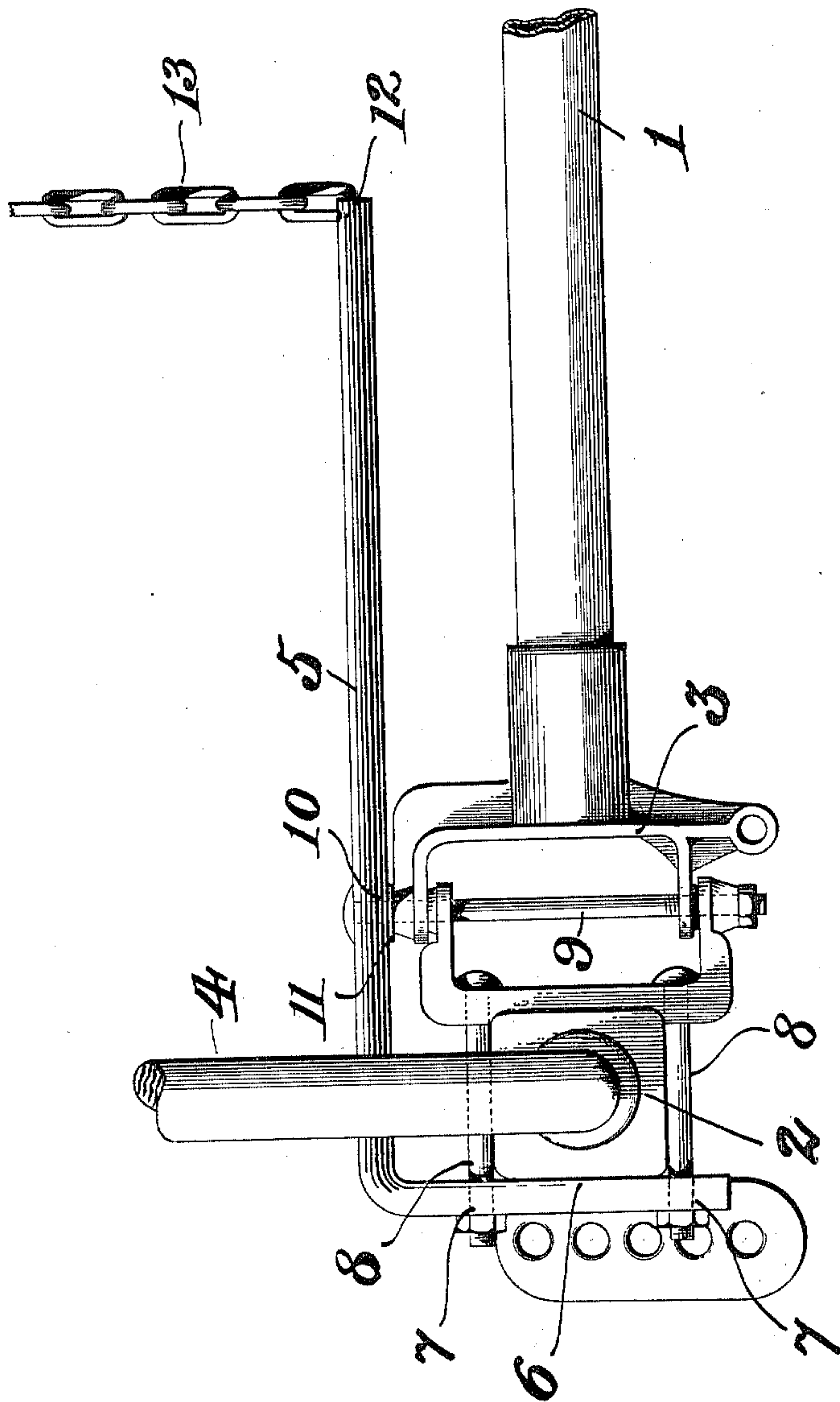


(No Model.)

J. D. SCHOFIELD.
STRADDLE ROW CULTIVATOR.

No. 600,210.

Patented Mar. 8, 1898.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES DRUMMOND SCHOFIELD, OF DALLAS, TEXAS.

STRADDLE-ROW CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 600,210, dated March 8, 1898.

Application filed October 28, 1897. Serial No. 656,695. (No model.)

To all whom it may concern:

Be it known that I, JAMES DRUMMOND SCHOFIELD, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Straddle-Row Cultivators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in straddle-row cultivators, and has special reference to the lifting mechanism thereof.

