(No Model.)

C. P. McWANE.

HILLSIDE PLOW.

No. 484,043. Patented Oct. 11, 1892.

FIG. 1.

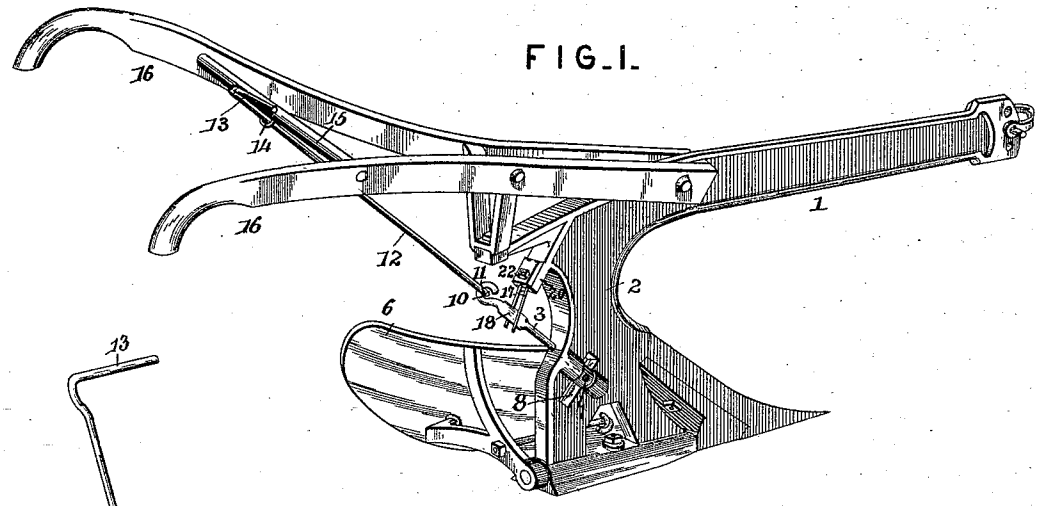


FIG. 3.

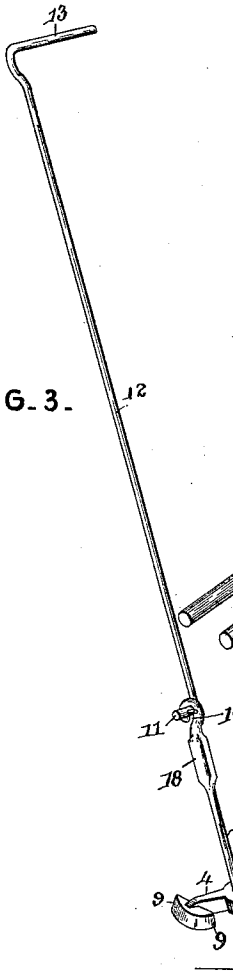


FIG. 4.

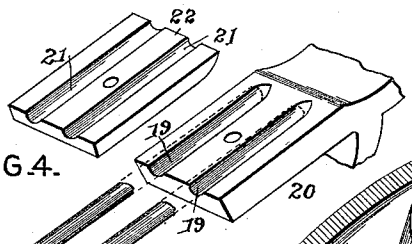
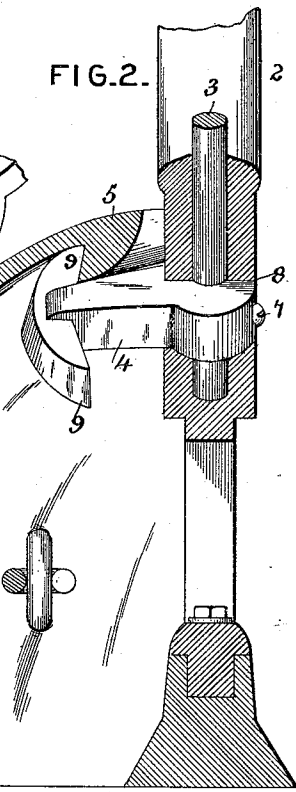


FIG. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES P. McWANE, OF GRAHAM, VIRGINIA.

HILLSIDE-PLOW.

SPECIFICATION forming part of Letters Patent No. 484,043, dated October 11, 1892.

Application filed March 2, 1892. Serial No. 423,513. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. McWANE, a citizen of the United States, residing at Graham, in the county of Tazewell and State of Virginia, have invented a new and useful Hillside-Plow, of which the following is a specification.

The invention relates to improvements in reversible plows.

