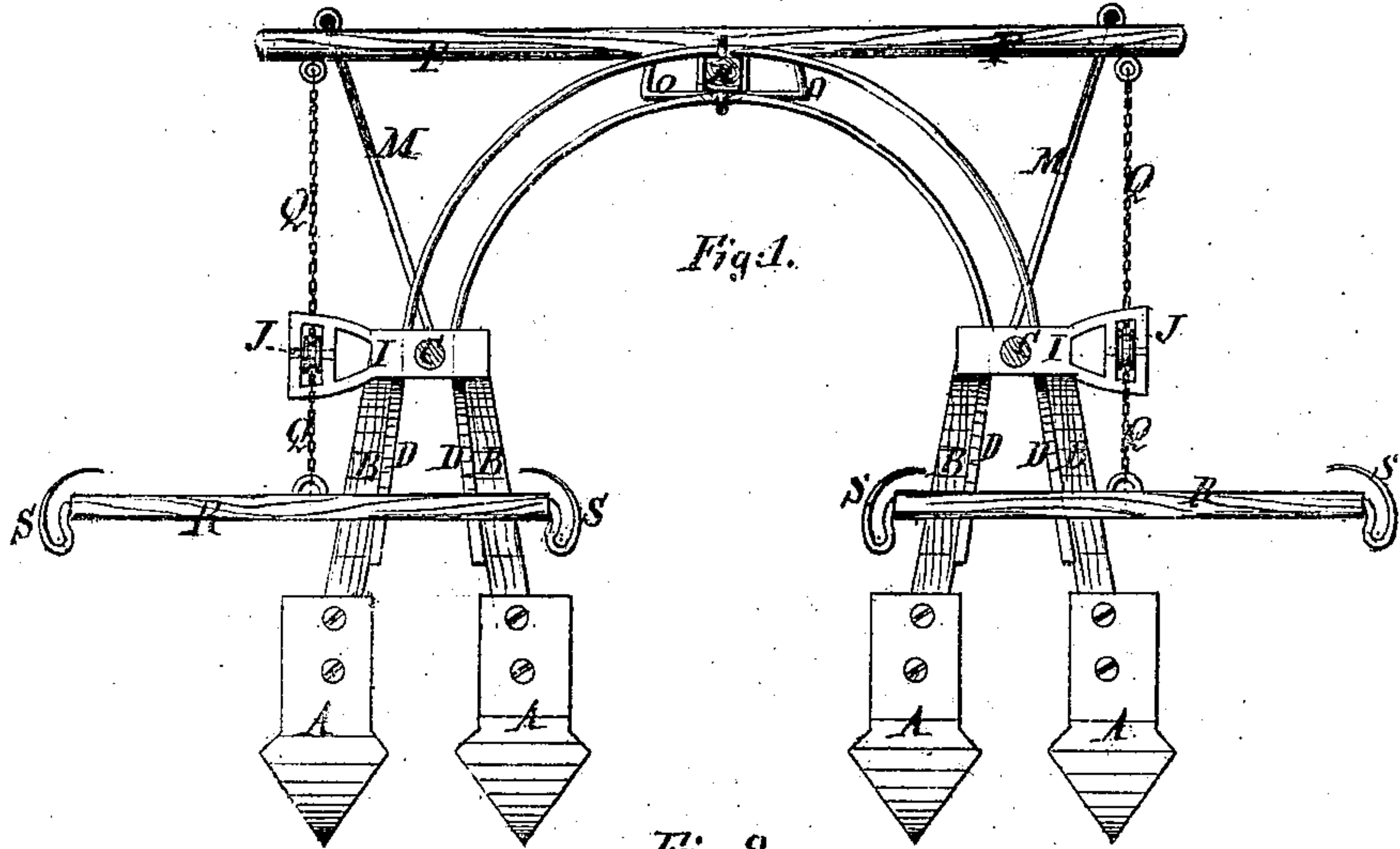


*J. A. Wilson,*

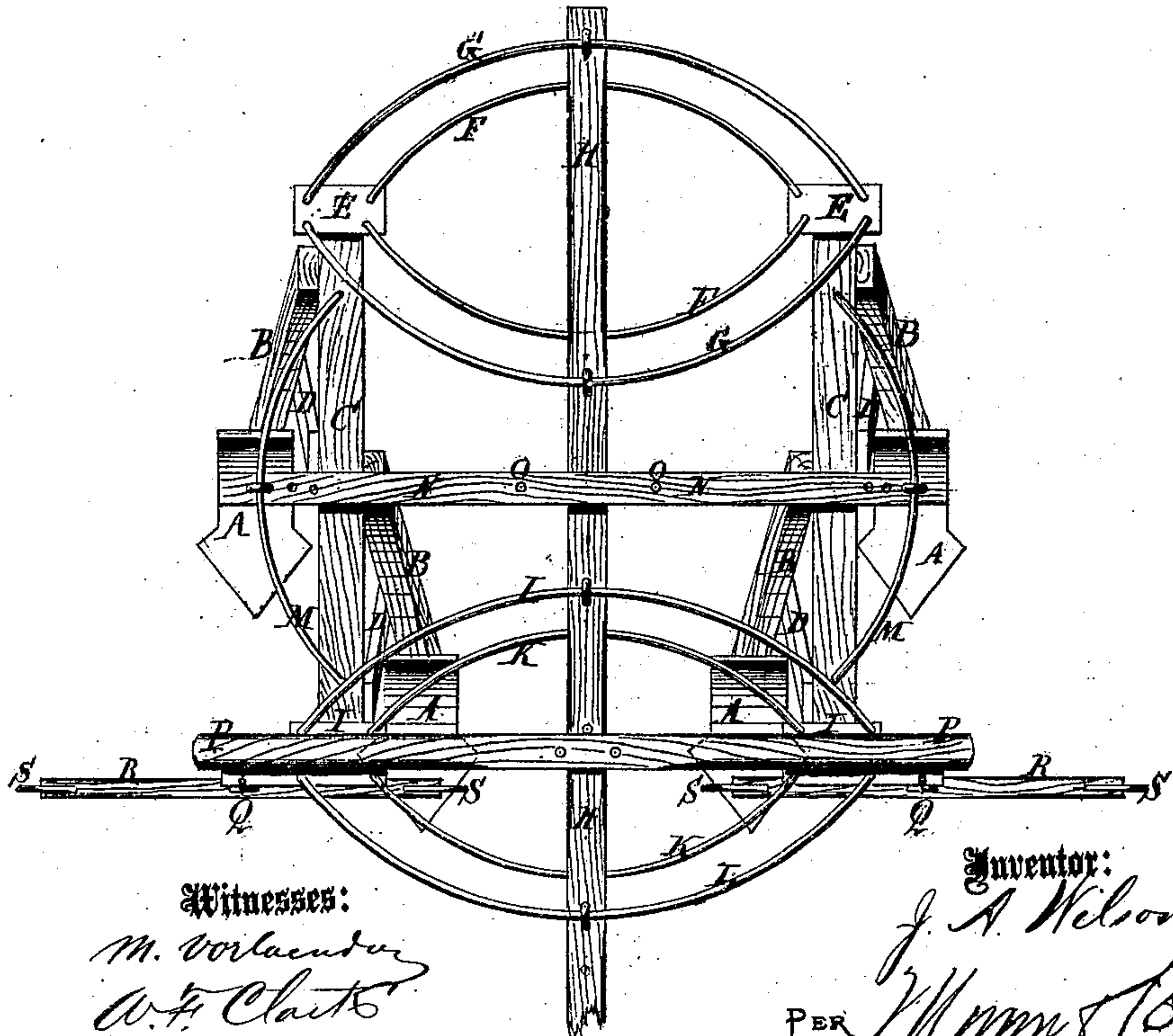
*Cultivator.*

*No. 98,326.*

*Patented Dec. 28. 1869.*



