No. 644,534. Patented Feb. 27, 1900.

# J. J. NAGLEY.

## TONGUE SUPPORT.

(Application filed July 18, 1899.)

(No Model.)

Fig. 1.

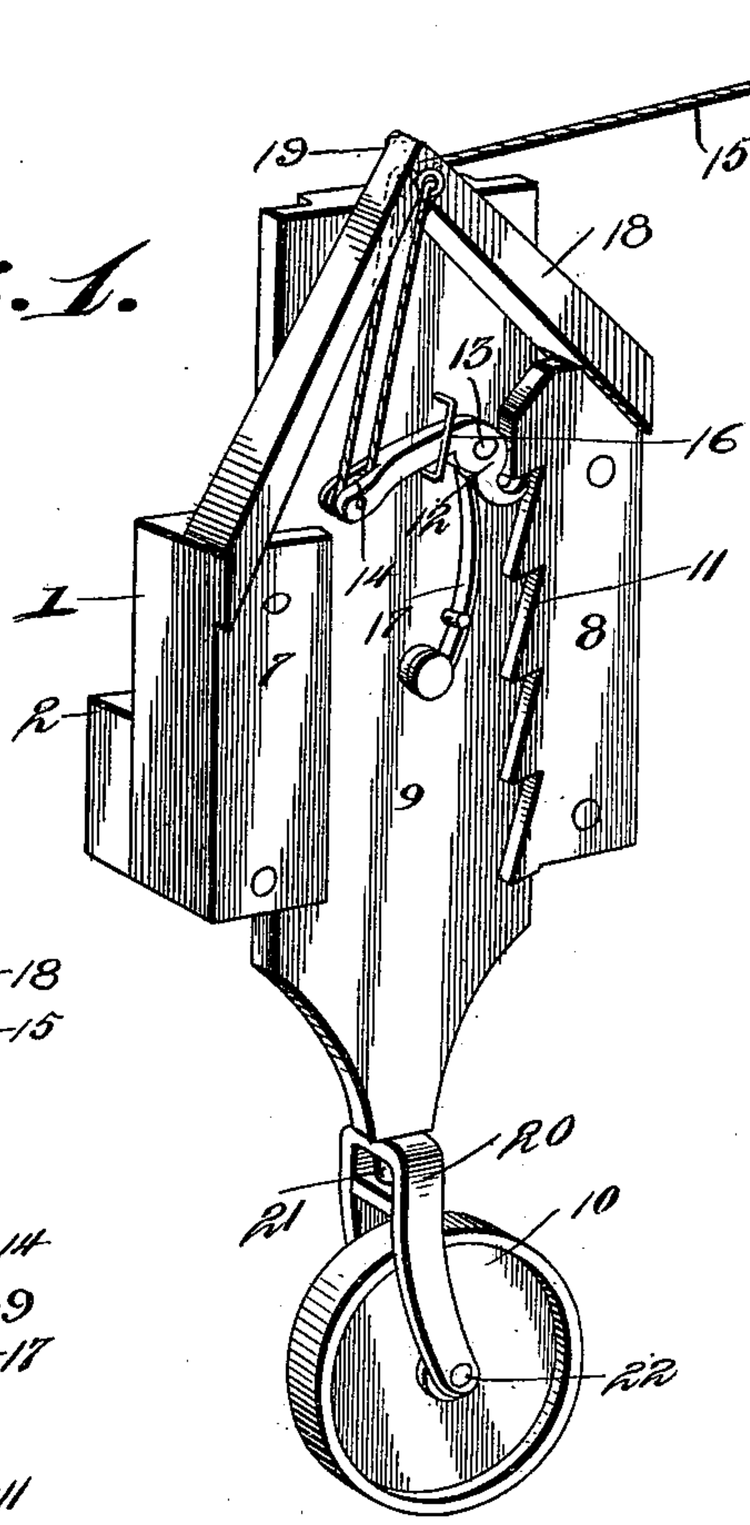



Fig. 2.

