon the protruding end of said axle. The arm $f$ extends upwardly from its connection with the axle E parallel and in close proximity to the lever $F^2$ and terminates at its upper end in a sector $f^3$, having a series of teeth $f^4$ at its upper end. At a point below the sector $f^3$ the arm $f$ is provided with a small yoke $f^5$, which embraces the lever $F^2$ and serves to lock the sector-arm $f$ and lever $F^2$ together.

Secured to and projecting laterally from the arm $f$ at the base of the sector $f^3$ is a pin $f^6$, having a screw-threaded portion at its end. A lever $F^3$ is provided with a perforation near its lower end for the reception of the pin $f^6$, which forms its fulcrum, said lever being retained on the pin by means of a nut $f^8$. The lever $F^3$ is provided on one face with the usual spring-catch $f^9$ for engagement with the sector $f^3$, and connected with the spring-catch is the usual finger-lever $f^{10}$.

Pivotally connected with the lower end of the lever $F^3$ is one end of a depending link $F^4$, which at its other end is pivoted between two ears $g\ g$, projecting from web $d^2$ of hub $d'$. Now it will be seen that by operating the lever $F^2$ the forward end of the beam A will be raised and lowered, and with it the plowshare, and thus the depth of the plow may be regulated at will. During the operation of the lever $F^2$ to raise or lower the plow the spring-catch of the lever $F^3$ will remain in engagement with the sector $f^3$, and the position of the lever $F^3$ with relation to its sector will be unchanged, and ordinarily will be at or near the upper extremity of its throw. As the lever $F^2$ is connected with the web $d^2$ of hub $d'$ through the medium of lever $F^3$ and link $F^4$, the operation of lever $F^2$ to raise or lower the plow will also serve to incline the wheel F′ more or less, according to the extent to which said lever $F^2$ is moved. The elevation of the plowshare is entirely dependent upon the movement of lever $F^2$, and just here the object of the ratchet-teeth $e^7$ on the rigid sector $e^3$ is made apparent, for, as shown, they are on the rear portion of the sector, where the most changes are produced. By means of them the lever may be quickly lowered at any time without touching the finger-levers, and especially where a sudden exigency arises—such as avoiding a stone or stump—the plow being thrown out of the earth by simply lowering the lever without touching the finger-levers, owing to the ratchet-teeth. The foot-lever $E^2$ now comes in play. By depressing it assistance is afforded in raising the plow out of the ground.

In order to provide additional means for inclining the furrow-wheel F′, the lever $F^3$ is provided. It will be readily seen from the connnection of lever $F^3$ with the hub $d'$ that by operating said lever in the opposite direction from lever $F^2$ the hub will be turned on the tapered skein and the inclination of the wheel made greater or less. By this means the furrow-wheel may be made to incline at any desired extent. The lever $F^3$ is employed to perform another important function—viz., to bring the furrow-wheel F′ into parallel with the wheel F, so that the machine can be run over a road to and from the place where the plowing is to be done. To accomplish this the lever $F^2$ is first operated to raise the plowshare clear of the ground. The lever $F^3$ is then operated in the opposite direction until the furrow-wheel comes into parallel with the wheel F. It is obvious that with the levers $F^2$ and $F^3$, constructed and connected to the machine as above described, numerous

adjustments of the plow and furrow-wheel can be readily and quickly made.

Between the plates C and D of the yoke and alongside the beam A a block G is located. One side of this block is provided with a longitudinal groove $g'$, while the other side edge is provided with a central recess $g^2$ and recesses $g^3$ $g^4$ near its ends. The curved forward arm $g^5$ of the seat-bar G′ is inserted in the groove $g'$ of block G and held therein by means of a bolt $g^6$, which passes through the beam A, arm $g^5$, and block G. The block G is perforated vertically for the accommodation of the bolt $a'$, which also passes through two of a series of aligned perforations $a$ in the plates C and D of the saddle. By this construction the relative position of the beam A to the saddle can be easily and quickly regulated. The block G is provided near each end with recesses $g^7$ $g^8$, adapted to receive the stem $G^2$ of a revolubly-mounted cutting-disk $G^3$. The stem $G^2$ also passes loosely through the eye of a bolt $g^9$, which latter is adapted to pass through the block G and beam A and is screw-threaded on its free end for the reception of a nut $g^{10}$. When the stem $G^2$ has been inserted through the eye of bolt $g^9$, the nut on the end of said bolt is screwed up and the stem will be tightly clamped in the groove in the block, such construction also permitting ready vertical adjustment of the disk. By constructing both ends of the block G the same and suitably perforating the beam the stem of the cutting-disk can be secured at either end of the block, and thereby locate said disk nearer to or farther from the plow-point. The forward end of the beam A is preferably bent downwardly and forwardly and provided with a plate H. The plate H is provided with rearwardly-extending arms $h'$, which embrace and are secured to the beam A by means of suitable bolts. Said plate H is also provided with a double row of perforations $h^2$, adapted to receive the bolt $h^3$ and key $h^4$, which hold the clevis-plate to the perforated plate. The clevis-plate is also provided with a row of holes for the attachment of the whiffletree.

