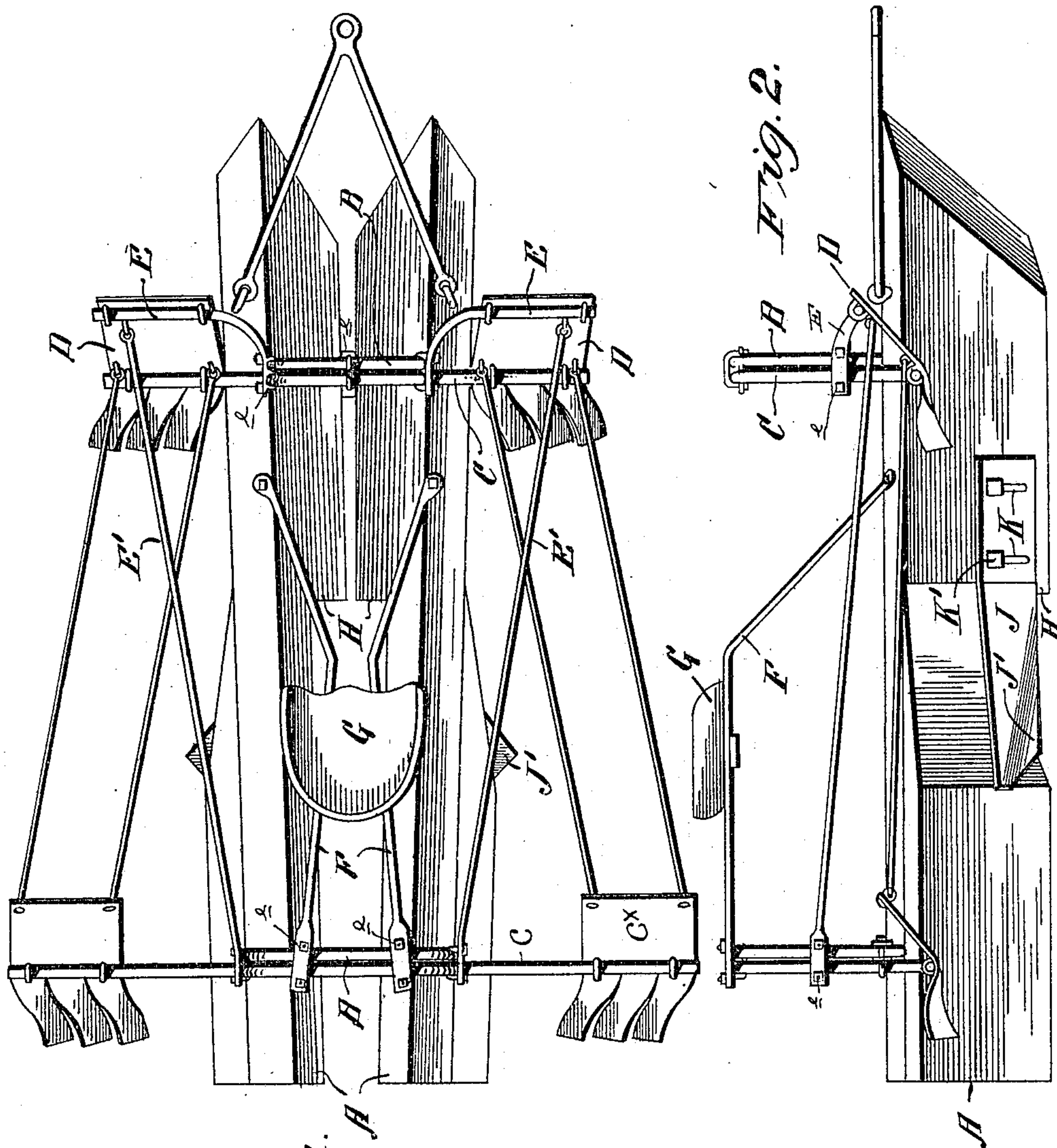


No. 819,612.

PATENTED MAY 1, 1906.

