

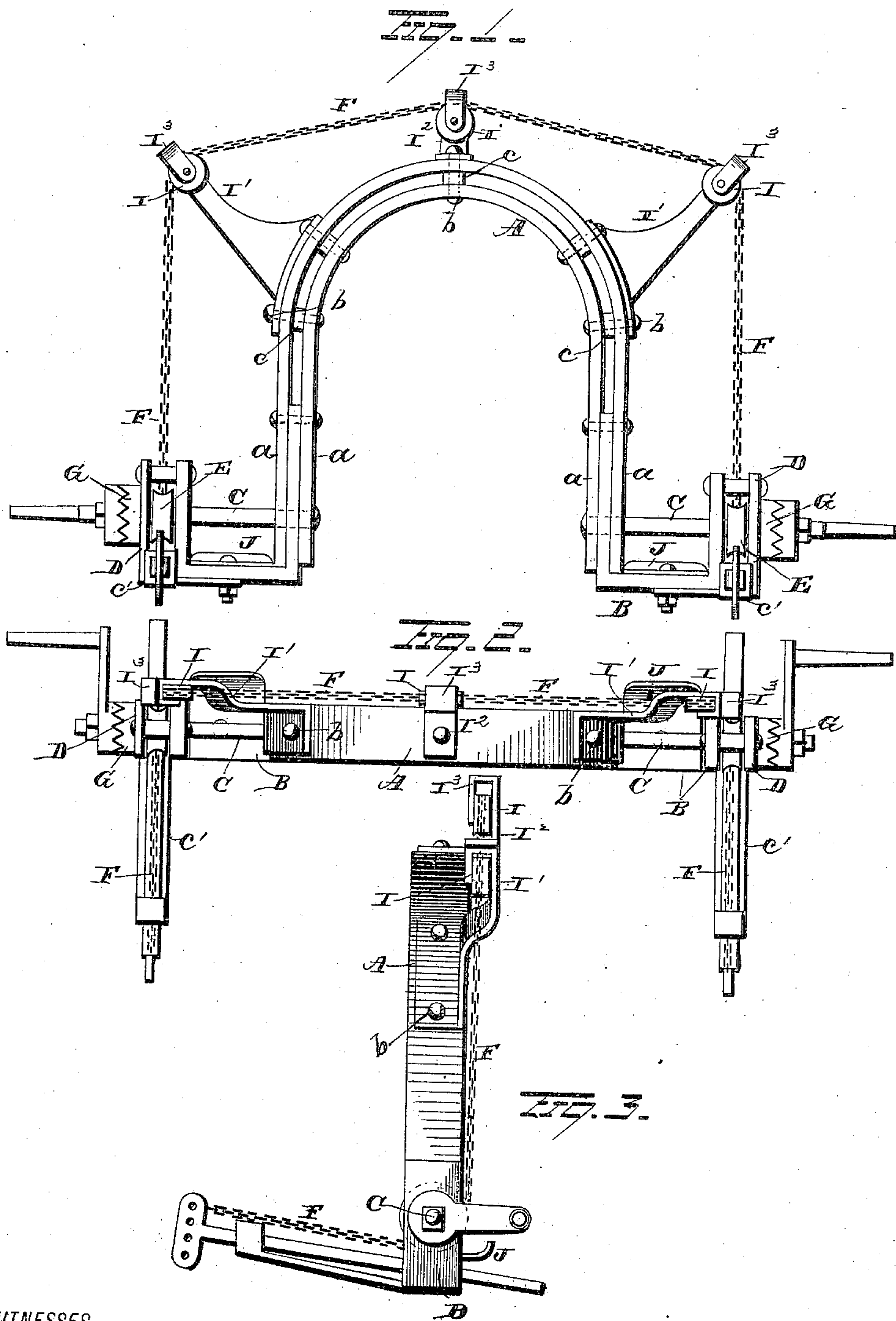
(No Model.)

J: J. McCLLEN.

TONGUELESS CULTIVATOR.

No. 299,081.

Patented May 20, 1884.



WITNESSES

S. G. Nottingham
George Cook.

INVENTOR

INVENTOR
J. J. McClellan.
By S. J. Suggs & Suggs.
Attorney

Attorney

UNITED STATES PATENT OFFICE.

JOHN J. McCLEN, OF BUSHNELL, ILLINOIS.

TONGUELESS CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 299,081, dated May 20, 1884.

