

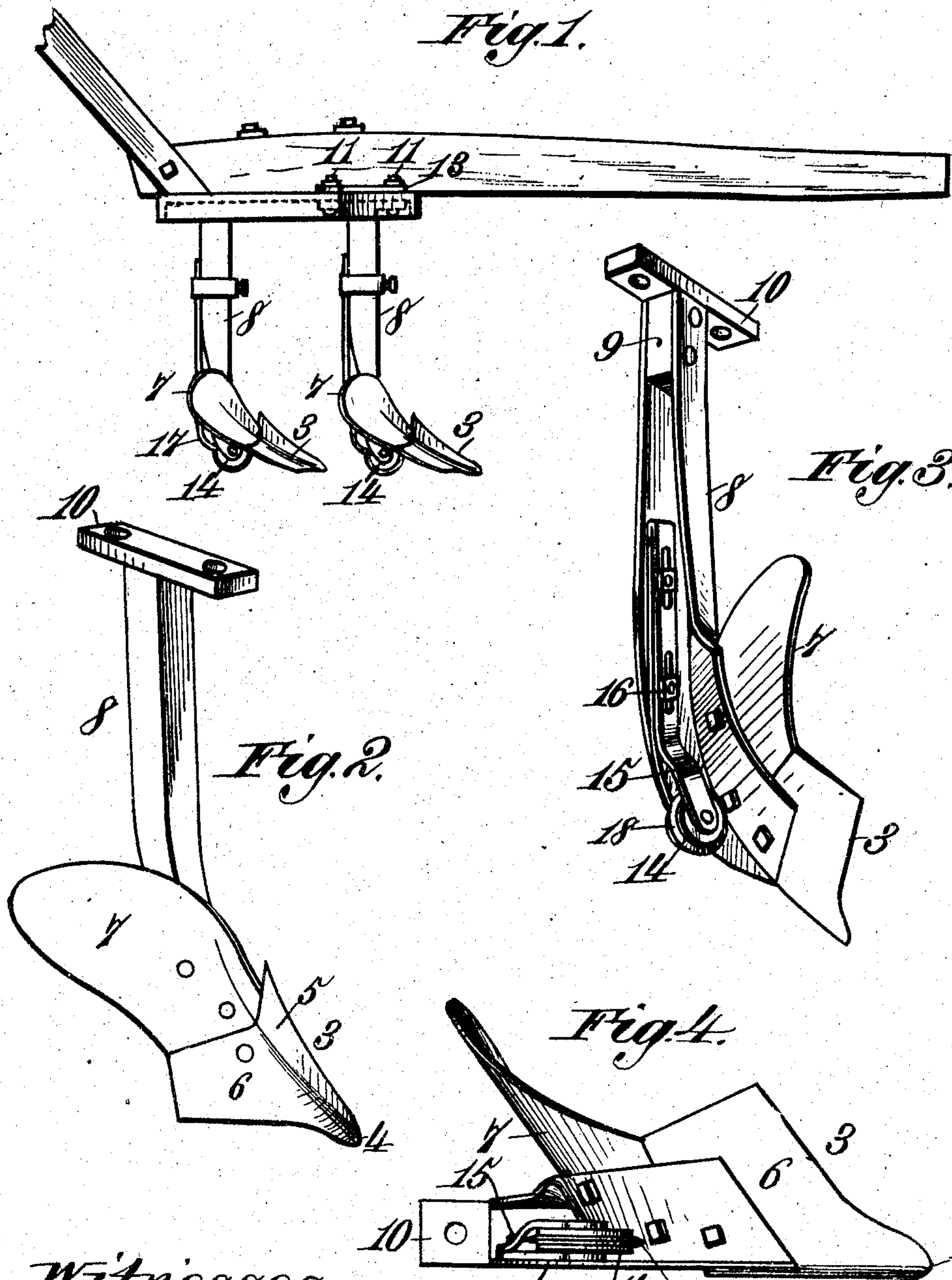
No. 786,836.

