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O. G. CRANSTON.
SHAFT ATTACHMENT FOR VEHICLES.

APPLICATION FILED DEC. 5, 1905.

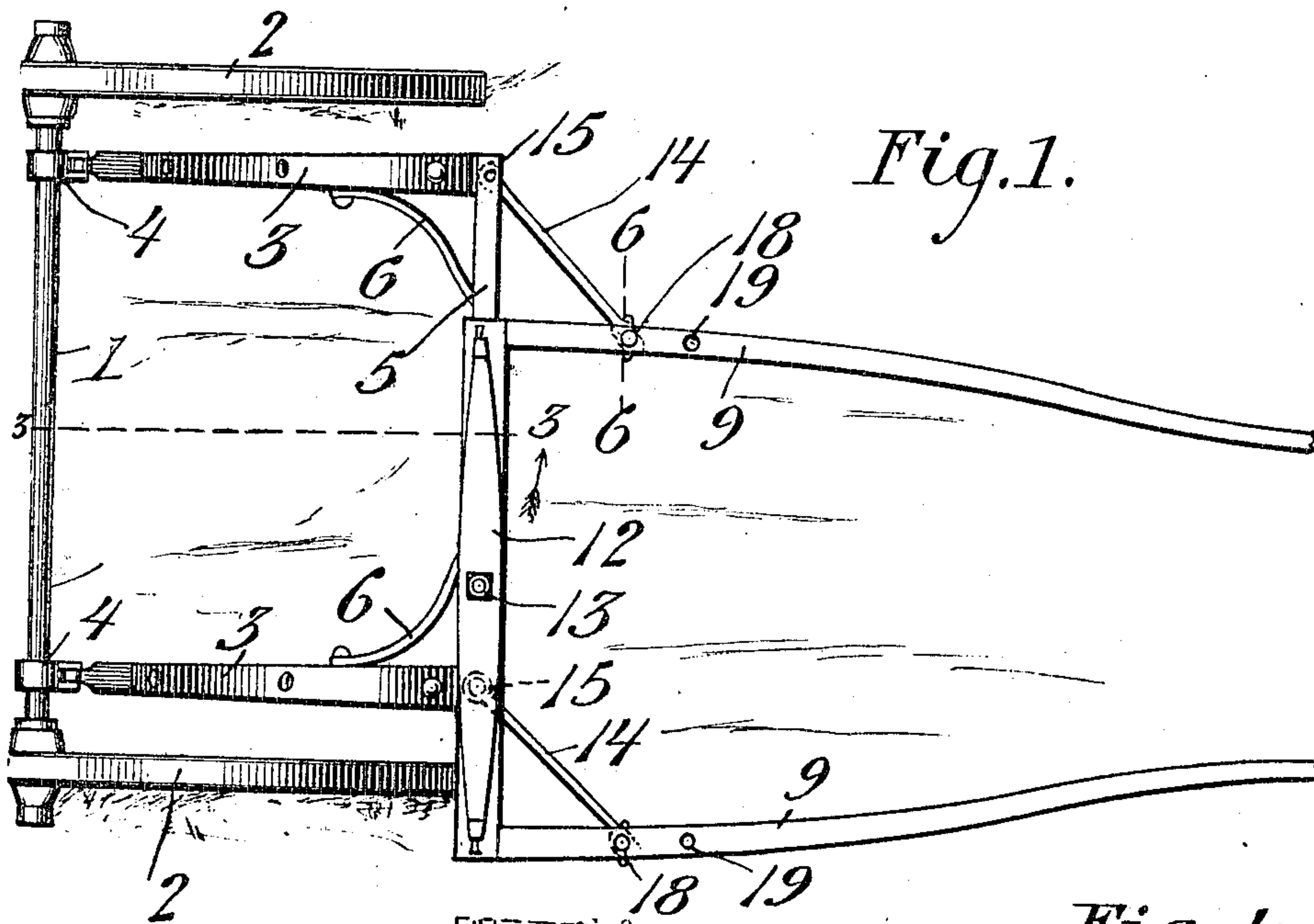


Fig. 1.