T. H. SPARKS.  
LISTED CORN CULTIVATOR.  
APPLICATION FILED FEB. 1, 1906.

2 SHEETS—SHEET 1.



WITNESSES:

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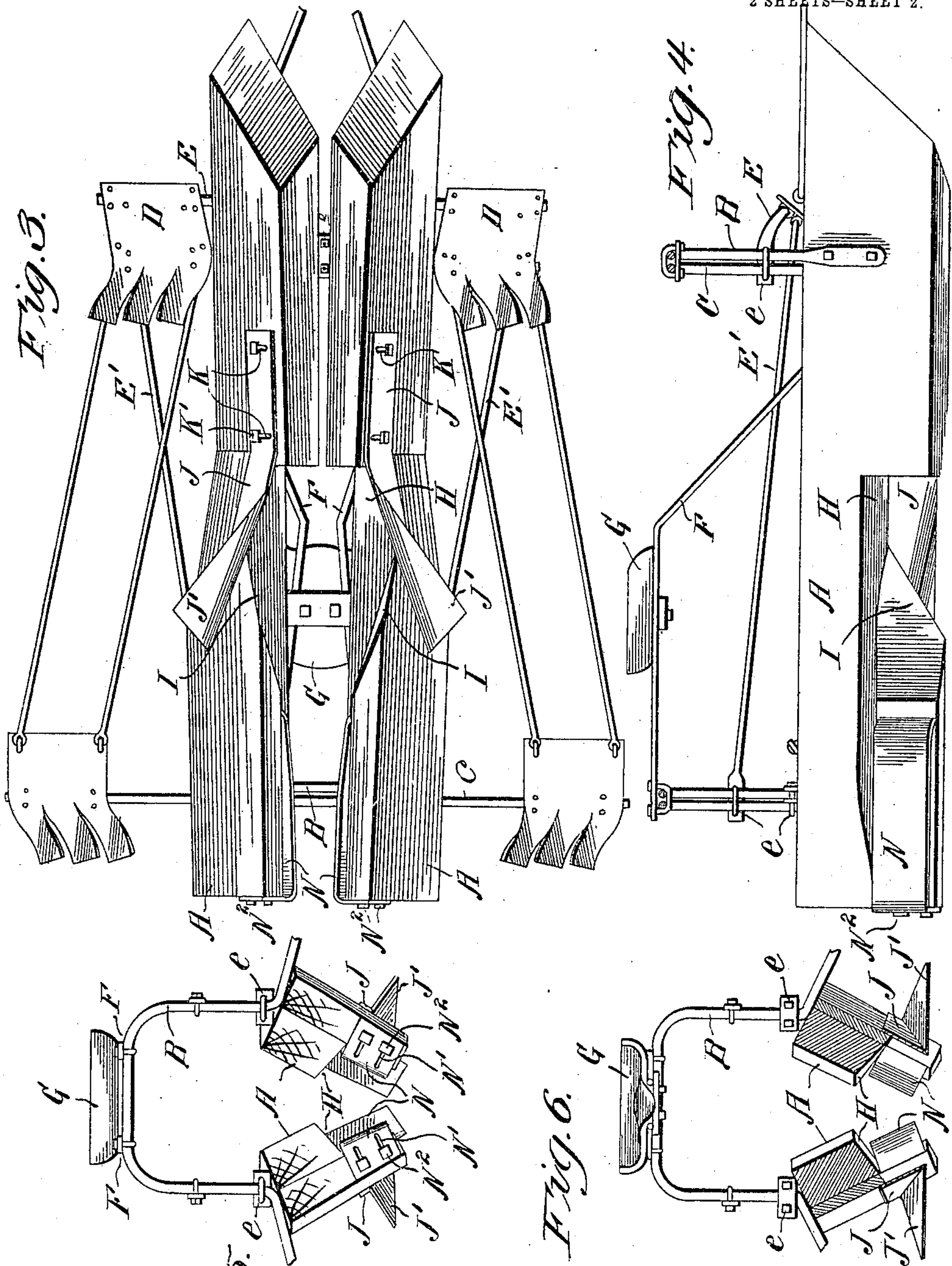
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

THOMAS H. SPARKS, OF WICHITA, KANSAS.

## LISTED-CORN CULTIVATOR.

No. 819,612.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed February 1, 1906. Serial No. 299,014.

