(No Model.)

J. S. FAULKNER.

TONGUE SUPPORT.

No. 510,249. Patented Dec. 5, 1893.

Fig. 1.

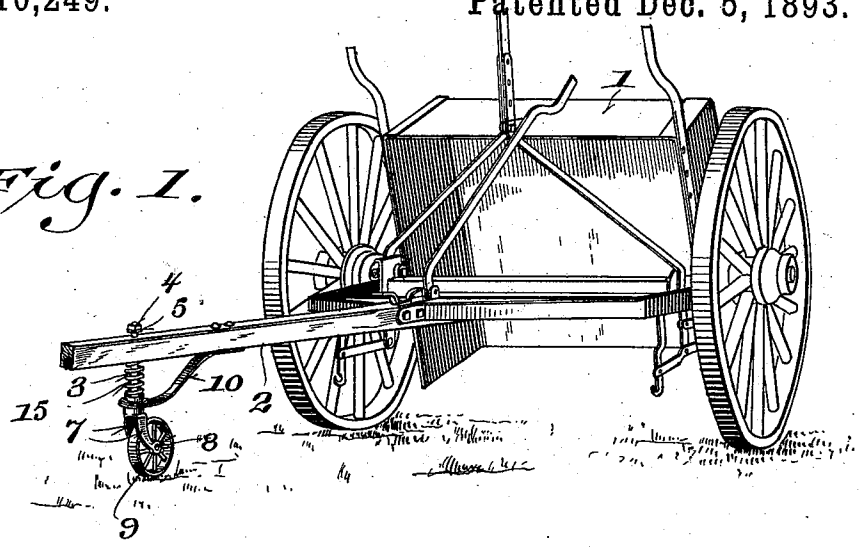


Fig. 2.

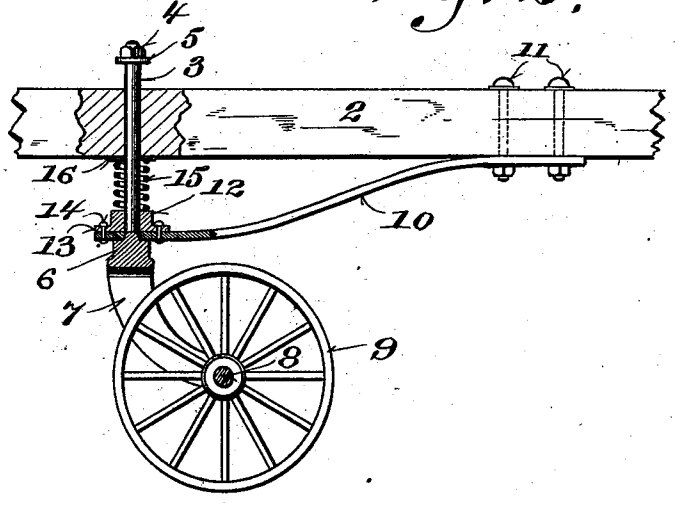
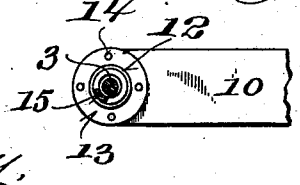


Fig. 3.



Witnesses.
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JOHN S. FAULKNER, OF BAY VIEW, WISCONSIN.

TONGUE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 510,249, dated December 5, 1893.

Application filed July 24, 1893. Serial No. 481,259. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. FAULKNER, of Bay View, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Tongue-Supports, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in tongue-supports.

In the accompanying drawings I have shown the improved device in connection with a grading machine, to which it is particularly, although not necessarily, adaptable.

The object of the invention is to relieve the animal of the weight of the pole and vehicle, and to prevent injury to the horse's shoulders and neck by reason of the tendency of the tongue to rise and fall as the machine passes over rough and uneven ground.

In the employment of a grading machine of the style illustrated in the drawings, I have found by experience that the above pointed out disadvantage exists to a great extent, owing not only to the uneven character of the ground over which the machine necessarily traverses, but also to the frequent adjustments of the body of the machine to different inclinations, said body, in Figure 1, being shown in the position at which it is left immediately after the dumping operation, and after completion of its work.

