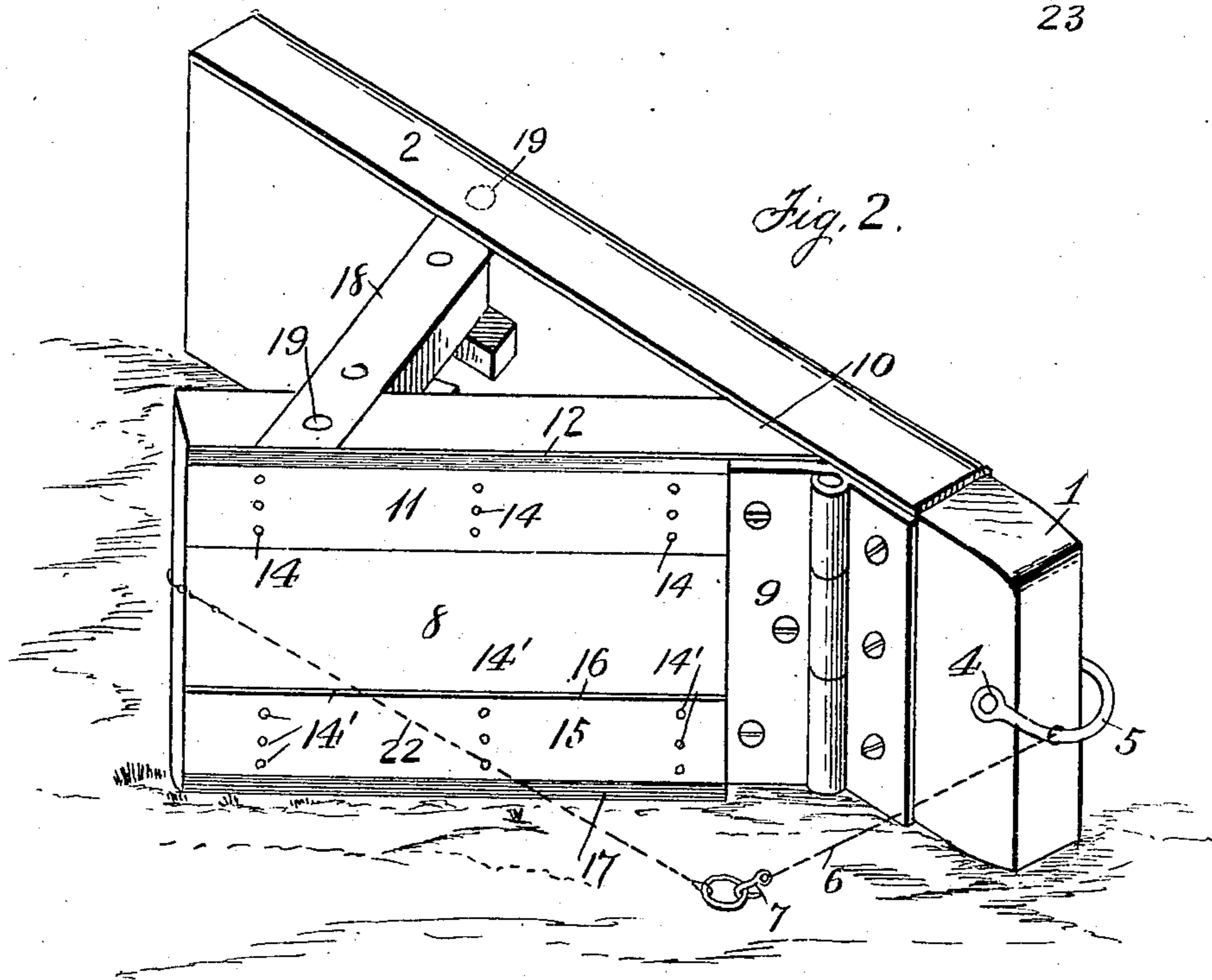
