(No Model.)

W. B. DAVIS.

TONGUE SUPPORT.

No. 419,837. Patented Jan. 21, 1890.

Fig. 1.

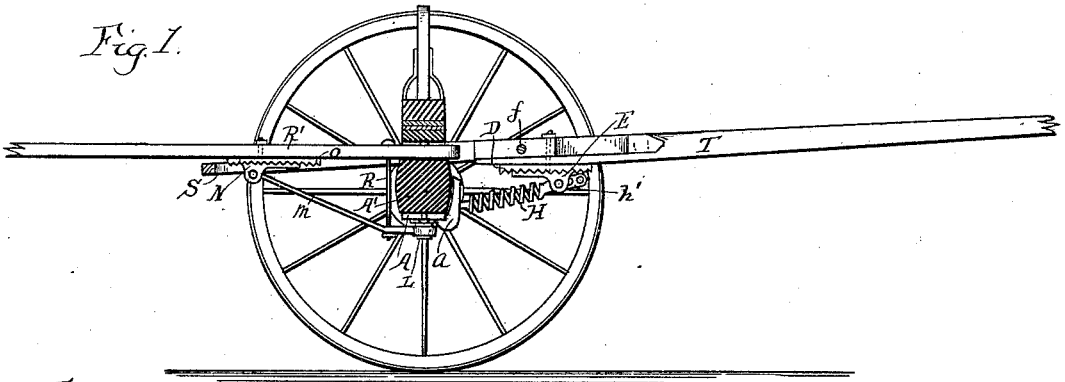


Fig. 2.

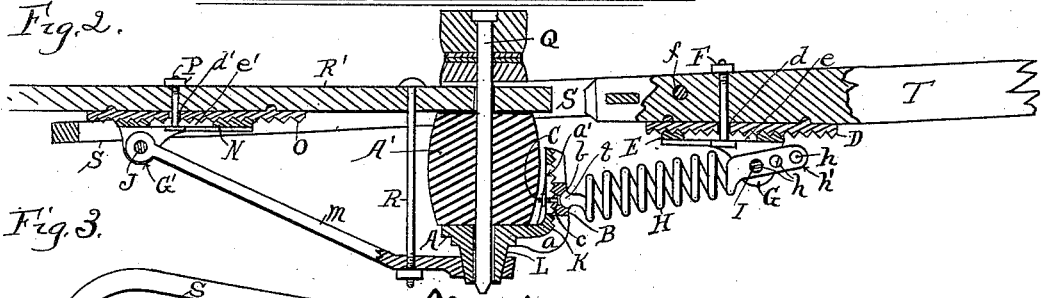


Fig. 3.

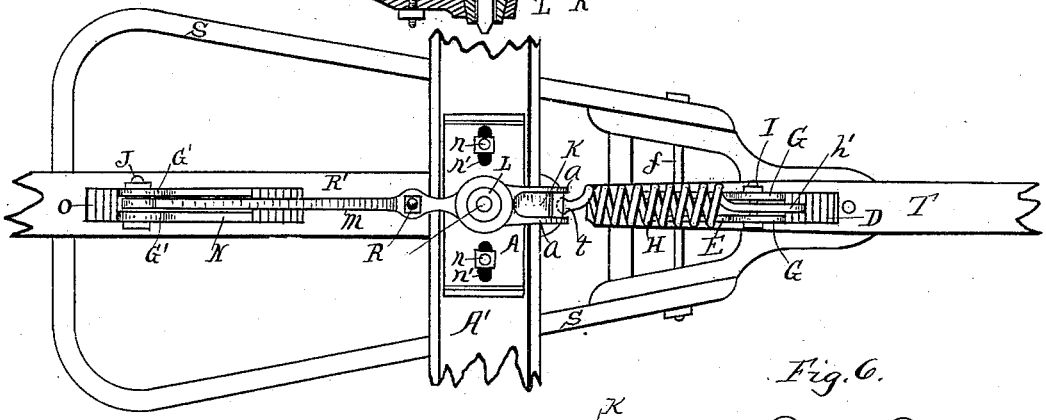


Fig. 4.

