

(No Model.)

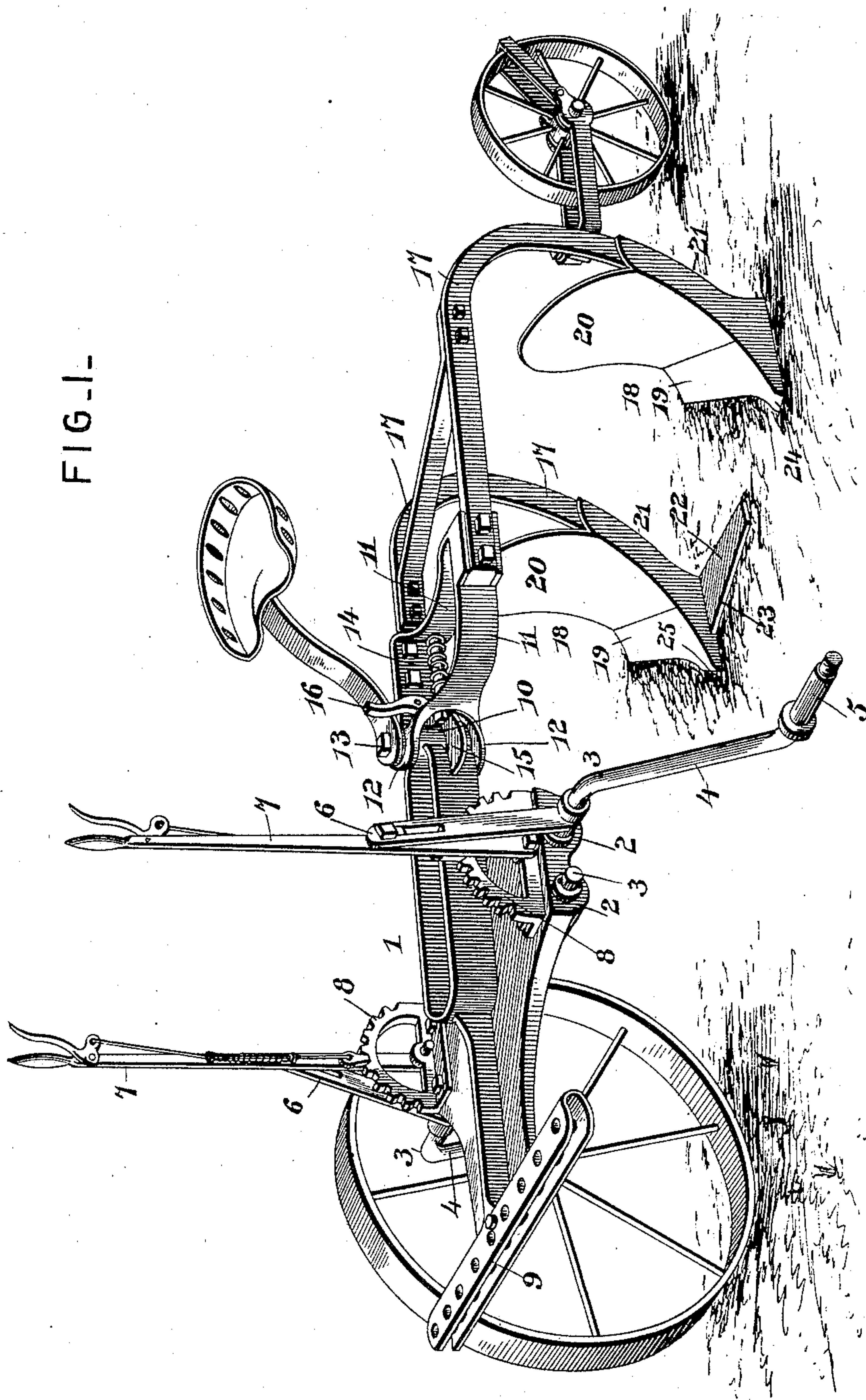
A. F. JACKSON.
PLOW.