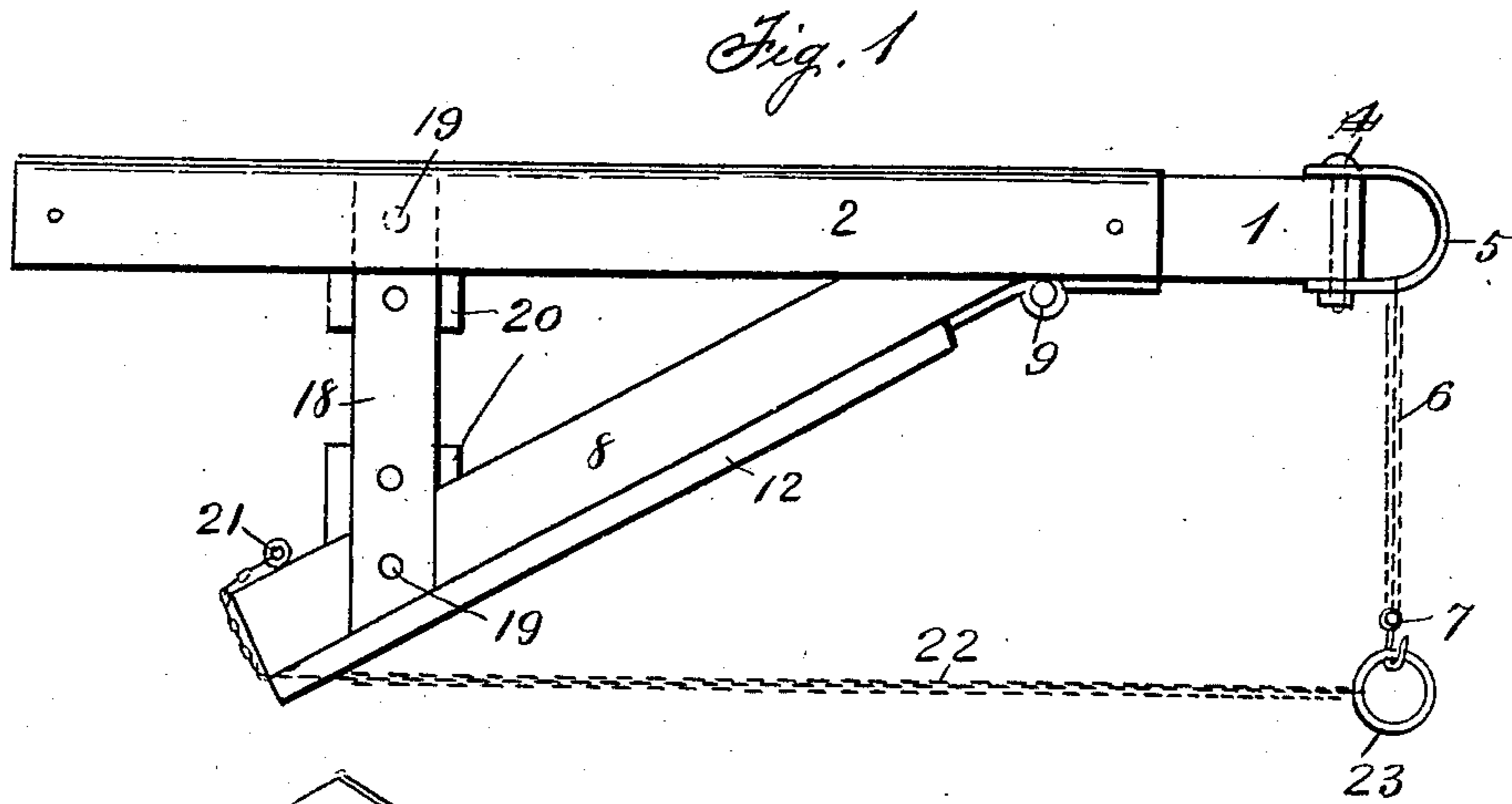