PATENTED APR. 11, 1905.

A. G. PERRY.  
PLOW.

APPLICATION FILED MAY 24, 1904.

2 SHEETS—SHEET 1.



Witnesses.  
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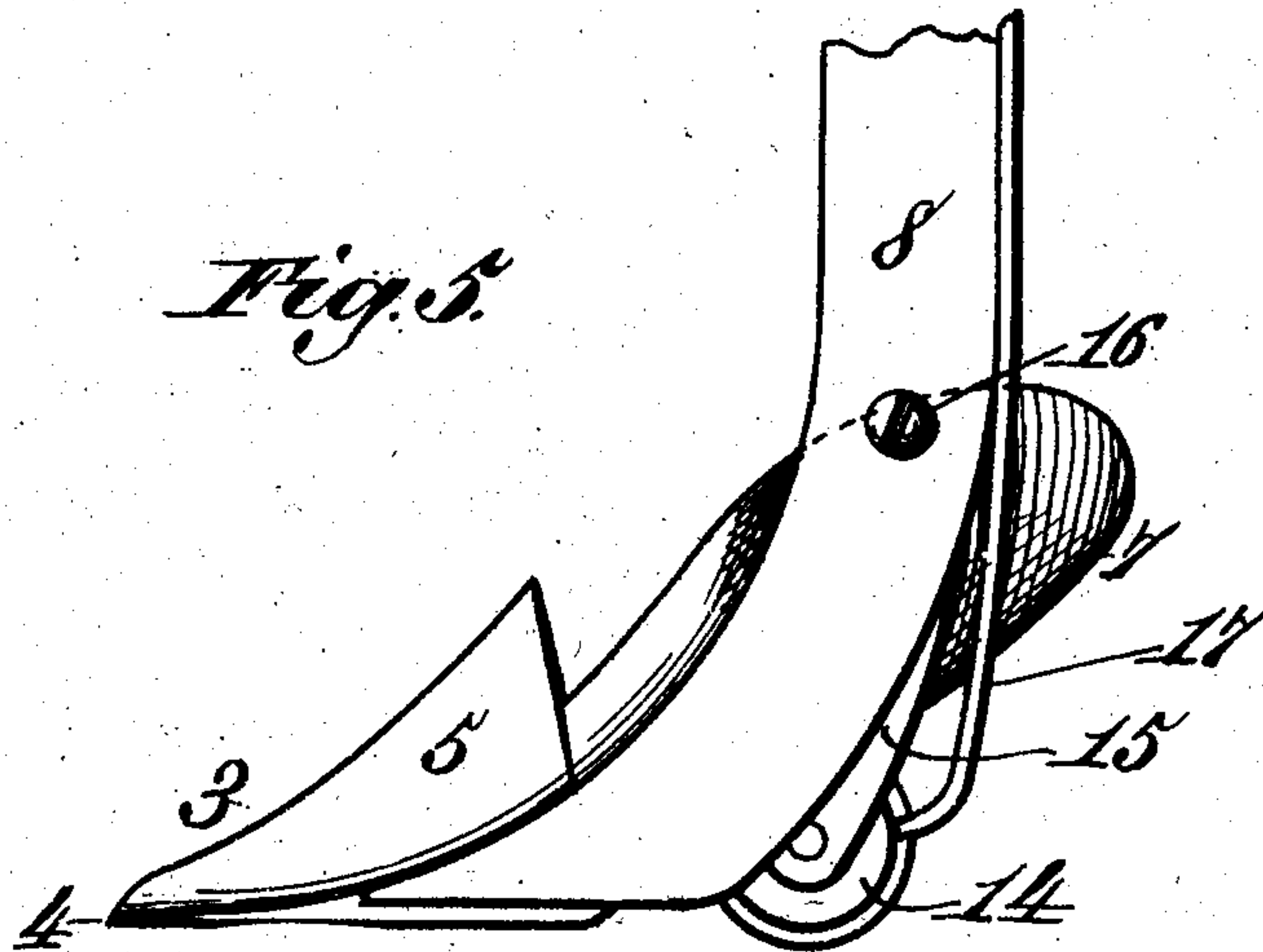
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