

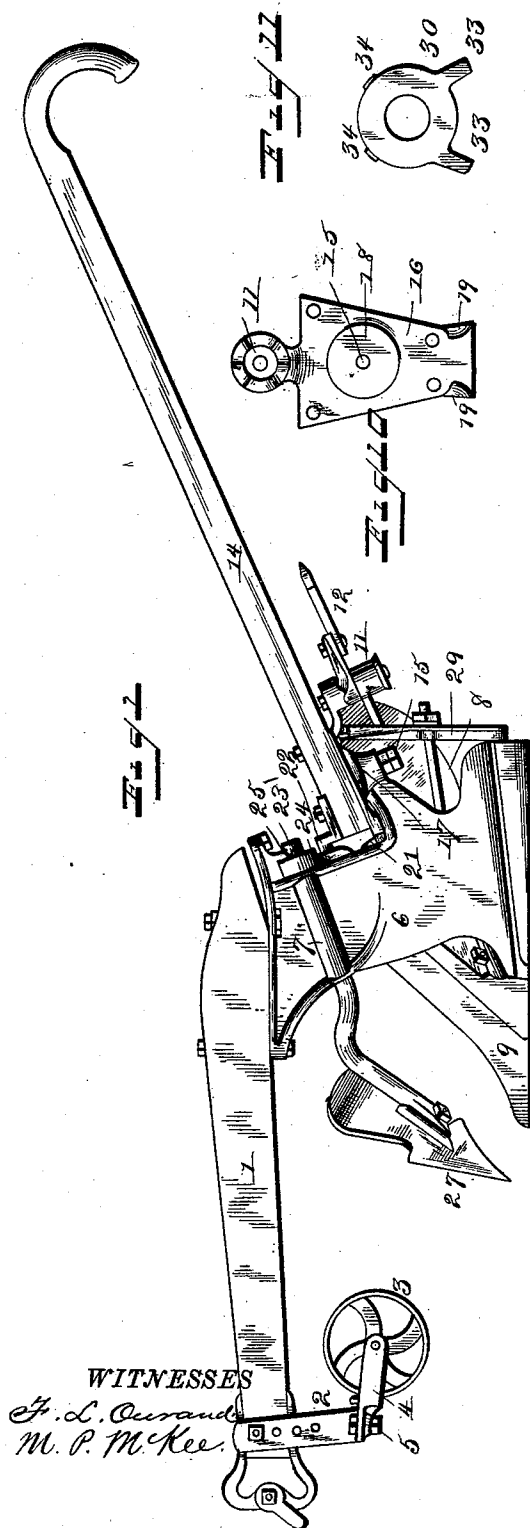
(No Model.)

