C. L. HALL.

PLOW.

APPLICATION FILED MAY 6, 1910.

975,614.

Patented Nov. 15, 1910.

2 SHEETS—SHEET 1.

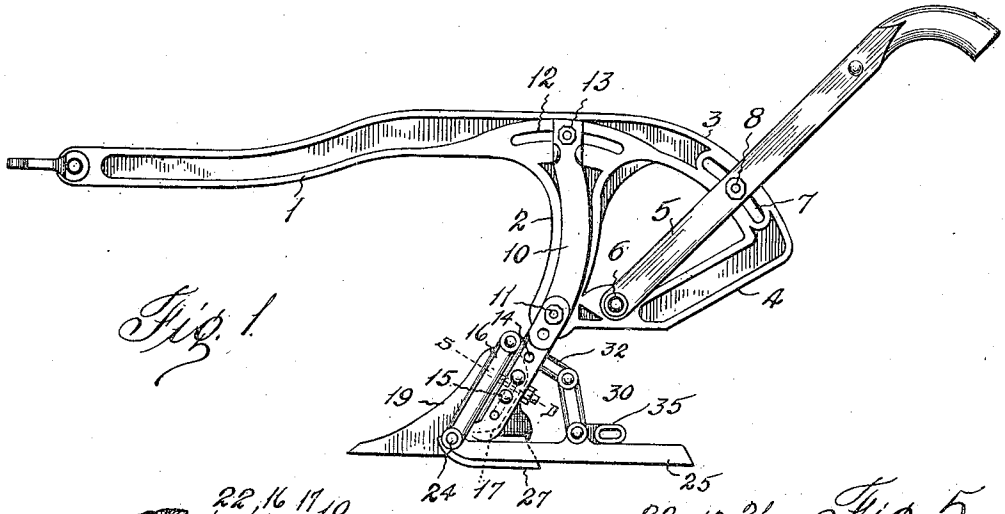

Fig. 1.

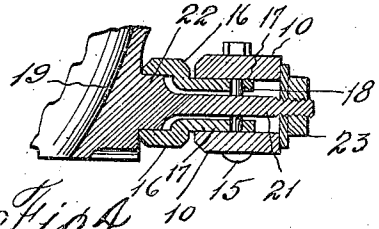

Fig. 4.

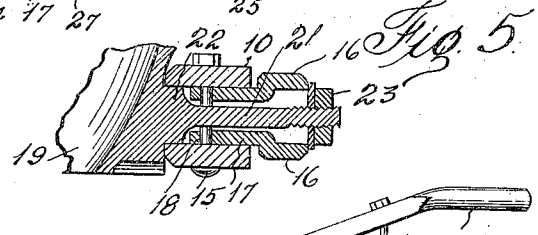

Fig. 5.

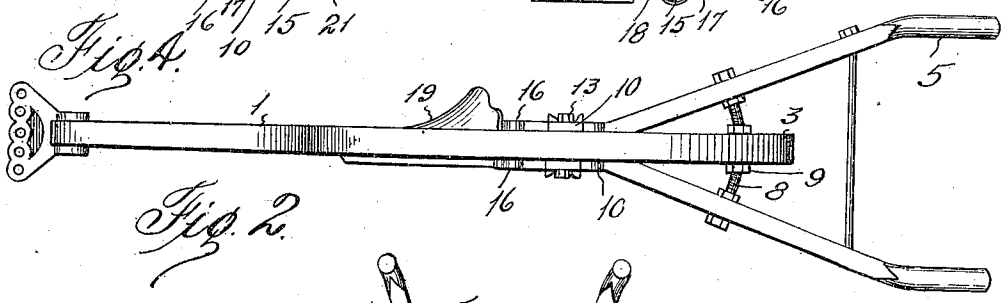

Fig. 2.

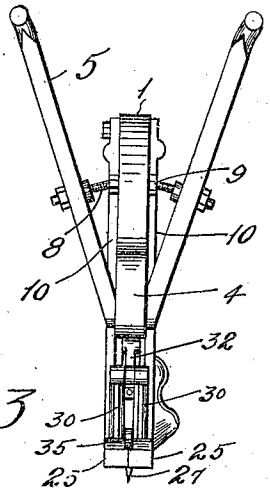

Fig. 3.