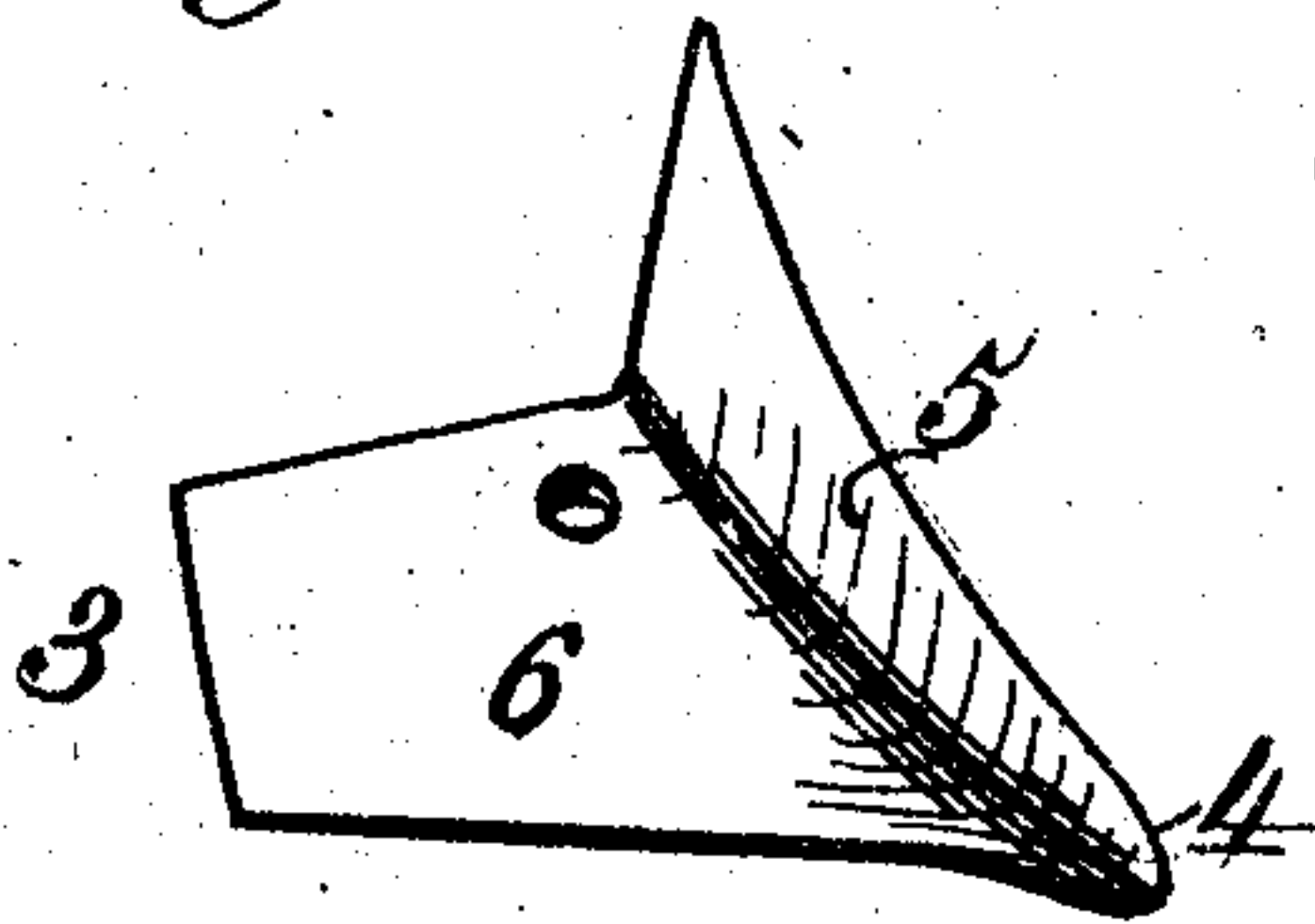
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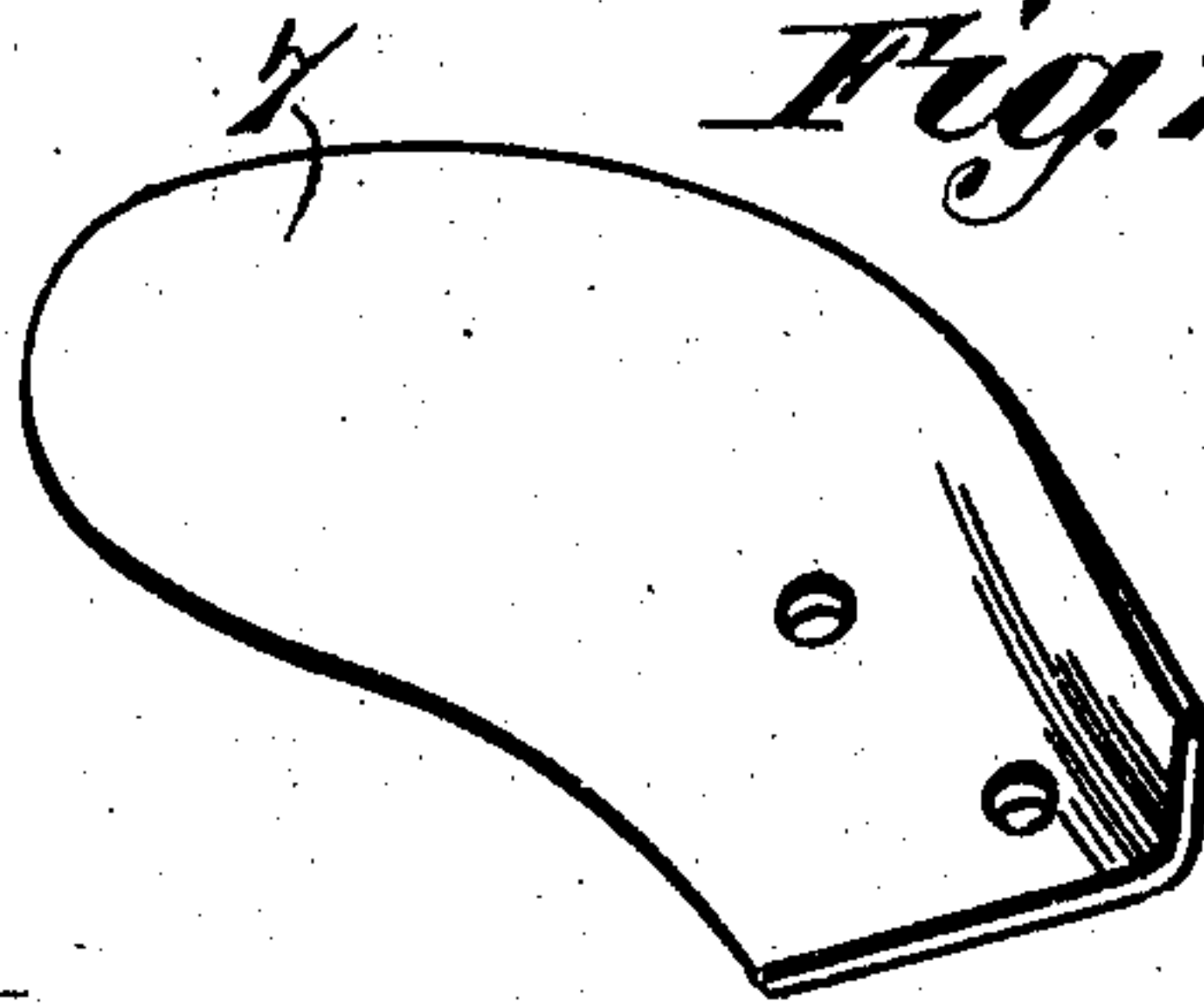
2 SHEETS—SHEET 2.



