S. LOOMER.
Whiffletree.

No. 215,008. Patented May 6, 1879.

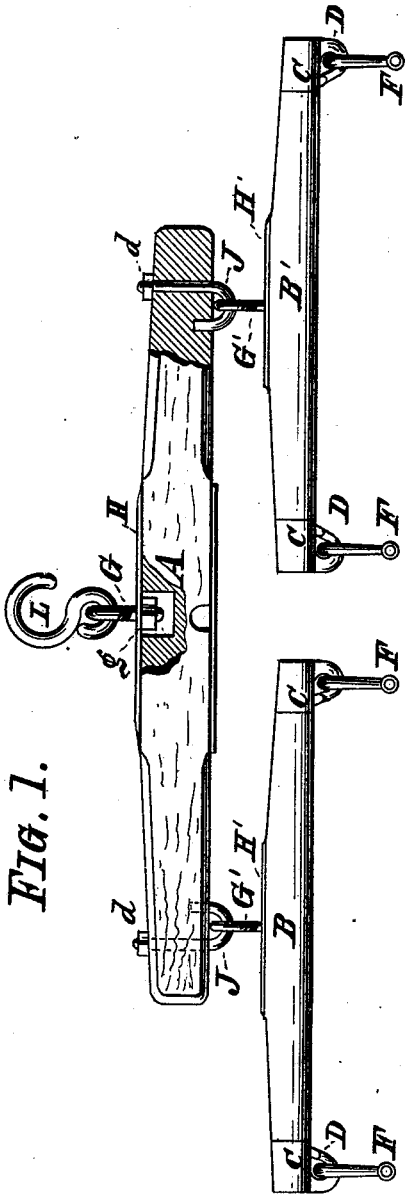

FIG. 1.

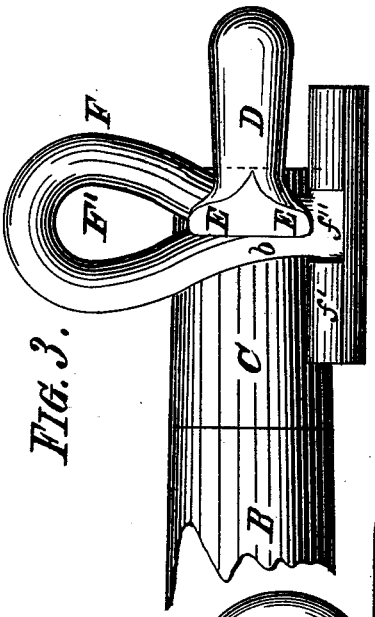

FIG. 3.

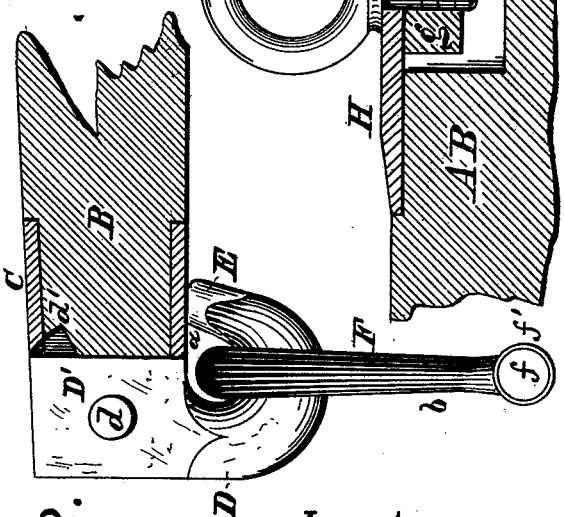

FIG. 2.

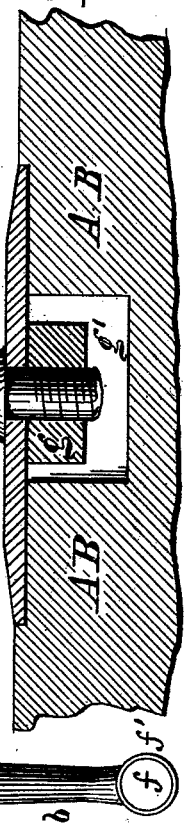

FIG. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

SETH LOOMER, OF WEST FALLS, NEW YORK.

IMPROVEMENT IN WHIFFLETREES.

Specification forming part of Letters Patent No. **215,008**, dated May 6, 1879; application filed March 17, 1879.

