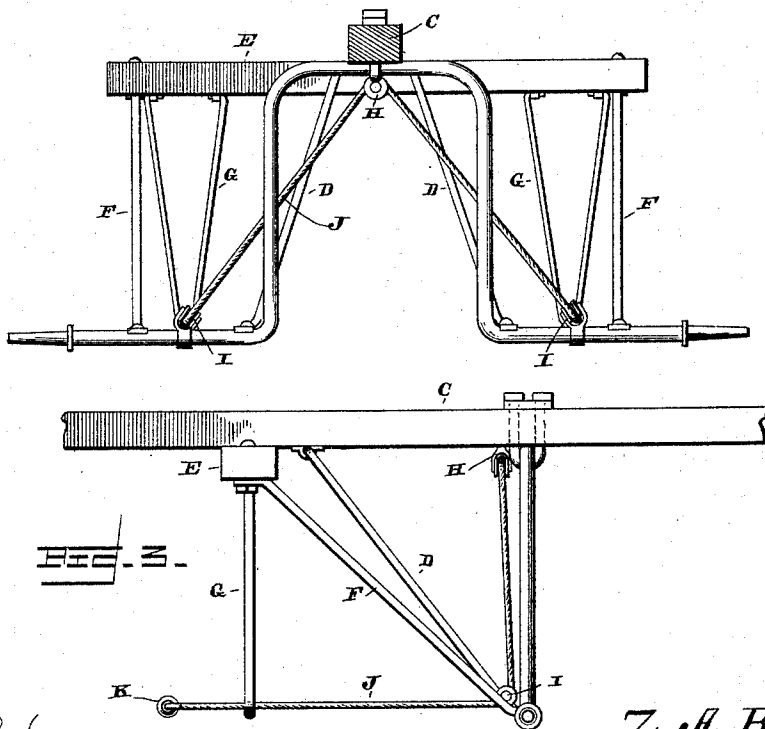
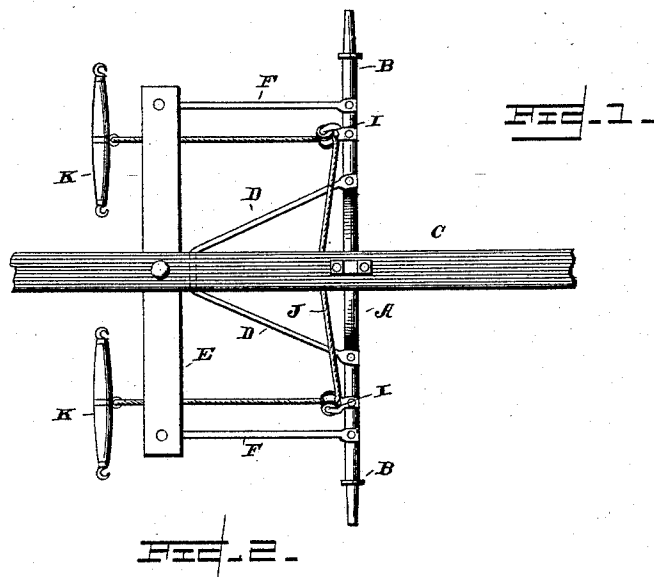


(No Model.)

Z. A. BEECHER.
ATTACHMENT FOR CULTIVATORS.

No. 485,165.

Patented Nov. 1, 1892.



Witnesses

E. S. Duval & Co.
S. P. Halkauf & Co.

By his Attorneys,

Inventor
Z. A. Beecher.

Chas. H. Snow & Co.

UNITED STATES PATENT OFFICE.

ZINA A. BEECHER, OF MARYSVILLE, OHIO.

ATTACHMENT FOR CULTIVATORS.

SPECIFICATION forming part of Letters Patent No. 485,165, dated November 1, 1892.

Application filed November 14, 1891. Serial No. 411,874. (No model.)

To all whom it may concern:

Be it known that I, ZINA A. BEECHER, a citizen of the United States, residing at Marysville, in the county of Union and State of Ohio, have invented a new and useful Attachment for Cultivators, of which the following is a specification.