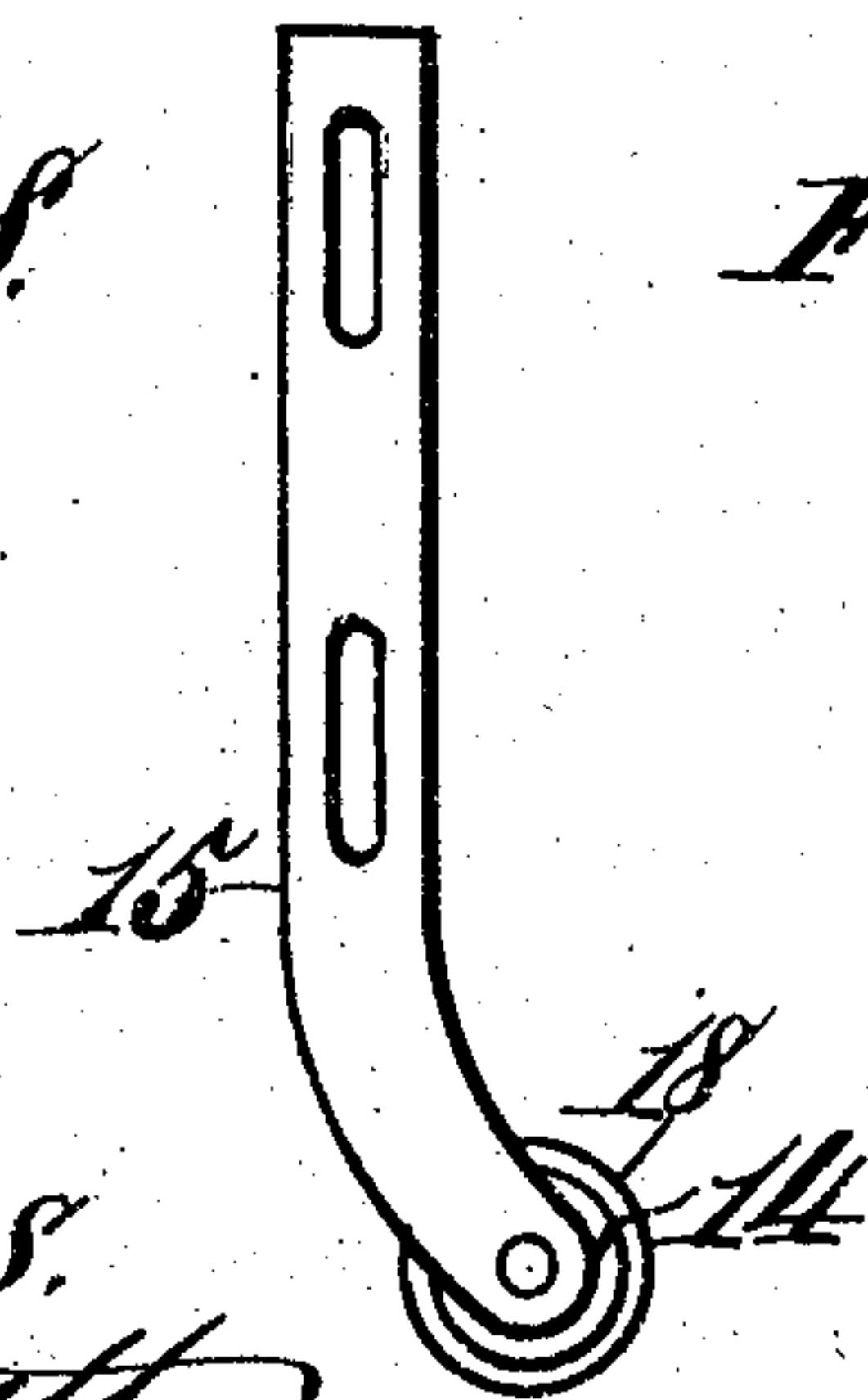
*Fig. 6.*



*Fig. 7.*



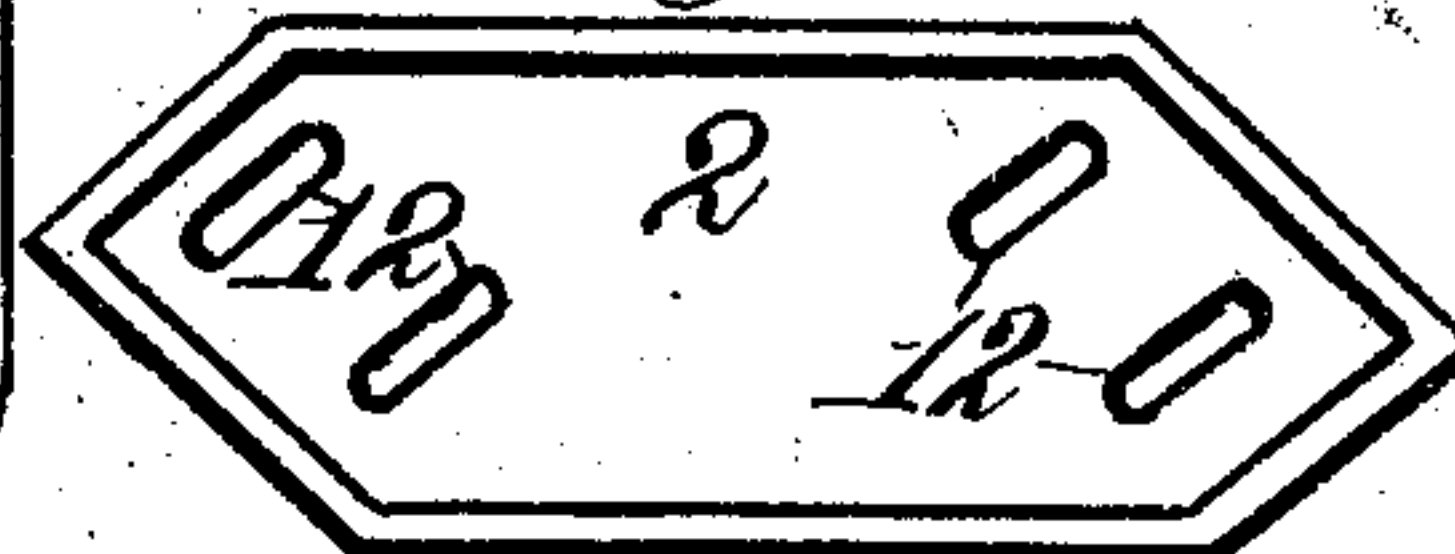
*Fig. 8.*



*Fig. 9.*



*Fig. 10.*



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# UNITED STATES PATENT OFFICE.

ALVY G. PERRY, OF COLDWATER, MISSISSIPPI.

## PLOW.

SPECIFICATION forming part of Letters Patent No. 786,836, dated April 11, 1905.

Application filed May 24, 1904. Serial No. 209,443.

*To all whom it may concern:*

Be it known that I, ALVY G. PERRY, a citizen of the United States, residing at Coldwater, in the county of Tate and State of Mississippi, have invented new and useful Improvements in Plows, of which the following is a specification.

This invention relates to plows, and particularly to that class known as "turning-plows." However, I do not wish to limit myself in this respect, for the reason that some of the features of the invention may be employed with advantage in connection with other kinds of plows and equivalent devices.

With the improved plow the share thereof is of such construction that it thoroughly breaks and overturns the soil and can be advanced through the ground with a minimum draft. It is strong and cleanly cuts the bottom and the land side of the furrow.

I connect the plowshare and the cooperating moldboard to a standard in a novel manner, as will hereinafter appear, and also provide in connection with the plow proper, consisting in the present case of said share and moldboard, an antifriction-wheel, the advantage of which will be hereinafter set forth.