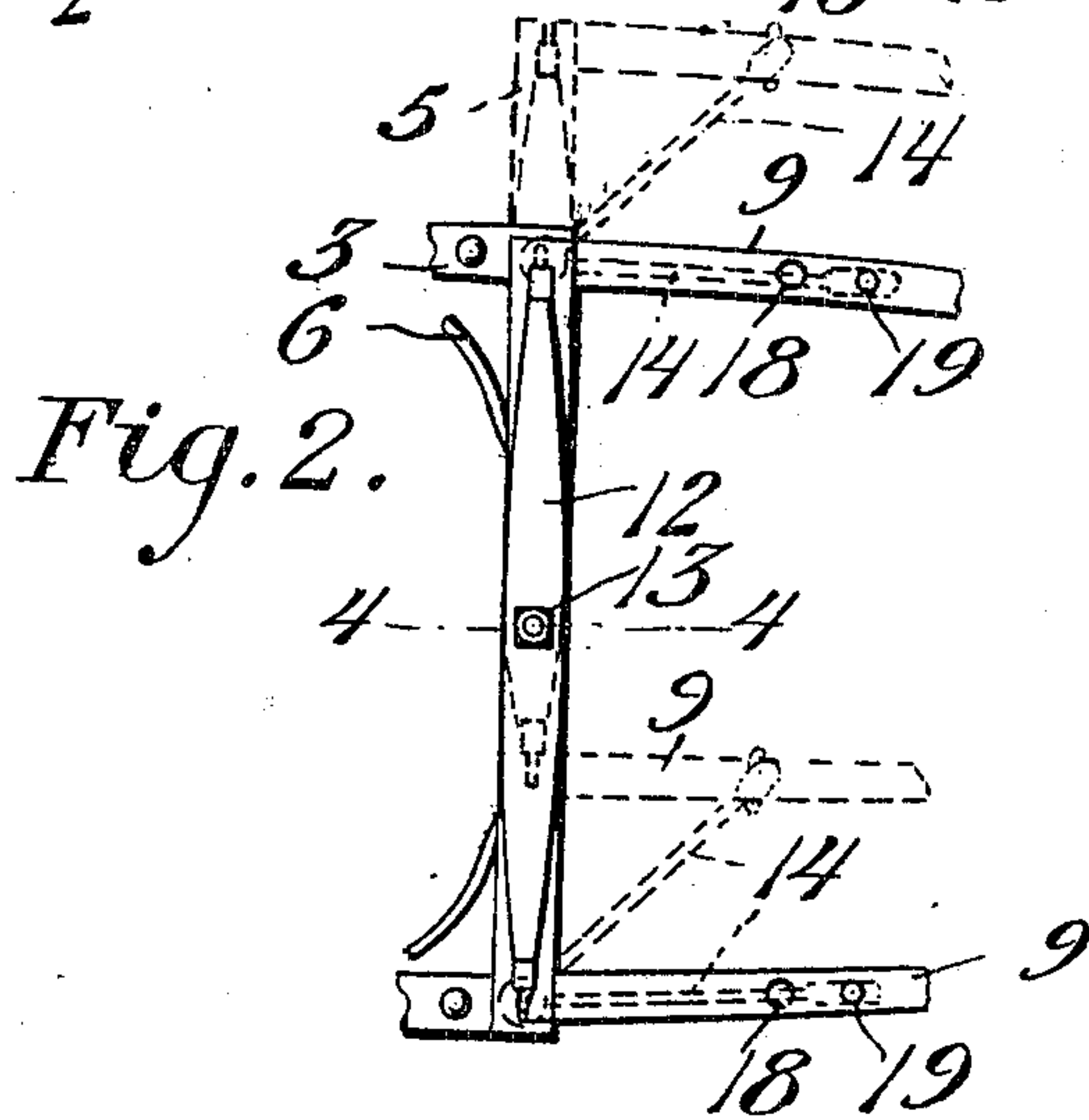


Fig. 2.

