L. RICKARD.

Ditching Machine.

No. 84,136. Patented Nov. 17, 1868.

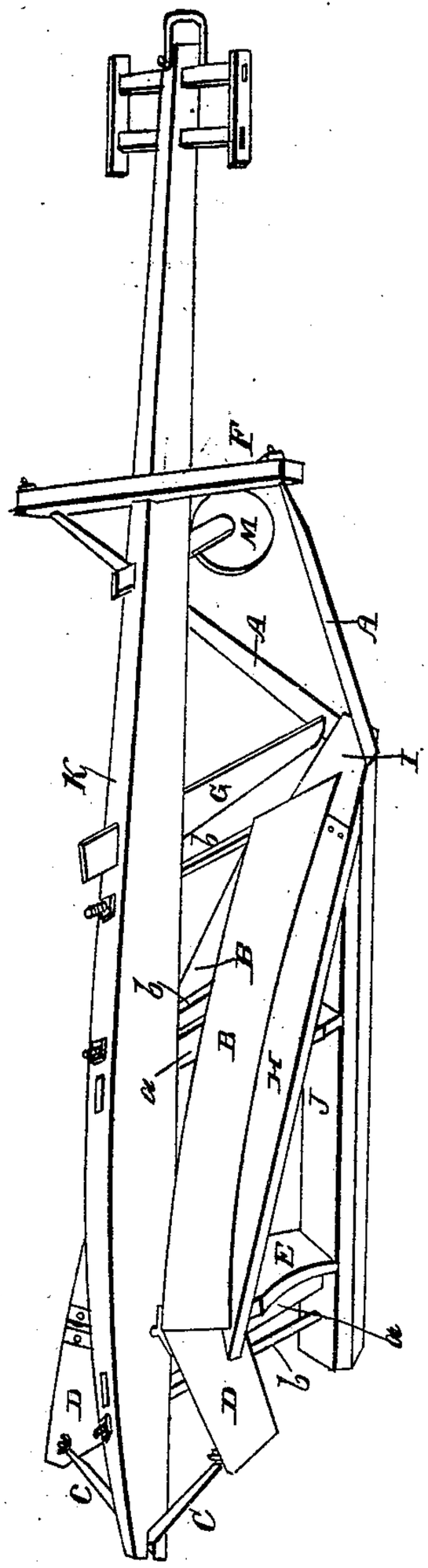

Fig. 1.

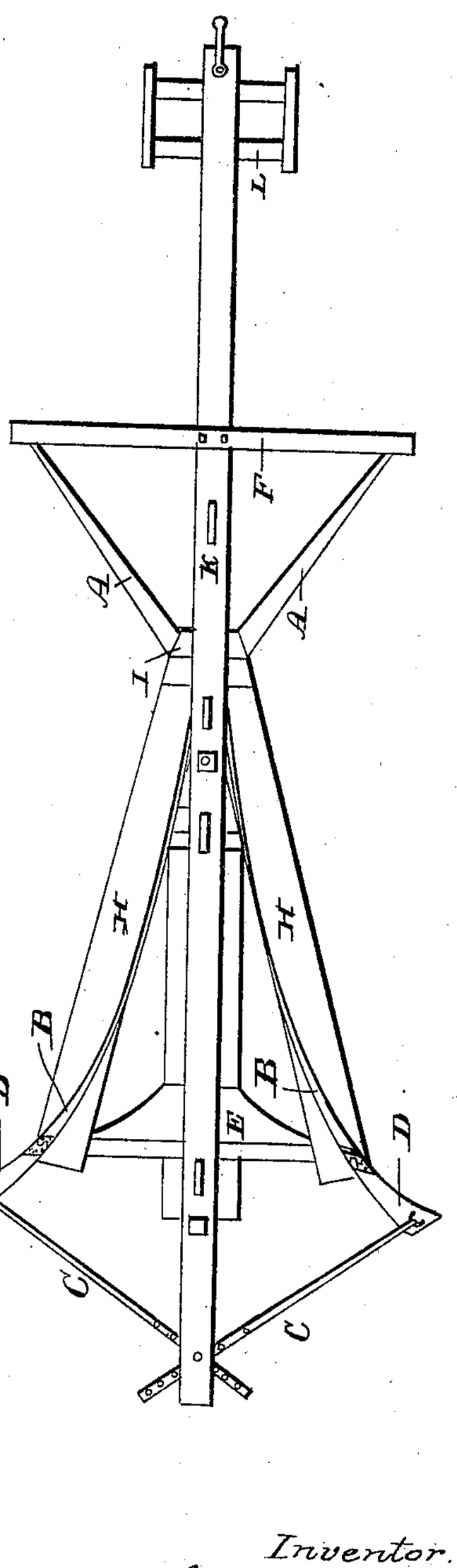

Fig. 2.

Witnesses
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LEONARD RICKARD, OF DANVILLE, ILLINOIS.

Letters Patent No. 84,136, *dated November* 17, 1868.

IMPROVEMENT IN DITCHING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LEONARD RICKARD, of Danville, in the county of Vermilion, and in the State of Illinois, have invented a certain new and useful Improvement in Ditching-Machine; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the construction and general arrangement of a ditching-machine, with adjustable wings, so that a ditch can be made of any width desired, and which machine has more speed, lighter draught, and costs less, as well as being more practical, than any other ditcher heretofore constructed.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view, and

Figure 2 is a plan view.

K represents a beam, of suitable material and dimensions, which is connected with the bottom sill, J, by means of upright posts, *a a*, and rods or bolts, *b b*.

There is also a brace from the top of the rear post to the bottom of the front post, but which cannot be seen in the drawings, as it is hidden by the mould-boards.

The mould-boards H H are placed, one on each side, connecting with the forward bevelled cutter I, on the front end of the bottom sill, and incline upwards and outwards, as shown in fig. 2. On these mould-boards other upright mould-boards, B B, are placed, which form, so to say, a plow, the front end of which does not extend as far forward as the front end of the cutter I. The rear ends of these upright mould-boards B B are bent outwards, so that they will come near the outer edge of the inclined mould-boards H H, and at the ends so bent, movable or adjustable wings, D D, are hinged, which form an extension to the same, and serve to move the dirt any distance from the ditch desired.

The wings D D are adjusted, by means of braces C C passing through the rear end of the beam K, so that they can be set to any width desired.

On the beam K, and forward of the front end of the bottom sill J, is a cross-bar, F, which is connected with the front end of said bottom sill by means of cutters A A, which serve, in addition, as braces to strengthen the machine.

The rolling cutter M, which is secured to the beam in rear of the cross-bar F, cuts the dirt at the top, and the straight cutter G, which is likewise secured to the beam K, divides the dirt to the nose of the plow, formed by the mould-boards B B, as described.

All the cutters, as well as a shoe placed on the lower side of the bottom sill J, are made of steel, or other suitable material.

On the front end of the beam K is a frame, L, to which a gauge may be attached, to regulate the depth of the ditch.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The arrangement of the point I, mould-boards H H and B B, adjustable wings D D, and braces C C, all constructed and operating substantially as herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 24th day of June, 1868.

LEONARD RICKARD.

Witnesses:

E. F. LACY,

W. H. TAYLOR.