

UNITED STATES PATENT OFFICE.

ALBERT A. SAWYER, OF GANDY, NEBRASKA.

LISTER-CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 429,964, dated June 10, 1890.

Application filed January 23, 1890. Serial No. 337,849. (No model.)

To all whom it may concern:

Be it known that I, ALBERT A. SAWYER, a citizen of the United States of America, residing at Gandy, in the county of Logan and State of Nebraska, have invented certain new and useful Improvements in Lister-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 letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in lister-cultivators; and it consists in providing a moving frame carried by the cultivator with rearwardly-extending blades or pulverizers, which are adapted to pass over the center of the trenches in which the seed-corn is planted, said frames also having cultivating-blades located on each side of the pulverizer.

My invention also consists in providing the rigid portion of the cultivator-frame with pivoted cutting-blades, each pair of which is held apart by springs, so that the rear ends will lie adjacent to those of the next series, as will be hereinafter fully set forth and particularly claimed.

The object of the invention is to provide a cultivator for listed corn which will be so constructed as to protect the seed-corn from an excessive amount of dirt being placed over it and also to destroy the weeds and grass at the top of the ridges, as well as on the sides of the trenches in which the plants grow.

In the accompanying drawings, Figure 1 is a plan view of a cultivator constructed in accordance with my invention. Fig. 2 is a detail perspective view of one of the movable frames, having the pulverizer and cultivator blades attached thereto. Fig. 3 is a side view.

A refers to the supporting-frame, which may be made up of a rear plank a of suitable length and width, to the front portion of which is secured a beam a' , blocks a^2 being interposed at suitable intervals to form longitudinal openings and end pieces a^3 for securing the plank and beam to each other.

The plank a is provided either on the upper or lower side thereof with strips a^4 , against which rollers attached adjacent to the rear edges of the sliding frames may abut, so that said frames can have a free lateral movement. To the central front portion of the beam a' is secured the draft-tongue B, a segmental plate being attached to the same, and the ends of said plate are pivoted by means of suitable eyes or staples to the front edge of the beam a' . Rear of the tongue the beam a' is provided with a staple or eye, which passes through one end of a bell-crank lever, which carries a pivoted rack-bar, which engages with an upwardly-projecting angle-plate on the tongue, and by means of this bell-crank lever, rack-bar, and angle-plate the tongue can be adjusted and maintained at any angle desired with respect to the frame A, so that the desired inclination can be given to said frame or tongue.

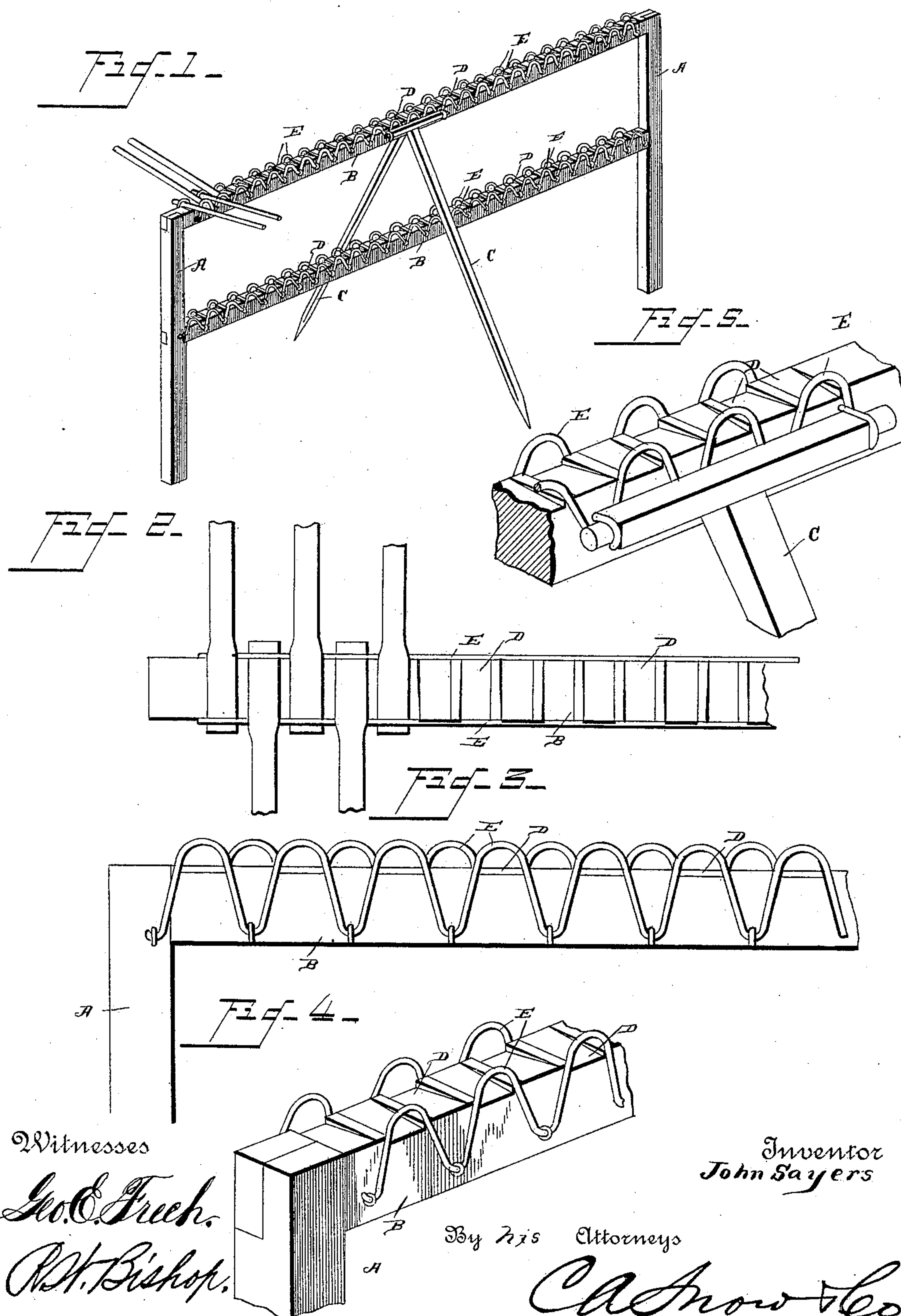
C refers to bars or short beams, which are secured in the longitudinal slots in the main frame A by means of plates secured to the upper and under surfaces thereof, and these bars are provided with friction-rollers c , which contact with the strips a^4 , so that said bars or beams will slide freely within the slots. These beams automatically adjust themselves, and are provided on their under sides with pulverizers D, which are made up of spring metal bent to extend downwardly and rearwardly, said metal being tapered, so as to give freely and bear upon the lumps of earth which naturally fall to the bottom of the trench, so as to pulverize them that they may not impede the growth of the plant. These pulverizers are wider at their free ends and turn upwardly, as shown in Figs. 2 and 3 of the drawings. On each side of these pulverizers and secured to the under side of the adjustable frames C are cultivator-blades E, which incline downwardly toward the pulverizer D, and these cultivator-blades E are provided with rearwardly-extending portions e , which are curved or bent, as shown, so as to press or bear upon the sides of the trenches and hold the adjustable frames C in place, and also serve as a gage to regulate the depth which the cultivator-blades E may enter the earth. These rearwardly-extending portions

(No Model.)

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Witnesses

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