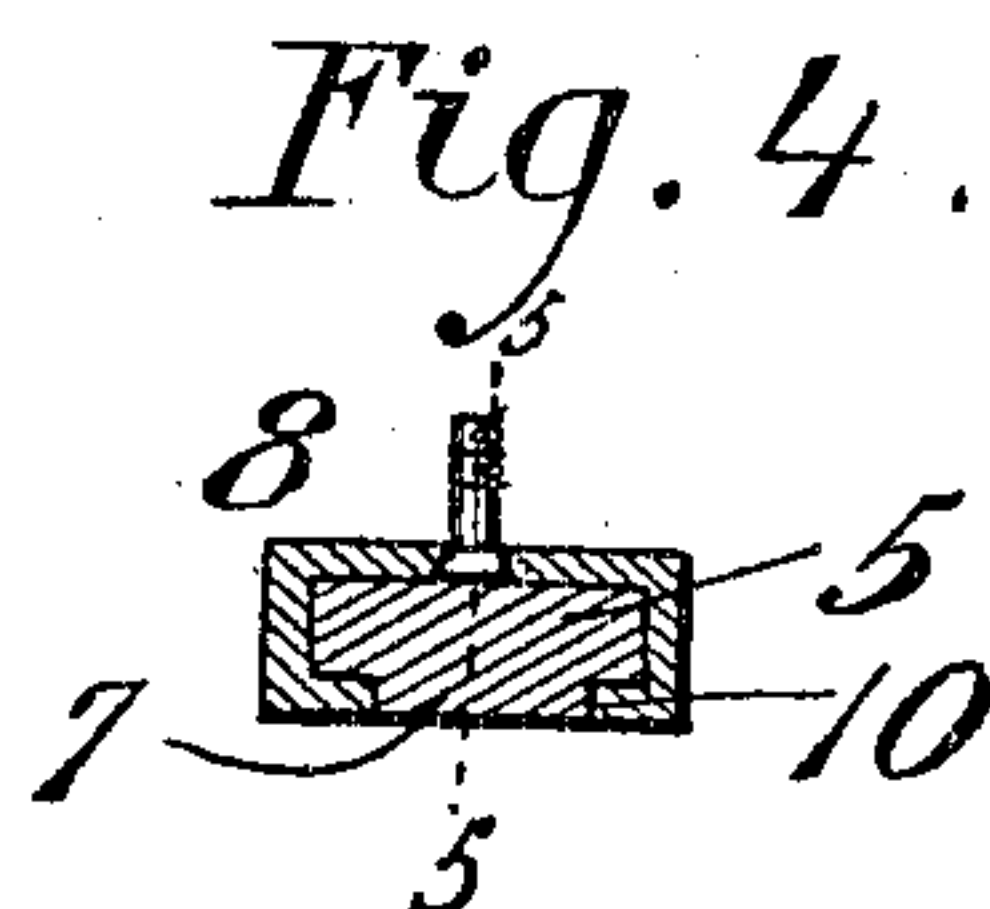


Fig. 4.

