

M. TURLEY.
Draft-Attachment for Wagons.

No. 197,065.

Patented Nov. 13, 1877.

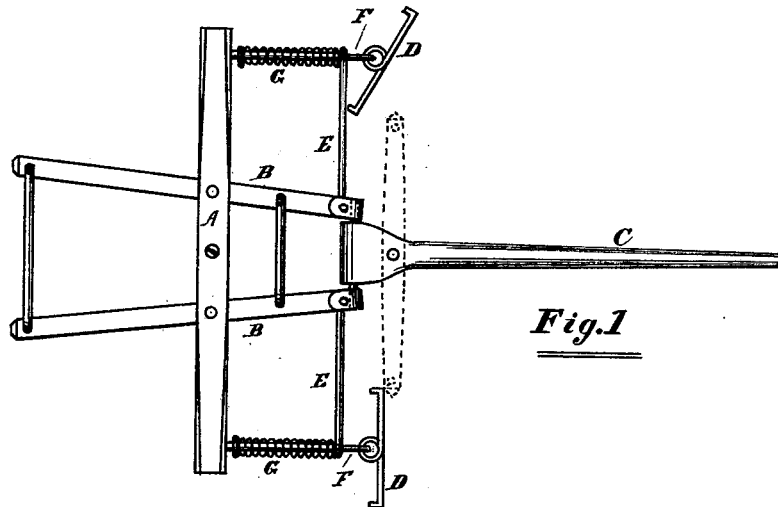


Fig. 1

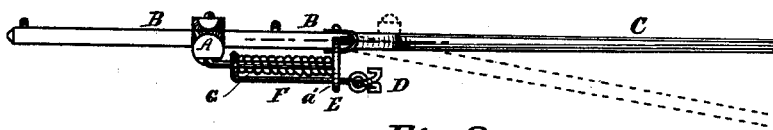


Fig. 2

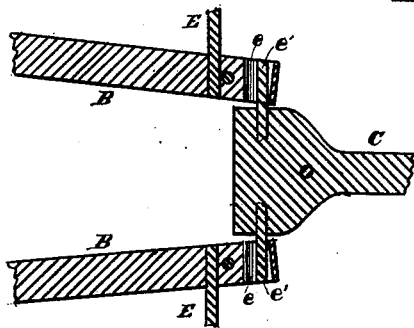


Fig. 3

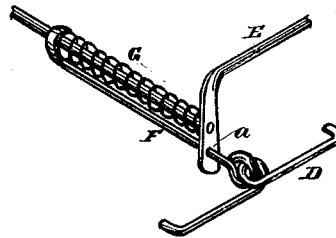


Fig. 4

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UNITED STATES PATENT OFFICE.

MARSHALL TURLEY, OF COUNCIL BLUFFS, IOWA, ASSIGNOR OF ONE-HALF HIS RIGHT TO SEPTIMUS J. HANNA, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN DRAFT ATTACHMENTS FOR WAGONS.

Specification forming part of Letters Patent No. 197,065, dated November 13, 1877; application filed March 13, 1877.

To all whom it may concern:

Be it known that I, MARSHALL TURLEY, of Council Bluffs, in the county of Pottawattamie and State of Iowa, have invented certain new and useful Improvements in Wagons; and do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing, forming a part hereof, and in which—

Figure 1 is a top or plan view of the parts representing my improvements; Fig. 2, a side elevation thereof; Fig. 3, a horizontal section; and Fig. 4, a perspective of one of the single-trees, and the parts to which it is connected.

Like letters of reference indicate like parts.

In the drawing, A represents the forward axle. B B are the hounds. C is the tongue, and D D are the single-trees. E E are rectangular braces, rigidly attached to the forward parts of the hounds, and extending laterally therefrom to points in front of and opposite, or nearly opposite, the ends of the axle, and thence rearward to the axle, and are rigidly attached to the latter at or near its ends, as shown. F F are free rods, to the forward ends of which the single-trees are applied. The rear ends of the parts F F are made to ride or slide freely on those parts of the braces E E which extend forward from the axle, and the forward parts of the rods F F pass freely through eyes or holes in or near the ends of those parts of the braces E E which are parallel to the axle, as shown at *a* and *a'*, respectively. G G are open spiral springs arranged on the braces E E, as shown. These springs act on the rods F F in such a manner that the single-trees will have a yielding movement when the wagon is drawn. *e e* are slots in the hounds, and *e' e'* are spindles or bolts projecting from the tongue into the slots *e e*.

By connecting the single-trees to the ends of the axle instead of, as usual, to the evener, (represented by the dotted lines in Fig. 1,) each wheel, when it meets an obstruction, will be acted upon more directly, and the resistance will be more easily overcome. The tendency of the axle to wobble while the

wagon is being drawn over rough or uneven roads will also be to a great extent prevented, and hence the tongue will be less liable to oscillate laterally, and strike and worry the team. This oscillation of the tongue is also further prevented by having the tongue rest in the slots *e e*. The springs G G prevent a jerking movement, and also take up the slack of the traces. The braces E E distribute the strain, and at the same time offer convenient means for applying the yielding single-trees. The latter, however, may be applied in various other ways, and to various vehicles, so as to produce the favorable results above set forth.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a wagon or other wheeled vehicle, of the single-trees, the sliding rods F F, the springs G G, and supports or bearings for the said springs and rods, the said supports extending forward from the ends of the forward axle in lines at right angles to the said axle, substantially as and for the purposes specified.

2. The combination, in a wagon or other wheeled vehicle, of the axle A, the hounds B B, the rectangular braces E E, extending laterally from the hounds, and then passing to the ends of the said axle at right angles to the axle, and the single-trees D D, arranged substantially as specified with relation to the said braces, for the purposes set forth.

3. The combination, in a wagon or other wheeled vehicle, of the hounds B B, having therein the slots *e e*, the tongue C, having loose bearings in the said slots, and the single-trees D D, arranged substantially as specified with relation to the ends of the axle A, to avoid draft upon the said tongue, and for the purposes specified.

4. The combination of the axle A, slotted hounds B B, braces E E, sliding rods F F, springs G G, single-trees D D, and tongue C, the latter having loose bearings in the slots of the said hounds, all arranged substantially as specified with relation to each other, for the purposes set forth.

MARSHALL TURLEY.

Witnesses:

F. F. WARNER,
M. E. DAYTON.