2 Sheets—Sheet. 1.

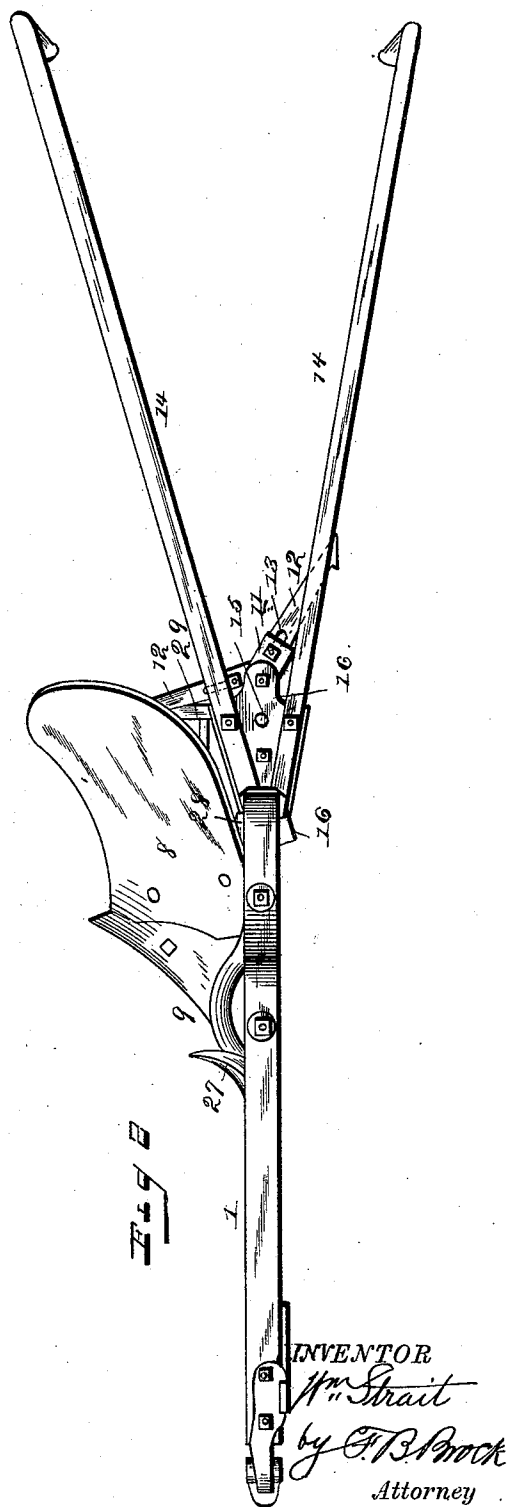
W. STRAIT.
PLOW.

No. 469,756.

Patented Mar. 1, 1892.



WITNESSES
F. L. Ourada
M. P. McKee.



INVENTOR
Wm. Strait
by F. P. Brock
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM STRAIT, OF ELMIRA, NEW YORK.

PLOW.

SPECIFICATION forming part of Letters Patent No. 469,756, dated March 1, 1892.

Application filed April 25, 1888. Serial No. 271,795. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM STRAIT, a citizen of the United States, residing at Elmira, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Plows; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

Figure 1 is a side elevation of a plow to which I have applied my improvements. Fig. 2 is a plan view of the same. Fig. 3 is a rear view and section through the handles. Fig. 4 is a detached section hereinafter referred to. Fig. 5 is a detail perspective view showing the colter or jointer shifting mechanism. Fig. 6 shows one of the arms of the mold-board latch. Fig. 7 is an elevation of the rotary shifting colter. Fig. 8 is a plan view of the plow-saddle. Fig. 9 shows another form of colter. Fig. 10 is a plan of the pivotal plate, to which the handles are attached. Fig. 11 is an elevation of the substitute colter-shifting arm.

My invention consists in the following construction and combination of the parts, which will first be fully set forth, and the new features of the plow then described in the claims.

In the drawings, 1 represents the plow-beam.

2 is an adjustable standard carried on the clevis end of the beam and secured rigidly by means of a bolt and ribs formed on the side of the beam or on the clevis-iron.

3 is the trailing wheel, having its bearings in the arm 4.

5 is a bolt uniting standard 2 and arm 4, so that there may be a limited vibrating movement of the latter to enable the wheel 3 to adjust itself to the line of movement of the plow and parallel thereto.

6 is the plow-standard.

7 is the bearing in which the jointer or colter works.

8 is the usual reversible mold-board, which is adapted to swing to the one side or the other of the plow.

9 is the plow-point.

10 is the saddle, to which the point and mold-board are secured.

11 is the pivoted latch, which is adapted to lock the mold-board in position on either side of the standard.

12 are the two arms of the latch. These arms are detachable, and are provided with a slot 13, through which and the latch proper passes a bolt, so that the arms 12 may be adjustable for wear or for any inequalities or imperfections in the castings. This adjustment may be effected by any equivalent way, such as making the latch movable on the mold-board instead of adjusting the latch proper.

14 are the handles of the plow, which are pivoted upon the bolt 15.

16 is a plate at the inner end of the handles, to which the latter are rigidly bolted, and which receives the pivotal bolt 15.

