

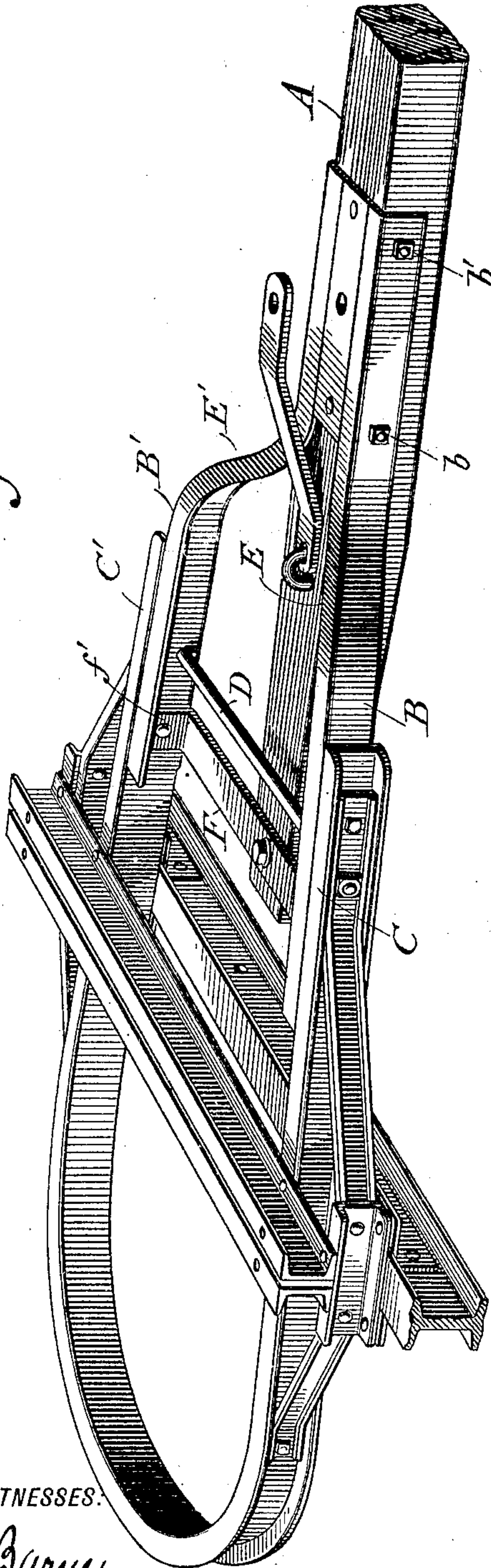
No. 813,285.

PATENTED FEB. 20, 1906.

E. EINFELDT.
WAGON GEAR.

APPLICATION FILED AUG. 1, 1905.

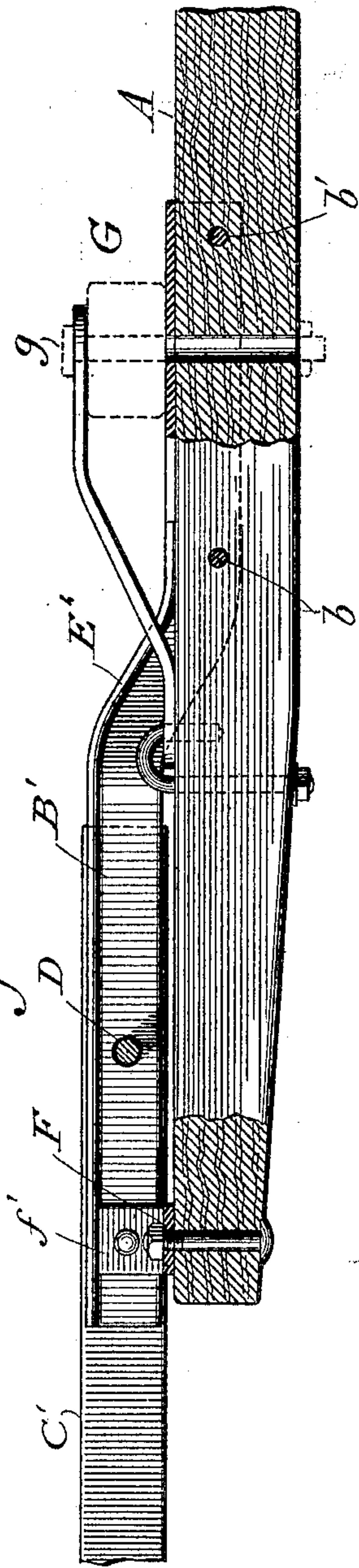
Fig. 1.