No. 879,478.

PATENTED FEB. 18, 1908.

W. LARKIN.
DITCHER AND ROAD GRADER
APPLICATION FILED MAY 27, 1907.

2 SHEETS—SHEET 1.



Witnesses
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2 SHEETS—SHEET 2.

Fig. 3.

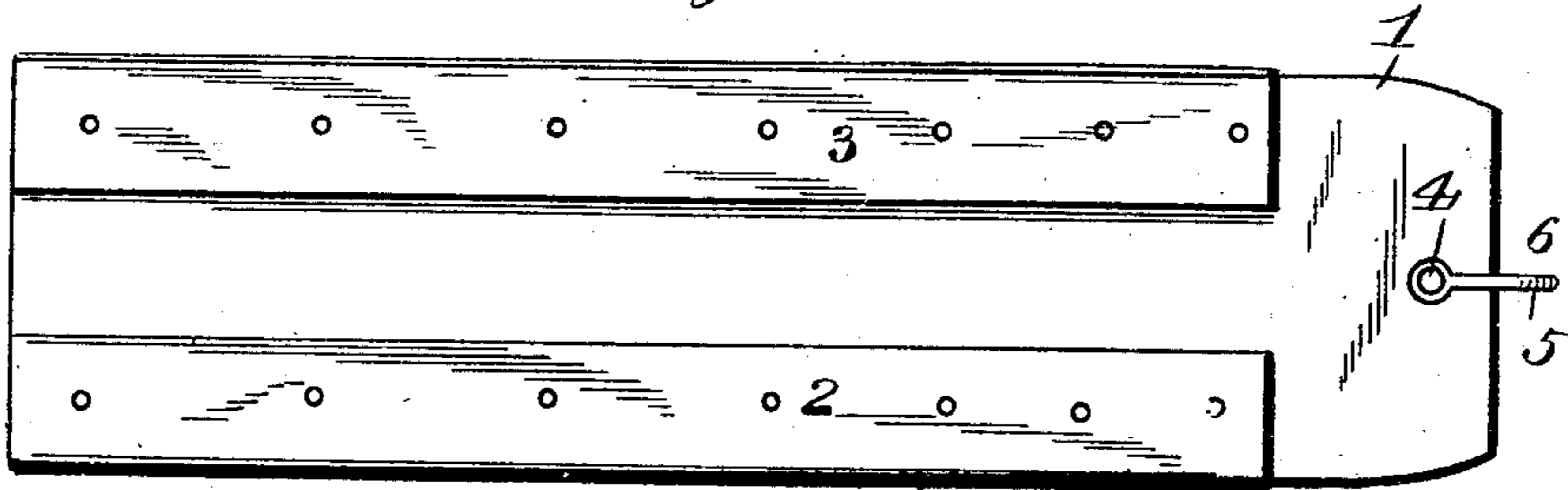


Fig. 4.

