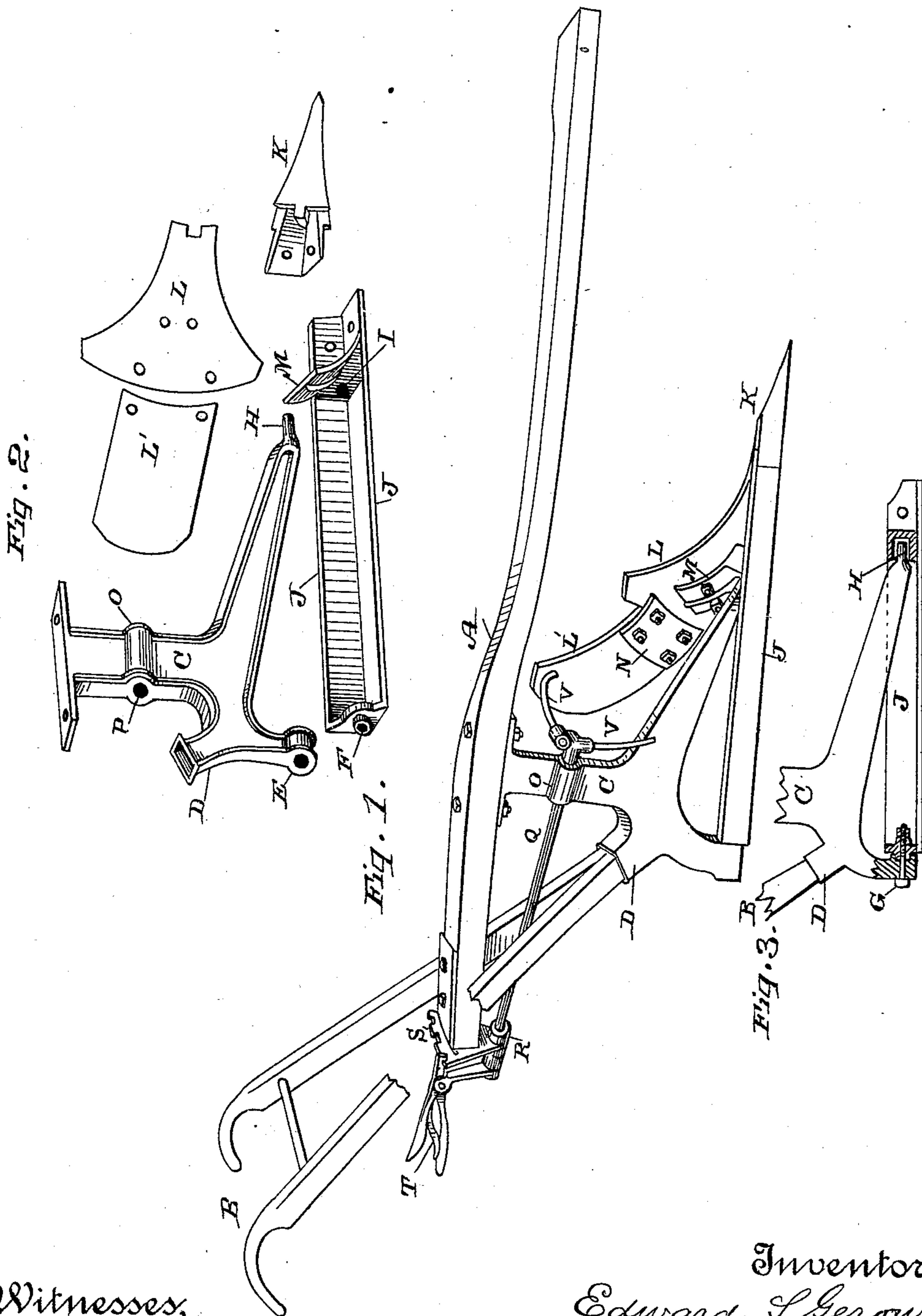


(No Model.)

E. S. GEROW.
REVERSIBLE PLOW.

No. 424,926.

Patented Apr. 1, 1890.



Witnesses,
Geo. H. Strong,
J. H. Strong.

Inventor.
Edward S. Gerow,
By Dewey & Co.
attys

UNITED STATES PATENT OFFICE.

EDWARD S. GEROW, OF LAFAYETTE, ASSIGNOR OF ONE-HALF TO JAMES
EVA, OF SAN FRANCISCO, CALIFORNIA.

REVERSIBLE PLOW.

SPECIFICATION forming part of Letters Patent No. 424,926, dated April 1, 1890.

Application filed Mar 31, 1889. Serial No. 312,796. (No model.)

To all whom it may concern:

Be it known that I, EDWARD S. GEROW, of Lafayette, Contra Costa county, State of California, have invented an Improvement in Reversible Plows; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in that class of agricultural implements known as "reversible plows." It consists in certain details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view of the plow. Fig. 2 is a view showing the standard, landside, point, and plates separated from each other. Fig. 3 is a view of the lower part of the standard and the landside, partially in section.