The invention includes other novel features which I will set forth at length in the following description, while the novelty of such invention will be embraced within the claim succeeding such description.

In the drawings accompanying and forming a part of this specification, I illustrate one adaptation of the invention, which will be fully disclosed hereinafter. I do not limit myself to the showing thus made, however, for certain variations as to a number of points may be made within the scope of my claim.

In said drawings, Figure 1 is a side elevation of a plow including my invention. Fig. 2 is a front perspective view of a standard constituting a part thereof and the parts carried by said standard. Fig. 3 is a rear perspective view of the parts illustrated in Fig. 2. Fig. 4 is a bottom plan view of the parts shown in the two preceding figures, the scraper illustrated in Fig. 1 being omitted from Figs. 2 to 4, inclusive. Fig. 5 is a side

elevation of the lower portion of the standard and share and moldboard in assembled relation. Figs. 6 and 7 are detail views of said share and moldboard, respectively. Fig. 8 is a detail view of a roller and its carrier. Fig. 9 is a similar view of a scraper.

Certain of the figures are shown upon an enlarged scale.

The plow in the present case involves in its construction a plurality of plows proper of any suitable number, two of them being represented in the drawings and as situated at opposite sides of the plow-beam, which latter may be of any suitable construction. The standards for said plows proper are connected with a bar, as 2, which in practice extends diagonally of the beam, the latter extending across the upper side of the bar 2, substantially centrally thereof, so that one plow will be located at each side of the beam. The plows are represented as being right-handed. This, however, is not essential, for they may be left-handed and still involve my invention. As the two plows are similar in construction and the same applies to their mounting, I will describe in detail but one of the plows and its mounting, such description applying to the other parts.

The plow includes in its construction a share, as 3, represented as concavo-convex in cross-section and as having a duck-bill forward end, as 4. By forming the share into concavo-convex shape I present two portions—a vertical portion, as 5, and a lateral portion, as 6—the lateral portion being disposed at an obtuse angle or approximately at such an angle to the vertical portion 5, which vertical portion 5, it will be evident, is parallel with the line of draft.

It will be seen that I do not have on the upper or lower sides of the share any ribs. The edges of the vertical and horizontal portions 5 and 6 are beveled or sharpened, and these sharpened edges converge toward the duck-bill forward end 4 of the share, which has its concave side uppermost, as will be apparent. The cutting edge of the vertical portion 5 of the share is adapted as the latter is drawn through the ground to cut cleanly the furrow on the land side, while the cutting edge on the



lateral portion of said share is adapted to cleanly cut the bottom of said furrow. It will therefore be apparent that simultaneously I shear the land side and bottom of the furrow and do not tear the soil off on the land side, as is done with certain types of plows with which I am familiar.

A plowshare constructed as hereinbefore set forth is strong and can be passed through the soil with comparatively a small amount of draft. To augment the cutting action of the vertical and lateral portions of the share, said cutting edges may be longitudinally concaved, the arc defining the concavity being of considerable radius. The moldboard is denoted by 7, and it and the share 3 are united to the standard 8 in a manner that will hereinafter be set forth. The moldboard 7 is also concavo-convex in cross-section, its concaved side being uppermost. The forward end of the moldboard abuts against the rear end of the plowshare, so as to bring their concaved faces into continuity. The concaved face of the moldboard agrees with that of the plowshare, and by reason of their continuity when in assembled relation the two parts hold the soil as it is lifted and give it a breakage, while the vertical portion of the moldboard gives a side pressure to the furrow-slices, and thereby breaks such slices. By these two breaking operations the soil will be thoroughly pulverized. It will be understood, of course, that both the share and moldboard are inclined upward from the forward duck-bill end of the share in order to elevate the soil or furrow. It will be apparent that in practice the vertical portions of the share 3 and moldboard 7 are parallel with the beam, so as to provide an effective guide to assure that the plow cuts a straight furrow. In addition to this there will be less friction between the plow and the soil than with certain old-style plows. The vertical portions of the two parts, it will therefore be obvious, constitute a landside.

