

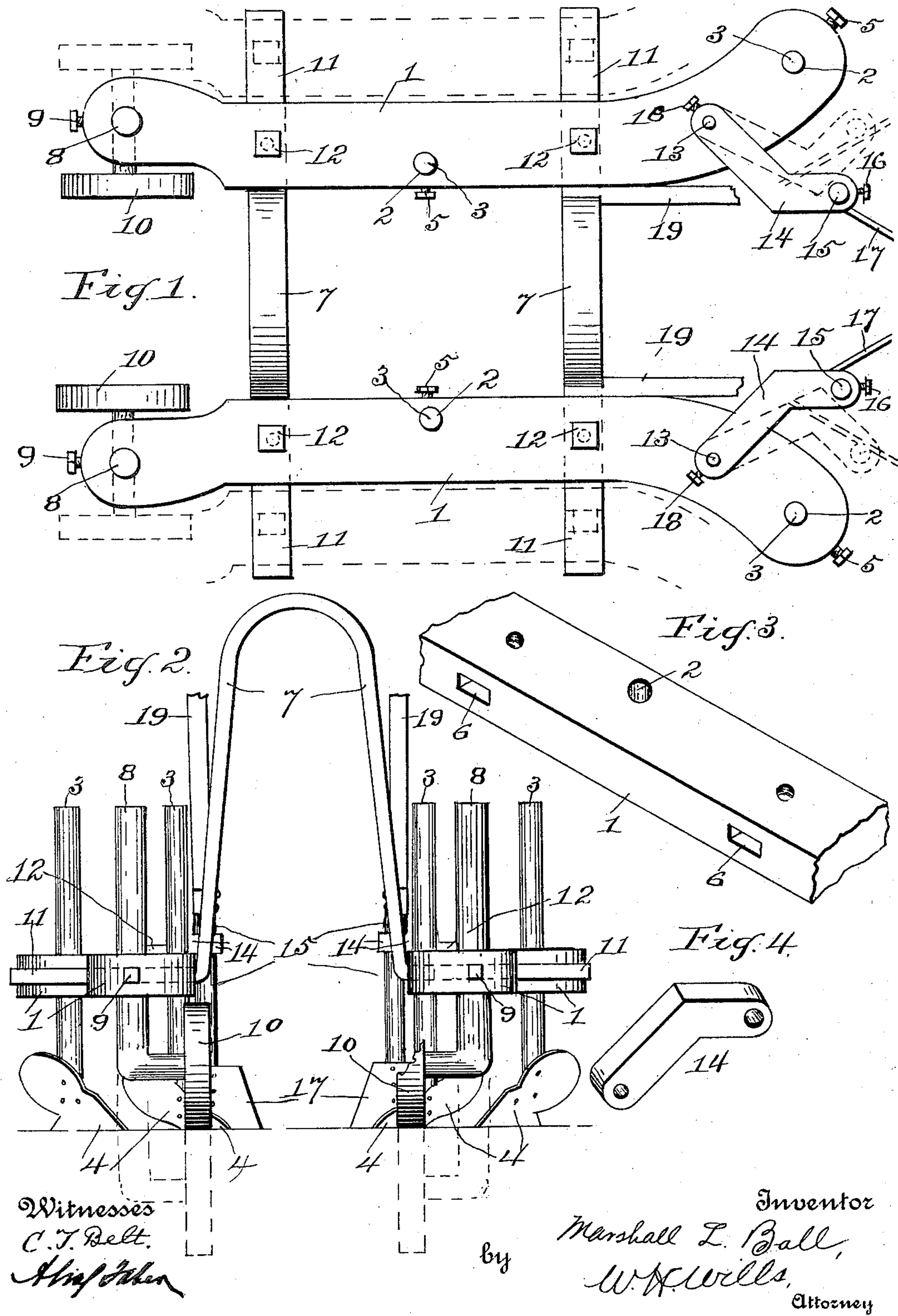
No. 693,680.

Patented Feb. 18, 1902.

M. L. BALL.
STRADDLE ROW CULTIVATOR.

(Application filed Aug. 1, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

MARSHALL L. BALL, OF ELIZABETH CITY, NORTH CAROLINA.

