No. 880,724. PATENTED MAR. 3, 1908.

C. R. DAVIS.

SULKY PLOW.

APPLICATION FILED SEPT. 24, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

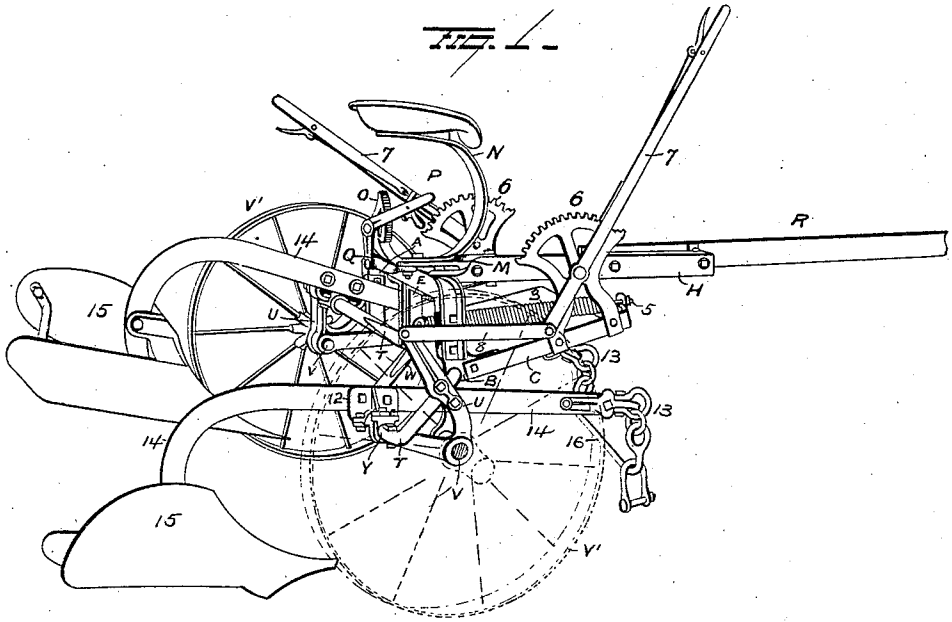
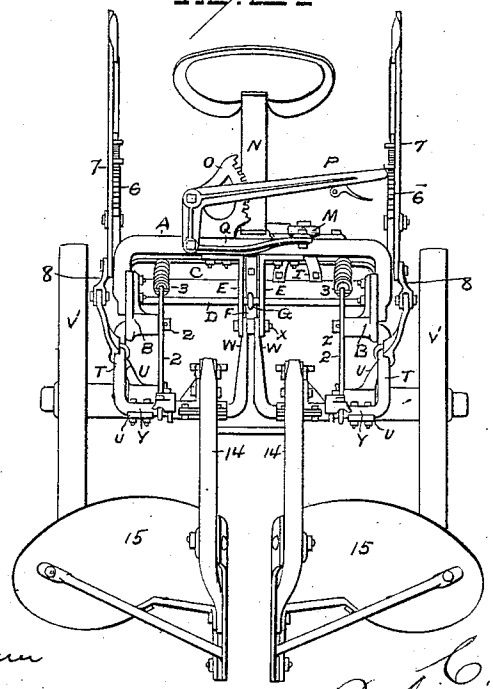


Fig. 2.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3.

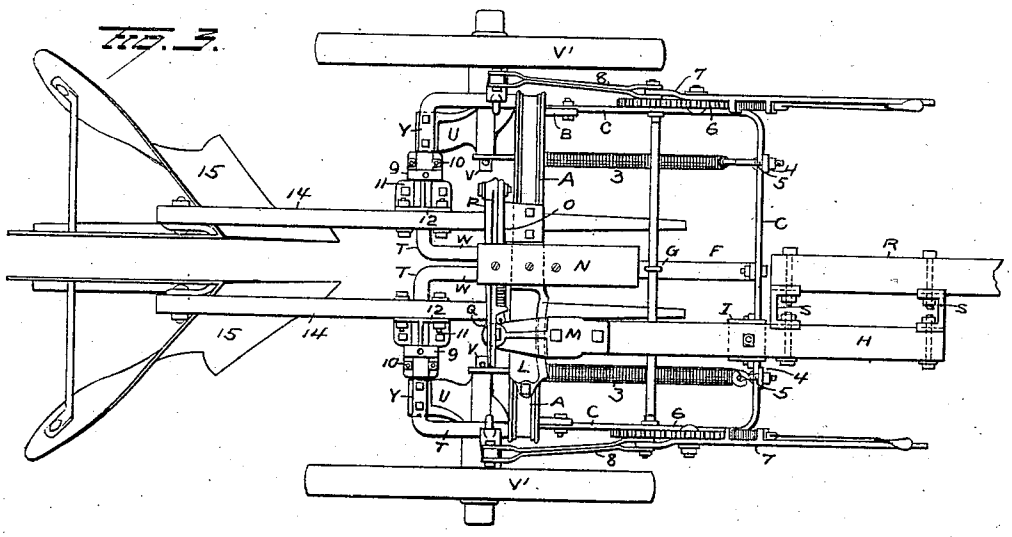


Fig. 4.