This invention relates to cultivator attachments; and it has for its object to provide an attachment that is to be connected with the ordinary double-arch cultivators, whereby the draft of the same will be equalized, and one which will provide for a steady pull of each plow and compel each horse to pull its own share of the weight and one in which the draft will always be equal, whether the horses are in advance or in rear of each other.

With these and many other objects in view, which will readily appear as the nature of the invention is fully understood, the same consists in an attachment for cultivators constructed in the novel manner hereinafter described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a top plan view of the tongue and axle of a double cultivator having an attachment connected therewith constructed in accordance with my invention. Fig. 2 is a rear elevation of the same. Fig. 3 is a side elevation of the same.

Referring to the accompanying drawings, A represents an ordinary double-cultivator arch having the axles B, carrying the supporting-wheels and the ordinary cultivator-beams, which are attached thereto in the usual manner. To the center of the upwardly-extending arched portion of the arch is secured the forwardly-extending tongue C, which is connected in any suitable manner, and is securely braced to the arch and axles by means of the inclined braces D, connected with the axles and the said tongue in advance of the arch. Secured to the under side of the cultivator-tongue C is the cross-beam E, at right angles thereto and braced from each outer end to the axles B by means of the rearwardly-extending brace-rods F. Secured to the under side of said cross-beam E at each end are the depending V-shaped swinging supporting and retaining loops G, pivotally connected at their ends to said cross-beam in order that the same

may have a free swinging movement in a straight line without any lateral play. To the under side of said tongue C at its connection with the center of the upwardly-extending cultivator-arch is secured the elevating-pulley H, while to each axle are secured the guide and draft pulleys I, rigidly connected with said axles and at an incline, in order that the draft rope or chain J, passing thereover, may work easily over each of said pulleys without slipping off or being cramped in the sheaves thereof. It can be readily seen that the portion of the draft rope or chain between the two axle-pulleys is centrally elevated by the elevating-pulley to correspond with the arch A, so that the draft-rope will not meet with the obstructions in the path of the cultivator, which is the object of said arch to overcome and avoid. Said draft chain or rope J passes through and is supported in the apices of the swinging loops G and is provided at each end with the singletrees K, to which the animals are attached, and said loops not only serve to support the singletrees and draft-chain and hold the same above the ground, but also allow for the forward or advance pull of one animal over the other, and also prevents the singletrees from being drawn therethrough or the animal coming in too close proximity to the cultivator when he slows up, and by the downward convergence of the opposite sides forming the V-shaped loops means are provided whereby the singletrees cannot be withdrawn from said loops.

I am well aware that it is not new to carry the draft-rope of an evener attachment from one axle to the other over guide-pulleys; but I am not aware that it is old to employ such draft-rope in connection with the other points of construction herein described and relied upon.

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

In an attachment for cultivators, the combination, with the arch-axle and draft-frame and the forwardly-extending tongue secured to the top and center of said arch, of a cross-beam fixedly secured to said tongue at right angles thereto, rearwardly-extending brace-rods secured to the opposite ends of said cross-

beam and the axles to hold the beam rigid,
V-shaped swinging supporting and retaining
ropes pivotally connected at their upper ends
to each end of said cross-beam and adapted
5 to swing only in a straight line without lateral
play, an elevating-pulley secured beneath
said tongue at its point of connection with the
arch, opposite guide and draft pulleys rigidly
connected with said axles at an angle pointing
10 to the central elevating-pulley, a draft rope
or chain passing evenly over said central and
the lower opposite guide and draft pulleys
and loosely passing through and resting in

the depending apices of said swinging loops,
which readily swing and yield to the uneven 15
tendencies of the draft, and singletrees connected
to the ends of said draft rope or chain
outside of said loops, substantially as set forth.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in 20
the presence of two witnesses.

ZINA A. BEECHER.

Witnesses:

GEO. M. McPECK,
JOHN F. ZWERNER.