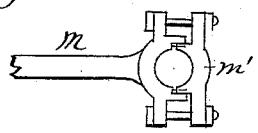


Fig. 5.

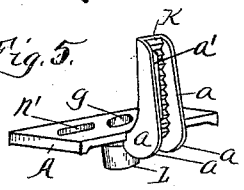


Fig. 6.

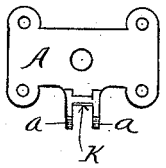
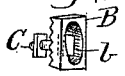


Fig. 7.



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UNITED STATES PATENT OFFICE.

WALTER B. DAVIS, OF WICHITA, KANSAS.

TONGUE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 419,837, dated January 21, 1890.

Application filed January 15, 1889. Serial No. 296,378. (No model.)

To all whom it may concern:

Be it known that I, WALTER B. DAVIS, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented new and useful Improvements in Wagon-Tongue Supports, of which the following is a specification.

The invention relates to improvements in wagon-tongue supports; and it consists in a certain novel construction and combination of devices, fully described hereinafter in connection with the accompanying drawings, and specifically pointed out in the claims.

In the drawings, Figure 1 is a longitudinal vertical sectional view of a portion of a vehicle at one side from its center, and a side view of my improved tongue-support applied thereto. Fig. 2 is a central vertical longitudinal section of a portion of the vehicle having my improved support applied thereto, the parts thereof connecting the vehicle being represented in similar section. Fig. 3 is a bottom plan view of a portion of the vehicle having the tongue-support applied thereto. Fig. 4 is a plan view of the forward end of the reach-brace, showing an adjustable bearing. Fig. 5 is a perspective view of the axle-plate. Fig. 6 is a top plan view of the axle-plate of a construction adapting it to be held to the axle by clips, and Fig. 7 is a perspective view of the spring socket-block and its securing-bolt.

This invention relates to certain improvements in tongue-supports for yieldingly supporting the vehicle-tongue, to which it is applied at any desired height off the ground by means of adjusting its parts to accommodate the position, for bracing the axle to prevent it being turned by reason of side pressure of the supporting-spring, and for relieving the hounds-slide from contact with the reach by means of said axle-brace; and it consists of an axle-plate having a central depending spindle and a forward upright flanged plate serrated and slotted between its flanges for adjustably supporting a socket-block, having a corresponding serrated surface, between said flanges by means of a securing-bolt, of an extensile spring adjustably connected to the under part of the vehicle-tongue and terminating at its rear end with a socket ball or enlargement bearing in the socket-block supported by means of the axle-plate, and of a brace adjustably connected to the under part of the vehicle-reach and terminating at its forward end, with an eye-bearing fitting over the depending spindle of the axle-plate, and thus supported by means of a bolt through the brace and reach a distance from the axle.

Referring to the drawings, A′ represents the vehicle-axle, S S the hounds, T the tongue, *f* the draw-bar, R′ the reach, and Q the king-bolt, which are of the usual construction, and to which axle, tongue, and reach I secure my device.

A represents the axle-plate, and has formed integral therewith the depending spindle L and the upright serrated plate K, having the vertical slot *a′* and side flanges *a a*, which flanges serve both as guides for the sides of said plate and as braces for giving strength thereto.

Plate A is centrally secured to axle A′ by means of bolts *n n* in slots *n′ n′*, as shown in Fig. 3, in such manner as to support upright K at or near the front side of the axle. If desired, plate A may be formed with side holes, as shown in Fig. 6, and held to the axle by means of clips, which are necessary when applied to an iron axle.

B represents the socket-block, having the face-socket *b* and a central perforation *c* (see Fig. 2) and a rear serrated surface, and is adapted to be adjustably seated against the forward serrated surface of plate K between flanges *a a* and held when adjusted by means of bolt C, which engages in perforation *c* and plate-slot *a′*. This socket may, however, be cast integral with plate K; or it may be dispensed with and the spring bear directly against plate K between flanges *a a*.