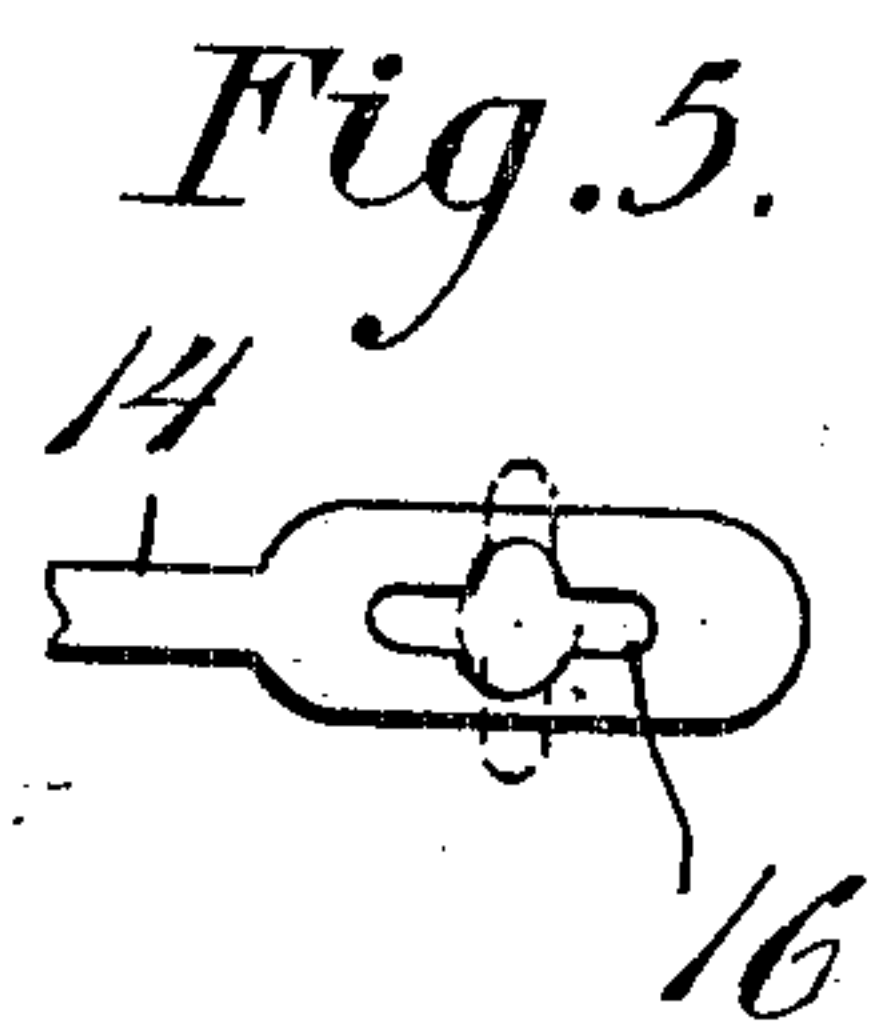


Fig. 5.

