

No. 682,587.

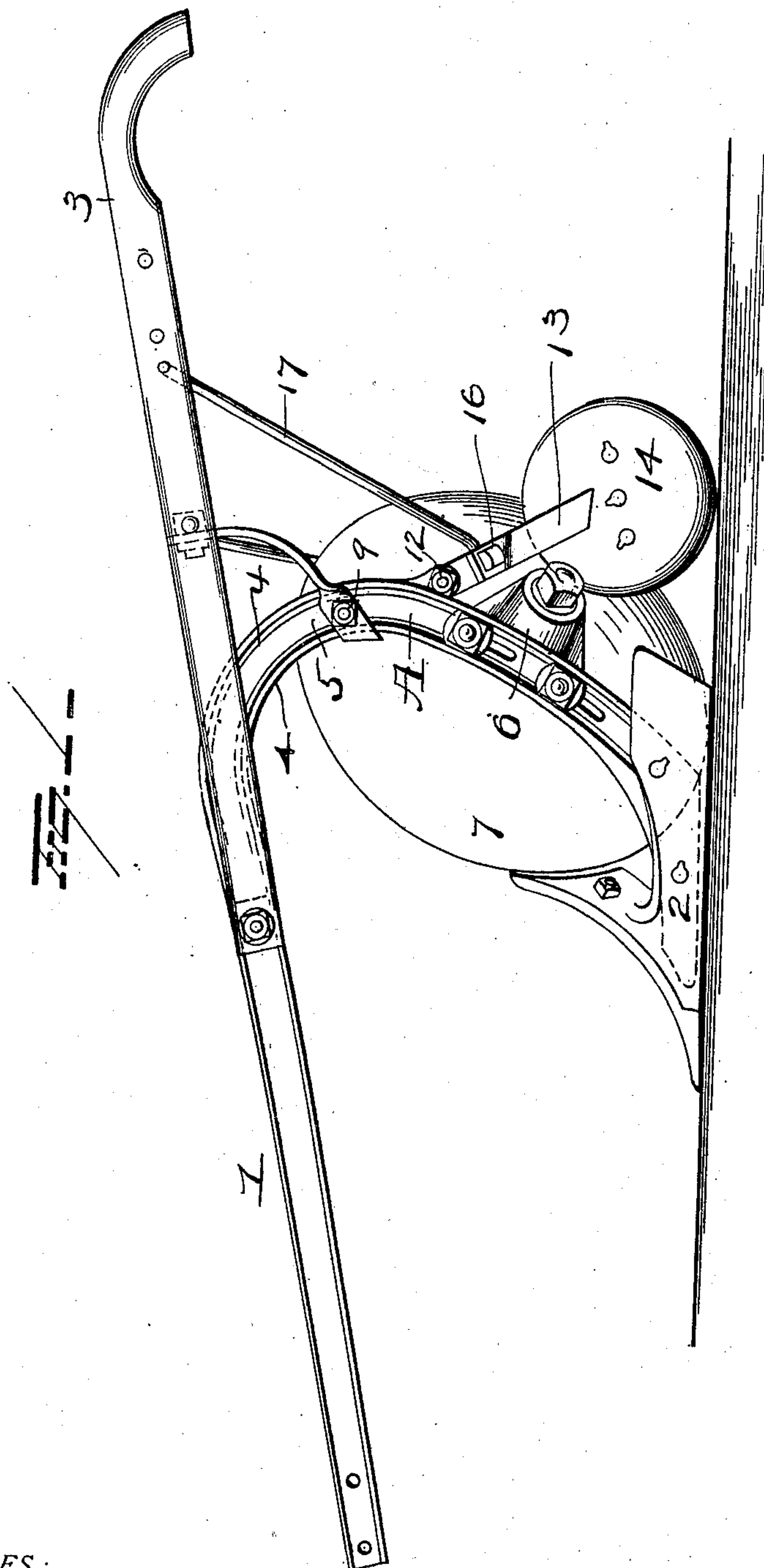
C. R. DAVIS.
PLOW.

Patented Sept. 10, 1901.

(No Model.)

(Application filed July 16, 1901.)