To attain the object above set forth I have provided the support which will now be fully described and set forth.

Fig. 1, is a perspective view of a form of grading machine, showing my improved support secured to the tongue thereof. Fig. 2, is an enlarged elevation of a fragment of the tongue, with the device properly applied, certain parts being in section for clearer illustration; and Fig. 3, is a plan view of a portion of the spring plate, showing the shaft passing through the forward end of the same, and also the collar bolted to said forward end.

Like numerals of reference denote like parts throughout the several views.

Referring to the drawings, the numeral 1 indicates a form of grading machine in connection with which I prefer to employ my invention. As this machine is a common form of construction, and constitutes no part of my invention, a detail description of the same is unnecessary.

About centrally through an aperture in the tongue 2 of the machine passes vertically a shaft 3, adapted to rotate freely in said aperture. At the upper threaded end of the shaft are located a nut and washer, 4 and 5 respectively, which tend to limit the upward movement of the tongue. Medially of the shaft is formed a shoulder or enlargement 6, and from the lower end of this shoulder or enlargement extends a bifurcated portion forming arms 7, 7, which constitute bearings for a short shaft 8, on which shaft a caster-wheel 9 turns.

The numeral 10 indicates a flat metallic spring, the rear end of which is secured to the under side of the tongue by means of bolts 11, 11. This spring plate is preferably of an ogee form, and at its forward end is provided with an aperture to receive the shaft 3, said forward end normally resting upon the enlargement or shoulder 6. Upon the shaft is also arranged a collar 12, provided with an annular flange 13, said flange secured to the top of the spring plate by means of bolts 14. The collar serves the purpose of reinforcing or strengthening the spring plate at the point where it is subjected to the greatest strain or wear, and is preferable over enlarging the end of the plate for the same purpose, inasmuch as the formation of a thickened or enlarged surface directly on the plate would materially increase the cost. This collar also serves as a seat for the lower end of a coiled spring 15, encircling the shaft, the upper end of said coiled spring bearing against a plate or washer 16, secured beneath the tongue.

In operation, if the machine, in its travel, passes over uneven or rough ground, or meets with obstructions in the road-bed, the yielding character of the spring will enable the caster-wheel to accommodate itself to such unevenness, and thus to a great extent limit the movement of the tongue, and prevent the strain and pull which would otherwise occur on the shoulders and neck of the animal. The fact also that the fulcrum point is about the center of the tongue will of necessity permit of but very little movement of said tongue. As the coiled spring 15 is supported or held up to place by the plate 10, and as said plate is of a spring metal, it also will yield with the

uneven character of the road. By employing a caster-wheel journaled in the bifurcated arms of the shaft 3 very little strain on the spring plate 10 is produced, when the machine is turned.

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

1. In a tongue support, the combination, of a spring plate secured to the tongue, a shaft passing loosely through said tongue and the forward end of the plate, so as to be rotatable and vertically movable therein said shaft having a wheel journaled in its lower end, and a coiled spring encircling the shaft between the spring plate and the tongue, substantially as set forth.

2. In a tongue support, the combination, of a tongue, a spring plate secured thereto, a reinforcing collar secured to the forward end of the spring plate, a shaft passing loosely through the plate, collar and tongue, so as to be rotatable and vertically movable therein, said shaft having a wheel journaled in its lower end, and a coiled spring encircling the shaft between the collar and tongue, substantially as set forth.

3. In a tongue support, the combination, of a tongue, a plate secured thereto, a reinforcing collar secured to the forward end of the plate, a shaft passing loosely through the plate, collar and tongue, so as to be rotatable and vertically movable therein, said shaft provided upon its upper end with a stop, medially with an enlargement or shoulder, and having its lower end bifurcated, a caster wheel journaled in the lower bifurcated portion, and a coiled spring encircling the shaft between the collar and tongue, and adapted to normally hold the forward end of the spring against the shoulder or enlargement, substantially as set forth.

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

JOHN S. FAULKNER.

Witnesses:

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