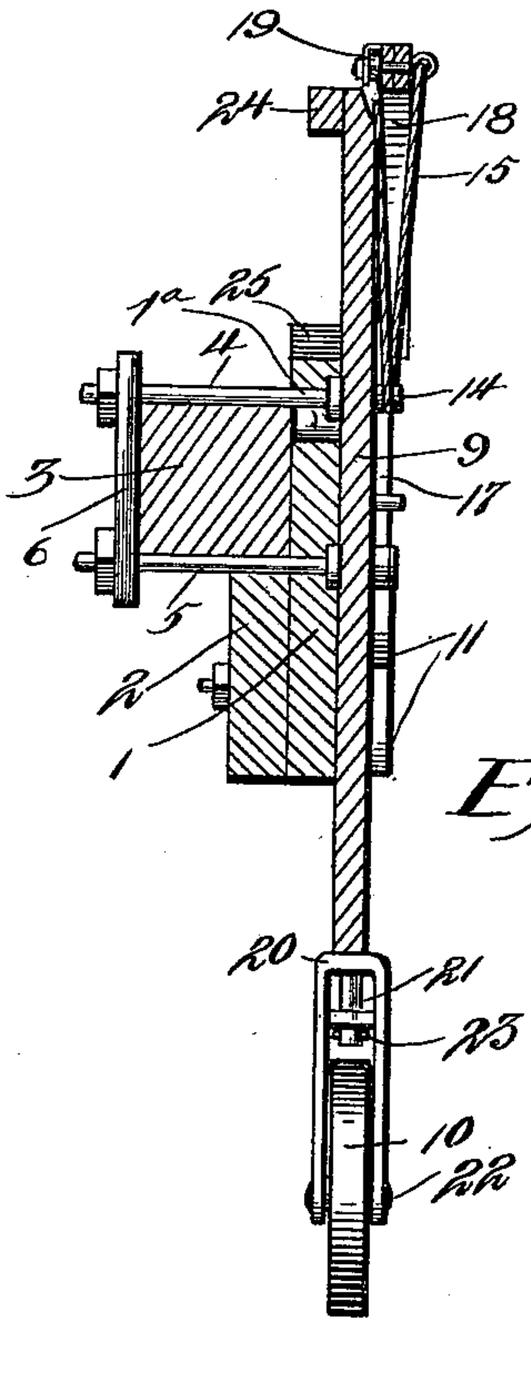
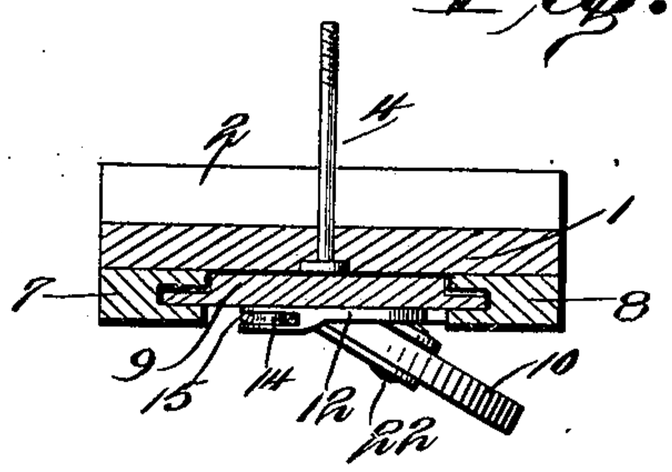



Fig. 3.




Witnesses
Clarence H. Walker
T. J. Riley

Jefferson J. Nagley Inventor
By his Attorneys,
Church & Co.

# UNITED STATES PATENT OFFICE.

JEFFERSON JACKSON NAGLEY, OF MARYSVILLE, WASHINGTON, ASSIGNOR OF ONE-HALF TO HORACE W. NAGLEY AND GUY J. NAGLEY, OF SAME PLACE.

## TONGUE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 644,534, dated February 27, 1900.

Application filed July 18, 1899. Serial No. 724,294. (No model.)

*To all whom it may concern:*

Be it known that I, JEFFERSON JACKSON NAGLEY, a citizen of the United States, residing at Marysville, in the county of Snohomish and State of Washington, have invented a new and useful Tongue-Support, of which the following is a specification.

The invention relates to improvements in tongue-supports.

One object of the present invention is to improve the construction of tongue-supports and to provide a simple, inexpensive, and efficient one designed to be applied to the poles or draft-beams of binders, harvesters, mowing-machines, and the like and adapted to relieve the necks of the draft-animals from the weight of an unbalanced machine while the driver is off the seat of the same.

A further object of the invention is to enable the tongue-support to be readily adjusted by the driver without leaving his position, so that it may be arranged to afford a firm support for the draft-beam or tongue before the driver leaves the machine.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a tougue-support constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the same, showing it applied to a tongue. Fig. 3 is a horizontal sectional view.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates the body portion of the tongue-support, and this body portion, which consists of a bar, is provided with a shoulder 2, formed by a transverse cleat secured to the bar at the bottom thereof and adapted to fit against the lower face of a draft-beam or tongue 3, to which the tongue-support is secured by a clip, consisting of upper and lower bolts 4 and 5 and a connecting plate or strap 6. The bolts 4 and 5, which pass through the bar or body 1, have their heads countersunk in the inner face of the same, and the plate, which connects the threaded ends of the bolts, is secured to the same by nuts, as clearly illustrated in Fig. 2 of the accompanying drawings. The opening in the body 1 through which the bolt 4 projects is formed into a slot, so that the support can be adjusted to tongues of different sizes. The body is provided with a slot $1^a$, disposed vertically and receiving the upper bolt 4 and adapted to permit the bolt 4 to be arranged at different points to accommodate draft-beams or tongues of different sizes. The clip-plate may be provided with perforations to receive the threaded end of the bolt 4, or clips of different sizes may be used. The plate or body is provided at opposite sides with ways formed by grooved pieces 7 and 8 and receiving a vertically-movable slide 9, which carries a caster-wheel 10. The grooved pieces 7 and 8 are provided with inner and outer longitudinal flanges, and the outer flanges of the piece 8 is provided with a series of ratchet-teeth 11, which are engaged by a pawl or dog 12 of the slide, whereby the latter is secured at the desired adjustment. The way 8, which is provided with ratchet-teeth 11, is longer than the way 7, and its flange is beveled at the top, as clearly shown in Fig. 1 of the drawings, so that the dog in moving downward may pass it readily.