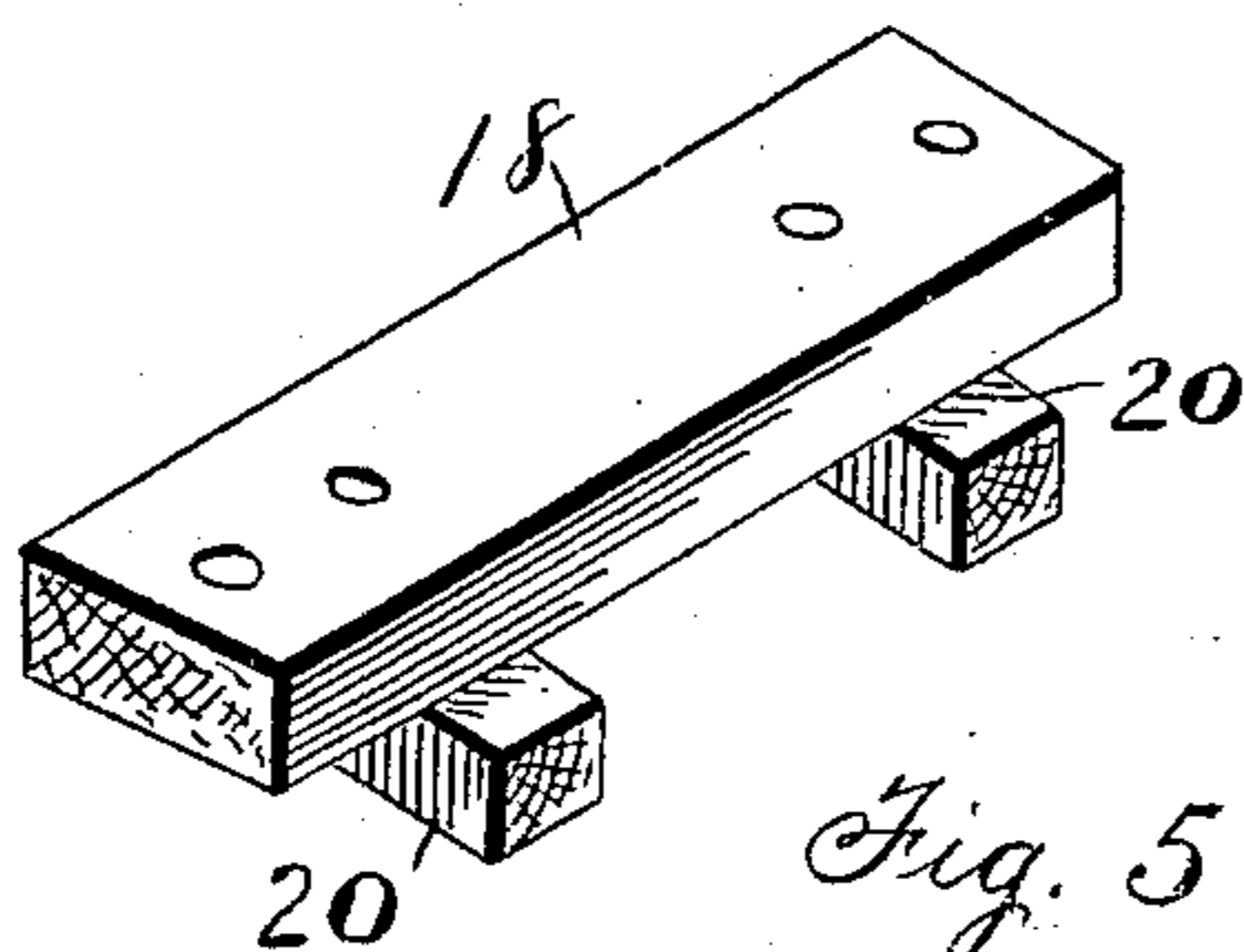
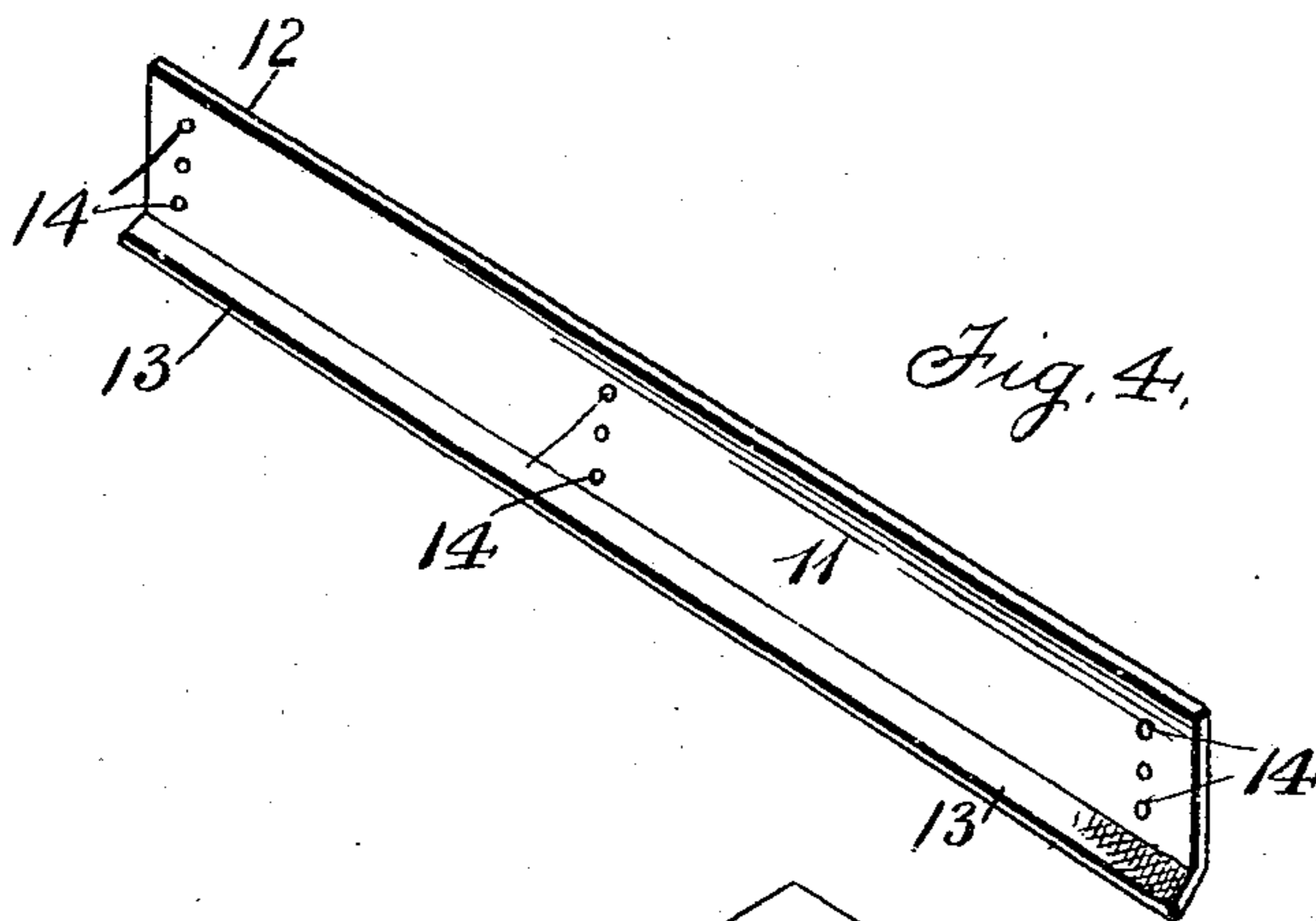


