G. L. DU LANEY.

Attaching and Detaching Horses.

No. 90,352. Patented May 25, 1869.

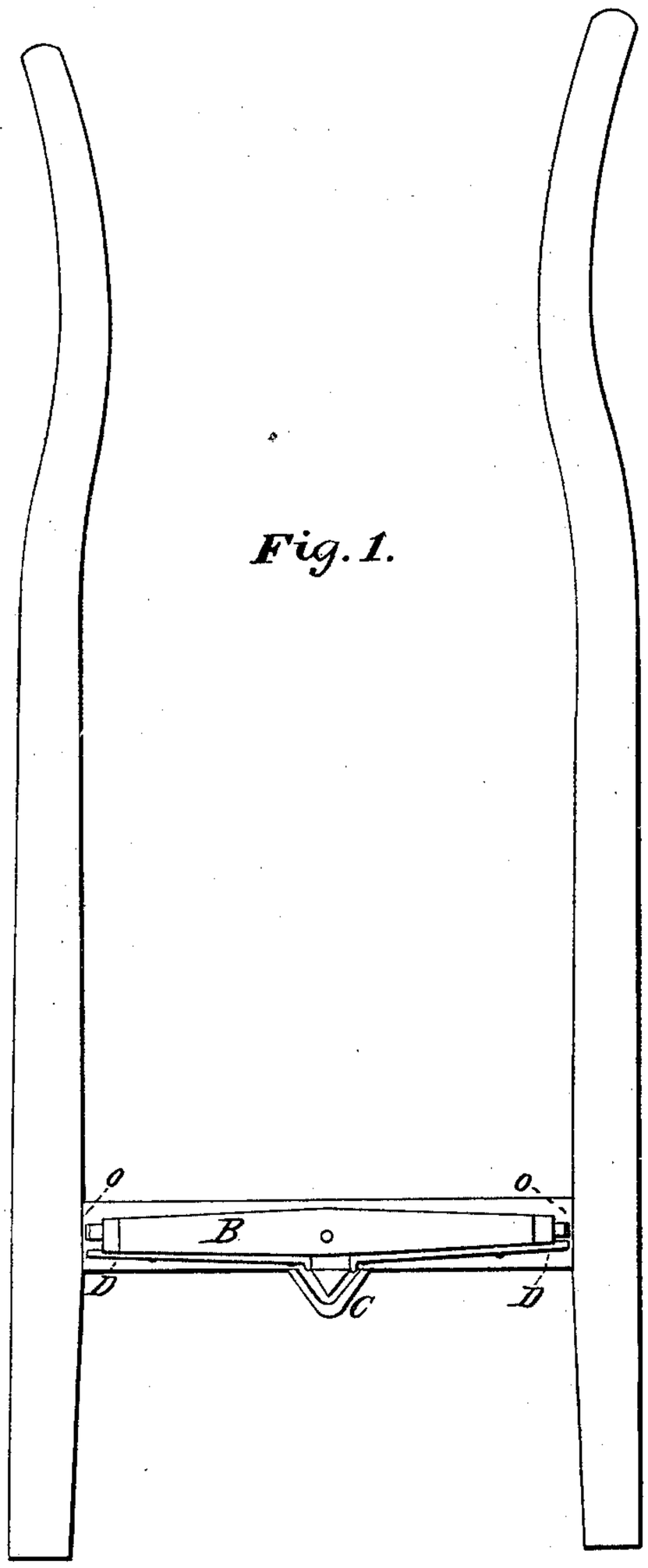


Fig. 1.

Fig. 4.

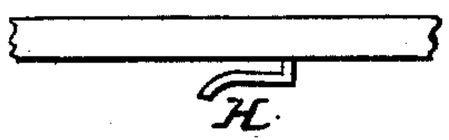
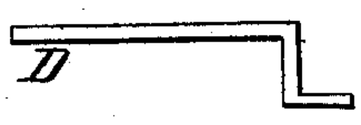


Fig. 3.