*Fig. 2.*



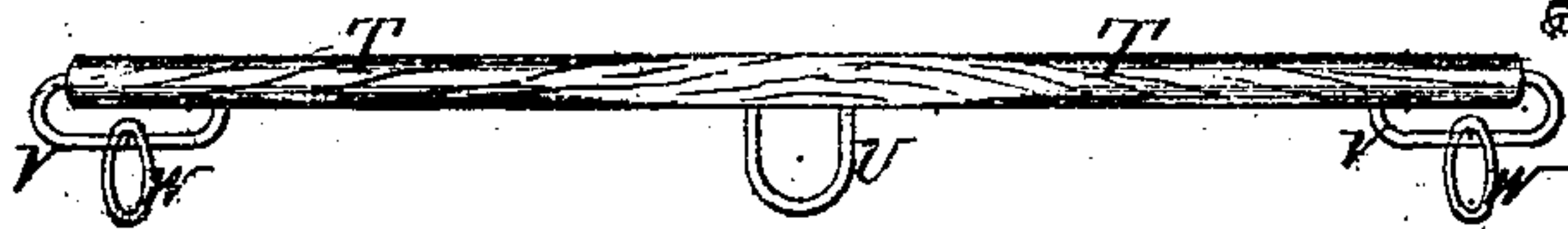
**Witnesses:**

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# UNITED STATES PATENT OFFICE.