The object of the present invention is to simplify and improve the construction of the mechanism employed for securing the mold-boards of reversible plows to either side of the latter and to enable the mold-boards to be readily detached from such securement at one side of the plow for turning and to be quickly secured at the other side.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a plow constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a detail perspective view of the rock-shaft and the operating-rod. Fig. 4 is a detail perspective view of the spring-rod and the seats therefor, the parts being separated.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates an iron plow-beam having integral standards 2, in which is journaled an inclined rock-shaft 3, having a hook-arm 4, adapted to engage shoulders 5 at opposite sides of a mold-board 6, which is hinged at the bottom of the standards, and is adapted to swing beneath the plow to render the latter reversible. The hook-arm 4 is provided at one end with an opening to receive the rock-shaft, and is detachably secured thereto by a screw 7. It works through a slot 8 in the standards 2, and it is provided at its outer end with oppositely-disposed hook projections 9, which engage the shoulder 5. The outer or upper end of the rock-shaft is provided with an eye 10, to which is secured an angularly-bent end 11 of an operating-rod 12, which has its upper end provided with a handle 13 and which is journaled in an eye 14 on a cross-bar 15, which connects the plow-handle 16, and the said operating-rod is adapted to turn the shaft to carry the hook-arm from one side of the plow to the other.

The hook-arm of the rock-shaft is held in engagement with the shoulders of the mold-board by parallel spring-rods 17, between which is arranged a flattened portion 18 of the rock-shaft, and which are adapted to engage the flattened portion to hold the rock-shaft against turning. When the mold-board is swung from one side of the plow to the other, the shoulders 5, which are beveled at their outer sides, automatically engage the hook-arm 4. The parallel spring-rods are arranged in sockets formed by the grooves 19 of a projection 20 and grooves 21 of a removable plate 22. The projection 20 is arranged at and depends from the upper end of the standard, and the removable plate 22 is secured to the projection 20 by a bolt 23, which causes the plate 22 to clamp the spring-rod.

It will be seen that the means for securing reversible mold-boards in operative position at the sides of plows are simple and comparatively inexpensive in construction and are adapted to permit a mold-board to be quickly turned and secured at the other side of a plow.

I do not wish to be limited to the particular construction of the spring, as shown, as some other construction and arrangement of spring could be adapted for use and answer every purpose. I therefore reserve the right to make this and other modifications in the mechanical workmanship without departing from the spirit or sacrificing any of the advantages of my invention.

What I claim is—

1. The combination, in a plow, of a standard having an inclined slot and provided with bearings at opposite sides of the slot, said bearings extending to the rear edge of the standard, a rock-shaft journaled in said bearings and extending upward from the rear edge of the standard, an arm secured to the rock-shaft and arranged in the slot and adapted to swing through the same and provided at its outer end with oppositely-disposed hook projections, a hinged mold-board provided at opposite sides with shoulders adapted to be engaged by said hook projections, and a rod having its lower end connected to the rock-

shaft and adapted to extend to the handles of a plow and provided at its upper end with a handle, substantially as described.

2. In a plow, the combination of a standard, a hinged mold-board provided with opposite shoulders, a rock-shaft journaled on the standard, a hook-arm carried by the rock-shaft and adapted to swing to opposite sides of the standard and provided at its outer end with oppositely-disposed hook projections adapted to engage said shoulder, and a spring for holding the rock-shaft against turning to maintain the hook projections in engagement with the shoulders, substantially as described.

3. In a plow, the combination of a standard, a mold-board hinged at the bottom of the standard and provided at opposite sides with shoulders, a rock-shaft journaled on the standard and provided with a hook-arm adapted to engage either one of the shoulders and having an intermediate flattened portion, springs bearing on the flattened portion and adapted to hold the hook-arm in engagement with the shoulders, and means for turning the rock-shaft, substantially as described.

4. The combination of a standard provided with a slot, a mold-board hinged at the bottom of the standard and having shoulders at the opposite sides, a rock-shaft journaled on the standard and having a flattened portion and provided with a hook-arm arranged opposite said slot and adapted to engage the shoulders of the mold-board, a projection extending from the top of the standard and provided with grooves, a removable plate arranged on the projection and provided with grooves, parallel resilient rods clamped in said grooves and arranged on opposite sides of the said flattened portion of the rock-shaft, and an operating-rod extending from the rock-shaft and connected therewith and adapted to extend to the handles of a plow, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

C. P. McWANE.

Witnesses:
J. H. HARRELL,
T. J. HARRIS.