2 Sheets—Sheet 1.

No. 584,510.

Patented June 15, 1897.

FIG. 1.



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Witnesses

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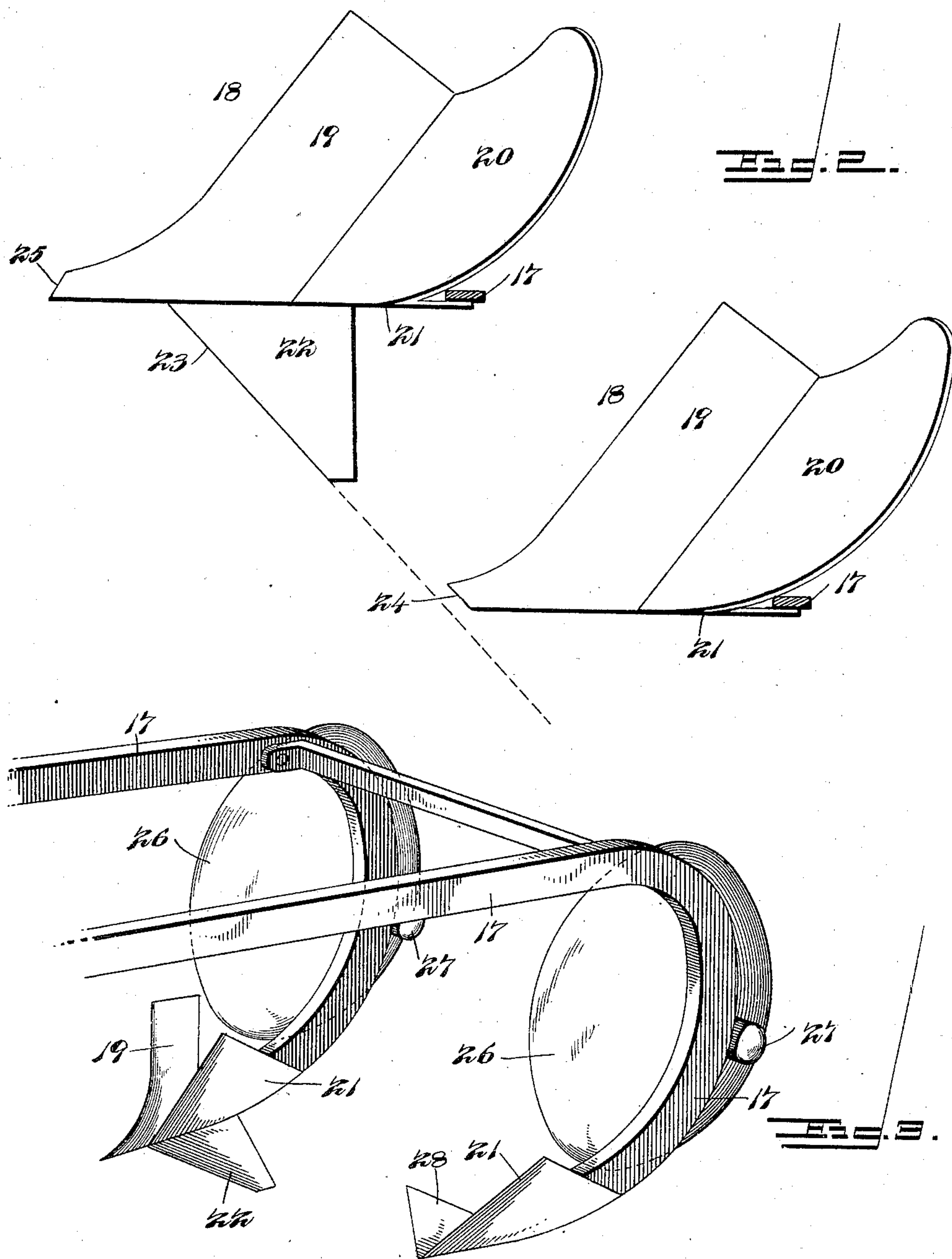
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2 Sheets—Sheet 2.