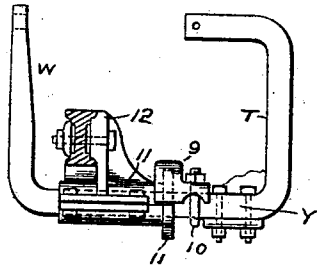


Fig. 5.

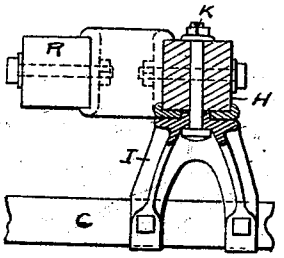
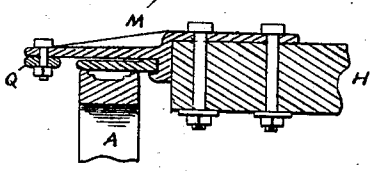


Fig. 6.



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UNITED STATES PATENT OFFICE.

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SULKY-PLOW.

No. 880,724. Specification of Letters Patent. Patented March 3, 1908.

Application filed September 24, 1906. Serial No. 335,998.

To all whom it may concern:

Be it known that I, CALVIN R. DAVIS, a resident 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 improvements in sulky plows, the object of the invention being to provide an improved construction and arrangement of two plows in a sulky frame which permits either plow to be elevated and the draft pole to be set at the proper angle to do the best work in side hill or other uneven ground, and the invention consists in certain novel features of construction and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings; Figure 1 is a perspective view illustrating my improvements. Fig. 2 is a rear elevation. Fig. 3 is a top plan view, and Figs. 4, 5 and 6 are views of details of construction.

A represents a steel arch uniting the several parts of the plow, and comprises a steel I-beam with both ends bent down and secured to hangers B, B. Lugs are formed on the front of the hangers, which extend forward and form bearings to which the frame bar C is attached by bolts. To the sides of the frame bar C, and about midway between the hangers B, B, and the front corners of the frame bar C, a cross brace D, is securely bolted. This cross brace is made oval in cross section, the object of which will more fully hereinafter appear.

To the center of arched bar A, and on its lower side, a hanger E is bolted, and the alined holes in the lower ends of the arms of this hanger E is on a line with the openings or bearings in hangers B, B.

A brace F is located at the center of the front section of frame bar C, and extends rearward and is secured to the cross brace D by a hook bolt G, and extends back and connects by a bolt with the hanger E.

A stub pole H is located at one side of the center of the plow frame, and is provided between its ends with a bracket I, which latter is secured to the front section of the plow frame C. This bracket I is made with a boss formed on its top side which enters a recess in the pole plate J, and a bolt K passes through the bracket, plate and stub pole, but the latter is free to turn laterally on the bracket.

A plate casting L is mounted on the arch bar and provided with a forwardly projecting edge which engages in a recess in the pole iron M, which latter is securely bolted to the rear end of the stub pole H and prevents the rear end of the stub pole from up and down movement, but at the same time forms a slide on which the pole may be moved laterally. The plate L extends to the center of the arched bar A and forms a bearing for the curved seat spring N, to which the driver's seat is attached.

A sector O is located on top of, and to the left of the center of the arched bar A and a landing lever P is mounted on the sector O, and extends to the right side of the driver's seat. A link Q is connected to the downwardly projecting end of landing lever P and the opposite end of said link is connected to the rearward projection on the pole plate M. The object of this arrangement, is to permit the driver to change the angle of the pole, to take more or less land, as the case may require. This is very necessary in hillside work, where the plow has a tendency to slide down hill and away from the furrow, and with my improvements the wheels may be run at the proper angle to hold the plow in position to take the required width of furrow. The pole R is bolted to the left side of stub pole H and in line with the center of the plow frame. When so set, it is in proper location for a two horse team, but by removing the two bolts which go through the stub pole H and pole brackets S, the pole R may be bolted to the right hand side of the stub pole H, and the pole will be in position for a three horse team, and it will thus be seen that but little time will be lost in changing the plow for either a two or three horse team.

The plow frame is supported on the wheels V^1, mounted on stubs V, and the latter are connected with the plow frame by independent bails T T, and brackets U, U, as will now be explained. Each of the bails is bent into the following form; a straight arm W is

pivoted to the hanger bracket E by the bolt X, and extends radially therefrom backward in the line of draft, where it is bent at right angles forming the wrist Y, which latter at its outer end is bent forward and lies parallel to the arm W and is again bent at right angles forming a journal Z in the hanger B. The bracket U is secured to the wrist Y by bolts, as shown, and extends forward of the bail and is provided with the stub axle V, on which the wheel V^1 is mounted and the bracket U extends upward from the stub axle V and is secured to the bail T by a U-bolt, as shown.

