

H. J. Wattles,

Cultivator.

Nº 88,758.

Patented April 6. 1869.

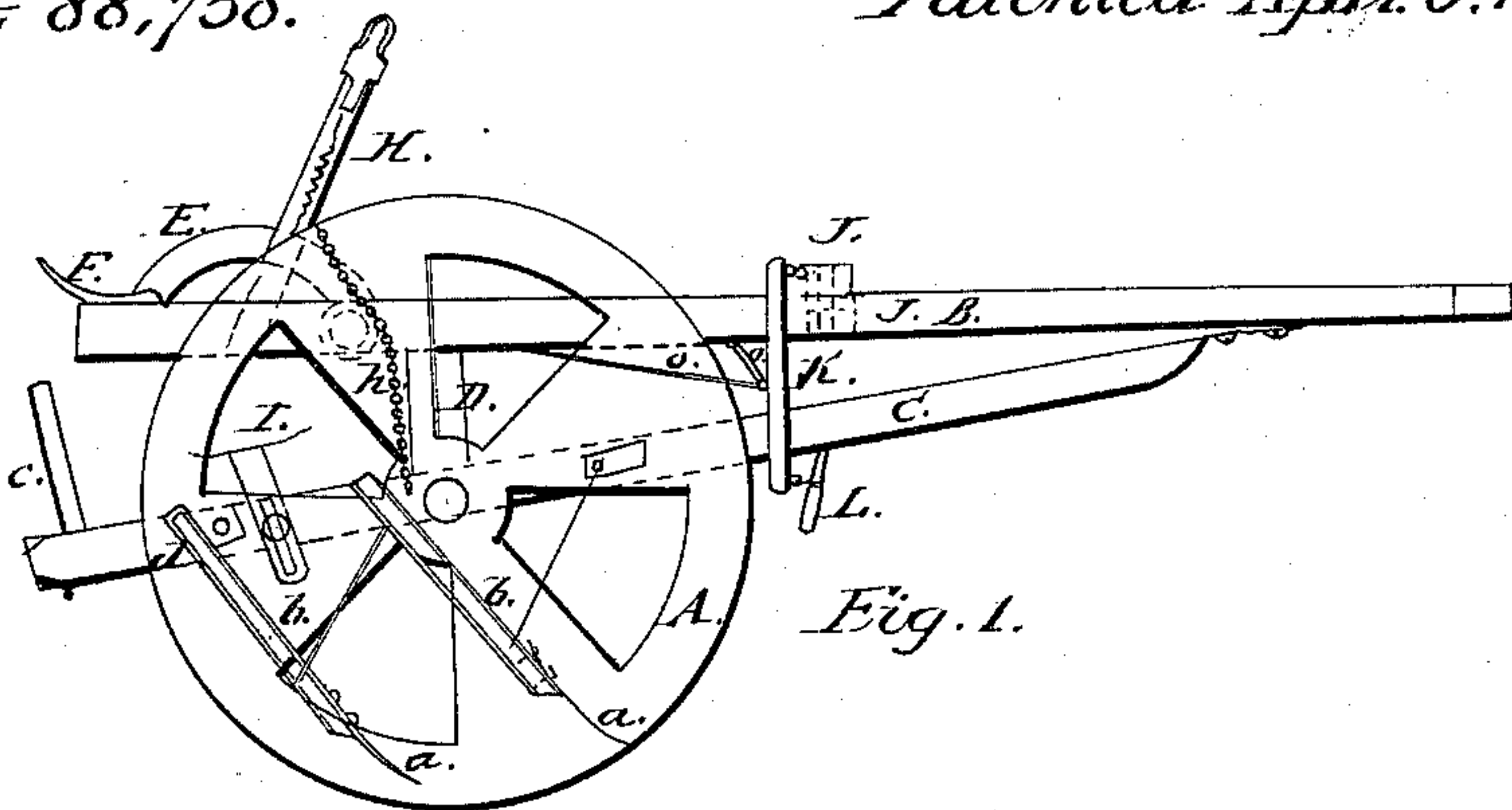


Fig. 1.