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No. 584,510.

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Inventor

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UNITED STATES PATENT OFFICE.

AMBROSE F. JACKSON, OF OKLAHOMA CITY, OKLAHOMA TERRITORY.

PLOW.

SPECIFICATION forming part of Letters Patent No. 584,510, dated June 15, 1897.

Application filed June 23, 1896. Serial No. 596,643. (No model.)

To all whom it may concern:

Be it known that I, AMBROSE F. JACKSON, a citizen of the United States, residing at Oklahoma City, in the county of Oklahoma and Territory of Oklahoma, have invented a new and useful Plow, of which the following is a specification.

This invention relates to plows; and the object in view is to provide in connection with the shares of gang-plows one or more auxiliary shares, each being rigidly connected to its respective share or landside and projecting from the landside obliquely and terminating short of or at a distance from the adjacent share, which is separated therefrom and also arranged to the rear of the share to which the auxiliary share is attached, whereby side draft is to a great extent obviated and the power which would ordinarily be wasted in overcoming the side draft utilized for loosening the soil and severing the stubble, thus preparing the way for the succeeding share, the work of which is thus materially lessened.

Other objects and advantages of the invention will appear in the course of the ensuing description.

With the above general objects in view the invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally pointed out in the claims hereto appended.

In the accompanying drawings, Figure 1 is a perspective view of a plow constructed in accordance with the present invention. Fig. 2 is a diagrammatic plan view showing the relative positions of the main and auxiliary shares. Fig. 3 is a detail perspective view showing disks substituted for moldboards.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

The improved plow contemplated in the present invention, as far as the framework is concerned, has the same general characteristics and is of substantially the same structure as that shown and described in a former application filed by me June 14, 1895, Serial No. 552,820, and also in Patent No. 501,945, dated

July 25, 1893, both for improvements in plows. It will therefore be necessary only to give a brief description of the same herein.

Referring to the accompanying drawings, 1 designates the machine-frame, having pendant eyes or bearings 2, in which are arranged parallel axles 3, provided at their alternate ends with crank-arms 4, having at their swinging ends spindles 5, on which the carrying-wheels are journaled. Each axle has a crank-arm 6 rigid thereon and extending above the machine-frame, the same being slotted longitudinally to receive a pivoted block mounted upon and carried by a thumb-latch lever 7 at that side of the machine. Both levers are fulcrumed on the machine-frame and each has a latch which engages a segmental rack 8 on the frame for holding the lever at the desired angle. Thus provision is made for adjusting the height and angle of the machine-frame. The frame has at its front end a clevis 9 and at its rear end a vertical sleeve 10.

11 designates the plow-beam head, which is provided with spaced ears 12, embracing the sleeve 10 and perforated in alinement therewith to receive a king-bolt 13. This affords a swinging connection between the plow-beam head and the machine-frame. The head may, however, be held in rigid engagement with the machine-frame by means of a spring-actuated bolt 14, slidingly mounted in the head and resting normally in engagement with a notch in a horizontal flange 15 of the sleeve 10.

When the latch or bolt is engaged with the notch in the flange, the plow-beam head is held in longitudinal alinement with the machine-frame. The bolt 14 may, however, be withdrawn from its engagement by means of a foot-lever 16, the lower end of which is forked to stride and engage said bolt. The object of this construction, as explained in the said former application, is to allow the plows and plow-head to swing relatively to the machine-frame, so that in turning corners the plow-points will be prevented from twisting out of the ground.

The construction above described is identical with that shown and described in the said former application.

The invention herein contemplated refers particularly to the plows themselves and will be now described.

17 designates a pair of standards, which are secured in any convenient manner to the head 11, and which have rigidly attached to their lower ends the plows 18, each comprising a share 19, moldboard 20, and landside 21. The standards and the plows attached thereto may be spaced any desired distance apart transversely, according to the distance between the furrows, and the lower ends of the standards are also arranged in different longitudinal planes, the right-hand plow being arranged preferably in advance of the left-hand plow.