Application filed November 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. McCLEN, of Bushnell, in the county of McDonough and State of Illinois, have invented certain new and useful Improvements in Tongueless 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 an improvement in tongueless cultivators, the object of the same being to provide means whereby either draft-animal can be advanced forward of the other a reasonable distance without throwing the wheel out of the line of progression, nor with torsional strain to the arch, and also without advancing one plow-beam forward of the other; and with these ends in view my invention consists in certain details in construction and combinations of parts, as will be more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in front elevation of my improvement. Fig. 2 is a plan view of the same, and Fig. 3 is a view in side elevation.

A represents the arch or frame, preferably made of two parallel bars, held in position by the bolts *b* and separated by the blocks *c*, which latter are also retained in position by the bolts *b*. This arch is sufficiently high to enable it to pass over standing corn, and is provided at its lower end with the angle-irons B, the inner ends of which are rigidly secured between the lower ends of the bars *a*. These irons, after they leave the curved bars *a*, pass horizontally outward for a suitable distance, and then upward parallel or approximately parallel with the vertical sides of the arch, and, together with the vertical sides of said arch, support the horizontal axles C. These axles pass through the irons B, and are provided between the said irons and the plates D with the pulleys E, under which the equalizing-chains F pass, while the extreme outer ends of said axles are each provided with a serrated disk, G, against which a similar disk on the crank-axle bears. This disk on the crank-axle is centrally perforated for the passage of the axle proper, and the crank-axle is adjustably secured thereto by a nut. By this means the crank-axles can be adjusted to elevate or lower the arch as neces-

sity demands. The plates D are rigidly secured to the irons B, and each is provided with a forwardly-extending arm, *c'*, on which its respective draft-bar rests, and each arm is provided at its forward end with an angular collar adapted to prevent the draft-bars from moving laterally, and also to prevent them from turning. These draft-bars are each provided at its front end with a clevis for the attachment of the whiffletree, and also for the attachment of the equalizing-chain, which latter passes rearwardly under the pulley, then up over the pulleys I, secured on the upper surface of the arch, and then down under the lower pulley on the opposite side of the arch, and thence to the other draft-rod. The pulleys I on the upper surface of the arch are journaled to the arms I', which latter are rigidly secured to the arch. These brackets, as well as the smaller central bracket, I², are provided with the guards or covers I³, which latter prevent the chain from leaving the pulleys. Thus it will be seen that the chain connects the two teams or animals and performs the function of an equalizer, thereby enabling one horse to advance farther than the other without throwing the wheels out of the line of progression.

Instead of using a continuous chain, as heretofore described, a rocking bar or equivalent device can be pivoted centrally to the arch, with its opposite ends connected to chains secured to the draft-bars.

The gangs or plows are secured directly to the axles proper by a suitable joint, that will allow the arch to move forward and backward a limited distance without disturbing the plows. The arch is prevented from tilting forward by the rearwardly-projecting plates J, which latter are secured to the frame under the axle proper, and are adapted to abut against the under side of the drag-bars. By this construction of parts I am enabled to keep the respective gangs or plows equally forward in point of progression, regardless of the motion of the respective draft-animals.

It is evident that numerous slight changes in the construction and relative arrangements of the several parts might be resorted to without departing from the spirit and scope of my invention; and here I would have it understood that I do not limit myself to the exact

construction shown and described, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. The combination, with an arched frame provided with forwardly-extending arms, axles rigidly secured to said frame, and drag-bars secured to the axle or frame, of longitudinally-sliding draft-bars upheld by said arms, and chains or equivalent devices connecting said draft-bars and passing around or over the
10 arched frame, substantially as set forth.

2. The combination, with the arched frame provided with forwardly-extending arms, axles rigidly secured to the frame, and pulleys journaled to the axles, of draft-bars resting on
20 the forwardly-extending arms of the frame, and equalizing devices connecting the draft-bars, substantially as set forth.

3. The combination, with the frame pro-

vided near opposite sides with forwardly-extending arms, each of which is provided with
25 an angular collar, axles rigidly secured to the frame, and pulleys journaled to the axles, of the angular draft-bars, and chains passing over the arched frame and connecting the draft-bars, substantially as set forth.

4. The combination, with an arched frame provided with forwardly-extending arms, the arms I', having pulleys journaled thereto, and axles rigidly secured to said frame, of longitudinally-sliding draft-bars upheld by said
35 forwardly-projecting arms, and chains connecting the forward ends of said draft-bars and passing over the pulleys, substantially as set forth.

In testimony whereof I have signed this
40 specification in the presence of two subscribing witnesses.

JOHN J. McCLEN.

Witnesses:

W. H. CHAIN,
E. F. CURRIER.