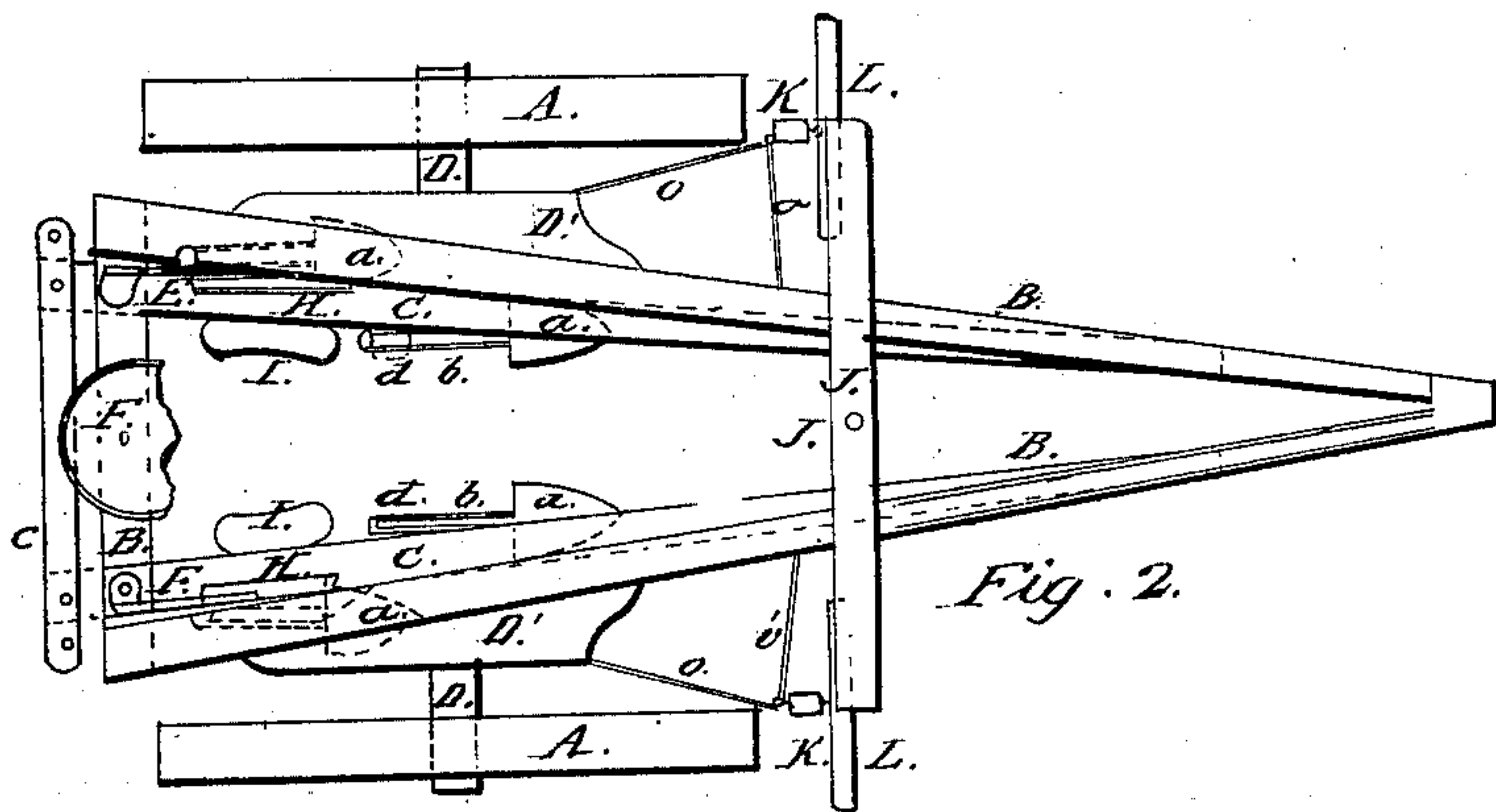


Fig. 2.

