(No Model.)

J. L. METCALFE.

VEHICLE TONGUE COUPLING.

No. 261,376. Patented July 18, 1882.

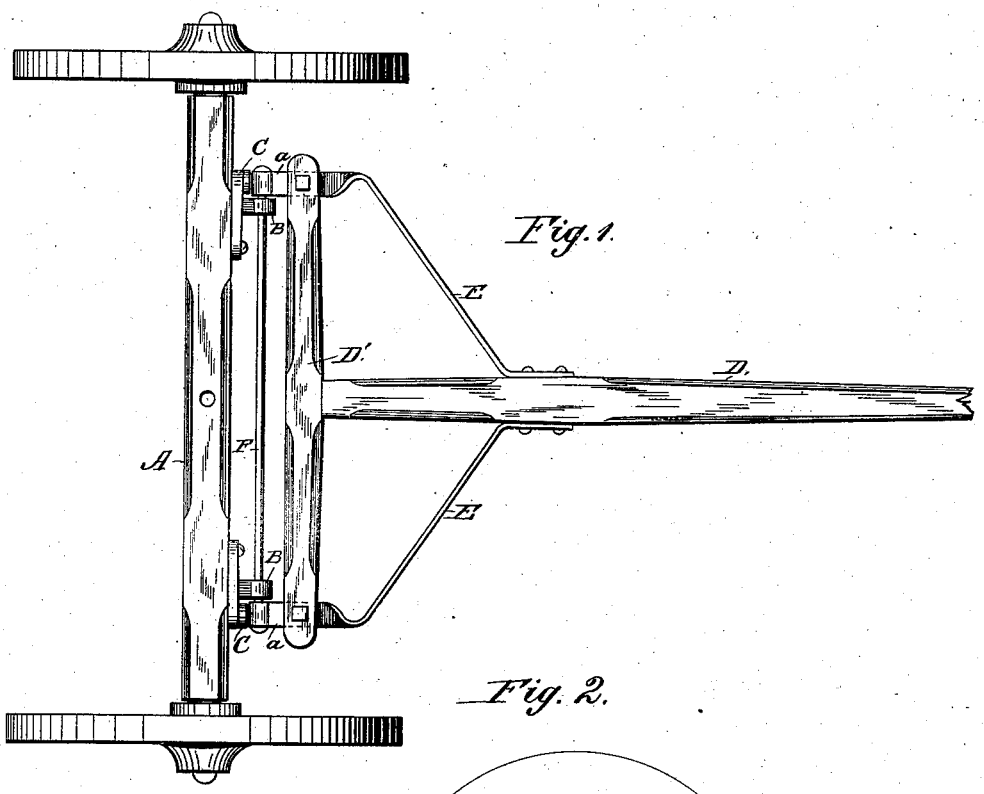


Fig. 1.

Fig. 2.

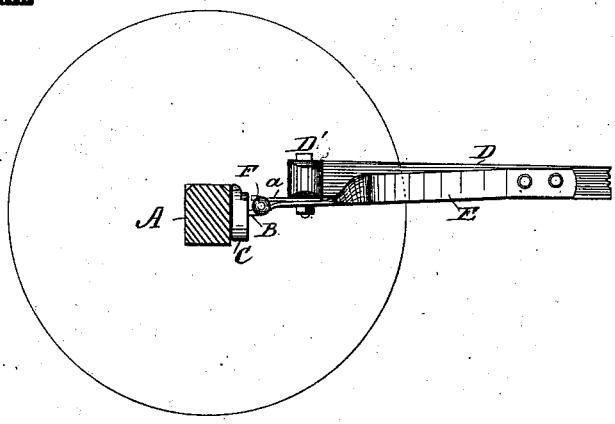
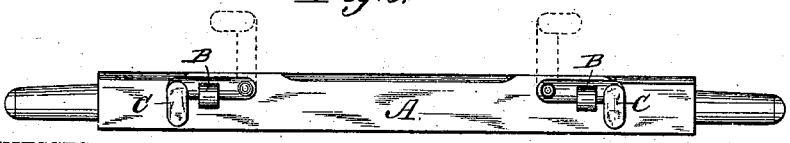


Fig. 3.