Fig. 5

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UNITED STATES PATENT OFFICE.

WILLIAM LARKIN, OF BARTON, ARKANSAS.

DITCHER AND ROAD-GRADER.

No. 879,478.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed May 27, 1907. Serial No. 375,986.

To all whom it may concern:

Be it known that I, WILLIAM LARKIN, a citizen of the United States, residing at Barton, in the county of Phillips and State of Arkansas, have invented certain new and useful Improvements in Ditchers and Road-Graders, of which the following is a specification.

My invention relates to improvements in ditchers, road-graders, and other like work, and consists in a runner, a dirt-spreader, hinged to the said runner, with means for adjusting the spreader, and with means for adjustably attaching a team to said invention.

I attain these objects by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1, is a top plan view of my invention. Fig. 2, is a perspective view. Fig. 3, is a rear face view of the runner. Fig. 4, is a perspective view of one of the cutter-blades, attached to the front face of the spreader. Fig. 5, is a perspective view, of the adjusting-beam and supporting-blocks.

Similar numerals refer to similar parts, throughout the several views.

In describing my invention, I read the drawing from left to right.

My invention is described as follows:—

The numeral 1, represents an edge view of the furrow-runner, the numerals 2 and 3, represent the binding; there are two strips of binding,—an upper strip 2, which starts a little distance from the front end of the runner-beam, and runs back its entire length, entirely covering and protecting the upper edge of said beam, then turns down on the back thereof, about one third of the width of said beam. The binding 3, is the same as the binding 2, except it entirely covers the lower edge of said beam and runs up about one third the width of said beam. The portion of said beam which extends beyond the front ends of the bindings, is tapered a little on both edges, inclining to a point, so that the beam will run more easily in the furrow. Secured in the front end of said beam, by means of a bolt and nut 4, is a clevis 5, to which is attached one end of a chain 6, to the free end of which is secured a hook 7. Hinged to the front face of the said beam, is a dirt-spreader 8; the hinge 9, used in this instance is a butt-hinge; the outer edge of one wing of the hinge is flush with the front end of the binding 2 and 3; the other wing

of the hinge is secured to the front end and outer face of the spreader; the inner face of the spreader is beveled at its front end, which for description I mark 10.