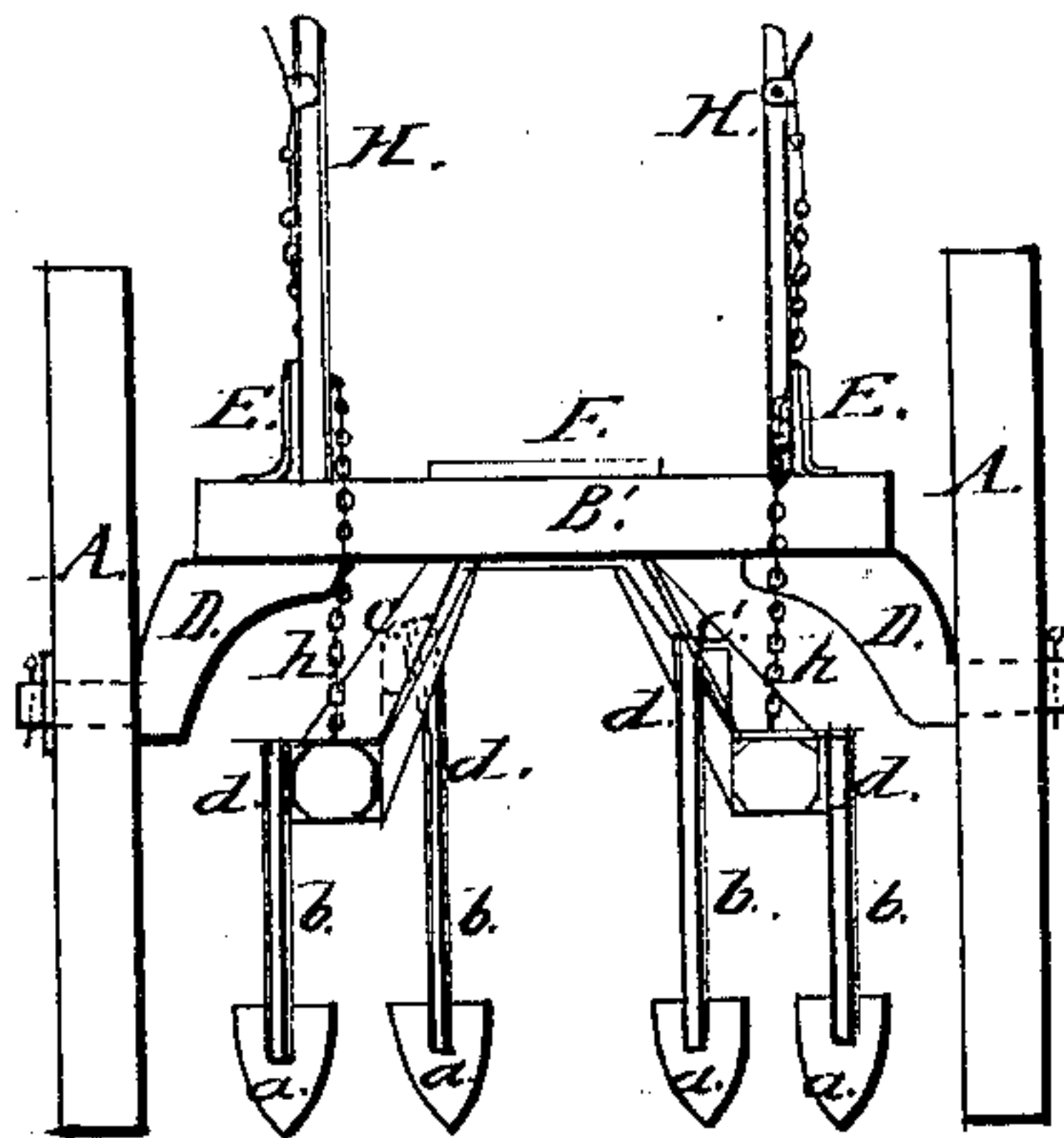


Fig. 3.

Witnesses:
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United States Patent Office.

H. J. WATTLES, OF ROCKFORD, ILLINOIS.

Letters Patent No. 88,758, dated April 6, 1869.

IMPROVEMENT IN CULTIVATORS.