17 is an enlarged seat or bearing formed on the rear of the standard 6, upon which the corresponding seat 18 bears. The pivotal bolt 15 passes through the seat on the standard and plate, and thereby gives a firm bearing upon which the handles 14 may vibrate or oscillate.

19 are lugs formed on the inner ends of the plate 16, and which straddle the central rib 20 on the upper edge of the standard 6 and limit the motion of the handles in either direction.

21 is a lug formed on the standard, under which the forward end of the plate 16 rests and holds the handles rigidly at the proper elevation.

22 is an arm rigidly bolted to the upper inner end of the handles.

23 is a jointer-shaft.

24 is a vibrating arm, which is slipped upon the end of shaft 23 and held in place by set-screws.

25 is a lug formed on the standard, which serves to hold the arm 24 and jointer-shaft 23 in place.

26 is a slot formed in the arm 24, within which the arm 22 works to shift the jointer 27 when the mold-board is reversed.

28 are lugs upon either side of the saddle 10, one of which bears firmly against the upper side of the standard 6 when the point and mold-board are shifted to either side of said

- standard. Instead of the lugs 28 bearing against the standard direct, they may bear against either side of the plate 16 or its lugs 19. When the mold-board is thus in place on either side, the latch device is thrown into engagement with the bifurcated end of the pivoted reversing-arm 29, and thus holds the mold-board and the handles 14 rigidly in place to the one or the other side of the plow.
- 10 In this reversible or hillside plow I may substitute a colter for the jointer 27. (Shown on the plow.) To effect this I make provision for the removal of the jointer-arm 23 and the insertion of the colters. (Shown in Figs. 7 and 8.) As the colter does not need to be oscillated to the extent that is necessary when using the jointer, I employ the shifting-arm 30 (see Fig. 11) in the place of arm 24. The set-screw in arm 24 is loosened and the jointer-arm 23 removed and either the colter 31 or 32 inserted in its place, as desired, and the shifting-arm 30 slipped on the end of the colter-arm.
- 20 33 are arms on the shifting-arm 30, between which the arm or finger 22 on the handles plays.
- 25 34 are lugs formed on arm 30, which bear against the standard above said arm and serve to limit its oscillation. It will be seen that there is considerable lost motion between arm 30 and finger 22, and that it travels some distance between the arms 33 before it engages the shifting-arm 30, when it moves it slightly to give the necessary inclination to the colter either way.
- 35 31 is a colter of the usual form.
- 32 is a roller-colter provided with the disk rotary knife 35, and is adapted to be shifted to either side.
- 40 The points or lugs 28 may be formed upon the mold-board 8, instead of on the saddle 10.
- I claim—
1. In a plow, a standard, a jointer or colter

arm, a shifting-arm thereon, and a lug formed on the standard, which holds the shifting-arm in place, all in combination, as set forth. 45

2. In a plow, the pivoted shifting-handles, in combination with the plow-standard having a lug thereon which bears upon the inner end of the handles and holds them against vertical displacement. 50

3. In a plow, the combination of the pivoted handles having stops upon their inner ends to limit their movement, and the standard having a projecting stop arranged between those on the handles. 55

4. In a plow, the pivotal plate to which the handles are secured, provided with lugs or stops upon one end and a latch-seat at the other. 60

5. The pivotal locking-latch for the mold-board, having locking-arms upon the main body of the latch device, and means for adjusting the latch to take up the wear.

6. In a plow, the handles 14, the plate 16, having stops thereon, and a bolt-seat, in combination with the standard having an enlarged bolt-seat extension, and a bolt passing through the plate and standard, thereby pivoting the plate and permitting the oscillation of the handles. 70

7. The combination of a pivotal double latch, a mold-board, and means for adjustably interlocking the latch and mold-board.

8. The combination, in a plow, of a standard, a reversible mold-board, pivoted handles, and a latch whereby the mold-board when locked in place on either side also locks the handle to the one side or the other. 75

In testimony whereof I affix my signature in presence of two witnesses. 80

WM. STRAIT.

Witnesses:

J. C. STODDARD,
CHAS. A. CLEMENTS.