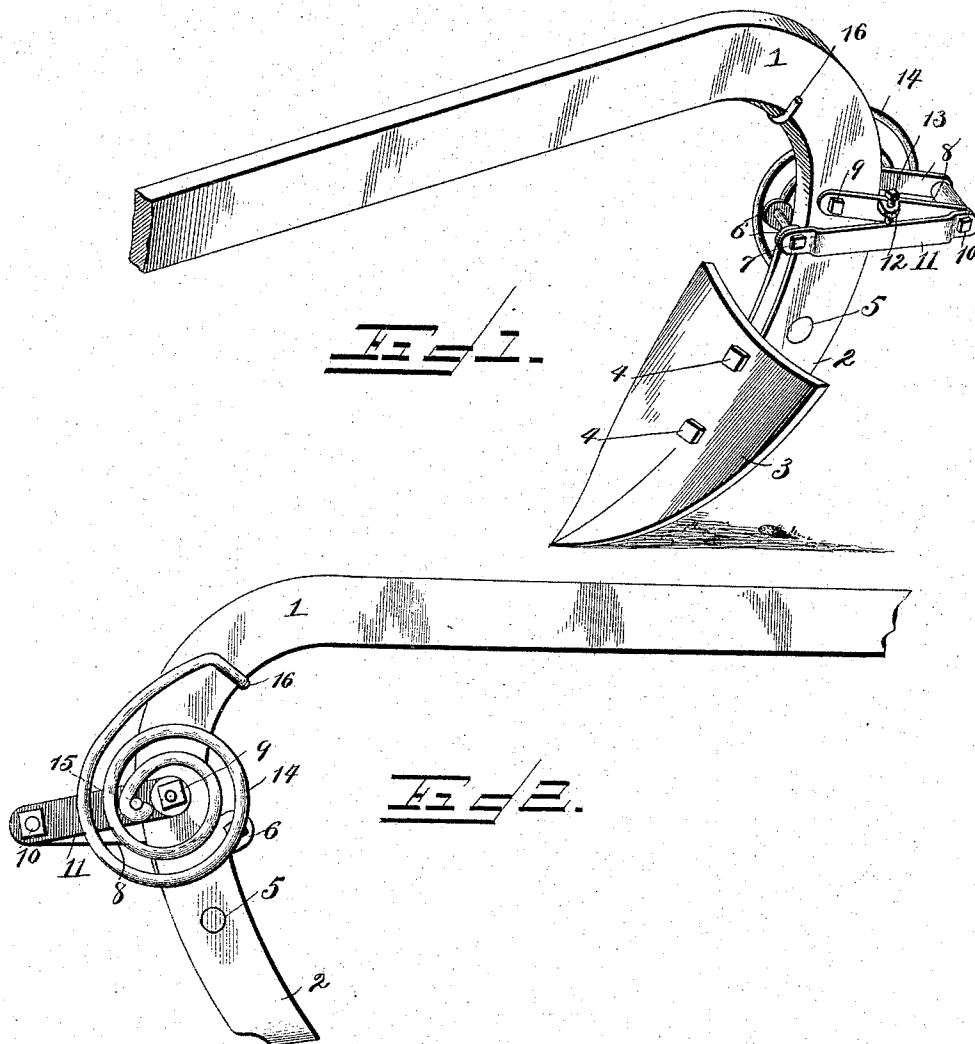


(No Model.)

E. A. COX.
CULTIVATOR.

No. 489,708.

Patented Jan. 10, 1893.



Witnesses

W. C. Schneider,
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UNITED STATES PATENT OFFICE.

ELZA ALLISON COX, OF RUTLEDGE, MISSOURI.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 489,708, dated January 10, 1893.

Application filed September 27, 1892. Serial No. 447,034. (No model.)

To all whom it may concern:

Be it known that I, ELZA ALLISON COX, a citizen of the United States, residing at Rutledge, in the county of Scotland and State of Missouri, have invented a new and useful Cultivator, of which the following is a specification.