The standard 8 is represented as being of channeled form, and it is preferably made from steel, with the open side toward the rear of the plow. One of the side cheeks or flanges of the channeled standard is twisted forwardly, and the share 3 and moldboard 7 are united to such twisted portion, as will be seen, for example, on reference to Fig. 3. Between the side cheeks or flanges of the channeled standard, at the top thereof, I fasten a steel block or shank, as 9, rivets or bolts serving as a convenient means for uniting the two parts. This block or shank 9 is provided at its top with oppositely-disposed flanges, each denoted by 10, perforated for the reception of bolts, as 11. These bolts 11 extend through elongated slots, as 12, in the bar 2, which slots are transverse to the beam. The bolts also pass through perforations in a plate, as 13, fitted against the top of the bar 2. The nuts for the bolts engage the top of the plate

13, while the heads of said bolts fit against the under face of the flanges 10, although this arrangement is not essential. By the provision of the plate, bolts, and flanged block or shank 9 I am enabled to obtain an effective means for clamping the plowshare and moldboard, carrying standard 8, to the bar 2. By virtue of the elongated slots 12 extending transversely or at right angles to the beam the two standards 8 can be adjusted toward and from each other in order to regulate the distance between the furrows or to meet other conditions. By reason of the clamping means the two plows will be held absolutely in the requisite working relation.

In practice I set one plowshare behind the other, so as not to interfere with each other, and the bar 2, which carries the standard, will be flanged to add to the strength thereof. The lower portion of the standard is concaved, and the moldboard and plowshare are fastened in some suitable way—as, for example, by means of rivets—to the concaved portion of the standard. In this way I provide a simpler union between the plowshare and moldboard and standard than is ordinarily the case.

I mount under the moldboard 7 of the plow a roller to insure a steady even movement of the plow, as well as to carry the weight thereof. By the provision of this roller I do away with the ordinary landside and materially reduce the draft on the plow. The roller is denoted by 14, and it is supported between the branches of a bifurcation at the terminal lower portion of a carrier or bracket, as 15. The axle for the roller 14 passes loosely centrally through the hub of the roller, the length of said hub exceeding the width of the rim or periphery of said roller, so as to prevent said branches of the bifurcation coming in contact with said rim or periphery, as in case there was a contact between such parts the rotation of the roller would be effected.

The carrier or bracket 15 for the roller 14 is represented as united to the standard 8 by bolts, as 16. The bolts are illustrated as extending through longitudinal slots in the carrier or bracket. By reason of this construction the roller will solidly and firmly support the plow, and to bring the roller into the best possible position under the moldboard the lower portion of the carrier or bracket is curved forward. By reason of the slots in the carrier or bracket 15, through which the bolts 16 pass, said carrier or bracket can be adjusted up and down to regulate the depth of the plow into the soil.

In practice one of the standards 8 is made longer than the other, so that notwithstanding the fact that the beam of the plow may be disposed angularly or at a pitch the plows will penetrate the ground equal distances.

To clean the roller 14, I provide a scraper, as 17, suitably associated with the roller.



This scraper is indicated as being connected with the standard 8.

5 The periphery of the roller 14 is provided with an annular projection, as 18, V-shaped in cross-section, by reason of which said projection will cut into the soil and prevent the plow from moving laterally or sidewise. The working portion of the scraper 17 will be shaped to agree with the periphery of the roller.

I claim—

15 In a plow, a standard having parallel flanges, a block fitted in the upper side of the standard between said flanges and provided with oppositely-disposed flanges adapted for connection with a beam, a share and a moldboard

abutting against each other and connected with said standard, a vertically - disposed bracket having longitudinal slots located one above the other, adjusting and holding devices for the standard extending through said slots and connected with the inner face of one of the flanges of the standard, and a roller mounted upon the lower end of the bracket and situated under the moldboard.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALVY G. PERRY.

Witnesses:

J. D. TURLEY,

M. S. DOUGHERTY.