The upper end of each bracket U is connected by a link 8 with its lifting lever 7 more fully hereinafter explained, and the brace 2 which is connected at its lower end to the inner end of axle stub V, extends upward and is secured to the top section of bail T. The extreme upper end of said brace is formed into an arm to which the lifting spring 3 is pivotally connected at its rear end, the forward end of said spring being connected by a tension bolt 4 to the bracket 5 at the front of the plow frame, it being understood that an independent lifting spring is provided for each plow mounting at both sides of the frame.

Two independent sectors 6 and lifting levers 7 are mounted on the respective side of plow frame bar C, near the front thereof and said levers 7 are connected to the brackets U by links 8, as above explained.

The plow beams 14 carrying plows 15 are attached, one to each of the wrists Y of the bails T by the following described couplings; a grooved clip 9 is firmly clamped to the wrist Y by a U-bolt 10, and receives a flange at one end of a sleeve 11, the latter being made in two parts and bolted together over the wrist Y, and turns freely without lateral movement. To the upper section of sleeve 11, a projection 12 is made integral and the plow beam 14 is securely bolted thereto, so that the plow beam will be raised with the wrist by which the plow is raised from the furrow, and the wheel will be leveled up to the opposite one.

By means of the lifting levers 7 assisted by the lifting springs 3, the plow bottoms 15 can be elevated with but slight effort on the part of the operator and by means of the lifting levers the plows can be made to run at any depth required.

The plow can be adjusted by means of the hand lifting levers to run level on uneven ground.

The cross brace D above referred to as being oval in cross section, lies in the path of movement of the front portions of the plow beams 14, and against which the forward ends of the plow beams will strike when elevated and compel only the rear ends of the beams to move upward.

A clevis 13 is provided at the forward end of each plow beam 14 and connected by the usual draft bar 16.

A great many slight changes might be made in the general form and arrangement of the parts described without departing from my invention and hence I would have it understood that I do not restrict myself to the precise details set forth but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In a plow, the combination with an arch and bearing devices at the ends and also intermediate the ends of said arch, of bails pivotally supported at its respective ends in an end and an intermediate bearing device, a bracket secured between its ends to each bail, carrying wheels, axle stubs for said wheels carried by said brackets, operating levers connected with said brackets, and a plow beam mounted on each bail.

2. In a plow, the combination with a frame, and a bail having the free ends of its arms pivotally supported by said frame, of a bracket secured between its ends to one arm of said bail, a stub axle for a carrying wheel projecting from the lower arm of said bracket, a lever mounted on the frame, a connection between said lever and the upper arm of said bracket and a plow beam mounted on the horizontal member of the bail.

3. In a plow, the combination with a frame and bails pivotally suspended therefrom, of stub axles for carrying wheels connected with said bails, bars connecting said stub axles with the upper portions of the bails, and provided with arms projecting upwardly from their connection with the bails, springs connecting said arms with the forward portion of the frame, plow beams mounted on the bails, and means for raising and lowering each bail independently of the other.

4. In a sulky plow, the combination with a frame, of two swinging or pivoted bails, a plow connected with each bail, wheels, axle stubs in said wheels, brackets secured to the bails and to the stubs, arms on said brackets, and lifting levers connected with said arms to swing the bails and raise or lower the plows independently of each other.

5. In a sulky plow, the combination with a frame, of two swinging bails supported at their ends in the frame, plows connected with the bails, axle stubs, wheels supporting the stubs, brackets secured to the stubs and to the bails, arms on the brackets, lifting levers, and links connecting the lifting levers with their respective bracket arms.

6. In a sulky plow, the combination with a frame, of two swinging bails each supported

at its ends by the frame, plows connected with the bails, axle stubs, wheels supporting the stubs, brackets secured to the stubs and to the bails, arms on said brackets, lifting levers, links connecting the lifting levers with their respective bracket arms, and lifting springs connected with the respective bails and tending to elevate the plows.

7. In a sulky plow, the combination with a frame, of a pole stub pivotally secured between its ends to the frame, a pole disposed laterally from the pole stub, means for securing the pole to the pole stub, means for swinging the pole stub laterally on its pivot and means for securing said lever with the pole at any adjustment.

8. In a sulky plow, the combination with a frame, of a pole stub pivotally secured between its ends to the frame, a sliding support secured to the frame for the rear end of said pole stub, a pivoted lever, and a link connecting the lever and rear end of the pole stub to swing the latter to any angle.

9. In a sulky plow, the combination with a frame, of a pole stub pivotally secured between its ends to the frame, a lever mounted on the frame and connected with the pole stub to swing the rear end of the latter and secure it at any angle, a pole disposed laterally from the pole stub, and devices constructed to permit the pole to be rigidly connected with the pole stub at either side thereof for either a two or three horse team.

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

CALVIN R. DAVIS.

Witnesses:
J. C. SCHULTZ,
P. A. HUNZINGES.