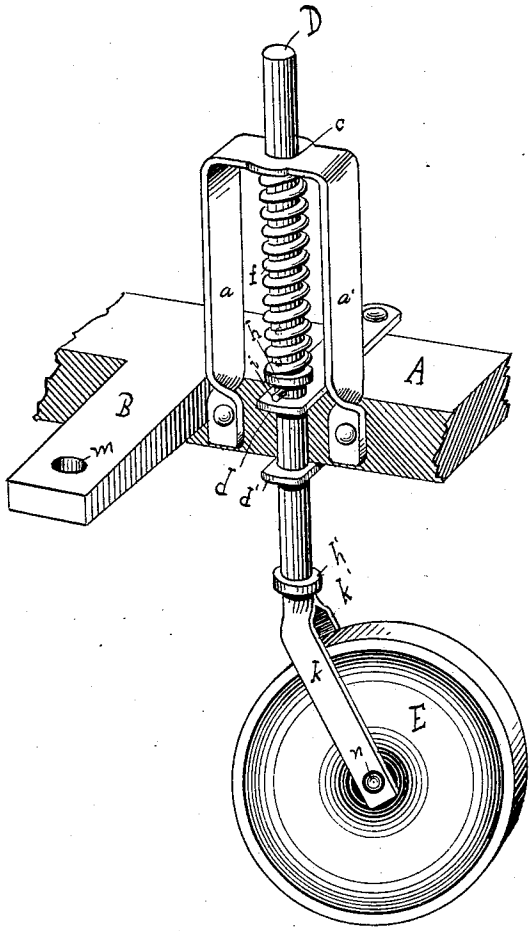
(No Model.)

D. WARD.

TONGUE SUPPORT.

No. 475,366. Patented May 24, 1892.



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UNITED STATES PATENT OFFICE.

DANIEL WARD, OF PEORIA, ILLINOIS.

TONGUE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 475,366, dated May 24, 1892.

Application filed September 7, 1891. Serial No. 404,948. (No model.)

To all whom it may concern:

Be it known that I, DANIEL WARD, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Tongue-Supporters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in tongue-supporters, by means of which a tongue-supporter is provided simple in construction, durable, and cheap in first costs, and, more particularly, it relates to that class of tongue-supporters which are adapted to have a bearing upon the ground.

My invention consists, essentially, of a depending shaft with bifurcated arms at the lower extremity, carrying a wheel, and the shaft being carried in proper supports, and a section of the said shaft carrying a coil-spring in such a manner that with proper adjustment of the parts the tongue is permitted to rise and fall by the expansion and compression of the coil-spring.

That my invention may be more fully understood, reference is had to the accompanying drawing, in which the figure shows a perspective view of a tongue-supporter embodying my improvement.

In the figure, A represents the tongue of a reaper, and B is an extension-arm provided at its outer extremity with the perforation *m*. D is a shaft carried in the frame-work *a a'*, which said frame-work *a a'* is provided with the opening *c* at the top, through which the shaft D is carried. The said shaft D is also carried in openings in the ends of the plates *d d'*, and at the lower extremity of the shaft D is provided with the bifurcated arms *k k'*, which provide the journal-bearing *n* at their lower extremity for the wheel E. The said shaft D is also provided with a series of perforations, which are purposed to carry the pin *i*.

h h' refer to collars, the collar *h* being loose upon the shaft; but by its being provided with a flange having perforations to receive the pin *i* the said collar *h* may be fixed to the shaft at a desired point. The collar *h'* is fixed upon the shaft D.

f refers to a coil-spring, which is carried upon the shaft between the collar *h* and the top of the frame-work *a a'*.

In operation the coil-spring *f* being compressed to produce a certain tension and the wheel bearing upon the ground takes the draft off from the horses' necks, thus making the tongue self-supporting, and the desired height to which the tongue is to be raised or lowered is had by the raising or lowering of the collar *h*. When the machine is drawn forward, there is a tendency for the tongue to rise and fall as the machine passes over rough or uneven ground, and this throwing up and down of the tongue is very severe upon the horses' shoulders, tending to make them sore, and also making the top of the neck sore. Now as the machine moves over the ground and rough places are contacted with the tendency of the tongue to be thrown downward is resisted by the frame part *a a'* contacting at its upper portion with the coil-spring *f*, thus preventing a violent downward movement and lessening the vibration in that direction. Thus we see that the tongue is practically held in a fixed position, allowing only the necessary vibrations to accommodate itself to the rises and depressions of the ground. The wheel E bearing upon the ground does not in any way hinder the movements of the machine and makes it but little, if any, harder to be drawn and is no inconvenience to turning in the field, as it will be seen that the shaft D bears loosely in all its supports or bearings, and is allowed to rotate in said bearings or supports, so when it is desired to turn, instead of the wheel being dragged along sidewise, and thus making a great strain upon the horses, it readily adjusts itself to rotate by shifting in its bearings in the same manner as does the colter attached to a plow-beam, so that any turn may be made without any inconvenience or additional draft by the simple shifting of the shaft D in its bearings to give the wheel E the proper direction of movement.

The particular advantages of my improved tongue-supporter for reapers, mowers, &c., are,

first, that it takes the draft off of the horses' necks; second, that the wheel E readily shifts to give a proper direction of movement and prevent dragging by means of the shaft D being carried loosely in its bearings.

My improved tongue-supporter may be made of any suitable material and varied in form and adjustment of parts to suit the application in which it is desired to be used, and may be applied to any device which requires a tongue-supporter.

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

1. In a tongue-rest, the combination, with the tongue, of the upright frame *a a'*, perforated at the top, the perforated bar D, projecting upward through the perforated plates *d d'* and through the perforation in the top of frame-work *a a'*, the spiral spring *f*, surrounding the said rod, the bifurcated arms *k k'* of the bar D, the wheel E, and the collar *h*, loose upon the bar D and provided with the pin *i*, all substantially as described and set forth.

2. The combination, with the tongue A, of the upright frame *a a'*, the upright rod D, carried through a perforation in the top of the frame-work and through a perforation in each of the projecting plates *d d'* and provided with a series of perforations to receive the pin *i*, the bifurcated arms *k k'*, the collar *h*, wheel E, and spring *f*, all substantially as described and set forth.

3 The combination, in a tongue-supporter, of the upright frame *a a'*, secured to the top of the tongue A and having opening *c* in the top, the upright rod D, carried through the opening *c* and through perforations in each of the projecting plates *d d'* and formed at its lower part with bifurcated arms *k k'* and provided with a series of openings or depressions along its body or the part thereof that bears within the upright frame to receive the pin *i*, the collar *h* and spring *f* upon the rod, and the wheel E, journaled upon the arms *k k'*, all substantially as described and set forth.

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

DANIEL WARD.

Witnesses:
BOB MCCORMICK,
W. A. WERCKLE.