My invention relates to improvements in cultivators, and the objects in view are to provide a cultivator so constructed and arranged as to adapt the tooth thereof to readily ride over obstructions, such as stumps, bowlders, &c., that may be encountered in the field during plowing, and which would be calculated to impair the tooth by such contact if the same were unyielding.

With this main object in view, the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings—Figure 1 is a perspective view of a cultivator constructed in accordance with my invention. Fig. 2 is a reverse side elevation thereof.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates an ordinary goose-neck standard, whose lower or standard end is embraced by the terminals of a U-shaped foot 2, to which the plow-point or shovel 3 is attached in the usual adjustable manner by means of the heel-bolt 4. A pivot bolt 5 serves to pivotally connect the foot of the standard near the lower end of the latter, and the said standard is provided at its front upper corner with a pair of forwardly-disposed perforated lugs 6, through which a bolt 7 is passed. A pair of levers 8 are located at opposite sides of and embrace the standard a short distance above the foot, and such levers are pivotally connected at their front ends to the aforesaid standard by means of a transverse pivot bolt 9. The outer ends of the levers are connected by means of a transverse bolt 10, and to one end of the same, outside of the levers, is pivoted a link 11, whose front end is likewise pivoted to the before-mentioned bolt 5. From the upper edge of that lever adjacent to the link there projects a flange 12, having a threaded perforation, through which extends a set screw 13 whose lower end is designed to contact with and form a stop for the link.

14 designates a convoluted spring, whose inner terminal is bent around a stud 15 projecting from that lever farthest from the link, the stud being eccentrically arranged with relation to the pivot bolt 7 at the front ends of said levers. The remaining terminal of the convoluted spring extends forward under the beam and is bent to engage the same, as indicated at 16.

This completes the construction of the cultivator, and the operation of the same will at once be obvious, but may be briefly stated as follows: By setting the set bolt, the link is forced downward as are also the rear ends of the levers so that the three points of pivot indicated as 5, 7, and 10 are out of alignment with each other. The tendency of the spring, it will be observed, is to elevate the outer ends of the levers, and thus force the shovel to the front. The shovel, however, coming in contact with any obstruction, such as a stump or bowlder, is swung to the rear, and through the medium of the link draws upon the rear ends of the levers, consequently embracing the spring, and as soon as said shovel is relieved of the obstruction, the spring will react to return the parts to their normal positions.

By my invention, I obviate the use of the troublesome break-pins, which after breakage must be replaced before the cultivator can again be operated, and while all the advantages of break-pins are secured yet I provide for an automatic return of the parts to their normal or working positions. At the same time the means employed are simple, are not liable to become impaired by use, and are durable.

Having described my invention, what I claim is:—

1. The combination with the beam, having the goose-neck standard, and the U-shaped shovel-carrying foot pivoted intermediate its ends to the lower end of the standard, of the pair of levers pivoted to the standard above the foot, a link pivoted to the upper front corners of the foot in advance of the standard and at its rear end pivotally connected to the rear ends of the levers, a stop for limiting the upward movement of the link and preventing the points of pivot of the link and levers from aligning, and a convoluted spring secured at

its inner end to one of the levers eccentrically with relation to the pivot of the same and at its outer end to the beam, substantially as specified.

- 5 2. The combination with the beam and the shovel-carrying foot pivoted intermediate its ends to the lower end of the standard, of the pair of levers pivoted to the standard above the foot, a link pivoted to the upper front corners of the foot in advance of the standard
10 and at its rear end pivotally connected to the rear ends of the levers, an adjustable stop for limiting the upward movement of the link and

preventing the points of pivot of the link and levers from aligning, and a convoluted spring 15 secured to one of the levers eccentrically with relation to the pivot of the same and to the beam, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 25 the presence of two witnesses.

ELZA ALLISON COX.

Witnesses:

M. L. SMITH,
J. N. MATLICK.