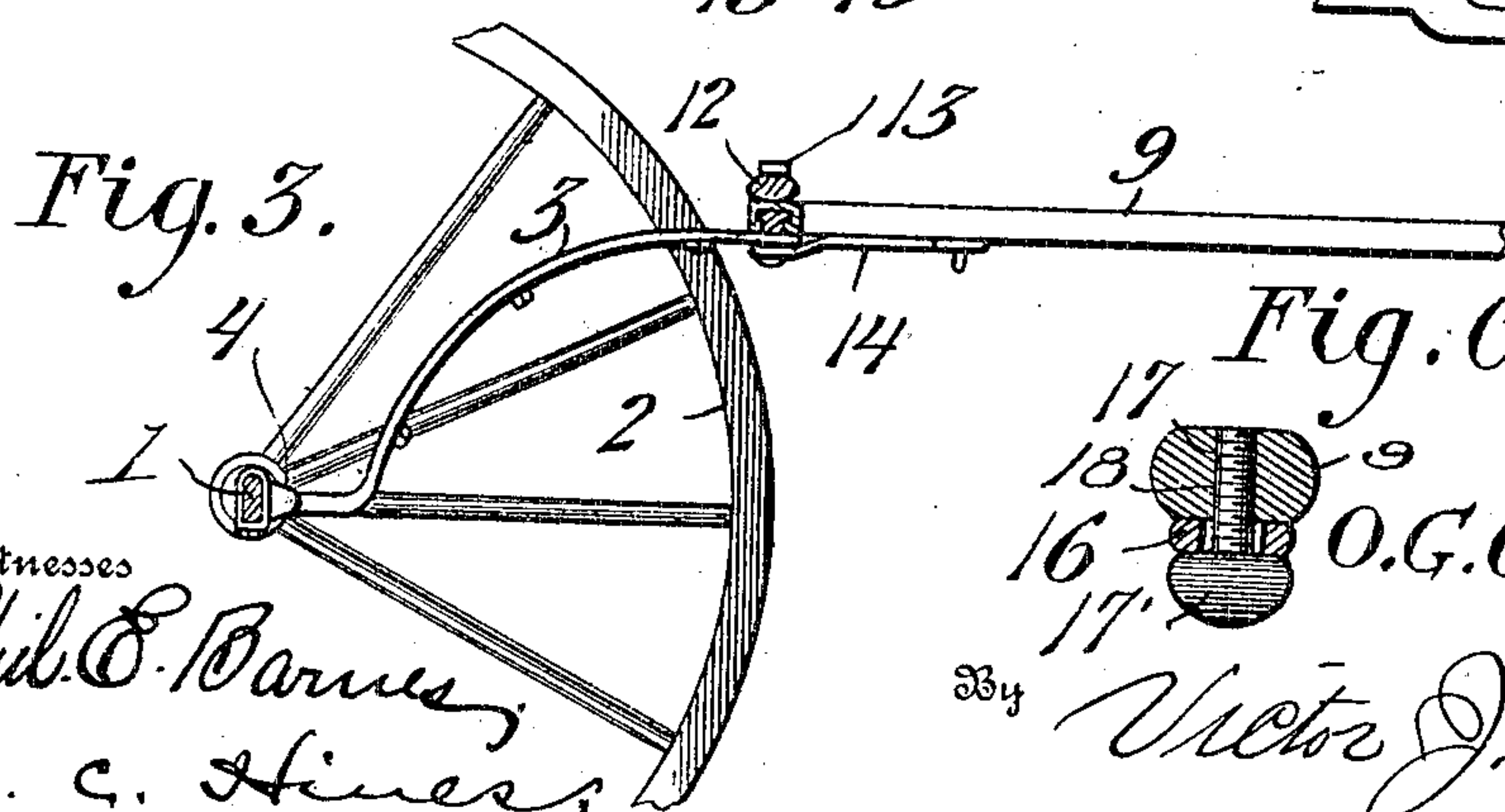


Fig. 3.