*To all whom it may concern:*

Be it known that I, THOMAS H. SPARKS, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Listed-Corn 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in listed-corn cultivators; and the object of the invention is to produce a device of this character comprising a sled so arranged that the dirt may be thrown into the furrow before the sled has passed by, while the back end of the runners are so constructed as to cut into the side of the ridge and cause the dirt to be pushed toward the corn. By this construction the dirt is brought in from the bottom of the ridge, and as it comes up beneath the leaves of the corn it has a tendency to straighten the stalk instead of mashing it down, as is the case when dirt is thrown from the top of the ridge, and when a sufficient quantity of dirt is thrown to cover the corn it is left in an upright position and will soon reappear above the surface.

The invention consists, further, in a device of the character described in which adjustable shields are provided to regulate the amount of dirt thrown, thus making the device positive in action and regulating the desired amount of dirt to be thrown to the corn.

The invention consists, further, in various other details of construction and combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view. Fig. 2 is a side elevation. Fig. 3 is a bottom plan view. Fig. 4 is a central longitudinal section showing parts in elevation. Fig. 5 is a rear end view, and Fig. 6 is a cross-sectional view.

Reference now being had to the details of the drawings by letter, A A designate the two runners, which are similar in construction and have their forward ends beveled and inclined. Each of said runners is set at an angle to the other, inclining together at their

lower edges, as will be observed, with a slight space, preferably about seven inches, intervening between the portions of the runners in advance of the cut-away or widened portions. Yokes B connect the two runners, and yokes C are also fastened to the yokes B, and their outer ends project beyond the sides of the runners and are provided with clod-crushers D. Braces E are fastened to said yokes carrying the clod-crushers and are also secured to the latter, while brace-rods E' connect the clod-crushers forwardmost of the yokes C with clod-crushers C', similar to the clod-crushers D, before described, although the blades thereof are tilted at a different angle and which clod-crushers C' are mounted upon the rearmost yoke C. Suitable clamps e hold the two yokes B and C securely together and allow the latter to be raised or lowered to adjust to deep or shallow listing.

F F designate brace-rods which are fastened at their forward ends to the upper edges of the runners and their rear ends to the rear yokes B and C, connecting the rear portions of the sled, and upon said rods a seat G is mounted, being adapted to be held at different locations thereon, as may be desired. To the forward portions of the runners may be connected a tongue or other means whereby a team or horse may be connected thereto. Each of said runners, at a location substantially at the longitudinal center thereof, is cut away, as at H, allowing a considerable space to intervene between the rear portions of the runners and the portion of each runner intermediate the cut-away portion, and its rear end is widened and has a turning edge I, and adjustably mounted upon the outer face of each runner is a shield J, one end J' of which is outwardly turned and set at an inclination, and the forward portion of each shield has transverse slots K, through which the adjusting-screws K' pass, thereby affording means whereby the shields may be raised or lowered for the purpose of regulating the amount of dirt to be thrown, thus making it positive in action and throw the desired amount of dirt at all times. By the inclined and outwardly-turned portion of the shield a cutting edge is afforded, whereby weeds may be cut on the surface of the ridge between the furrows.

Fastened to the inner face of the widened portion of each runner is a steel plate N, the rear end of each being angled and provided with slots N', and N<sup>2</sup> designate screws fas-



tened to the rear ends of the runners and passing through said slots, thereby affording means whereby said plates may be adjusted.

From the foregoing it will be observed that  
 5 by the provision of the opening in the runners at the center thereof as the apparatus is drawn over a field dirt is allowed to come into the furrow before the sled has passed and by the peculiar construction of the rear  
 10 ends of the runners the latter will cut into the side of the ridge and push the dirt toward the corn and leave the wall of the furrow intact to guide the sled in next cultivation. By this detail dirt is brought in from the bottom  
 15 of the ridge, and as it comes up beneath will have a tendency to straighten up the corn instead of crushing it down, as is the case when dirt is thrown from the top of the ridge, and when enough dirt is thrown to cover the corn  
 20 the latter is left in upright position and will soon appear again as the corn grows. By having the bevel cut on front end of runner clods are worked to side of furrow and crushed between sled and wall of furrow and  
 25 not pushed in on the corn. By having the rear portions of the runners wider apart from the cut-away portions than at the front part of the sled any obstruction coming between the runners will pass out and will not be  
 30 dragged along and crush down the corn, and by the provision of the runners held at angles to each other the apparatus will hold to the furrow better than would be the case if the runners were perpendicular, and as the  
 35 apparatus is dragged along the furrow with the inclined sides of the runners against the sides of the furrow the clod-crushers will level down the surface of the ridge, and the inclined portions of the clod-crushers will  
 40 serve as weed-cutters to cut weeds along the surface of the ridge.