The pawl or dog 12, which is pivoted between its ends at 13, has its lower portion engaging the ratchet-teeth, and its upper end is provided with a pulley 14, over which passes an operating-cord 15, designed to extend back to the seat of the driver to enable him to manipulate the slide and adjust the tongue-support to lower the same before he leaves his seat, so that the tongue or draft-beam will be firmly supported when he steps from the same, thereby relieving the draft-animals and in a great measure preventing their necks from becoming sore. The upper portion of the dog is arranged within a keeper 16, which limits its movement, and its lower end, which interlocks with the ratchet-teeth, is engaged by a spring 17, which holds the dog normally in contact with the teeth.

The strength of the spring is sufficient to throw the dog into engagement with the ratchet-teeth when there is no strain on the operating-cord, and the weight of the slide is

sufficient to counteract the effect of the spring when the operating-cord is pulled gently. By this construction the dog may be disengaged from the ratchet-teeth, and the slide may be lowered by gradually paying out the operating-cord. When the operating-cord is drawn rearward, the slide will be moved upward, and by securing the end of the cord to a ring upon the seat the slide is held in its raised position.

One end of the operating-cord is secured to a substantially V-shaped support 18, secured at the lower ends of its sides to the upper terminals of the pieces 7 and 8 of the bar or body, and it is provided at its apex, which is located above the upper end of the body, with a sheave or pulley 19, over which the operating-cord passes in extending upward from the dog. A ring or any other suitable fastening device is designed to be provided adjacent to the seat for the attachment of the rear end of the operating-cord.

The caster-wheel is mounted in a fork or frame 20, composed of parallel sides and connecting cross-pieces arranged at the top of the fork or frame and provided with registering perforations, through which pass a depending shank 21 of the slide. The lower ends of the sides of the fork or frame are provided with a perforation for the reception of the shaft or spindle 22, upon which the caster-wheel is mounted. The fork or frame is retained on the shank of the slide by means of a suitable fastening device consisting, preferably, of a pin or key 23, arranged beneath the second cross-piece, as clearly illustrated in Fig. 2 of the accompanying drawings. The upper end of the slide is provided at its rear face with a projection or stop 24, arranged to engage the top of the bar or body 1, which is provided thereat with a recess 25, adapted to receive the stop when the slide is lowered to its fullest extent. The stop 24 limits the downward movement of the slide and prevents the same from dropping too low.

The invention has the following advantages: The tongue-support, which is simple and comparatively inexpensive in construction, is adapted to be readily applied to the tongue or draft-beam of a binder, harvester, or similar heavy machine. It will drop by gravity the desired extent when the dog is disengaged from the ratchet-teeth by the operator, as it has sufficient weight to overcome the force of the spring when the operating-rope is paid out slowly, and it is adapted to relieve the necks of draft-animals of the weight of an unbalanced machine when the driver is leaving his seat and while he is off of the same.

In operation when it is desired to use the support the driver before leaving his seat and while his weight is counterbalancing the weight of the tongue releases the end of the cord from the seat and gently pays it out, which will permit the slide to fall by gravity until its lower end or the caster 20 rests upon the ground. The strain upon the cord is then removed, when the spring 17 will cause the pawl 12 to engage with the ratchet-teeth 11 and prevent the return movement of the slide, thereby holding the tongue in its normal position. While thus supported the driver may leave his seat without the possibility of the weight of the tongue being thrown upon the necks of the horses. As soon, however, as the driver resumes his seat upon the machine his weight will counterbalance the weight of the tongue and remove the downward pressure from the support, when by pulling upon the cord the pawl is disengaged from the ratchet-teeth and the slide is drawn to its elevated position, where it is secured by fastening the end of the cord to a ring or hook upon the seat. If the team should move while the slide is in its lower position, the caster at its lower end will move over the ground in any direction, and thereby prevent any damage being done to the support.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. A tongue-support comprising a body provided with ways and having ratchet-teeth, a slide mounted in the ways, a dog pivotally mounted on the slide and normally engaging the ratchet-teeth, and an operating-cord connected with the dog and with the body, whereby the slide may be raised and lowered by the driver, substantially as described.

2. A tongue-support comprising a body provided with ways and having ratchet-teeth, a slide mounted in the ways and provided with a caster-wheel, a dog mounted on the slide and engaging the ratchet-teeth, and an operating-cord connected with the slide and adapted to operate the dog, substantially as described.

3. A tongue-support comprising a body designed to be secured to a tongue and provided with ratchet-teeth, a slide mounted on the body, a dog pivotally mounted on the slide, engaging the ratchet-teeth and provided with a pulley, a support arranged at the top of the body and having a pulley, and an operating-cord extending from the dog to the support, secured at one end to the latter and passing over the said pulleys, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JEFFERSON JACKSON NAGLEY.

Witnesses:
F. M. NAGLEY,
L. J. NAGLEY.