

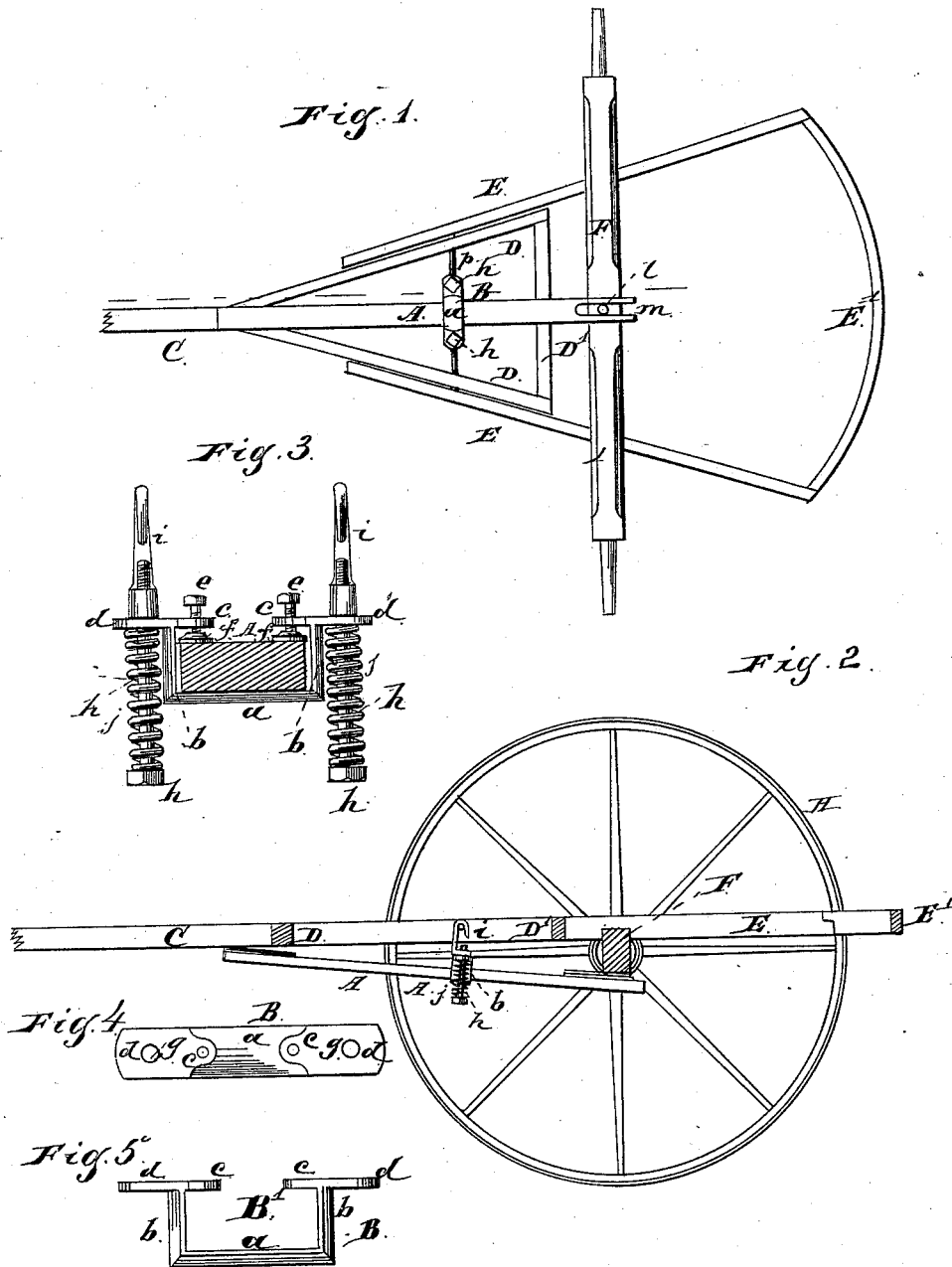
(No Model.)

G. F. WINGATE.

TONGUE SUPPORT.

No. 302,303.

