(No Model.) 2 Sheets—Sheet 1.

J. B. CHRISTIAN.

SULKY CULTIVATOR.

No. 260,164. Patented June 27, 1882.

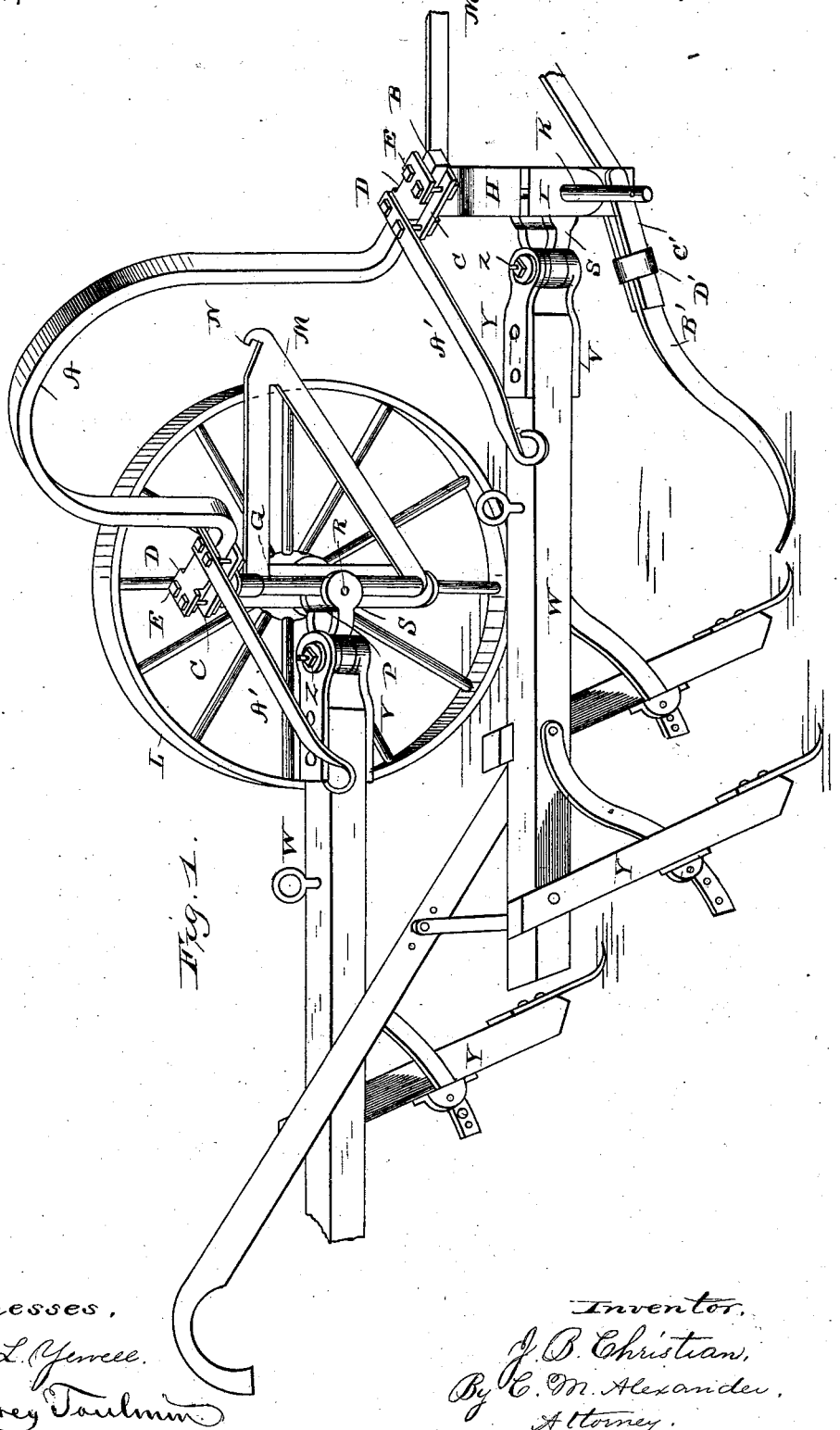

Fig. 1.

Witnesses,
Edwin L. Yewell.
H. Aubrey Faulkner

Inventor,
J. B. Christian,
By C. M. Alexander,
Attorney.

(No Model.) 2 Sheets—Sheet 2.

J. B. CHRISTIAN.

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Fig. 2.

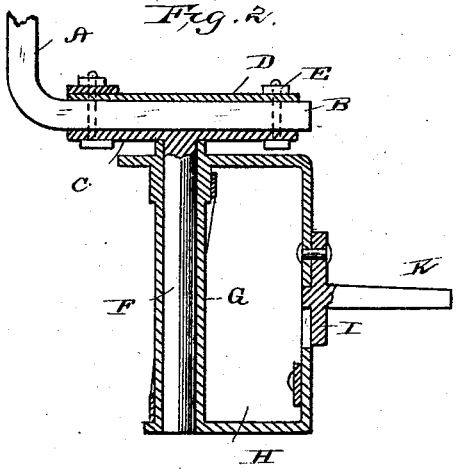


Fig. 3.

