No. 789,399. PATENTED MAY 9, 1905.

E. C. WESTERVELT.

PLOW JOINTER.

APPLICATION FILED OCT. 7, 1904.

Fig. 1.

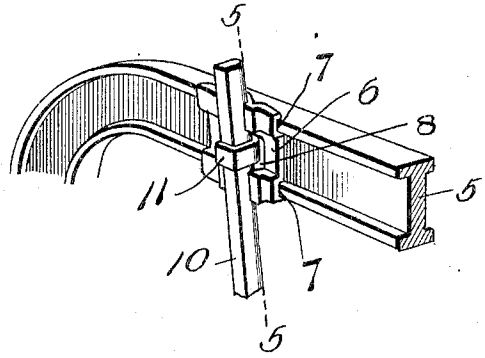


Fig. 2.

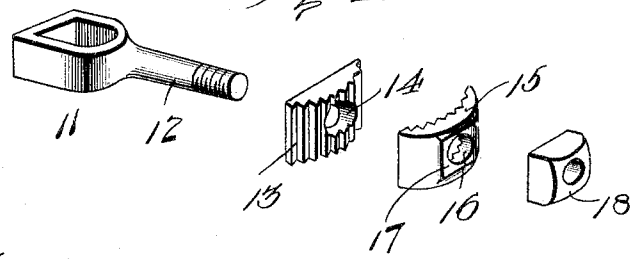


Fig. 3.

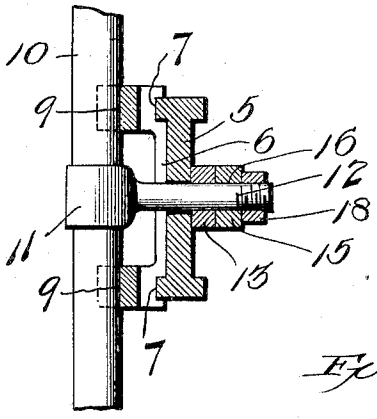


Fig. 4.

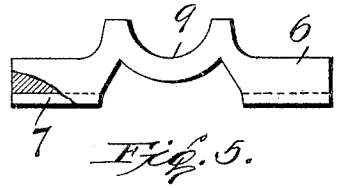


Fig. 5.

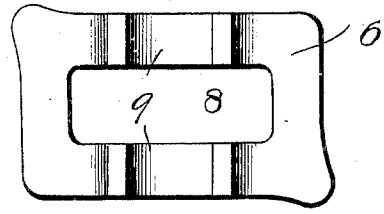
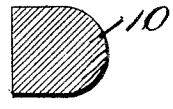


Fig. 6.



Witnesses

D. L. Mockabee

H. Joseph Dwyer

Inventor

Edmund C. Westervelt

By

J. Dushane

Attorney

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No. 789,399. Patented May 9, 1905.

UNITED STATES PATENT OFFICE.

EDMUND C. WESTERVELT, OF SOUTH BEND, INDIANA.

PLOW-JOINTER.

SPECIFICATION forming part of Letters Patent No. 789,399, dated May 9, 1905.

Application filed October 7, 1904. Serial No. 227,535.

To all whom it may concern:

Be it known that I, EDMUND C. WESTERVELT, a citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented new and useful Improvements in Plow-Jointers, of which the following is a specification.

My invention relates to certain new and useful improvements in plow-jointers, and is designed more especially to provide a ready and effective means for attaching the jointer to the beams of plows, &c.

The object of the invention is to provide a new and improved means for attaching a jointer to a plow-beam which will allow of an adjustment of the jointer forwardly or rearwardly with reference to the furrow.

A further object is to provide a new and improved form of jointer rod or bar combined with a new and improved form of loop for holding the jointer-rod, the said jointer rod or bar and loop being of such a form whereby they will be at all times held stationary relatively to one another.

A further object is to provide a new form of adjusting-washers adapted to adjust the jointer-rod, and with it the loop, in a forwardly or rearwardly direction.

With these and other objects in view the invention comprises certain features of construction and combination and arrangement of parts, described in detail in the following specification, particularly pointed out in the appended claim, and illustrated in the accompanying drawings.

In the drawings, Figure 1 is a perspective view of a plow-beam, showing my invention applied thereto. Fig. 2 is a detail perspective view of the loop and its stem, the washers, and the clamping-nut. Fig. 3 is a vertical sectional view taken on line 5 5 of Fig. 1. Fig. 4 is a plan view of the beam-plate, a portion being broken away to show the groove. Fig. 5 is a front elevation of the beam-plate. Fig. 6 is a cross-sectional view of the jointer rod or bar.