Projecting upwardly from the rear ends of the arms $h'$ and over the beam A is a perforated boss $h^5$, to which a tongue-supporting arm H′ is pivoted, and on the forward end of this arm a tongue-socket $H^2$ is pivoted. The rear end of this socket is rounded and provided with a notch $h^6$. A spring-actuated sliding latch $h^7$ is held in straps $h^8$ in position to enter the notch $h^6$ when the latter is in position to receive it. From this latch a controlling-rod $h^9$ extends back. The tongue may be used or not; but when not used the arm is removed, and the clevis above described will be employed in attaching the draft-animals to the machine.

The plow proper, consisting of the mold-board and point of ordinary construction, is attached to the standard A′ by bolts or other approved means. The portion which is attached to the standard projects upwardly to a point about on line with the beam, and the upper end of this arm I is provided with a socket I′ for the reception of the stem $I^2$ of a bracket $I^3$, at the free end of which a caster-wheel $I^4$ is mounted on a laterally-projecting pin $I^5$. The caster-wheel $I^4$ is preferably provided with a beveled rim $i$, and its rear face, as at $i'$, is slightly inclined to produce a sharp rim $i^3$, adapted to run close to the land side of the furrow.

Secured to the lower end of the bracket-arm $I^3$ by means of the head of the pin $I^5$ is an arm $I^6$. This arm is provided with a recess at its lower end for the reception of the arm $I^3$, whereby said arms are maintained at right angles to each other. The free end of the arm $I^6$ is twisted to produce a bearing-face $i^3$ and then bent over the periphery of the caster-wheel at right angles to the main portion of the arm to form a bearing-face $i^4$. At the points $i^3$ $i^4$ shallow recesses are formed for the reception of scrapers J J′, the scraper J being adapted to scrape adhering dirt from the rear inclined face $i'$, and the scraper J′ being adapted to keep the beveled rim $i$ clean. At the bearing-faces $i^3$ $i^4$ the arm is perforated for the reception of short-headed screw-threaded bolts $i^5$, which also pass through elongated slots made in the scraping-blades J J′, and upon their screw-threaded ends these bolts or pins are provided with suitable nuts. By this construction the blades J J′ are made adjustable to compensate for wear, and by sharpening both ends they may be reversed when one end wears out.

Mounted upon the top of the socketed arm I is a plate K, having a flange K′, which projects downwardly alongside of said socketed portion of the arm and is bolted thereto. From the plate K a laterally-projecting arm $K^2$ extends a sufficient distance to produce a support for the rear end of the seat-bar G′, to which it is bolted. The seat-bar may, if desired, be provided with a series of perforations $j$ to facilitate adjustment in attaching it to the arm $K^2$.

The upper extremity of the stem of the bracket-arm $I^3$ is screw-threaded for the reception of a nut, and immediately beneath this threaded portion the stem is made square for the reception of the collar $j'$, which latter is an integral projection from a rearwardly-extending plate $j^2$. At the free end of the plate $j^2$ it is provided on its upper surface with a series of teeth $j^3$, adapted to mesh with similar teeth $j^4$, formed on the under face of a plate $j^5$. The plate $j^5$ is provided near its front end with a perforation adapted to loosely surround the circular exterior of the collar $j'$. A headed bolt is passed through the free end of plate $j^2$ and through an elongated slot $j^6$ in the plate $j^5$. By this means the plates $j^2$ and $j^5$ can be adjusted relatively to each other and secured at any desired adjustment, and the caster-wheel may be nicely adjusted to line up the three wheels with each other, so as not