Patented July 22, 1884.



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# UNITED STATES PATENT OFFICE.

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## TONGUE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 302,303, dated July 22, 1884.

Application filed June 23, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE F. WINGATE, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented new and useful Improvements in Wagon-Tongue Supports, of which the following is a full description, reference being had to the accompanying drawings, in which—

10 Figure 1 is an under side view of the front axle and gear of a wagon with the wheels removed; Fig. 2, a longitudinal section of the front axle and gear with support in elevation; Fig. 3, an elevation of the hanger with the bar in section; Fig. 4, a top or plan view of the hanger-plate; Fig. 5, a side elevation of the same.

Only the forward axle with the hounds and tongue of a wagon are shown, as those parts are all that is necessary to illustrate the application of the tongue-supporting devices which form the subject-matter of the invention.

15 This invention relates to devices to be used with the tongue or pole of a wagon or vehicle to keep the weight off the necks of the horses, and has for its principal object to connect or attach the support by a connection that will permit the forward end of the pole to be raised or lowered to adjust the elevation to accommodate the height of the horses, and thereby have the same support adapted for use on different wagons or vehicles and for different horses; and its nature consists in providing a stirrup or hanger formed of a strap or plate adapted to encircle or partly encircle the tongue or pole supporting bar or piece, to which it is attached by clamping-screws or otherwise, and having ears or flanges with openings for the passage of rods or bolts to receive the attaching or connecting hooks; in providing tension or resisting springs, located around the hook-bolts between the head of the bolt and the ear or flange through which the bolt passes; in the novel and peculiar arrangement of the encircling strap or plates, the hooks and hook-bolts, and the resisting-springs in their relation to each other and to the tongue or pole supporting piece, and in providing a tongue or pole support formed of a supporting bar or piece having thereon an adjustable encircling strap or plate carrying de-

vices consisting of a hook, a hook-bolt, and a resisting-spring, as hereinafter more specifically pointed out and set forth as new.

In the drawings, A represents a piece of wood or other suitable material of a sufficient length to allow its rear end to come beneath the front axle, and its front end beneath the tongue at the required distance forward to keep the front end of the tongue in an elevated position. The length of this bar or piece A will vary with different styles of vehicles; but in all cases the length must be such as to bring the point of contact on the tongue sufficiently far forward to bear or receive the weight of the tongue or pole, the piece or bar possessing the necessary rigidity to support or hold the tongue.

B is a strap made of iron or other suitable material, which can be cast or otherwise formed to have a base or main portion, *a*, and sides or vertical portions *b*, forming a space, *B'*, of sufficient dimensions for the bar or piece A to be placed or passed therein. The sides or vertical portions *b* have at their end each an inwardly-projecting lug or flange, *c*, and an outwardly-projecting ear or flange, *d*, and, as shown, this strap or plate B has its several parts *a*, *b*, *c*, and *d* all formed together; but the form and arrangement of these parts may be varied or changed from that shown to adapt the strap for use with bars or pieces A of a different form than the one shown. As shown, the opening *B'* of this strap or plate is rectangular to correspond with the shape of the bar or piece A; but the parts can be changed to produce some other shape or form of opening *B'*. Each ear *c* has a screw-threaded opening for the passage of a bolt, *e*, the lower end of which enters a cap, *f*, and is free to turn therein without turning the cap. These bolts *e*, with their caps *f*, are for the purpose of clamping the plate or bar B to the bar or piece A. By their use it will be seen that the position of the plate or strap on the bar or piece can be adjusted forward or back, so as to bring it in line with the queen-bolt or other point of connection with the tongue or the hounds of the tongue, and to make this adjustment all that is necessary to be done is to loosen the bolts *e*, moving the strap or plate B to the point required, and then set the plate down again, and by using non-revolving washers or caps *f* the

adjusting of the strap or plate will not wear or tear the bar or piece, as would be the case if the caps or plates rotated with the bolt; but, if desired, a plate or strip of metal might be placed on the piece or bar A on each side, in line with the respective bolts *e*, against which the ends of the bolt would come, in which case the washers or plates *f* could be dispensed with. Each ear *d* has an opening, *g*, for the passage of a rod or bolt, *h*, the upper end of which is secured thereto. On the upper end of each rod or bolt *h* is a hook, *i*, the end or hook portion of which is adapted to be placed or hooked over the coupling rod or bolt of the tongue, or to be hooked over a stud or other projection, or hooked through an eye or loop located on the tongue support or hound, or attached in some other manner to a fixed point, and the lower end or base of each hook has a screw-threaded opening for the passage of the screw-threaded end of its rod or bolt *h*, by means of which the hook and bolt are joined together.