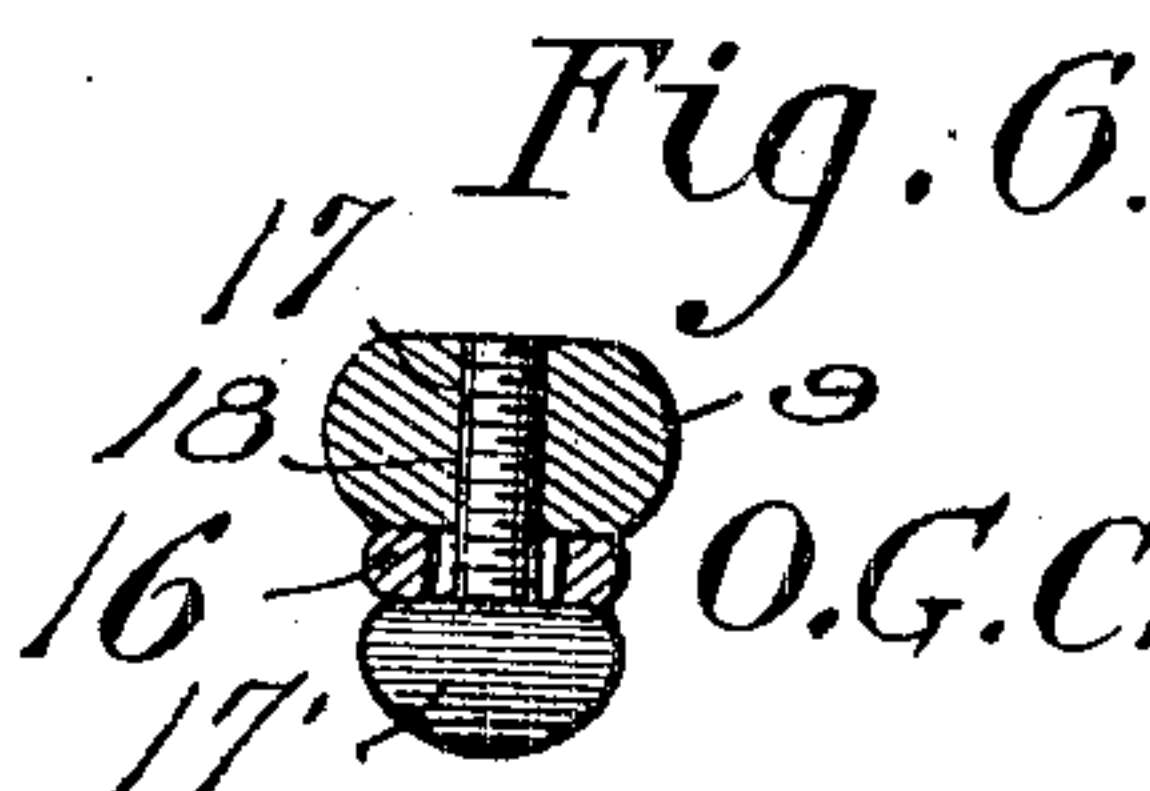


Fig. 6.

Witnesses

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SHAFT ATTACHMENT FOR VEHICLES.

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Specification of Letters Patent.

Patented Nov. 27, 1906.

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To all whom it may concern:

Be it known that I, OTTO G. CRANSTON, a citizen of the United States of America, residing at Wewoka, District 13, Indian Territory, have invented new and useful Improvements in Shaft Attachments for Vehicles, of which the following is a specification.

This invention relates to improvements in shaft attachments for vehicles, and particularly to a draft attachment which will admit of the draft-animal traveling at one side of the center line of the vehicle and between the center and one side of the road in the beaten track formed by the passage of double teams, while at the same time allowing the wheels of the vehicle to travel in the customary manner in the ruts at the sides of the road.

The object of the invention is to provide a draft attachment of this character which is readily adjustable to allow the draft-animal to travel either in the center line of the vehicle or at either side of said line and which when adjusted for the latter purpose will practically eliminate side draft and strain.

With the above and other objects in view the invention consists of the novel construction and combination of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view of the front axle of a vehicle, showing the application of my invention thereto, the thills being adjusted to permit the draft-animal to travel at the right of the center line of the vehicle. Fig. 2 is a similar view of the front portion of the draft-frame and thills, showing in full and dotted lines the adjustment of the latter to permit the draft-animal to travel in the center line of the vehicle or at the left of said line. Fig. 3 is a section on line 3 3 of Fig. 1. Fig. 4 is a section on line 4 4 of Fig. 2. Fig. 5 is a detail view of the slotted end of one of the coupling-links. Fig. 6 is a cross-section on line 6 6 of Fig. 1.

Referring now more particularly to the drawings, the numeral 1 designates the front axle of a buggy, wagon, or other vehicle, and 2 the front wheels journaled thereon. Connected with the axle is a draft-frame comprising a pair of side arms 3, attached at their rear ends to the axle by thill-couplings 4 of any preferred construction. The forward ends of the arms 3 are rigidly attached

to the ends of a cross-bar 5, to which the arms may also be connected by suitable reinforcing-springs 6. The arms 3 take the place of the usual draft-irons and are connected with the axle by the couplings 4 in the usual manner to permit the said draft-frame to be raised and lowered and to have vertical play.