A is the beam, B the handles, and C the standard of my plow. The standard is secured to the lower part of the beam by bolts in the usual or any suitable manner, and it has at the rear a socket D, into which the lower ends of the handles are firmly fitted. On the foot of the straight portion of the standard is formed a sort of elongated arch, the rear end of which is perforated, as shown at E, Fig. 2, and it has a counterbore in the front, into which a corresponding projection F from the landside is fitted. A bolt G (shown in Fig. 3) passes through this hole and the rear portion of the landside, having nuts by which it is secured in place. The front end of the arch of the landside extends forward and has a projecting point or spur H, which enters a corresponding hole I in the front portion of the landside.

The landside, as is plainly shown in Fig. 2, is formed of two flat sides J, standing at right angles with each other, and having at the front and rear transverse plates uniting these two angular sides, as shown in Fig. 2, these end pieces serving for the connection with the beam and the standard. This connection is easily made by slipping the pin H into the opening I, and at the same time the projecting portion F of the rear plate of the landside enters the counterbore in the rear portion of the arch of the standard, and the bolt G being passed through the rear portion, nuts

are put on and the whole is perfectly secured together.

K is the plow-point, having extensions at the rear, which slip into the front portion of the landside and are there secured, and L is the share of the plow, which is attached to the landside by means of a plate M, which is secured into the angle of the two sides J J, and just in front of the front transverse plate, and serves for its attachment to the standard. The mold-board L' is attached to the share by means of a plate N, which is bolted upon the rear of the two and serves to unite them together.

The standard C has a horizontal enlargement made in it at O, this enlargement having a hole made through it, as shown at P, Fig. 2, and the rod Q passes through these openings and extends back to the rear of the plow-beam, passing through a journal box or support R at this point. The rear of this shaft Q is provided with a lever handle and latch, as shown at T, the lever or crank serving to turn the shaft Q and the latch to engage with the rack S, and thus hold the handle and shaft at any point which may be desired. To the front end of the rod Q are secured the arms V, these arms having short ends to press against the upper end of the mold-board L', one acting when it is turned to one side and holding it in the proper position for plowing on that side and the other engaging it when turned to the opposite side and holding it correspondingly in the proper position for work on that side of the beam. From this construction it will be seen that the plow can only turn above its axis, and needs no hook or other device to resist a tendency to turn downward when at work. The arms V serve only as braces, pressing against the mold-board to prevent its being forced toward the center, and when disengaged the plow turns above its landside, the latter turning upon its angle, resting on the ground and supporting all the weight.

The operation will then be as follows: The plow, being turned to one side of the beam, is locked by rotating the shaft Q until one of the arms V presses against the upper part of the mold-board, and thus holds it in the

proper position while the furrow is being turned from that side. By releasing the latch and turning the handle, as shown at T, the shaft Q may be turned so as to release the locking-pin V, and the plowshare will then turn over on the pivot-pins G and H in the lower part of the standard, and it may remain midway and lying just beneath the plow-beam while the plow is being turned around, the plow turning and traveling easily upon the angle made by the two sides J J of the landside. The turn is completed when it is desired to go back, and the share may be locked upon the opposite side in the same manner as before.

An important feature in the construction of my plow is the turning it above the axis of rotation and beneath the beam, and also the rectangular landside, each of the sides J forming a shoe, upon which it travels while plowing upon either one side or the other. It will be manifest from this construction that when the plow is turned so that either of these sides is downward it will soon be scoured bright and any adhering soil will be rubbed off, and the landside can never become clogged in this manner.

The whole device is easily removed from the standard by the removing of the single bolt, as previously described. The arch of the standard is made of sufficient strength, and it will be manifest that the required pressure caused by the forcing of the plow through the ground will be brought directly upon the pin H and the socket at the rear end of the arch of the standard. There being no strain upon the bolt G by reason of the counter-bore and the projection F on the landside, this bolt needs only to be strong enough to retain the parts in their proper position, the pressure being sustained by the rear portion of the arch of the standard.

The movement of the landside, mold-board, share, and point about the fulcrum-pins G and H allows it to turn beneath the plow-beam and in an upward curve, which makes it unnecessary to do any heavy lifting or any difficult work in changing the plows from one

side to the other, as is experienced in the under turn now in use.

It will be manifest that the form of the standard and the particular arrangements of the pivots may be changed without materially altering the operation.

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

1. In a plow, the combination, with the mold-board, share, and point, of the standard having an arched lower end and provided with the perforations P and E, and the pin H, and a landside formed of two rectangular sides meeting at a common angle which is in the line of travel of the plow, said landside being pivoted at opposite ends to the plow-standard, substantially as described.

2. In a plow, the combination of the landside angular in cross-section, having perforated end plates, a standard having a perforation at one end and a pin at the opposite end, whereby the landside is pivotally secured, a plow-point adapted to be fitted to the angular landside, the mold-board and share with their connecting-bolts, the rod Q, and means for holding the rod in position, substantially as described.

3. The combination, with the beam, the pivoted landside, and the mold-board, share, and point, of the standard having the socket D for the handles of the plow, and the perforation P, said standard having a pivoted connection at its lower end with the opposite ends of the landside, the rod Q, passing through the perforation P in the standard and provided with the arms V, adapted to be pressed against the mold-board upon either side, the handle and catch, and the rack, whereby the rod and arms may be held in position, substantially as described.

In witness whereof I have hereunto set my hand.

EDWARD S. GEROW.

Witnesses:

S. H. NOURSE,
H. C. LEE.