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, H. J. WATTLES, of the city of Rockford, in the county of Winnebago, and State of Illinois, have invented a new and useful Cultivator; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, forming part of this specification, and to the letters of reference marked thereon.

In the drawing—

Figure 1 shows a side view of the machine.

Figure 2 is a top view of the same.

Figure 3 is the same viewed from the rear end.

My invention has reference to an improvement in what are usually known as "Riding Cultivators," used for cultivating corn and other crops planted in rows, and consists of certain combinations of devices hereinafter to be set forth.

In the drawing, B B, connected by the ties B' and J', serve the double purpose of main frame, and tongue or pole to guide the cultivator.

This main frame is supported on the wheels A A by the axle-arms D D, which, being bent upward, will give any desired elevation to the frame.

Under the pieces B B are hinged the pieces C C, to which the plows a a a a are attached by the handles or sheaths b b b b.

The levers H H, with suitable detents, are connected to the pieces C C by the chains h h, and by means of the notched segments E E, any desired elevation can be given to the plows by the driver on his seat F.

In operation the team is attached to the single-trees L L, the end of the pole B B, being supported with suitable neck-yoke.

The driver, on his seat F, directs the team, while with his feet on the adjustable foot-rests I I, he guides the plows for such movements as the team may not give them in "dodging" or making short or unexpected turns while he steadies their movements at all times in the same manner. When it is desired to raise the plows, either one side or both sides at a time, it may be done by drawing back upon the levers H H.

In this invention especial attention is asked to the following among other points:

First, I construct the main frame of the parts B B and cross-ties B' J', which, being united at the front end, and thence widening toward the back end, serve the double purpose of main frame and tongue or guide pole. These pieces B B are supported on the axle-arms D D, which, being bent upward, will give any desired elevation to the main frame. Since the growing crop, which is being cultivated, must pass under this frame, it is very important that it should be sufficiently high not to disturb it, while it is also important that the driver's seat should not be elevated more than not to interfere with the growing crop.

The wedged-shaped pieces D' D', secured to the side of B B, give the advantages of a square frame, while

adding but little to the weight or cost to which to attach the axles D D.

Second, in connection with the frame just described, the employment of the hinged pieces C C, joined at the rear end by the adjustable tie c, furnish a secure and light frame work upon which to fasten the shovels a a a a. As these pieces approach nearer at the fore than at the rear end, advantage is taken of this form to place the two rear shovels on the outside of said pieces, and the front ones on the inside, which gives them the right distance apart in the line of draught and equalizes the strain upon the supports.

The plow supports or sheaths, b b b b, are made cylindrical, and are held in position by the clasps d d d d, being strengthened by a suitable brace-rod, extending from near the plow, forward to the piece C.

This clasp d and brace-rod, both encircling the sheath b, admit of the shovel being turned, so as to throw the soil either toward or from the row as may be desired. The driver, in his seat F, with his feet upon the adjustable foot-rests I I, which are secured to the pieces C C, guides the plows with ease and certainty.

Third, constructing the main frame, as described, with the arrangement of the pieces C C and the driver's seat, located on the piece B', give the driver an unobstructed view of the row, being cultivated for some distance ahead of the plows, which is a very desirable consideration.

The levers H H, being also convenient to the driver, places the plows completely under his control.

Fourth, in connection with the elevated frame described, the arrangement of the evener J, levers K K, and single-trees L L, gives all the advantages of low draught without opposing any obstruction to the cultivated row.

This arrangement, by giving a low draught in combination with the location of the driver's seat will take the weight off the horses' necks, an important consideration.

The double-brace o o' secures the lever K in position while furnishing draught-rods for the team.

Fifth, the object of this invention is to furnish a cultivator, combining simplicity of construction with effectiveness of operation, and as such the various parts have each a relative value to each other, so that we may regard it as a single combination for accomplishing the results herein named.

Having thus described my machine,

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

The construction, arrangement, and combination of the frame B B B', J' D' D', swinging-plow supports C C c, plows a a, driver's seat F, foot-rests I I, levers H H, and draught devices J K L o o', the whole constructed and operating substantially as and for the purpose specified.

Witnesses:

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