In the present invention I provide a beam-plate with means for supporting the jointer rod or bar in a vertical position; an attaching-loop and jointer rod or bar of such a shape as when in position they will be held rigidly relatively to one another, the said loop being provided with a threaded stem which extends through the plate and the plow-beam; a pair of washers, one of which is provided with an elongated central slot, the other with a central circular opening, the contacting faces of said washers being corrugated or serrated and being, respectively, of an outwardly-curved and an inwardly-curved formation, and a nut adapted to lock the parts in the desired position.

5 designates the plow-beam, which is of the usual form provided with upper and lower flanges. At a suitable portion the beam is provided with a slot for the jointer connection. This is the usual construction.

6 designates the beam-plate provided with upper and lower grooves 7 7, which fit over the flanges of the beam 5. As is shown more clearly in Fig. 5, the beam-plate 6 is provided with an elongated cut-out portion or central slot 8, and above and below this said central slot 8 is located the curved bearing-surfaces 9, which support the jointer rod or bar 10. As will be seen more clearly by reference to Fig. 6 of the drawings, this jointer rod or bar 10 is of substantially D shape in cross-section, the curved portion thereof being placed within the said curved bearing-surfaces 9 9 of the beam-plate 6, said bearing-surfaces being raised or projected beyond the face of the beam-plate 6, whereby said jointer-rod is held out of contact with said face.

The attaching-loop 11 is of substantially D shape and is adapted to surround the jointer rod or bar 10 at a point between the curved bearing-surfaces 9 9. This attaching-loop has a threaded stem 12, which extends through the elongated central slot 8 of the beam-plate 6 and through the plow-beam 5. The grooves 7 of plate 6 are shown as projecting beyond the plane of the outer face of plate 6, the object of this arrangement being such that the attaching-loop is held away from or out of contact with said plate, whereby said loop may be given a maximum movement in the clamping action. By this arrangement the loop when tightened tends to draw the jointer-

rod 10 into the slot 8, seating it firmly in grooves 7 and rendering play of the parts practically impossible.

13 designates a washer having a slotted central portion 14, said slot being of a size considerably larger than the diameter of the stem 12. This washer 13 has a flat face which contacts with the plow-beam on the side opposite to the side upon which the beam-plate 6 is located, the other or outer face of said washer being outwardly curved and having its surface corrugated or serrated. It will be seen that as this washer has a slot larger than the diameter of the stem the said washer will have considerable movement laterally when placed upon the stem.

15 is a washer having a circular central opening 16 of a size just large enough to allow of its being slipped over the stem 12. This washer is provided with a concaved inner face the surface of which is corrugated or serrated in a manner similar to the surface of washer 13. The outer face of said washer 15 is provided with a flattened portion 17, forming a bearing for the clamping-nut 18.

The parts are assembled in the following manner: Beam-plate 6 is placed upon the plow-beam 5, and the stem 12 of the attaching-loop 11 is passed through both the plate and beam. The jointer rod or bar 10 is then passed through the loop, with its curved or inner side resting in the upper and lower bearing-surfaces 9 9, its flat side bearing against the flat side of the loop. Washers 13 and 15, respectively, are placed upon the projected stem 12, and the parts are then clamped together by means of the nut 18. To adjust the jointer rod or bar forwardly, the clamping-nut 18 is loosened, which disengages washers 13 and 15, thereby permitting the attaching-loop and its stem being moved within the slots in the beam-plate, the plow-beam, and washer 13 until the desired position is reached, when by means of the clamping-nut the several parts may be firmly clamped together. It will be understood, of course, that the bearing-surfaces 9 9 upon the beam-plate 6 will allow of the necessary slight rotation of the jointer rod or bar.

I claim as new—

A device of the character described comprising a beam-plate having one face provided with spaced-apart grooves, the opposite face thereof being provided with bearing-surfaces or seats, said plate being cut out centrally, an attaching-loop of **D** shape located in said cut-out portion and provided with a shank, an attaching-nut working on said shank, and a jointer-rod conforming to the shape of said loop and resting in the bearing-surfaces or seats of said plate, said bearing-surfaces or seats being raised or projected beyond the face of said plate, whereby said loop is held out of contact with the latter.

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

EDMUND C. WESTERVELT.

Witnesses:

J. DUSHANE,

EDA E. ROSENCRANS.