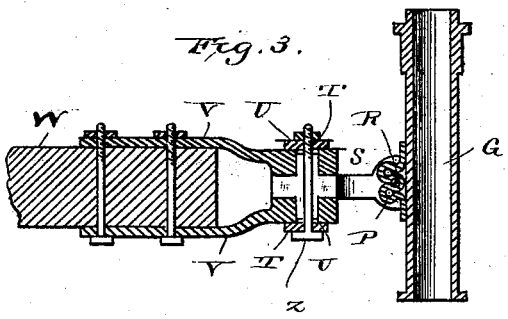
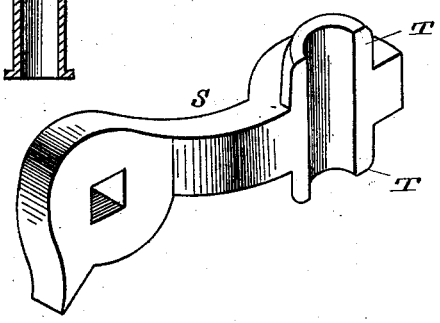


Fig. 4.



Witnesses.
Edwin L. Yewell.
H. Aubrey Toulmin.

Inventor.
J. B. Christian,
By C. M. Alexander.
Attorney

UNITED STATES PATENT OFFICE.

JOHN B. CHRISTIAN, OF HAMBURG, IOWA.

SULKY-CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 260,164, dated June 27, 1882.

Application filed March 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. CHRISTIAN, of Hamburg, in the county of Fremont, and in the State of Iowa, have invented certain new and useful Improvements in Tongueless Sulky-Cultivators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention has for its objects to provide an improved tongueless cultivator so constructed and arranged that it may straddle the rows of growing crops, and which can be adjusted to rows of different widths; also, to provide certain improved means for attaching the cultivator-beams to the frame of the machine, and for holding the beams up when the cultivator is traveling from place to place, and supporting the frame in the meanwhile to prevent it from tipping backward. These objects I attain by the mechanism and devices illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of my improved cultivator with a portion removed. Fig. 2 represents a detached sectional view, showing the means of connecting the side sections of the machine to the arch; and Fig. 3, a sectional view detached, showing the means of connecting the plow-beams. Fig. 4 represents a perspective view of one part of the bifurcated connections.

The letter A indicates the arch connecting the two sections of the machine. The said arch consists of a bar of metal bent into suitable shape and provided with horizontal extensions B at each end, which are adjustably secured to the horizontal plates C by means of the metallic clip-plates D and screw-bolts and nuts E, in such manner that the plates may be shifted longitudinally on the extensions and confined thereon in order to adjust the two sections of the machine laterally, as more fully hereinafter specified.

The plates are provided with vertical shafts F, which are adapted to set in the tubular bearings G, forming part of the frames H at each side of the machine. To the said frames are secured the plates I, in any convenient manner, the said plates being provided with short axles K, upon which the wheels L are mounted. From the said frames H extend forwardly the angular frames M, which at their forward ends are provided with hooks N, to which the single-trees may be attached.

The tubular bearings before mentioned are provided at their rear with extensions P, forming bearings for a pin, R, passing through the sides of a bifurcated connection, S, by means of which said connections are pivoted to the tubular bearings. The connections S are each constructed in two parts, which are provided with lateral half-bosses T, which set in the recesses U in plates V, attached to the forward ends of the beams W, which carry the plow-standards Y. The said parts are confined in their seats by means of the bolts Z, by means of which they may be tightened in order to take up wear from time to time, as may be required.

The letter A′ indicates two arms, one secured to each side section of the apparatus. These extend backward and are hooked at their ends in order that they may be made to engage the eyes secured to the beams W to hold the plows away from the ground when desired.

The letter B′ indicates a pivoted arm, secured between brackets C′ on one of the frames H. The said arm is held in normal position by means of the slide D′, but may be dropped, so that its bent extremity may rest upon the ground to prevent the apparatus from tilting backward when the beams are elevated, by pushing the slides forward, so as to clear the forward ends of the said arms.

It will be perceived that as constructed the draft upon the apparatus will be equalized, as each horse will be compelled to draw one section or side of the apparatus, and that the parts may be readily adjusted to suit the work to be done.

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

1. The combination, with the arch A, having horizontal extensions B and adjustable plates C, provided with vertical shafts F, of the frames H, the tubular bearings G, plates D, and bolts E, substantially as specified.

2. In combination with the connecting-arch

A and the tubular bearings G, the bifurcated connections constructed in two parts and secured together by a bolt, Z, substantially as and for the purposes specified.

3. In combination with the connecting-arch A, the frames H, the tubular bearings G and their adjustable connections, the angular draft-frames *m*, provided with hooks at their ends, and the bifurcated connections S, to which the plow-beams are attached, substantially as and for the purpose specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 22d day of February, 1882.

JOHN B. CHRISTIAN.

Witnesses:

W. T. HOLLOWELL,

A. L. HOLMES.