to crowd the furrow, thereby lessening the draft. The rear end of the plate $j^5$ is rounded and provided with a notch $j^7$. Projecting rearwardly from the plate K is a box L, in which is fitted a spring-actuated latch L′, which is adapted to normally rest in the notch $j^7$ of plate $j^5$. A lug $k'$ projects from one edge of the plate $j^5$, and by engagement with the box L prevents said plate from turning too far. Another lug $k^2$ projects upwardly from the face of said plate and serves as an abutment with which a lever $L^2$, loosely mounted on the collar $j'$, engages. The forward end of the seat-bar G′ is bent laterally to form a foot-rest M, and immediately in rear of this foot-rest the bar G′ is perforated for the accommodation of a headed bolt M′. A block $M^2$, having a flange to embrace the bar G′ to prevent the block from turning, is mounted on the bolt M′ and is provided with a collar $M^3$. A foot-lever $M^4$ is loosely mounted on the collar $M^3$ and loosely attached by means of a rod $M^5$ with one end of the lever $L^2$. Also loosely mounted on the collar $M^3$ is sleeve $M^6$, which projects from one end of a platform N, located directly over the cutting-disk $G^3$. The opposite end of the platform is supported by one end of a foot-lever N′ and is cut away to accommodate the tread of said lever. The rearwardly-extending portion of the platform is provided with depending ears *o*, having perforations for the reception of a bolt *o*′, which also passes through an elongated slot $o^2$ in the foot-lever N′. By thus providing a platform over the cutting-disk the foot of the operator is prevented from danger of injury by the disk. The rear end of lever N′ is provided with a toe $o^3$, which bears against the arm $K^2$. Immediately above the toe $o^3$ the lever N′ is perforated for the accommodation of a post $o^4$, projecting from the spring-latch L′. At the forward end of the platform an upwardly-extending arm O is secured and provided at its top with a hook O′. A rod $O^2$ loosely connects this hooked arm with one end of the sliding latch $h^7$.

By the construction of the caster-wheel and attached parts and their connection with the operating mechanism of the device, as above described, a turn of the plow in turning a corner with the plowshare in the ground is facilitated. When it is desired to make a right turn with the plow in the ground, the foot-lever N′ will be pressed. This will cause the toe at the rear end of said lever to bear against the arm K and the lever to turn on the post $l^4$ of latch L′ as a fulcrum. Continued pressure on the foot-lever will cause the latch L to be withdrawn and the plate $j^5$ released, and at the same operation the platform N will turn on the bolt M′, and the free end of the arm O made to move rearwardly, thus withdrawing the sliding latch $h^7$ and permitting the shaft to turn. The caster-wheel and attached parts are now free to turn to permit the plow to turn to the right. As the plow is not provided with a landside, the pressure of the soil would prevent the caster-wheel from going back to its place if some provision were not made for returning the wheel to its normal position. By pressing the foot-lever $M^4$ the horizontal lever $L^2$ will engage the lug $k^2$ of plate $j^5$ and turn said plate and caster-wheel to their normal position, when the plate will be engaged by the spring-latch L′. When the machine is turned to the left and then back to a normal position, the caster-wheel will automatically assume its normal position.

The seat P is supported on a curved arm or bracket P′, secured to the seat-bar G′.

In order to throw the plow in and out to regulate the width of furrow-slice in straightening the furrow or turning around obstacles—such as stones and stumps—without the necessity of turning the draft-animals to one side, a lever Q is provided.

A sector Q′ is secured to the seat-bar by means of the bolt M′, and on the outer end of the bolt securing the sector to the frame the hand-lever Q is pivoted. Said lever is provided with the usual means for locking it to the sector, and the lower end extends below its pivot or fulcrum, where it is pivotally connected by a link $Q^2$ to an eyebolt $Q^3$, which latter is secured to a lug $Q^4$, projecting from the saddle.

It is to be observed that the lever is in position to be manipulated by the left hand of the driver if a right-hand plow, and the reverse if a left-hand plow, the other levers all being to his right or left, according to the hand-plow used. Now by giving the lever its extreme forward adjustment the plow is made to cut a wider slice. By the opposite adjustment the plowshare is turned out of the furrow. Of course any intermediate adjustments may be made.

It is obvious that slight changes might be made in the constructive details of my invention without departing from the spirit thereof or limiting its scope. Hence I do not wish to limit myself to the precise details of construction herein described; but,

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

1. In a sulky-plow, the combination, with a plow and beam, axle, and wheels, of a lever for raising and lowering the plow and a separate lever pivoted to the other lever for regulating the inclination of the furrow-wheel, substantially as set forth.

2. In a sulky-plow, the combination, with the plowshare and beam, sectional axle, and wheels, of a lever connected to one section of the axle for raising and lowering the plowshare and a lever pivoted to the first-mentioned lever and having its short arm connected with the other section of the axle for regulating the inclination of the furrow-wheel, substantially as set forth.

3. In a sulky-plow, the combination, with the plowshare and beam, sectional axle, and

wheels, of a lever secured to the end of one section of the axle, a sector for said lever, a sector secured to said lever, a second lever pivoted to the last-mentioned sector and having a spring-catch to engage the same, and a link connecting the second lever at a point below the fulcrum with the section on the axle carrying the furrow-wheel, substantially as set forth.

4. In a sulky-plow, the combination, with a plowshare and beam, axle, and wheels, of a lever for raising and lowering the plowshare, a lever pivoted to the other lever and having its lower end connected with the axle for regulating the inclination of the furrow-wheel, and a lever for swinging the share out of line with an obstruction, substantially as set forth.