It is well known that the means usually employed for lifting or elevating the cultivator-beams is a chain termed the "lifting-chain," which is attached to each of the beams between their ends, the upper ends of the chains being connected to suitable hand-levers mounted on the stationary frame. The point of attachment of the upper ends of the two lift-chains to the operating-levers being laterally immovable, it is apparent that lateral movements upon the part of the beams, to which they are constantly subjected—as, for instance, in avoiding or dodging corn or cotton—tend to cause a lifting of the beams, such tendency being increased in accordance with the increased lateral movements thereof. This results in drawing the shovels out of the ground to a greater or less degree and therefore in forming furrows of irregular or varying depths, which is highly objectionable. The prime object, therefore, of my invention is to overcome this objection, and while permitting of the employment of the ordinary and usual lift-chains and levers yet to prevent any partial or entire withdrawal of the shovels by reason of any lateral movements of the cultivator-beams.

Referring to the drawing, wherein I have illustrated in side elevation sufficient of a straddle-row cultivator to illustrate my invention, 1 designates in this instance a portion of a cultivator-beam of the pipe or tubular style, which is pivotally connected to the head-block 2 by the coupling or clevis 3. The beam, clevis, and head-block are, as will be seen, all of the usual construction, and in the head-block is journaled the lower end of the arched support 4.

Surmounting the clevis or coupling 3 is a

horizontally-disposed L-shaped lifting-bar 5, the same having its front end downwardly bent or disposed at a right angle, as at 6, so as to encompass the upper and front sides of the head-block 2.

In lines with the upper and lower sides of the head-block the bent or angular front end of the lifting-bar 5 is perforated, as indicated at 7, dotted lines, such perforations also being in line with bolts 8, that are usually employed to clamp the head-block and clevis or coupling 3 together. These bolts instead of being passed through an ordinary clip-plate are passed through the perforations 7, and nuts 8 being applied to their outer ends these three parts—the beam, head-block, and lifting-bar—are all secured together.

At a point vertically alining with the pivot-bolt 9, usually employed for connecting the clevis members, the lift-bar is perforated, as at 10, (see dotted lines,) and the aforesaid bolt is passed downwardly therethrough and through a washer 11 interposed between the clevis and lift-bar before being passed through the two clevis members for the purpose of pivotally connecting the same.

The rear end of the lift-bar may be perforated, as at 12, and connected thereto is the lower link of the usual lift-chain 13, the upper end of the chain, of course, being connected with the usual operating-lever. (Not shown.)

It will of course be understood that each beam and head-block is thus provided, so that the beams may be independently lifted.

From the foregoing it will be seen that the beams are perfectly free to be moved laterally, swinging on their clevis for the usual purposes, but that the lift-bars always remain directly in the line of draft and are not moved in the least degree laterally or in any way influenced by such lateral movements upon the part of the beams. Hence it is apparent that no matter to what degree the beams may partake of lateral movements the shovels will not be elevated, but will steadily continue the furrows at a uniform depth.

By operating the lift-levers in the usual manner the lift-bars will, through the medium of the lift-chains, rock the head-blocks on the arched support and likewise rock the beams and clevises, thus securing the desired

effect of elevating the shovels free from the ground and furrows they have formed.

Having described my invention, what I claim is—

5 1. In a cultivator, the combination with the arched support, and the head-blocks journaled thereon, of the clevises connected to the head-blocks, the beams connected to the clevises, lift-bars connected to the head-blocks
10 and extending rearwardly from the same beyond the clevis, and lifting-chains connected to the lift-bars.

2. In a cultivator, the combination with the arched support, the head-blocks, the clevises,
15 3, and the beams, of the L-shaped lift-bars surmounting the clevises and connected thereto by the pivot-bolts, 9, of the clevises, 3, and having their front ends downwardly bent at right angles, as at 6, and embracing the front
20 faces of the head-blocks, the clip-bolts, 8, connecting the clevises and front ends of the lift-bars and embracing the head-blocks, and the lift-chains connected to the rear ends of the lift-bars.

3. In a cultivator, the combination with the 25 head-blocks, the arched supports, the clevises, and the beams, of lift-bars connected to the head-blocks and to the clevises in advance of their movable members, and lifting-chains connected to the said bars.

4. In a cultivator, the combination with the beams, rocking supports thereon, loose connections between the front ends of the beams and said rocking supports, of lift-bars for rocking the supports and said loose connections 35 between the supports and beams, said lift-bars being independent of the beams and connected to the rocking supports in advance of their loose connections, and lift-chains connected to said lift-bars at points above 40 the beams.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES DRUMMOND SCHOFIELD.

Witnesses:

W. G. EISENLOHR,
J. C. HAMBERLIN.