WITNESSES:

Chas. L. May

L. E. Noack

INVENTOR

Charlie L. Hall,

BY Lothrop & Davis

ATTORNEYS.

C. L. HALL.

PLOW.

APPLICATION FILED MAY 6, 1910.

975,614.

Patented Nov. 15, 1910.

2 SHEETS—SHEET 2.

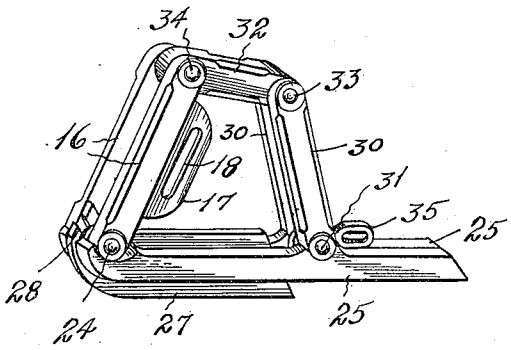

Fig. 6.

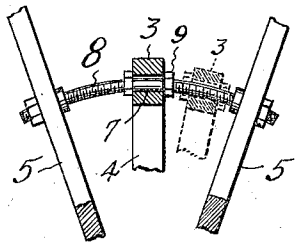

Fig. 8.

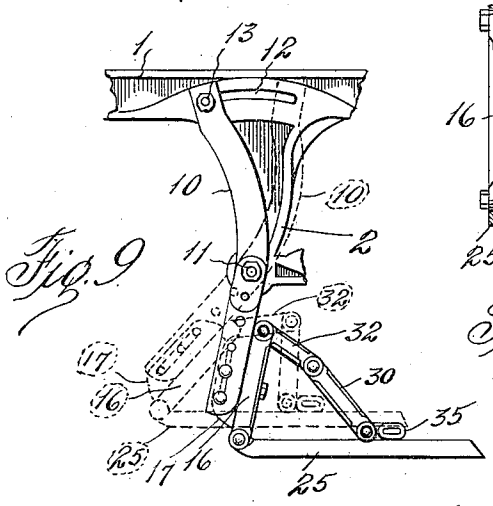

Fig. 9.

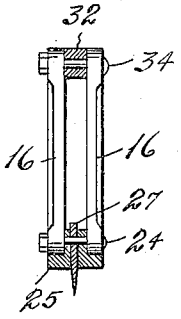

Fig. 10.

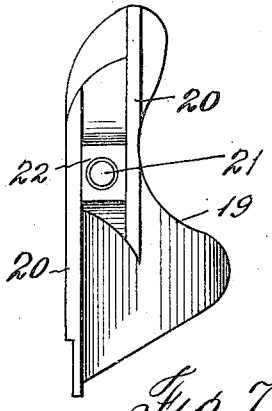

Fig. 7.

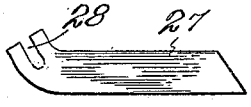

Fig. 12.

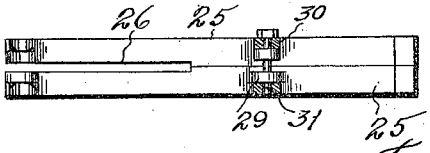

Fig. 11.

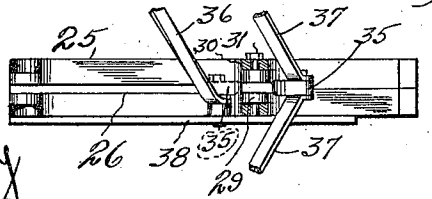

Fig. 13.

WITNESSES:

Chas. A. May

L. E. Noack

INVENTOR

Charlie L. Hall.

BY Schley & Davis.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLIE L. HALL, OF BRYAN, TEXAS.

PLOW.

975,614. Specification of Letters Patent. Patented Nov. 15, 1910.

Application filed May 6, 1910. Serial No. 559,687.