WITNESSES.

P. J. Barnes.
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Fig. 2.



INVENTOR

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WAGON-GEAR.

No. 813,285.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed August 1, 1905. Serial No. 272,148.

To all whom it may concern:

Be it known that I, EMIL EINFELDT, of Davenport, county of Scott, and State of Iowa, have invented a new and useful Improvement in Wagon-Gears, of which the following is a specification.

This invention relates to wagon-gears, and has reference more particularly to the construction and form of the tongue-hounds and the manner of connecting the tongue with the front gear, the objects being to so arrange the parts that the draft of the animals hitched to the tongue will have a lifting tendency, so as to relieve the neck-weight of the tongue and so as to apply the draft at the most advantageous point for effective work.

It has been attempted heretofore to accomplish these objects by hitching the draft-animals to the under side of the tongue through the medium of a doubletree applied beneath the tongue in order to bring the hitch below the connection of the tongue with the wagon; but this arrangement has many disadvantages, mainly in the difficulty and awkwardness encountered in removing the doubletree or in disconnecting the team without unhitching them from the doubletree, as is frequently done when the team is to be temporarily used for other work.

The chief aim of my invention is to secure a low hitch of the draft-animals to the tongue—that is, a hitch below the point of connection of the tongue with the wagon—so as to secure all the advantages of this low hitch and at the same time preserve the advantages of having the doubletree on the upper side of the tongue.

With this object in view my invention consists in so forming the tongue-hounds and in so connecting them with the wagon that the upper surface of the tongue at the point where the draft-animals are hitched will, when the draft is applied, be at a lower level than the point of connection of the tongue with the wagon, so that the draft-animals hitched to a doubletree or other draft device on the upper side of the tongue will act with a lifting tendency, will relieve the neck-weight on the animals, and will apply the draft to the greatest advantage.

In the preferred embodiment of my invention the tongue-hounds are extended downward at a point in front of the draw-bolt which connects the tongue-hounds with the gear-hounds, and the tongue is so connected

with the downwardly-extending hounds that its upper surface will, when the draft is applied, be below the axis of the draw-bolt.

Other forms of embodiment of my invention may be adopted, however, without departing from the limits of my invention, provided that the operation and results are substantially as indicated above.

In the accompanying drawings, Figure 1 is a perspective view of such portions of the wagon-gear as are necessary to illustrate my invention, showing the tongue connected and the parts in their preferred form. Fig. 2 is a vertical longitudinal sectional elevation through the same.

Referring to the drawings, in carrying out my invention in its preferred form, which in practice has been found to answer to a satisfactory degree the results to be attained, I apply to the tongue A near its rear end tongue-hounds B B', which extend rearwardly and outwardly and along the inner faces of the front gear-hounds C C', the said hounds being connected together, as usual, by a horizontal transverse draw-bolt D, extending through them and suitably confined against escape, this bolt constituting the connection between the tongue and the wagon-gear.

The tongue-hounds are preferably formed of angle-iron with the angles disposed inwardly, and they have their front ends applied to the upper corners of the tongue, to which tongue they are firmly fixed by horizontal bolts b b', extending through the side flanges of the bars and through the tongue.

The foregoing parts may be of the usual and ordinary construction and, except in so far as hereinafter indicated, they form no part of the present invention.

Instead of extending the tongue-hounds in a straight line from their rear ends to their points of attachment to the tongue, as heretofore, I curve or bend them downward, as shown at E E', the downward bend beginning at about the front end of the gear-hounds and terminating where the tongue-hounds are fastened to the tongue, so that the upper surface of the tongue will be below the axis of the draw-bolt when the tongue is in a substantially horizontal position, such as it usually occupies when the draft-animals are hitched thereto and are applying the draft.

At its end the tongue is firmly braced to the hounds and held fixedly in a central position.

tion with relation to them by means of a horizontal cross-plate F, bolted to the upper side of the tongue and provided with upturned ends *f f'*, seated against and fixed to the inner faces of the side flanges of the hounds.