22 indicates the auxiliary share, which is the vital part of the present invention. This is in the form of a plate, which is secured to the bottom of the plow at the lower edge of the landside, the essential points of the auxiliary share being that it has an obliquely-disposed advance or cutting edge 23, that it projects from the landside of one of the plows, that it projects thence toward or in the direction of the opposite plow, being thus arranged between the plows, and that it terminates in such manner as to leave an open space between its projecting end or point and the point or nose of the adjacent plow. The point of the left-hand or rear plow is beveled off, as indicated at 24, said bevel being in a plane substantially parallel to the plane of the edge 23 of the auxiliary share and also in rear of the plane of such edge. On the other hand, the point 25 of the left-hand or forward plowshare is beveled off in a reverse direction, as in the ordinary construction.

By the construction described and the particular relative arrangement of the plows and the auxiliary share the cutting edge of the auxiliary share operates to counteract to a considerable extent the side draft caused by the share of the right-hand plow, and the beveled point or nose 24 of the left-hand or rear plow also assists the auxiliary share in counteracting this side draft. Not only is the side draft in a measure counteracted, as just described; but the auxiliary share 22 serves to loosen up the soil, stubble, &c., and prepare the way for the left-hand or rear plow, thus relieving the work of the latter, the said rear plow following along and turning the soil loosened by the auxiliary share.

The advantage in terminating the auxiliary share short of the rear plow and not connecting the two plows thereby or by sod-cutters, as in previous constructions, resides in the fact that the stubble or weeds or other material of a similar nature will pass off the end of the auxiliary share and not accumulate thereon, a difficulty which always has to be contended with where the several plows or shares of a gang of plows are interconnected.

The construction described effects a ma-

terial reduction in the straightway draft of the plow, also counteracts the side draft to a considerable extent, and decreases the amount of work required by each share exclusive of the initial or advance plow.

In Fig. 3 I have shown the improvement as adapted to a rotary disk plow, the moldboards 20, as shown in Figs. 1 and 2, being replaced by rotary disks 26. These disks have obliquely-disposed spindles journaled in oblique bearings 27 upon the standards 17, and the angles of the disks are so regulated that the cutting edges of the disks or their front edges are arranged in rear of and in longitudinal alinement with their respective landsides or colters 21. A second auxiliary share 28 is attached to the rear plow and projects inward therefrom in the same horizontal plane with the auxiliary shaft 22. The forward cutting edge of the share 28 is oblique, like the cutting edge of the share 22, but inclines in a reverse direction. The action of these auxiliary shares is the same whether they are used in connection with moldboards or disks.

It will be apparent that the obliquity of the cutting edge of the auxiliary share may be varied to suit the required conditions, and that other changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

1. In a plow in which two or more shares are employed, the combination with two shares spaced apart transversely and arranged one in advance of the other, of an auxiliary share secured to the advance share and projecting transversely toward the plane of the other share, said auxiliary share being provided with an oblique advance or cutting edge and terminating in such manner as to leave an open space between it and the point of the after share, substantially as and for the purpose described.

2. In a plow in which a pair of standards and shares are employed, the combination of two shares spaced apart transversely and also arranged one in advance of the other and having their points or noses reversely beveled or inclined, and an auxiliary share attached to the forward plow and projecting into a plane intermediate the main shares and lying in the path of the rear share, said auxiliary share having an oblique cutting edge extending in a plane in advance of and substantially parallel with the beveled or inclined point or nose of the rear share, the said auxiliary share terminating at a distance from the rear share so as to afford an intervening space, substantially as and for the purpose described.

3. In a plow, the combination of two standards located one in advance of the other and spaced apart laterally, shares secured to said

standards, and auxiliary horizontal shares
connected to the main shares and projecting
inward therefrom but terminating short of
the opposing main share, the said auxiliary
5 shares being provided with oblique cutting
edges which are reversely disposed to each
other, substantially as described.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

AMBROSE F. JACKSON.

Witnesses:

WILL H. CLARK,
JENNIE VAN METER.