The bar 5 is cut away on its under side to form a central longitudinal guide-rib 7, and on said bar is slidably mounted the rear cross-bar 8, connecting the rear ends of the thill or shaft members 9. As shown, the bar 8 is in the form of a box or sleeve having in its under side a longitudinal slot 10 to receive the rib 7, whereby the two bars 5 and 8 are held in sliding engagement. The bar or sleeve 8 is provided at its center with an upwardly-extending pivot-bolt 11, upon which a swingletree 12 is pivotally mounted in the usual way and confined in position upon the bolt by a nut 13. It will be seen that this construction permits the shafts or thills to be slid longitudinally along the bar 5 in a plane transversely to the vehicle, so that the shafts may be positioned to permit the draft-animal to be hitched to travel in the center line of the vehicle, as shown in full lines in Fig. 2, or to permit the animal to travel at the right or left hand side of the center line, as indicated, respectively, in full lines in Fig. 1 and in dotted lines in Fig. 2.

In order to hold the shafts or thills in desired position, coupling members or links 14 are provided. These coupling members or links are pivotally connected at their rear ends to the forward ends of the irons 3 beneath the ends of the bar 5, as indicated at 15, and are formed at their forward ends with longitudinal slots 16. A clamping-screw 17 passes upward through the slot 16 in each link and is adapted to enter either one of a pair of threaded apertures 18 or 19 in the adjacent side member 9 of the thills to clamp the link thereto and rigidly connect the thills with the cross-bar 5 of the draft-frame to hold the thills in adjusted position. When the thills are adjusted to the right or left of the center line of the vehicle, the screws 17 are engaged with the threaded openings 18, and when the thills are adjusted to extend in the center line of the vehicle the screws are engaged with the forward threaded openings 19, thus permitting the thills to be firmly coupled to the draft-frame in any of their ad-

justed positions. The form of the slot 16 permits the thumb or finger piece 17' of the screw to pass therethrough when said thumb-piece is arranged in longitudinal alinement therewith, so as to allow the end of the link to be conveniently detached from the shaft without removing the fastening-screw therefrom—a feature of importance when the thills are to be adjusted from the right to the left or from the left to the right of the center line, in which adjustment the same set of openings 18 is used. When the thumb-piece 17' is turned at right angles to the slot 16, however, the end of the coupling-link will be firmly clamped in position, as will be readily understood.

It will be apparent that my construction of draft attachment will permit the draft-animal to be hitched up in the usual way to travel in the center line of the vehicle or to be hitched up to travel on either side of the center line in the beaten track formed by the continued passage of double teams behind the center and either side of the road, while the vehicle travels in a straight line with its wheels in the ruts in the usual manner. The advantage of this adjustability of the draft attachment will be apparent to those traveling at times in cities and towns having well-paved streets and at other times along country roads and sections where double teams are customarily used.

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

1. A draft attachment for vehicles comprising a draft-frame having arms adapted for connection with the vehicle-axle, a cross-bar connecting said arms, spring-braces attached to the arms and cross-bar adjacent their points of junction, thills provided with a cross-bar slidably engaging the cross-bar of the draft-frame, and links pivoted to the ends of the cross-bar of the draft-frame and adapted to adjustably engage the sides of the thills.

2. A draft attachment for vehicles comprising a draft-frame embodying a pair of arms provided with means of connection with the vehicle-axle, a cross-bar connecting said arms and formed on its under side with a longitudinal rib, thills having a cross-bar forming a sleeve slidably engaging the cross-bar of the draft-frame, said sleeve being formed in its bottom with a longitudinal slot receiving said ribs, links pivotally connected with the ends of the cross-bar of the draft-frame, and means for adjustably connecting said links with the sides of the thills.

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

OTTO G. CRANSTON.

Witnesses:

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