It will further be noted that by the construction of an apparatus embodying the features enumerated an apparatus is afforded  
 45 which will throw the dirt to the corn and leave a clean furrow, thus allowing cultivation to begin at any time and continue as often as desired until the corn is too high to be worked.

50 What I claim is—

1. An apparatus for cultivating listed corn comprising runners which are set at angles to each other, yokes connecting said runners, clod-crushers secured to the projecting ends  
 55 of said yokes, the rear portions of the runners being cut away, allowing a wider space between the runners at their rear ends than at their forward, and inclined cutting edges formed by the walls of said widened portion,  
 60 as set forth.

2. An apparatus for cultivating listed corn comprising runners which are set at angles to each other, yokes connecting said runners, clod-crushers secured to the projecting ends  
 65 of said yokes, the rear portions of the runners

being cut away, allowing a wider space between the runners at their rear ends than at their forward, and inclined cutting edges formed by the walls of said widened portion, adjustable shields fastened to the runners  
 70 and having outwardly-turned cutting edges opposite the widened portions of said runners, as set forth.

3. An apparatus for cultivating listed corn comprising runners which are set at angles to  
 75 each other, yokes connecting said runners, clod-crushers secured to the projecting ends of said yokes, the rear portions of the runners being cut away, allowing a wider space between the runners at their rear ends than at  
 80 their forward, and inclined cutting edges formed by the walls of said widened portion, adjustable shields fastened to the runners and having outwardly-turned cutting edges opposite the widened portions of said runners, adjustable plates secured at their forward  
 85 ends to the inner walls of the widened portions of the runners and their opposite ends adjustably held to the rear ends of the runners, as set forth. 90

4. An apparatus for cultivating listed corn comprising runners which are set at angles to each other, the forward ends of said runners being beveled, a slight space intervening between the forward ends of the runners, yokes  
 95 holding the runners together, each runner having a cut-away portion in the lower edge thereof, extending from substantially the middle portion of each runner to its rear end, each runner having a widened portion between its middle and rear end with an inclined cutting edge, adjustable shields mounted upon the outer face of each runner and having outwardly-turned inclined cutting  
 100 edges adjacent to and at an angle to the cutting edges of said runners, as set forth. 105

5. An apparatus for cultivating listed corn comprising runners which are set at angles to each other, the forward ends of said runners being beveled, a slight space intervening between the forward ends of the runners, yokes  
 110 holding the runners together, each runner having a cut-away portion in the lower edge thereof, extending from substantially the middle portion of each runner to its rear end, each runner having a widened portion between its middle and rear end with an inclined cutting edge, adjustable shields mounted upon the outer face of each runner and having outwardly-turned inclined cutting  
 115 edges adjacent to and at an angle to the cutting edges of said runners, adjustable plates fastened at their inner ends to the inner face of the inclined wall of the runner and having their rear ends angled and slotted, and adjusting-screws fastened to the ends of the runners and extending through said slots, as  
 120 set forth. 125

6. A listed-corn sled comprising two runners which have their forward ends beveled, 130



yokes connecting said runners and holding the same at angles to each other, with a space intervening between the same, portions of the lower edges of the runners being cut away  
5 the side walls of the runners formed into inclined cutting edges, adjustable shields mounted upon the runners and held adjacent to said inclined cutting edges, clod-crushers mounted upon the projecting ends of said  
10 yokes, and brace-rod connections between said clod-crushers, as set forth.

7. A listed-corn sled comprising two runners which have their forward ends beveled, yokes connecting said runners and holding  
15 the same at angles to each other, with a space intervening between the same, portions of the lower edges of the runners being cut

away the side walls of the runners formed into inclined cutting edges, adjustable shields mounted upon the runners and held adjacent 20 to said inclined cutting edges, clod-crushers mounted upon the projecting ends of said yokes, brace-rod connections between said clod-crushers, rods secured to the upper edge of the runners and fastened to said yokes, 25 and an adjustable seat mounted upon said rods, as set forth.

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

THOMAS H. SPARKS.

Witnesses:

L. S. NOFTZYER,  
J. M. MOORE.