To all whom it may concern:

Be it known that I, CHARLIE L. HALL, citizen of the United States, residing at Bryan, in the county of Brazos and State of Texas, have invented certain new and useful Improvements in Plows, of which the following is a specification.

This invention has relation to plows.

The object of the invention is to provide an adjustable slide mechanism which may be moved up or down on the standard to offset the movement of the sweep or shovel or plow point when the standard is adjusted for steep or sloping furrows and which is adapted to be adjusted in parallel relation to the plow beam.

Another feature resides in an adjustable standard connected with the slide mechanism and by which the slide mechanism is adjusted and whereby the slide mechanism can be adjusted with relation to the plow beam irrespective of the vertical adjustment.

A still further object lies in adjustable handles arranged to be swung up or down and to either side to compensate for the adjustment of the standards and the slide mechanism; together with a rudder carried by the slide mechanism.

Finally the object of the invention is to provide means of the character described that will be strong, durable, efficient, and easy of operation, simple and comparatively inexpensive to construct, and also in which the several parts will not be likely to get out of working order.

With the above and other objects in view, the invention has relation to certain novel features of construction and operation, an example of which is described in this specification and illustrated in the accompanying drawings, wherein:

Figure 1, is a side elevation of a plow embodying my invention. Fig. 2, is a plan view of the same, Fig. 3, is a rear elevation, Fig. 4, is a cross-sectional view on the line S—D of Fig. 1, Fig. 5, is a similar view with the flange links reversed, Fig. 6, is a perspective of the adjustable slide mechanism, Fig. 7, is a rear elevation of one of the frogs, Fig. 8, is a detail of the handle adjusting means, Fig. 9, is a detail in elevation of the slide adjusting mechanism showing two positions in full and dotted lines, Fig. 10, is a detail of the flange links and adjacent parts, Fig. 11, is a plan view of the slide shoes, Fig. 12, is a detail of the rudder blade, and Fig. 13, is a detail in plan showing the manner of attaching wing braces.

In the drawings the numeral 1, designates a metal plow beam having an integral stock 2 and a rear segmental portion 3 which is connected at its rear end with the lower rear side of the segment by a brace 4. These parts are preferably a single casting with suitable bosses at proper points.

Near the lower end of the brace and just in rear of the stock, handles 5 are pivoted on each side of the brace upon a bolt 6 passing therethrough. These handles extend at an angle past the segment 3. In the segment, a curved slot 7 having its radius from the center of the bolt 6, receives a transversely curved rod 8 suitably fastened at each end at one of the handles. This rod has a continuous screw thread engaged by nuts 9, one binding on each side of the segment. It is apparent that the slot 7 permits the handles to be swung vertically or raised or lowered to suit the height of the plowman. By reason of the nuts 9 the handles may be adjusted toward either side by rotating the nuts either to the right or left on the rod which feeds the rod through the slot. The handles are fastened in position by turning the nuts so that they bind against the segment.

On each side of the stock 2, a standard member 10 is disposed. A pivot bolt 11 is carried in the lower end of the stock and at the intersection of the stock and the beam, a slot 12 is provided and curved in the arc of a circle having its center coincident with the bolt 11. The members 10 are pivoted near their central portion on the bolt 11 and are connected at their upper ends by a bolt 13 passing through the slot 12. The lower ends of the members may thus be swung by moving the bolt 13 in the slot and fastened in position by fastening the said bolt. Each member at its lower portion is provided with a series of holes 14 arranged one above the other and adapted to receive transverse bolts 15.

A pair of flange links 16 are disposed against the lower ends of the members 10. As shown in Figs. 4 and 5, each link is pro-

vided with a longitudinal flange 17 which is offset. Each flange has a longitudinal slot 18 through which the bolts 15 are passed transversely. By provision of the slots, the flanges which fit between the members 10, may be slid vertically on the standard. The links 16 may be inverted or placed against the front sides of the standard members 10 as shown in Figs. 1 and 4 or against the rear sides as shown in Figs. 5 and 9.