STRADDLE-ROW CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 693,680, dated February 18, 1902.

Application filed August 1, 1901. Serial No. 70,531. (No model.)

To all whom it may concern:

Be it known that I, MARSHALL L. BALL, a citizen of the United States, residing at Elizabeth City, in the county of Pasquotank and State of North Carolina, have invented certain new and useful Improvements in Straddle-Row Cultivators, of which the following is a specification.

This invention relates to wheel-cultivators, and particularly to straddle-row cultivators; and the object of the invention is to provide cultivator-beams of peculiar construction and scrapers having novel hangers whereby the scrapers and hangers may be adjusted jointly or separately—that is, the shape of the beams and of the hangers and the peculiar connection between the hangers, beams, and scrapers permits the hangers to be swung to vary the position of the scrapers without adjusting the latter, or the scrapers may be adjusted without adjusting the hangers.

In the accompanying drawings, forming part of this application, Figure 1 is a top plan view with the handles partly broken away, showing in dotted lines the lateral adjustment of the various parts. Fig. 2 is a front end view, partly broken away, showing the vertical adjustment of the wheels in dotted lines. Fig. 3 is a perspective view of one of the beams, partly broken away. Fig. 4 is a perspective view of one of the scraper-hangers.

The same numeral references denote the same parts throughout the several views of the drawings.

The cultivator-beams 1 have outwardly-turned rear ends, front ends set off from the main body of the beams, and a series of holes 2, in which the standards 3 of the plow-points 4 are vertically and laterally adjustable by means of set bolts or screws 5. Transverse slots 6 are made in the beams 1 for the ends of the straddle-yokes 7, hereinafter more fully described, and the front ends of the beams have axle-standards 8 adjustable vertically and laterally therein by means of the set bolts or screws 9, so as to permit the wheels 10 to travel either upon the outer or inner side of the beams or at an angle thereto if desired. The straddle-yokes 7 are bowed centrally and terminate in arms 11 at right

angles to the body of the yokes, and said arms extend through the slots 6 and are adjustable to the beams by set bolts or screws 12. It is obvious that by simply loosening the set-screws 12 the beams may be adjusted on the yoke-arms 11 as desired. Pivoted at 13 to the rear ends of the beams are angular scraper-hangers 14, having standards 15 adjustable therein by means of the set screws or bolts 16, said standards being provided with scrapers 17. The scrapers may be adjusted vertically by operating the set-screws 16, and the hangers may be operated on their pivots and held in any desired position by the set-screws 18. Handles 19 are secured to the rear yoke.

The peculiar shape of the front ends of the beams permits the operation of the wheels in various adjustment without interference, and the outwardly-turned ends of the beams are arranged to carry a plow out of line with the other plows and to permit the free working of the scrapers and their hangers. It is obvious that the beams are adjusted laterally to have the plows work to or from the row and that the scraper-hangers are operated on their pivots to have the scrapers work the earth to or from the row worked by the plows or to or from the rows upon either side of said row. The vertical adjustment of the wheels, plows, and scrapers is to effect the raising and lowering of the yokes and beams according to the height of the corn. The machine may be drawn by one or more horses from the front yoke.

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

1. The combination of the cultivator-beams bearing earth-treating devices, and an angular hanger for each beam comprising a pivoted long arm, and a short arm extending rearwardly from the long arm and carrying earth-treating devices to work the soil between the earth-treating devices of the beams.

2. In a cultivator, the combination of the cultivator-beams having earth-treating devices, an angular hanger pivoted to each beam and projecting inwardly therefrom and carrying earth-treating devices adapted to be

swung back and forth between the beams to work the soil to and from the object under cultivation.

3. In a cultivator, the combination, with the
5 cultivator-beams, of the angular hangers having a portion pivoted to and extending at an angle rearwardly from the beams, and another portion projecting rearwardly from

the pivoted portion and bearing earth-treating devices adapted to be swung on said pivot. 10

In witness whereof I hereunto set my hand in the presence of two witnesses.

MARSHALL L. BALL.

Witnesses:

E. E. CLARK,
S. A. TERRY.