2 Sheets—Sheet 1.



WITNESSES
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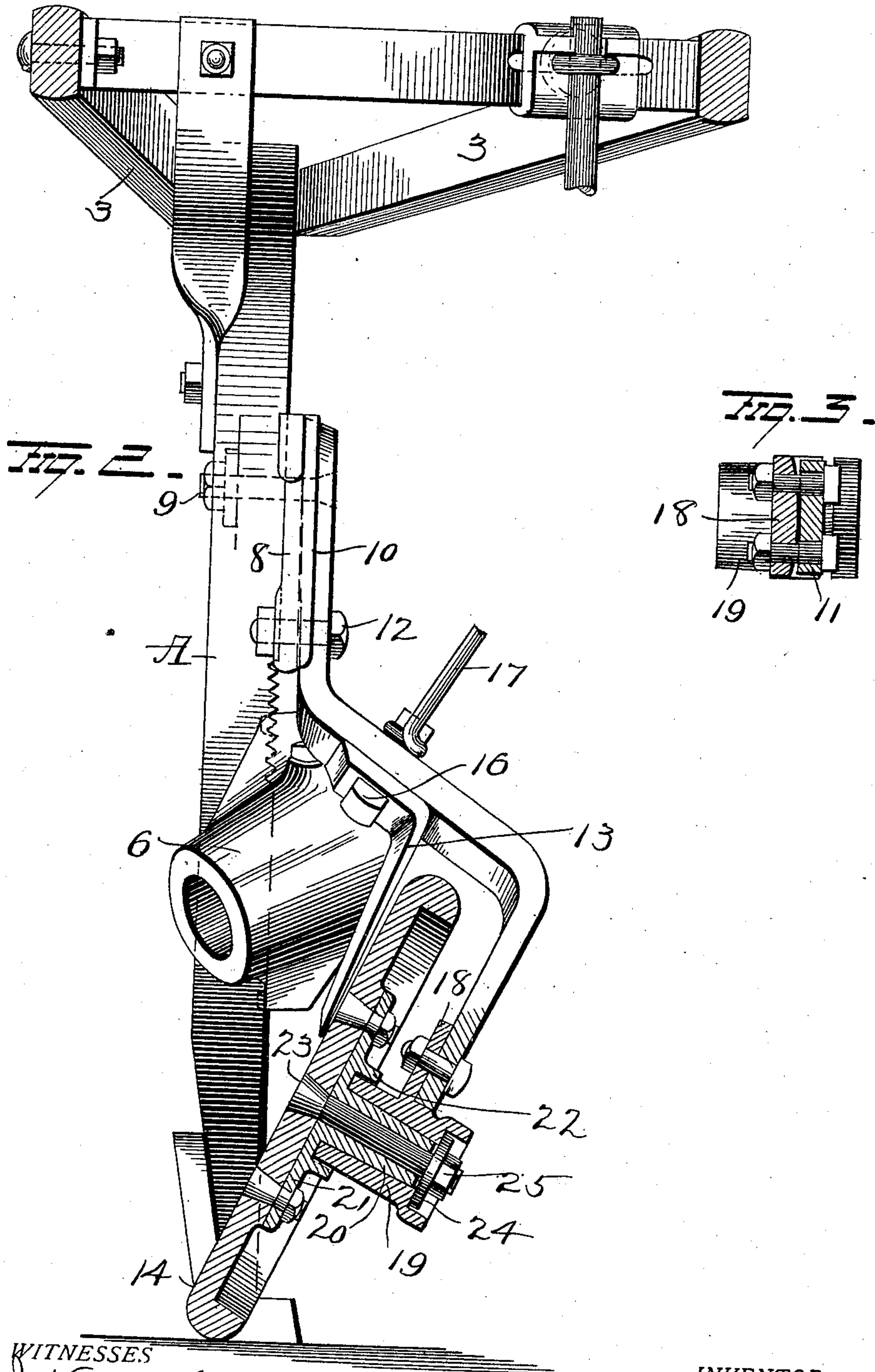
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UNITED STATES PATENT OFFICE.

CALVIN R. DAVIS, OF SOUTH BEND, INDIANA, ASSIGNOR TO SOUTH BEND
IRON WORKS, OF SAME PLACE.

PLOW.

SPECIFICATION forming part of Letters Patent No. 682,587, dated September 10, 1901.

Application filed July 16, 1901. Serial No. 68,510. (No model.)

To all whom it may concern:

Be it known that I, CALVIN R. DAVIS, a resident of South Bend, in the county of St. Joseph and State of Indiana, have invented certain
5 new and useful Improvements in Plows; and I do hereby 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.

10 My invention relates to an improvement in plows, and more particularly to an improved gage or guide wheel therefor, the object of the invention being to provide an improved guide-wheel and so mount the same as to cause the
15 plow to run true and steady and prevent vibration and which can be adjusted to various angles to suit the conditions of the soil.