In Fig. 7 a detail of one of the frogs 19 is used in connection with the links and standard members. The frog is suitably formed and is adapted to have landsides, shares and mold-boards bolted thereto. On its rear side the frog is formed with vertical webs 20 which are disposed to lie in contact with the edges of the links as shown in Fig. 4, or the edges of the members 10 as shown in Fig. 5. An integral stem 21 extends from the rear side of the frog and near its intersection with the frog has a rectangular boss 22 adapted to fit snugly between the links 16 as shown in Fig. 4 or between the standard members 10 as shown in Fig. 5. The rear end of the stem is screw threaded and adapted to receive a nut 23 by which the frog is fastened in place. It is to be understood that various shapes and styles of frogs may be used.

Fastened between the lower end of the flange links by a transverse bolt 24, are a pair of slide shoes 25 recessed at 26 as shown in Fig. 11 to receive a longitudinal guide blade or rudder 27. As shown in Figs. 10 and 12, the blade 27 has a slot 28 at an angle forward and which receives the bolt 24 between the shoes and whereby the blade may be adjusted vertically to vary its projection below the shoes. By means of this guide blade the plow is held to its course and lateral displacement reduced to a minimum. The guide blade terminates a short distance in front of opposed ears 29, one projecting up from each shoe. To the outer side of each ear the lower end of a link 30 is pivoted on a bolt 31 passing transversely through the parts as shown in Fig. 11. These links are pivoted at their upper ends on each side of the rear end of a forwardly extending connecting bar 32. A bolt 33 is passed transversely through the links 30 and the bar 32; while at its forward end, the bar is pivoted between the upper ends of the links 16 on a transverse bolt 34. It will be noted that the distance between the centers of the bolts 24 and 31 is greater than the distance between the centers of the bolts 33 and 34. This arrangement constitutes an adjustable frame or slide mechanism and the particular object is to adjust the shoes parallel to the beam after the standard members 10 have been adjusted as indicated in full and dotted lines in Fig. 9.

While in most instances the flange links 16 can be placed in rear of the members 10 with the flanges 17 directed forward between the members 10 as shown in Figs. 5 and 9, it is necessary to reverse the links as shown in Figs. 1 and 4 when the standard is adjusted as shown in Fig. 9 to permit the connecting bar 32 to swing down. When the links 16 are disposed as shown in Figs. 1 and 5, the frog 19 may be fastened closer to the standard members.

For bracing wings and molds, a short link 35 is pivoted on the bolt 31. In Fig. 13 the link is shown in dotted lines swung forward and the end of a single brace 36 fastened thereto; while in full lines the link is shown swung rearward to receive opposed braces 37. This figure also illustrates the disposition of the landside 38 as parallel with and along one side of the shoes 25. In other figures the landside is omitted for the sake of clearness.

What I claim is:

1. In a plow, the combination with a beam having a depending stock, transversely spaced standard members pivoted to the stock, flange links having flanges engaging between the standard members, a fastening device passing through the standard members and the flanges of the flange links, a slide shoe pivotally connected to the lower ends of the flange links, and a plurality of links hinged together and pivotally connecting the upper ends of the flange links and the slide shoe.

2. In a plow, the combination with a beam, and standard members mounted on the beam, of a pair of links, a flange having a slot and extending from one of the edges of each link, said flanges being engaged between the standard members, and a fastening device passing transversely through the standards and the slots of the flanges.

3. In a plow, the combination with a beam, and standard members provided with a plurality of transversely alined openings and supported on the beam, of a pair of links, an elongated flange extending from each link and provided with a slot substantially parallel to the link, said flanges engaging between the standard members, a pair of fastening devices passed through the openings of the standard members and the slots of the flanges, and a plow bolt extending between the flanges and the fastening devices.

4. In a plow, the combination with a beam, and standard members provided with a plurality of transversely alined openings and supported on the beam, of a pair of links, an elongated flange extending from each link and provided with a slot substantially parallel to the link, said flanges engaging between the standard members, a

pair of fastening devices passed through the openings of the standard members and the slots of the flanges, a plow frog having a boss arranged to engage either between the links or the standard members, and a stem extending from the boss between the flanges and the fastening devices.

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

CHARLIE L. HALL.

Witnesses:
C. E. BULLOCK,
R. T. SMITH.