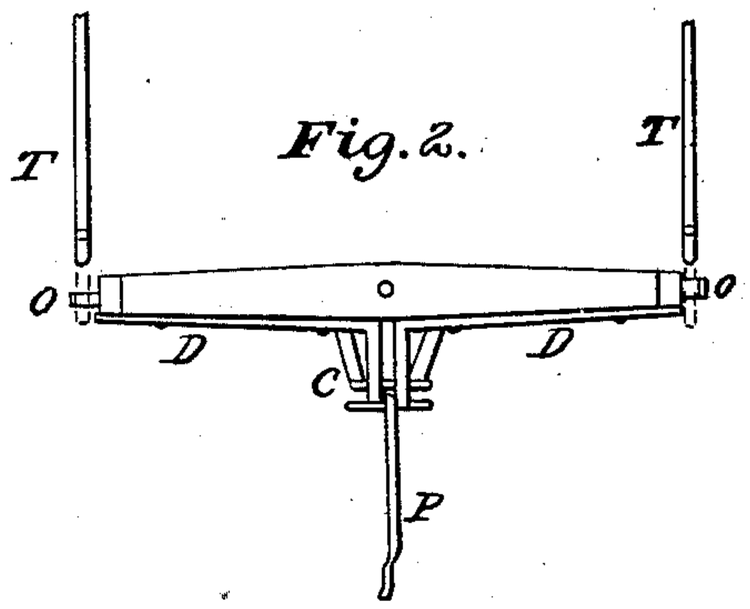


Fig. 2.

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Letters Patent No. 90,352, *dated May* 25, 1869.

DEVICE FOR ATTACHING AND DETACHING HORSES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, G. L. DU LANEY, of Mechanicsburg, Cumberland county, Pennsylvania, have invented new and useful Improvements in Single-Trees; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, making part of these specifications.

Figure 1 is a top, or bird's-eye view of my improved single-tree, in position, with rods depressed, and extending out through the traces.

Figure 2 is a section of the same, with rods, or bolts raised up and drawn in, showing the traces disengaged from said rods.

Figure 3 is the elbow-shaped rod, or bolts, detached.

Figure 4 is a section of the shaft, showing the hook against which the backing-strap rests.

The nature of my improvement consists in so arranging two independent elbow-shaped rods, or bolts to a single-tree, that by their peculiar construction, arrangement, and operation, relatively to each other, one may be independent of the other, or both worked together, as occasion may require, for detaching instantaneously the horse therefrom.

Said rods are properly attached to the rear of a single-tree, and so arranged, in connection therewith, as to entirely dispense with all springs, connecting-rods, secondary cranks, vibrating arms, and all such auxiliary devices as have heretofore been used to disengage the horse from a buggy, or other conveyance.

My improvement further consists in providing a guide-plate, with suitably-arranged incline, or cam-shaped grooves, for the reception of the ends of the elbow-shaped rods.

Said plate is screwed fast to the cross-piece, midway between the shafts and beneath the single-tree, in such relation to each other, that by raising up or depressing the ends of the rods, they are caused to move in, or extend outward, with a spiral, or screw-like movement, engaging or disengaging the traces by which the horse is hitched.

The shafts are provided with properly-arranged hooks, for securing the backing-straps, when holding back, or liberating, them when moving forward. So, also, are the ends of the single-tree furnished with properly-arranged stays, to prevent the traces from slipping off when pulling.

A strap is passed from the ends of the rods to the driver, in order that the driver may, by pulling the strap, liberate the horses therefrom.

The following description, by reference to the accompanying drawings, will enable any one to understand the nature, construction, and operation of my invention.

B B, in figs. 1 and 2, mark the single-tree.

D D indicate the elbow-rods in figs. 1, 2, and 3.

C is the guide-plate, showing the incline, or cam-grooves. (See figs. 1 and 2.)

T indicates the traces;

O O, the stays; and

P, the strap, by which the horse is disengaged.

H is the hook, against which the backing-strap rests. (See fig. 4.)

I do not claim broadly the use of sliding rods upon single-trees; nor do I claim broadly the use of slotted plates for the purpose of actuating the said rods, and engaging and disengaging the traces; but

I claim, and desire to secure by Letters Patent—

A curved guide-plate, C, screwed fast to the cross-piece, midway between the shafts, with cam-shaped groove, in combination with the elbow-rods, or bolts D, and stays O O, when the outer end of the said elbow-rod is made to pass in and out between the end of the single-tree B and the stays O O, and thus engage and disengage the traces, substantially as described.

Witnesses:

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