To all whom it may concern:

Be it known that I, SETH LOOMER, of West Falls, in the county of Erie and State of New York, have invented certain new and useful Improvements in Whiffletrees; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to double-trees; and it consists in the peculiar arrangement of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claims.

In the drawings heretofore referred to, Figure 1 is a plan of my improved double-tree, parts being shown in section. Figs. 2 and 3 are similar views of the ends of the single-tree, and Fig. 4 a sectional view of the middle portion of a single or double tree.

Like parts are designated by corresponding letters of reference in all the figures.

A is the double-tree, and B B′ the whiffletrees. This double-tree is provided centrally with a recess, *g′*, covered by a plate, H, to which is swiveled an eyebolt, G, having a nut, *g*, as clearly shown in the figures. Near the ends of this double-tree are provided hooks J, consisting of round iron rods having one of their ends bent into a half-circle, and the other end screw-threaded and provided with nuts *d*, whereby said hooks J are securely fastened to said double-tree.

The whiffletrees B B′ have, centrally, plates H′, provided with swiveled hooks G′, the same as the double-tree; but on their ends they are provided with ferrules C, within which are pivoted clevis-hooks D by means of pins *d*. These hooks have on their ends projecting noses E, which serve to keep the cockeyes F engaged with the hooks. These cockeyes have oblong openings F′, and are thicker at their upper ends, *a*, Fig. 2, than at their lower ends, *b*, the purpose of which construction will hereinafter be referred to. The cross-bars F of these cockeyes are provided with ferrules *f*, having notches *f″*, for the passage of the shanks of said cockeyes, said ferrules serving as protectors for the leather trace-straps tucked over said ferrules.

The advantages derived from the construction of this double-tree are as follows: The double as well as the single trees being provided with the swivel-hooks G G′, they may be readily revolved, so that when obstructions are met said trees may be easily turned to pass the same—as, for instance, in plowing around stumps, along fences, or in cases of collision with other vehicles. They furthermore prevent catching in the harness, and are a perfect draft-equalizer, inasmuch as one of the single-trees can never catch on the double-tree, and thus give one of the horses a better purchase than the other; nor will the trees bind the horse down in case of a fall, while in turning, the whiffletrees, if caught in the wheel, will revolve therewith until disengaged.

A further advantage in the construction of the single-trees having the clevis-hooks D, as described, is that the cockeyes can never unhitch on their own accord. This is accomplished by the peculiar construction of these parts—viz., the hooks D, being provided with the noses E, prevent the cockeyes from slipping off. These cockeyes being made heavier at *a* than at *b*, and the space between the extremities of said hooks and the shanks D′ thereof being such as to allow the thinnest part only of said cockeyes to pass, it is evident that in order to disengage said cockeyes from the hooks the former must be brought into the position shown in Fig. 3, where the thinnest part of said cockeyes is shown to be under the extreme end of the hook, and therefore in position to be inserted or withdrawn; but when the traces are fixed to the cockeyes such a position could never be accidentally obtained, so that unhitching is effectually guarded against.

It will be further observed that the hooks J on the double-tree are made of plain round iron, bent as specified. This construction is extremely simple and effectual, and has the advantage of not weakening the wood to any extent, since nothing has to be done to attach the hooks but to bore holes through the dou-

ble-tree ends for the passage of the main portion of the hook, and shallow holes for the reception of the bent ends thereof.

My improved whiffletrees may be ironed at considerable less expense, and are withal far more serviceable, than any others with which I am acquainted.

Having thus fully described my invention, I claim as new, and desire to secure by Letters Patent of the United States—

1. The combination, with the tree B, of the ferrule C and the hook D, said hook having the shank D′, pivoted within the ferrule C by the pin *d*, and on its extremity lateral projections E, the space *a* between said projections and the shank being such as to admit the thinner part *b* of the cockeye F only, as and for the purpose specified.

2. The combination, with trees B, having the ferrules C and the pivoted hooks D, provided with projections E on their ends, of the cockeyes F, made thicker at *a* than at *b*, the spaces between said projections E and the shank D′ of said hook being such as to allow the passage of the thinner part *b* of said cockeyes only, substantially as and for the purpose stated.

In testimony that I claim the foregoing as my invention I have hereto set my hand and affixed my seal in the presence of two subscribing witnesses.

SETH LOOMER. [L. S.]

Attest:

MICHAEL J. STARK,

ALBERT D. FIVESHILLING.