5. In a sulky-plow, the combination, with a sectional axle, of a saddle mounted on the axle, the plow-beam passing through the saddle, one section of the axle being supported in a furrow-wheel, an arm adjustably secured to the other section, said arm having a spindle, and a ground-wheel in which the spindle is supported, substantially as set forth.

6. In a sulky-plow, the combination, with a sectional axle, of a saddle mounted on the axle, the plow-beam passing through the saddle, one section of the axle being supported in a furrow-wheel, an arm adjustably secured to the other section, said arm having an outwardly-projecting foot-lever and a spindle, and a ground-wheel in which the spindle is supported, substantially as set forth.

7. In a sulky-plow, the combination, with an axle, of a saddle mounted on the axle, the plow-beam passing through the saddle, one section of the axle being supported in a furrow-wheel, an arm loosely mounted on the outer end of the other section and having a spindle supported in a suitable ground-wheel, and a toothed arm secured on the axle with its teeth in engagement with the spindle-carrying arm, substantially as set forth.

8. In a sulky-plow, the combination, with a beam and a saddle composed of two parts secured together and separated for the reception of the beam, of an axle journaled in one part of said saddle for one of the ground-wheels and an arm journaled on a bearing carried by said part of the saddle for the other ground-wheel.

9. In a sulky-plow, the combination, with a plowshare and beam, of a saddle secured thereto, a block secured to the beam, said block having sockets at or near each end, and a cutting-disk carried by said block in advance of the plowshare on either side of the axle, substantially as set forth.

10. In a sulky-plow, the combination, with a plowshare and beam, of a saddle adjustably secured thereto and a block secured to the beam in advance of the plow share, said block being adapted to receive the bracket of a cutting-disk at different points in its length, substantially as set forth.

11. In a sulky-plow, the combination, with a plowshare and beam, of a saddle adjustably secured thereto, a block secured to the beam between the parallel parts of the saddle, and a cutting-disk carried by the block, substantially as set forth.

12. In a sulky-plow, the combination, with a plowshare and beam, of a saddle adjustably secured to the beam and a block secured to the beam between the parallel parts of the saddle, said block being adapted to receive and adjustably support the bracket-arm of a cutting-disk at either side of the saddle, substantially as set forth.

13. In a sulky-plow, the combination, with the beam, of a bevel caster-wheel carried thereby, an arm secured to the bracket of the caster-wheel, and scrapers (having both ends sharpened) adjustably secured to said arm, one scraper being adapted to engage the periphery of the wheel and the other the rear edge thereof, substantially as set forth.

14. In a sulky-plow, the combination, with the beam, of a caster-wheel carried thereby, a plate having teeth connected with the bracket of said caster-wheel, a loosely-mounted plate having teeth to engage the first-mentioned plate, a bolt for adjustably securing said plates together, whereby the caster-wheel is made to align with the other wheels of the machine, and a spring-catch for maintaining the loosely-mounted plate rigid, substantially as set forth.

15. In a sulky-plow, the combination, with a beam and a swivel caster-wheel carried thereby, of a plate adjustably secured to the bracket of the caster-wheel, means for releasing said plate to permit the caster to turn on its swivel, and a lever adapted to engage a projection on said plate and return it to its normal position, substantially as set forth.

16. The combination, with a sulky-plow, of a cutting-disk located in advance of the plowshare and a hinged platform over the cutting-disk to protect the foot of the driver from injury by the cutting-disk, substantially as set forth.

17. In a plow, the combination, with a beam, a swivel caster-wheel, and an adjustable tongue, of a cutting-disk carried by the beam, a pivoted platform over said disk, devices for locking the tongue connected with one end of the platform, and devices for locking the caster-wheel connected with the other end of the platform, substantially as set forth.

18. In a sulky-plow, the combination, with a beam, a swivel caster-wheel, an adjustable tongue, and devices for locking said parts, of a pivoted platform, a foot-lever pivotally connected at one end thereto and at the other end to the locking devices of the caster-wheel, and an arm at the other end of the platform connected with the locking devices of the adjustable tongue, substantially as set forth.

19. In a sulky-plow, the combination, with a beam, a swivel caster-wheel, an adjustable tongue, and devices for locking said parts, of

a pivoted platform cut away at its rear end to accommodate a foot-lever pivotally connected with the platform, the other end of said lever being connected with the locking devices of the caster-wheel, and an arm on the forward end of the platform connected with the locking devices of the adjustable tongue, substantially as set forth.

20. The combination, with a sulky-plow, of a cutting-disk carried by the beam, an arm projecting from the rear portion of the beam, a seat-bar secured at one end to said arm and at the other end to the forward portion of the beam, a seat secured to the seat-bar, and a platform located between the seat-bar and beam and over the cutting-disk, substantially as set forth.

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

CHARLES ANDERSON.

Witnesses:

F. C. NIPPOLD,

MICHAEL M. MATTHEWS.