To the front side of the spreader, is secured an upper cutter-blade 11; this cutter-blade is provided with two edges,—an upper edge 12, and a lower edge 13; and it is also provided as to its length, with three perforations, and as to its width, with three perforations, one immediately above the other, making three vertical rows of perforations 14. This spreader is also provided on its front face, with a lower cutter-blade 15, which is also provided with two cutting edges, an upper cutting edge 16, and a lower cutting edge 17, and with perforations 14', similar to those just described in the upper cutter-blade. Secured in the upper edges of the furrow-runner, and dirt-spreader, by means of screws or bolts, 19, is an adjustable-bar 18; the ends of this bar are countersunk so that its upper edge is flush with the upper edge of the furrow-runner, and dirt-spreader. Bolted to the lower face of said adjustable bar 18, are two supporting-blocks 20; the outer faces of these blocks, abut against the inner faces of the furrow-runner and dirt-spreader, and keep them from giving when the device is forcibly dragged along by the team. Secured to the inner face of the dirt-spreader and near its rear end, is an eye-bolt 21, and to this eye-bolt is secured the rear end of a chain 22; this chain passes around the rear end of the spreader and extends forwardly and to its front end is secured a ring 23.

The purpose of the chain 6, and hook 7, chain 22, and ring 23, is to enable me to move my ditcher and road-grader, at any angle desired; for instance,—I can secure the team to the clevis at the point 5, and thus move the device along a line with the furrow-runner, or, I may attach the team to the ring as held by the hook as shown in Fig. 1, and move the device along at an angle of about forty-five degrees from the line of the furrow-runner,—or I may pass the chain 6, through the ring 23, and secure the hook back in any of the links between the clevis and the hook and thus move the device at any angle that may be attached between these two points.

The purpose of having the adjusting-beam flush with the upper edges of the runner and spreader is, to enable me to operate the device with either edge up, so that it may do

efficient work either going or coming. The purpose of having the cutter-blades slightly turned out at either edge, is for the purpose of allowing me to unscrew said blades, from
5 the spreader and turn the unworn edges to the ground, when the other edges are worn out; and the purpose of having the three vertical rows of perforations 14, is to allow me to slip the cutter-blades up and down, and
10 secure them by passing the screws in the next holes, thus enabling me to use said cutter-blades until they are practically worn out.

Although I have specifically described the combinations, construction and arrangement
15 of the several parts of my invention I do not confine myself particularly to such specific combination, construction and arrangement, as I claim the right to make such changes and modifications therein as may clearly fall
20 within the scope of my invention, and which may be resorted to without departing from the spirit, or sacrificing any of my patentable rights therein.

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

1. The combination of the furrow-runner beam 1; bindings 2 and 3, protecting the upper and lower edges of said beam; dirt-
30 spreader 8, hinged to the front face of said

beam; blades 11, each having two cutting edges slightly turned out, and three vertical rows of perforations; adjustable-bar 18, holding the running-beam and dirt-spreader apart; supporting-blocks 20, secured to said
35 bar, supporting the runner-beam and dirt-spreader; clevis secured to front end of said beam; chain and hook secured to said clevis and chain and ring secured to rear end of said dirt-spreader, the said hook adapted to be
40 hooked into said ring, substantially as shown and described and for the purposes set forth.

2. The combination of the bound furrow-runner, bearing on its front end a clevis, chain and hook; the dirt-spreader, hinged to
45 one face of said furrow-runner; blades, each provided with two cutting edges and vertical rows of perforations, said blades adjustably secured to the front face of said dirt-spreader; a chain and ring secured to the rear end of
50 said dirt-spreader and the adjusting-bar securing said runner and spreader apart, substantially as shown and described and for the purposes set forth.

In testimony whereof I affix my signature, 55
in presence of two witnesses.

WILLIAM LARKIN.

Witnesses:

ALBERT BLOESCH,
JESSE EVANS.