Around the stem of each bolt, and between its head and the face of the flange *d*, is a coiled spring, *j*, which spring forms a yielding support for the plate or strap B, allowing the piece or bar A to yield or spring in case the forward end of the tongue is thrown down, taking the strain from off the horses' necks in such case. These springs *j* should possess sufficient resistance to hold the bar or piece A firmly in position under ordinary circumstances, and at the same time allow the bar or piece to drop when the forward end of the tongue is thrown down, and the amount of resistance which they possess can be adjusted by screwing up the bolt or rod *h*, so as to compact the coils between the head of the bolt and the ear or flange *d*. As shown, the upper end of the bolt or rod *h*, when advanced, is made to enter the opening between the end of the hook and the body or shank thereof, and thereby form a lock to prevent the hook being accidentally thrown off the devices to which it is attached; but this is not absolutely required, as other means might be used for locking the hook in place.

C is the tongue; D, the hounds of the tongue, united at their rear ends by a cross-bar, D'; E, the hounds of the front axle, united at their rear ends by a cross-piece, E'; F, the front axle. These parts represented by the letters C, D, D', E, E', and F may be of the form of construction and arrangement shown, or of any other well-known form of construction and arrangement. The hounds D are secured to the front ends of the hounds E by a bolt, *k*, as usual, and the front axle has the ordinary king-bolt, *l*, for the front bolster. As shown, the rear end of the bar A is provided with a slot, *m*, forming a fork to straddle the

bolt *l*. The object of this is to allow the bar A to be adjusted farther forward or farther back, as required, to bring its front end at the proper point beneath the tongue to support the front end of the tongue free from the necks of the horses, which point will vary with different lengths of tongues and with different-sized horses.

In use the bar A is inserted in the hanger or stirrup B, and the hooks *i* are hooked over the queen-bolt *k*. The rear end of the bar A is made to straddle the king-bolt *l*, and the front end is adjusted by moving the bar in the stirrup until the proper bearing-point on the tongue is reached, when the stirrup and bar are secured together by screwing down the clamping-bolts *e*, leaving the parts in the position shown in Fig. 2, with the tongue resting on the front end of the bar A and the rear end of the bar in contact with the front axle, F. The tension or resistance of the bar A can be regulated by the bolts *h*, which can be made to compress or loosen the springs *j*, as required, to give the proper resistance, and when in place the device cannot be readily detached or become displaced, for the reason that the screw end of the bolt *h* forms, with the point of the hook, a guard or stop by which the hooks cannot be thrown up so as to be released from the queen-bolt.

The device is very simple, can be readily and quickly applied and adjusted to give just the proper amount of resistance, and when in place is not liable to become detached accidentally; and it will also be seen that the bar A can be made to fit tongues of different lengths by simply adjusting its forward end at the proper point to furnish a support. The slot *m* is not a necessity; but by its use the rear end of the bar A will be held in place and side-play prevented; but, if desired, this rear end might be left solid and rest in contact with the axle without straddling the king-bolt.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. A strap or plate, B, adapted to receive a supporting bar or piece and be clamped or secured thereto, and carrying attaching devices consisting of hooks, screw-threaded rods or bolts, and adjustable resisting-springs, substantially as and for the purposes specified.

2. The bar or support A, in combination with the plate or strap B, set or clamp bolts *e*, rods or bolts *h*, hooks *i*, and adjustable springs *j*, for furnishing a support for the tongue of a wagon or vehicle, substantially in the manner and for the purposes specified.

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