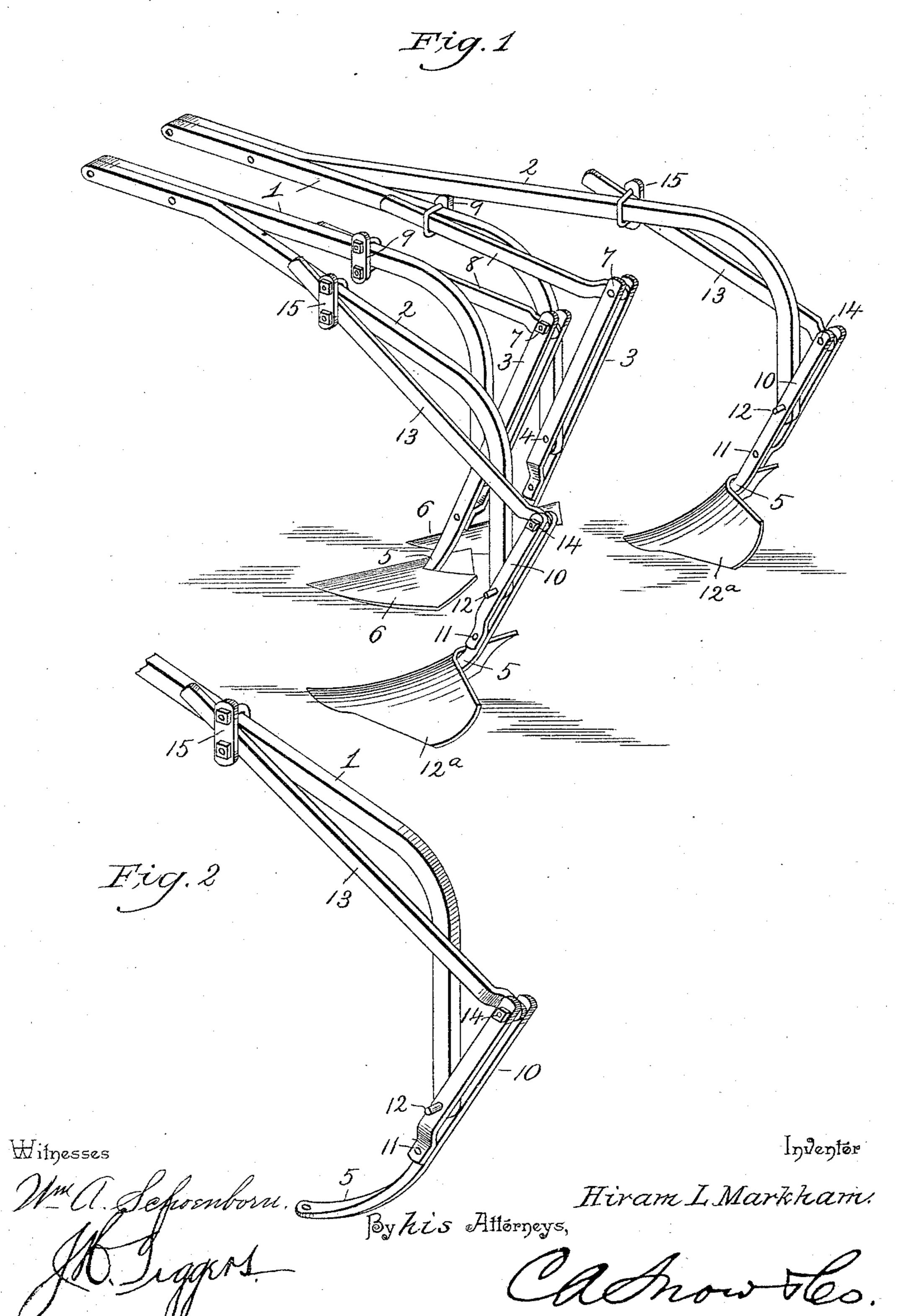
(No Model.)

H. L. MARKHAM. LISTING PLOW CULTIVATOR ATTACHMENT.

No. 485,959.

Patented Nov. 8, 1892.



United States Patent Office.

HIRAM L. MARKHAM, OF GREENLEAF, KANSAS.

LISTING-PLOW-CULTIVATOR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 485,959, dated November 8, 1892.

Application filed June 17, 1892. Serial No. 437,032. (No model.)

To all whom it may concern:

Be it known that I, HIRAM L. MARKHAM, a citizen of the United States, residing at Greenleaf, in the county of Washington and State of Kansas, have invented a new and useful Listing-Plow-Cultivator Attachment, of which the following is a specification.

My invention relates to an attachment for cultivators whereby they are adapted to hill-

10 up or cultivate listed corn.

The objects and advantages of the invention, together with the novel features thereof, will hereinafter appear, and be particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a perspective view of an ordinary corn-cultivator provided with attachments constructed in accordance with my invention. Fig. 2 is a detail view of one of the attachments.

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

1 designates a pair of inner cultivatorbeams, and 2 the outer beams, the former being shorter than the outer beams 2, and, as is 25 usual, the pairs of beams are interchangeable—that is, the right-hand pair may be placed on the left side of the machine, and vice versa. To the rear curved ends of the inner beams are pivoted adjustably by break-30 pins 4 standards 3, the upper ends of which are bifurcated to receive said inner beams, and are perforated intermediate their ends to receive the said break-pins 4. Through the medium of these perforations each stand-35 ard is capable of being adjusted vertically. The lower end of each standard is forwardly bent to form a foot 5, and preferably carries an ordinary side shovel 6. Pivoted to the upper end of each standard by a bolt 7 is a 40 link or bar 8, and the front end of said bar is adjustably connected by a clamp 9 to the beam of the standard. By manipulating the clamps the inclination of the shovels may be regulated.

A standard 10 is bifurcated and connected pivotally by a break-pin 12 to the lower rear end of each of the outer beams, and to the lower end of each standard is pivoted by a heel-bolt 11 an ordinary sweep-plow 12³. A link or bar 13 is pivoted at 14 between the 50 upper bifurcated end of the standard and is by a clamp 15 connected to the longest beam.

By arranging the sweeps at the inside the plow is adapted to hill-up listed corn, and by arranging them at the outside it is adapted 55 for ordinary cultivation. It will be seen that should the plow-points come in contact with stones or other material obstructions the break-pins will yield and break, and thus prevent injury to the plows and their adjunctive 60 parts by reason of such fact.

It will be seen that the attachments may be readily applied to any of the ordinary plows now in use, and when applied will be found to be strong, durable, and efficient.

Having described my invention, what I claim is—

The combination, with the opposite pairs of long and short downwardly-bent beams interchangeably pivoted to the arch, of the bifur-70 cated standards pivoted intermediate their ends to the lower ends of the beams, the inner standards being provided with the series of adjusting-holes, links or bars pivoted to the upper ends of the standards, clamps connecting the front ends of said links or bars to the beams, the side shovel secured to the standard of the short beam, and the listing-shovel secured to the standard of the long beam, substantially as specified.

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

H. L. MARKHAM.

Witnesses:

K. P. ALDRICH, W. M. MERCER.