JESSE A. WILSON, OF HAMBURG, IOWA.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 98,326, dated December 28, 1869.

*To all whom it may concern:*

Be it known that I, JESSE A. WILSON, of Hamburg, in the county of Fremont and State of Iowa, have invented a new and useful Improvement in Cultivators; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a front view of my improved cultivator. Fig. 2 is a top view of the same.

My invention has for its object to furnish an improved cultivator which shall be strong, simple in construction, and effective in use, being so constructed that the frame-work of the cultivator will readily pass over the rows of plants without injuring them; and it consists in the construction and combination of the various parts of the cultivator, as hereinafter more fully described.

A are the shovels, which are made diamond-shaped, and have their upper corners prolonged upward, to form the shank, by means of which they are screwed or bolted to the lower ends of the standards B by two screws or bolts, which pass through the said shanks and into or through the ends of the said standards. The upper ends of the standards B are securely bolted to the beams C, and the draft-strain upon them is sustained by the brace-bars D, the lower ends of which are bolted to the sides of the lower parts of said standards, and their upper ends are bolted to the sides of the beams C.

E are castings, which are cast with sockets, to receive the rear ends or tenons formed upon the rear ends of the beams C, to which they are securely bolted.

F and G are two sets of bent rods or semicircular bows. The ends of the bows F pass through the inner ends of the castings E, and the ends of the bows G pass through the outer ends of said castings. The ends of the bows F and G are riveted or secured by nuts to said castings. The bows F and G are inclined forward and backward, and are secured to the tongue H by staples or S-shaped wires, the bows F passing beneath and the bows G above said tongue, as shown in Fig. 2.

I are castings attached to the forward ends

of the beams C in the same manner as the castings E are secured to the rear ends of said beams. The outer ends of the castings I extend outward, and have recesses formed in them, as shown in Fig. 1, in which recesses are pivoted grooved rollers or pulleys J, as shown in Fig. 1.

K and L are bent rods or bows, similar to the bows F and G, and secured to the tongue H and castings I in the same manner as the bows F and G are secured to the tongue H and castings E.

M are semicircular rods or bows, the ends of which pass through and are secured to the beams C near the ends of said beams. The middle part of the bows M pass over the ends of the bar N, and are adjustably secured to said bar by detachable staples, which pass around said bows, and are inserted in one or the other of the sets of holes in the bar N, according as it is desired to have the plows work closer together or farther apart. The middle part of the bar N rests upon the tongue H, and is connected with said tongue by a long keeper or rod, O, attached to the said bar N, and passing beneath the said tongue H, as shown in Figs. 1 and 2, so that the bar N may slide longitudinally upon the tongue H, to move the plows laterally, to follow crooked rows, or avoid irregular hills or obstructions.

P is the double-tree, the middle part of which rests upon the tongue H, and is secured in place by a staple passing around said tongue, so that the double-tree may rock upon the tongue, but cannot move longitudinally upon it.

To the ends of the double-tree P are attached the upper ends of the chains Q, which pass down and around the grooved rollers or pulleys J, and to the forward ends of which are attached the whiffletrees R, which have hooks S attached to their ends to receive the tugs.

T is the neck-yoke, to the middle part of which is attached a staple, U, to receive the tongue H.

To the ends of the neck-yoke T are attached keepers or long staples, V, in the manner shown in Fig. 2, upon which slide the rings W, that receive the breast-straps.

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

1. The castings E and I, constructed and

secured to the ends of the beam C, substantially as herein shown and described, and for the purposes set forth.

2. The bows F G and K L, constructed and arranged substantially as herein shown and described, in combination with the castings E I and tongue H, as and for the purpose set forth.

3. The slide-bar P O and adjustable bows M,

in combination with the tongue H and beams C, substantially as herein shown and described, and for the purpose set forth.

JESSE A. WILSON.

Witnesses:

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