

No. 879,456.

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O. GEERTSMA.
VEHICLE SHAFT.

APPLICATION FILED SEPT. 30, 1907.

Fig. 1.

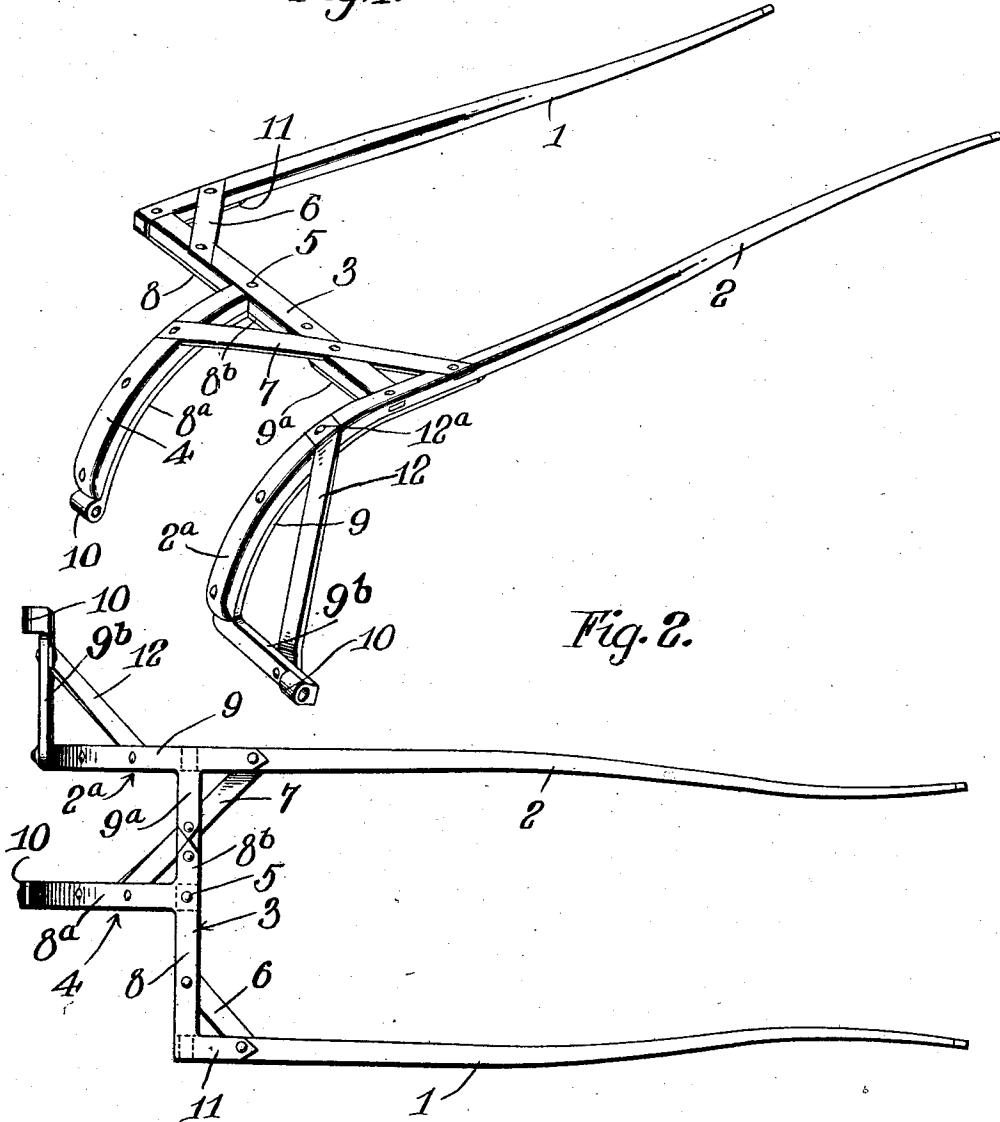


Fig. 2.

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UNITED STATES PATENT OFFICE.

OWEN GEERTSMA, OF BROADLAND, SOUTH DAKOTA.

VEHICLE-SHAFT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OWEN GEERTSMA, a citizen of the United States, residing at Broadland, in the county of Beadle and State of South Dakota, have invented certain new and useful Improvements in Vehicle-Shafts, of which the following is a specification.

This invention relates to vehicles, and particularly to a special construction of shafts for buggies, carriages, or the like.