With this object in view the invention consists in certain novel features of construction
20 and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation, illustrating my improvements. Fig. 2 is a rear view, partly in section; and Fig. 3 is a detail view in section.

1 represents a metal beam curved downward at its rear end, forming the standard A, and then extends forward in the form of an
30 elongated foot, contracted for the attachment of the landside 2, and suitable handles 3 are secured to the beam, as shown. The standard A and beam 1 are made on their opposite faces with flanges 4 at each edge and a central depression 5, and a disk-spindle box 6 is
35 secured to the standard and has mounted therein a spindle to which the rotary disk moldboard 7 is secured.

A casting 8 is secured on the standard A
40 above the disk-spindle box by means of a bolt 9 and is made with grooves and ribs on one side to receive the flanges 4 on the standard and prevent movement of the casting when secured in place by the bolt. The other
45 or outer face of the casting 8 is made with parallel flanges 10, between which a rod or wheel standard 11 is secured by means of a bolt 12, together with bolt 9, above referred to, and said casting is enlarged between the
50 bolt-holes to permit the relative angle of the

standard 11 to be changed by simply loosening one bolt and tightening up the other, the enlarged central portion of the casting between the bolt-holes serving as a fulcrum on which the standard moves. The standard 11 is
55 bent, as shown, and has secured thereto a scraper 13 (for the guide-wheel 14) by a bolt 16, which latter also serves to secure one end of a brace-rod 17 to the standard 11, the other end of said rod 17 being bent and passed
60 through one handle 3 and screw-threaded on its end for the reception of a nut to secure the brace in position. The lower or rear end of standard 11 is widened and made near each side edge with a hole, alining with holes
65 in a tongue 18, integral with and projecting at right angles to a spindle-box 19, which is made with a slightly-conical bore to receive a similarly-shaped spindle 20, integral with a plate 21, secured to the guide-wheel 14 by
70 bolts, as shown, and said plate is made with a circular flange 22 to inclose the end of box 19 and prevent the entrance of dirt and grit therein. Said spindle 20 is made with a central hole for the reception of a bolt 23, on
75 which latter a washer 24 is located and held in the enlarged and flanged end of the box by a nut 25 to secure the spindle therein. The tongue 18 is made thickest at its center between the bolt-holes and slopes or inclines to
80 its edges to permit the relative angle of the tongue and box 19 to be changed by simply loosening one bolt and tightening the other, as the central or widest portion of the tongue will serve as a fulcrum on which the tongue
85 is turned to change the angle of the guide-wheel, as will be readily understood. This guide-wheel 14 runs in the corner of the furrow and lessens the friction of the soil on the landside-shoe, also causing the plow to run
90 steady.

The guide-wheel is made with an oval face, or, in other words, a rounded periphery, which sinks a short way into the soil, forming a hold for the wheel and preventing the
95 plow vibrating to either side, thus insuring a straight and even furrow. Besides, it is found by practice that the oval-face rim sheds the soil more readily than other forms of face.

It is important that the relative angle of 100

the wheel-standard to the plow-standard and the guide-wheel to the wheel-standard can be adjusted, for the plow has a tendency in some soils to work away from the wall of the furrow, and the wheel can, by the means above described, be set at the proper angle to cause the plow to run true.

Various slight changes might be resorted to in the general form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I would have it understood that I do not wish to limit myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

I do not in this case claim the general features of the plow, the same being covered by the claims of my application filed April 29, 1901, Serial No. 58,020.

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

1. In a plow, the combination with a standard, of a rotatively-mounted moldboard on said standard, a wheel-standard projecting rearward from the plow-standard, means for adjustably connecting the wheel-standard to the plow-standard, and a wheel adjustably supported by said wheel-standard behind the

moldboard and having an oval or rounded periphery.

2. In a plow, the combination with a standard, of a casting secured to said standard and raised between its ends, a wheel-standard secured to the casting by bolts on opposite sides of the raised portion, a wheel-spindle box, a tongue thereon raised or enlarged between its side edges, bolts on opposite sides of said raised portion securing the tongue and wheel-standard together, and a guide-wheel rotatively supported in said box.

3. In a plow, the combination with a standard, a moldboard, a landside and a point connected with said standard, of a wheel-standard secured to the plow-standard and projecting rearward therefrom, a guide-wheel rotatively supported at the rear end of the wheel-standard and means for changing the angle of the wheel with relation to the wheel-standard and means for changing the angle of the wheel-standard with relation to the plow-standard.

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

CALVIN R. DAVIS.

Witnesses:

GEORGE K. MEYER,

THOMAS A. FREEMAN.