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JOHN L. METCALFE, OF WAYNESBOROUGH, PENNSYLVANIA.

VEHICLE-TONGUE COUPLING.

SPECIFICATION forming part of Letters Patent No. 261,376, dated July 18, 1882.

Application filed May 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. METCALFE, of Waynesborough, in the county of Franklin and State of Pennsylvania, have invented a new and Improved Vehicle-Tongue Coupling; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of the front axle, tongue, and coupling. Fig. 2 is a side view of the coupling with the axle in section. Fig. 3 is a front view of the axle with the tongue detached, showing in dotted lines the position of the gravity-latches when the tongue is to be uncoupled.

My invention relates to an improvement in vehicle-tongue couplings, designed more particularly for grain-separators and other vehicles in which it is desirable to have the tongue quickly attachable and detachable.

The invention consists in forming upon the rear end of the tongue a pintle-rod, (or its equivalent in the form of a pair of loops,) and combining it with a pair of hooks on the axle, into which hooks the rod or loops are dropped, and there retained by means of gravity-latches which move in a plane parallel with the axle, and by closing the outlet in the hooks and preventing backward movement of the rod or loops effectually prevent the latter from accidentally getting out of the hooks, the gravity-latches, however, permitting of the easy detachability of the tongue, as will be hereinafter more fully described.

In the drawings, A represents the front axle of any vehicle, to the front portion of which are fixed hooks B B, curving upwardly, and leaving an opening or outlet between the upper end of the hook and the axle. To the axle there is pivoted close to each hook a gravity-latch, C, which is in the nature of a right-angular piece of metal with its freely-swinging end made heavier than the other, so as to hold it down in its fastening position. These latches are pivoted so as to move flat against the front side of the axle and play in a plane parallel with the axle.

D is the tongue, having at its rear end the wooden cross-bar D′. Connected to the tongue on each side and to the ends of the cross-bar D′ are the brace-irons E E, which are made of strap-iron, whose edges are arranged vertically between the tongue and cross-bar, and which brace-irons at their rear ends are turned into horizontal position and fastened by a screw or bolt to the cross-bar, and then extended a little distance to the rear and bent over into loops or holders *a* for the pintle-rod F.

Now, in coupling the tongue to axle, latches C are thrown back, and the pintle-rod F is then dropped into the hooks B. The latches C are then thrown down transversely upon the hooks, where, by closing the outlet from the hooks and preventing the back movement of the pintle-rod, they securely hold the tongue coupled to the axle.

Instead of using a continuous pintle-rod, F, extending between the brace-irons E, I may, as a modification of my invention, have an independent pintle, loop, or stirrup at each end of the cross-bar, which respectively drop into the hooks B on the axle.

I am aware of the fact that it is not new in thill-couplings to use a pintle or loop on the rear ends of the thills and drop them into hooks on the axle, which hooks have their outlets closed by a gravity-catch working in a plane at right angles to the axle and parallel with the thills; and I do not claim this, broadly, but limit my invention to the pivoting of the gravity-latches directly to the axle in a position to work in a plane parallel with the axle and at right angles to the hooks. This secures a cheap, simple, and practical construction, and the back-thrust on the tongue has no effect toward lifting the latches, as the latter have a solid abutment against the axle and occupy a position in which said back-thrust has no tendency to turn the latches on their pivots, but only serves to hold them more tightly in their locked positions.

Having thus described my invention, what I claim as new is—

1. The combination, with the tongue having a pintle or loops at its rear end, as described, of the front axle having the hooks B B, and the gravity-latches pivoted directly to the axle and working against the side of the same in a plane parallel therewith to close the outlet of the pintle from the hooks, as described.

2. The combination of the front axle having hooks B, and the gravity-latches pivoted to the axle in parallel position, so as to work across the hooks, the tongue having cross-bar D′, and the brace-irons E E, connecting the tongue with the ends of the cross-bar and extending in rear of the latter, and provided with a pintle-rod, F, adapted to be received into the hooks of the axle, substantially as shown and described.

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Witnesses:
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