As is well known in the formation of country roads a two-horse path is usually provided and it is often advantageous if a single draft animal hitched to a vehicle can walk or travel in one of the paths made by two-horse driving. The construction of buggy shafts embodied in the present invention is such as to permit of hitching the horse or other draft animal to the vehicle so that said animal may travel in one of the paths in the road made by driving horses abreast. The above permits the horse to travel much more easily, and furthermore the invention is advantageously employed in rough timber lands, or on stony roads as the driver of the vehicle can readily see ahead of the vehicle and avoid obstacles.

For a full understanding of the invention, and the merits thereof, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a general perspective view of the invention, and Fig. 2 is a bottom plan thereof.

Corresponding and like parts are referred to in all the figures of the drawing by the same reference characters.

Referring to the drawings the numeral 1 designates one of the shafts, while the numeral 2 indicates the other. The shafts 1 and 2 are secured together at the rear end portions thereof by a transverse bar 3. The members 1, 2, and 3 are preferably made of wood in the usual way, said members however being of a peculiar construction as will be readily understood as the description proceeds. The rear most end of the shaft 2 is formed with the downwardly curving portion 2^a which is connected with the axle to which the shafts are attached. The shaft 1 however is not formed in the same manner as the shaft 2, said shaft 1 terminating at the point where it is connected or attached to the transverse bar 3. A coupling member 4 is provided and consists of a curved bar ar-

ranged parallel with the portion 2^a of the shaft 2 and adapted to perform a function similar to that of said portion 2^a. The coupling member 4 is also composed of a wooden body, the front end of which is secured to the cross bar 3 intermediate of the ends of the latter as shown at 5.

In order that the construction of the shafts comprising the invention may be as rigid as is necessary in this class of devices, a short brace 6 connects the shaft 1 with the bar 3, near the rear end of the shaft, and a long diagonal brace 7 is attached at its intermediate portion to the bar 3, the opposite ends of the member 7 being secured to the coupling member 4, and that portion of the shaft 2 in advance of the point of connection of the latter with the bar 3. In other words a single brace 7 is employed to increase the rigidity of the connection between the coupling member 4 and the shaft 2 and member 3.

Shaft irons are employed to attach the shafts to the vehicle axle, said irons being designated 8 and 9. The iron 8 is of somewhat T-shape comprising a curved body portion 8^a, secured to the coupling member 4 beneath the latter, the lower extremity of the body portion 8^a being provided with the thill eye 10. The transverse head portion 8^b of the iron 8 is secured to the cross bar 3 beneath the latter, and an extension 11 projects from the outermost portion of said member 8^b. The extension 11 is attached to the shorter shaft or thill 1. The shaft iron 9 is secured to the shaft 2 and is also provided with a thill eye 10. Said iron 9 is arranged beneath the shaft 2 and extends along the curved rear end portion thereof to a point in front of the bar 3. A lateral arm 9^a of the iron 9 is attached to the bar 3 beneath the latter. A brace 12 connects the outer end of a lateral extension 9^b projecting from the lower portion of the iron 9 with that portion of the shaft 2 just in rear of the point of connection of the cross bar 3, as shown at 12^a. Said extension 9^b has the thill eye 10 described above as provided for the member 9.

The construction of the shafts as above described and the manner of bracing the same and making them entirely rigid is very desirable in view of the fact that it is necessary that the shafts be possessed of extreme substantiality for the purposes for which they are employed. The arrangement of the coupling member 4 relative to the shaft

2 is such that when a draft animal is hitched to the shafts, said animal will be arranged at one side of a central line passing through the vehicle to which the shafts are attached, 5 thereby permitting the draft animal to readily travel in one of the paths made by driving two horses along roads. As before premised the location of the draft animal when hitched to shafts comprising my invention 10 is also desirable as the animal does not interfere with the view in front of the vehicle, thereby permitting the driver to readily avoid obstacles such as large stones, tree stumps, etc.

15 Having thus described the invention, what is claimed as new, is:—

In combination, a pair of shafts, one of the shafts embodying a downwardly curved rear end portion, a cross bar connecting said 20 shafts, a coupling member shaped similarly to the downwardly curved end of the aforesaid shaft and attached at its front end to

the cross bar between the ends of the latter, a brace member extending diagonally with reference to the shafts and attached between 25 its ends to the cross bar; means securing the rear end of the brace member to the coupling member and its front end to the shaft having the curved rear end, a shaft iron secured to the coupling member and attached to the 30 cross bar, another shaft iron secured to the rear downwardly curved end of the first mentioned shaft and having a lateral extension projecting outwardly from said shaft and provided with a thill eye, and a brace connect- 35 ing said extension at its outer end with the adjacent shaft.

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

OWEN GEERTSMA.

Witnesses:

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