The draft-animals are hitched to the tongue through the medium of the doubletree G, applied to the upper side of the tongue, as usual, and confined thereon pivotally by a double-tree-pin *g*.

On reference to Fig. 2 it will be seen that by reason of the downward curvature or drop of the tongue-hounds their forward ends, where they are connected with the top of the tongue, are at a considerably lower level than their rear ends and that consequently the upper surface of the tongue where the double-tree is pivoted is considerably beneath the axis of the draw-bolt. In a wagon-gear of normal size a drop of the hounds, such as to bring the upper surface of the tongue one inch below the axis of the draw-bolt when the tongue extends horizontally or substantially so, as it does when the draft is applied, has been found sufficient in practice to answer fully the results aimed at. It is manifest, however, that the degree of curvature or bend of the hounds may be varied to meet the varying conditions encountered in practice as to the form and size of the parts, the nature of the work to be performed, and other circumstances.

I prefer, as shown, to confine the bend or curvature of the hounds to that portion of them beyond the gear-hounds, so that where the tongue-hounds and gear-hounds work together they will have a long and flat bearing-surface; but it is obvious that this relation of the parts may be changed and that other details may be variously modified without departing from the limits of my invention.

It is manifest that my invention is not limited in its use in connection with a double-tree applied to the upper side of the tongue, although this arrangement is preferable. The invention is applicable also in connection with the doubletree otherwise applied—for instance, on the under side of the tongue, as heretofore. Such an arrangement, while possessing certain disadvantages, would, in connection with the downwardly-extending tongue-hounds, increase the lifting tendency of the draft-animals, inasmuch as the hitch would then be lower than if the drop of the hounds were alone depended on to effect the low hitch.

Having thus described my invention, what I claim is—

1. In a wagon-gear and in combination with the front gear-hounds, tongue-hounds, a draft connection between said hounds, and a tongue sustained by the tongue-hounds with its axis in an unchanging plane relative to the gear-hounds with its upper surface, at the point where the doubletree is applied, ex-

tending at a lower level than that of the axis of the draft connection when the tongue is in a horizontal position.

2. In a wagon-gear and in combination with the front gear-hounds, tongue-hounds having their rear portion elevated and their forward portion depressed and in a different plane, a draw-bolt connecting the elevated portion of the tongue-hounds with the gear-hounds, and a tongue connected with the depressed portion of the tongue-hounds at a point in front of the draw-bolt and extending rearwardly beneath said draw-bolt.

3. In a wagon-gear and in combination with the front gear, tongue-hounds connected with said gear and extending forwardly and downwardly below the connection, a tongue connected with the downwardly-extending portion of the tongue-hounds, and having its upper surface at a lower level than said connection when the tongue is in a horizontal position, and a doubletree applied to the upper side of the tongue.

4. In a wagon-gear and in combination with the front gear-hounds, tongue-hounds extending for a portion of their length along the gear-hounds and then extending beyond said gear-hounds downwardly, a connection between the gear-hounds and the tongue-hounds, and a tongue fixed to the downwardly-extending portions of the gear-hounds.

5. In a wagon-gear and in combination with the front gear-hounds, tongue-hounds extending downwardly at their forward ends, a draw-bolt connecting the tongue-hounds, in rear of their downwardly-extending portions, with the gear-hounds, a tongue fixed to the downwardly-extending portions of the gear-hounds, and extending rearwardly beneath the draw-bolt, and a connection between the tongue and tongue-hounds in rear of their downwardly-extending portions.

6. In a wagon-gear and in combination with the front gear-hounds, tongue-hounds connected therewith and extending forwardly and downwardly with the forward portion of the hounds in a different plane from the rear portions, and a tongue connected with the downwardly-extended portion of the tongue-hounds.

7. In a wagon-gear and in combination with the front gear-hounds, a tongue, tongue-hounds connected with the tongue and bent upwardly and extending rearwardly in a plane above a plane of the tongue, and a pivotal connection between the elevated portion of the tongue-hounds and the gear-hounds.

In testimony whereof I hereunto set my hand, this 11th day of July, 1905, in the presence of two attesting witnesses.

EMIL EINFELDT.

Witnesses:

M. LOUISE DODGE,
ANDREW NEILSON.