D is a serrated plate arranged at the under side of tongue T and has a perforation *d*.

E is an adjustable block having a serrated surface corresponding with plate D and a longitudinal slot *e*, arranged to register with perforation *d* when the two serrated parts are in position and held to the tongue by means of bolt F, arranged through said slot and perforation and a hole through the tongue, and G G are a pair of depending ear-lugs integral with said block E.

H is the extensile spring, and has one end h' flattened and provided with a series of holes h, and is secured between lugs G by means of bolt I, as shown. The opposite end of the spring terminates with the socket-bearing t, arranged resting in the socket of block B. By adjusting block E or the flat portion h' of the spring the tongue may be supported by the spring at any desired position and adapted to be either raised or lowered by lifting the spring from its socket or compressing it, and when the tongue is released the spring will cause it to resume its proper position.

O is a plate, a duplicate of plate D, and is arranged at the under side of reach R′, forward of the hounds-slide, and N is a block having a pair of ear-lugs G′ G′, a duplicate of block E, and is secured to the reach in contact with plate O by means of bolt P, arranged through slot e' and perforation d' and a hole through reach R′.

M is the reach-brace, and is provided with an eye-bearing between lugs G′ G′, secured by means of bolt J, and with an opposite eye-bearing sleeved on depending spindle L of the axle-plate, and R is a bolt arranged through a hole in the brace and reach R′, a little in the rear of the axle, and supports the forward end of said brace in such manner as to hold it in close contact with the spindle and to permit the spindle to turn within its bearing.

By observing Fig. 2 it will be seen that I construct the spindle L and brace-bearing tapering, which causes them, under the yielding strain of bolt R, to constantly seek a close bearing, where it is necessary to construct the spindle; otherwise lost motion of the spindle and brace may be taken up by providing the brace with the adjustable section m', as shown in Fig. 4.

Spindle L is represented as hollow, (see Fig. 5, shown at g, also, in other views,) and when the king-bolt is long enough it may be seated therein, as shown in Fig. 2; but it is not necessary to thus construct it, as it can as well be solid, and, if necessary, cut off the king-bolt at the lower surface of the axle.

It will be understood that in all vehicles of this class the hounds S S are connected to move with the axle, and by reference to Fig. 2 it will be clearly observed that by bracing the axle from the reach, as I have shown, and adjusting the brace to hold the hounds-slide from contact with the reach, the hounds-slide cannot then engage the reach, and thus prevents the vehicle from wear at that place, while without the brace M greater wear than is ordinary would be caused by reason of the tendency of spring H to bear against the front of the axle, and when turned back would cause the hounds-slide to bear hard against the reach.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

1. The combination of the block N, secured to the reach of a vehicle and provided with the depending perforated ears G′, the axle-plate A, having the depending spindle L and upright plate K, the brace M, provided with the bearing at its forward end arranged on said spindle and an eye at its rear end between said ears, the bolt J, engaging said eye and ear perforations and securing the brace, and the extensile spring H, secured to the vehicle-tongue at its forward end and bearing against the upright of said axle-plate at its rear end, substantially as and for the purpose set forth.

2. In combination with the extensile spring H and the brace M, the axle-plate A, having the depending spindle L, and the integral flanged upright plate K, substantially as and for the purpose set forth.

3. In combination with the extensile spring H, the axle-plate A, having the spindle L and the integral flanged upright plate K, and the socket-block B and its securing-bolt C, substantially as and for the purpose set forth.

4. In a tongue-support, the combination, with the extensile spring, of the plate secured to the axle and having a depending spindle and an integral upright support for the end of the spring to bear against, and the brace having its front end pivoted on the spindle and its rear end secured to the reach, substantially as set forth.

5. In a tongue-support, the combination of the plate secured to the axle and having a depending spindle, the brace having its front end pivoted on the spindle and its rear end secured to the reach, and the bolt passing through the reach and the brace in the rear of the axle, substantially as set forth.

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

WALTER B. DAVIS.

Witnesses:
WILLARD BLEAKMORE,
HUGH E. MCELROY.