O. N. WEAVER.

Whiffletree.

No. 61,781. Patented Feb. 5, 1867.

Fig. 1.

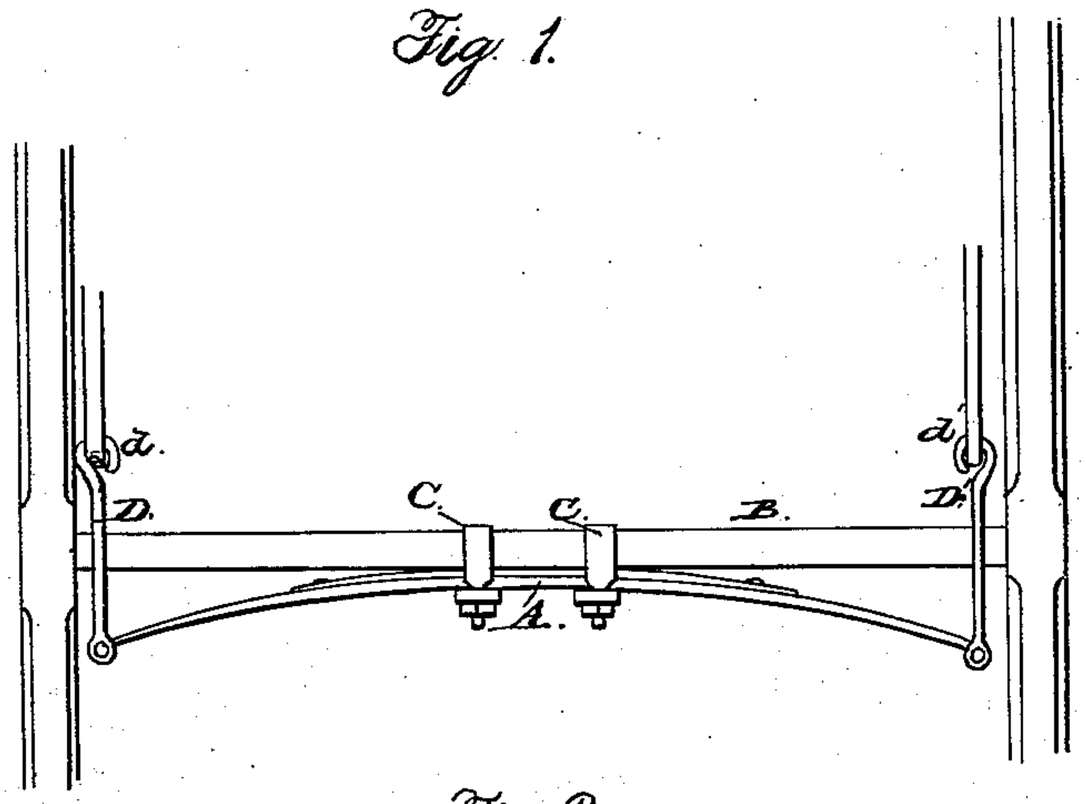
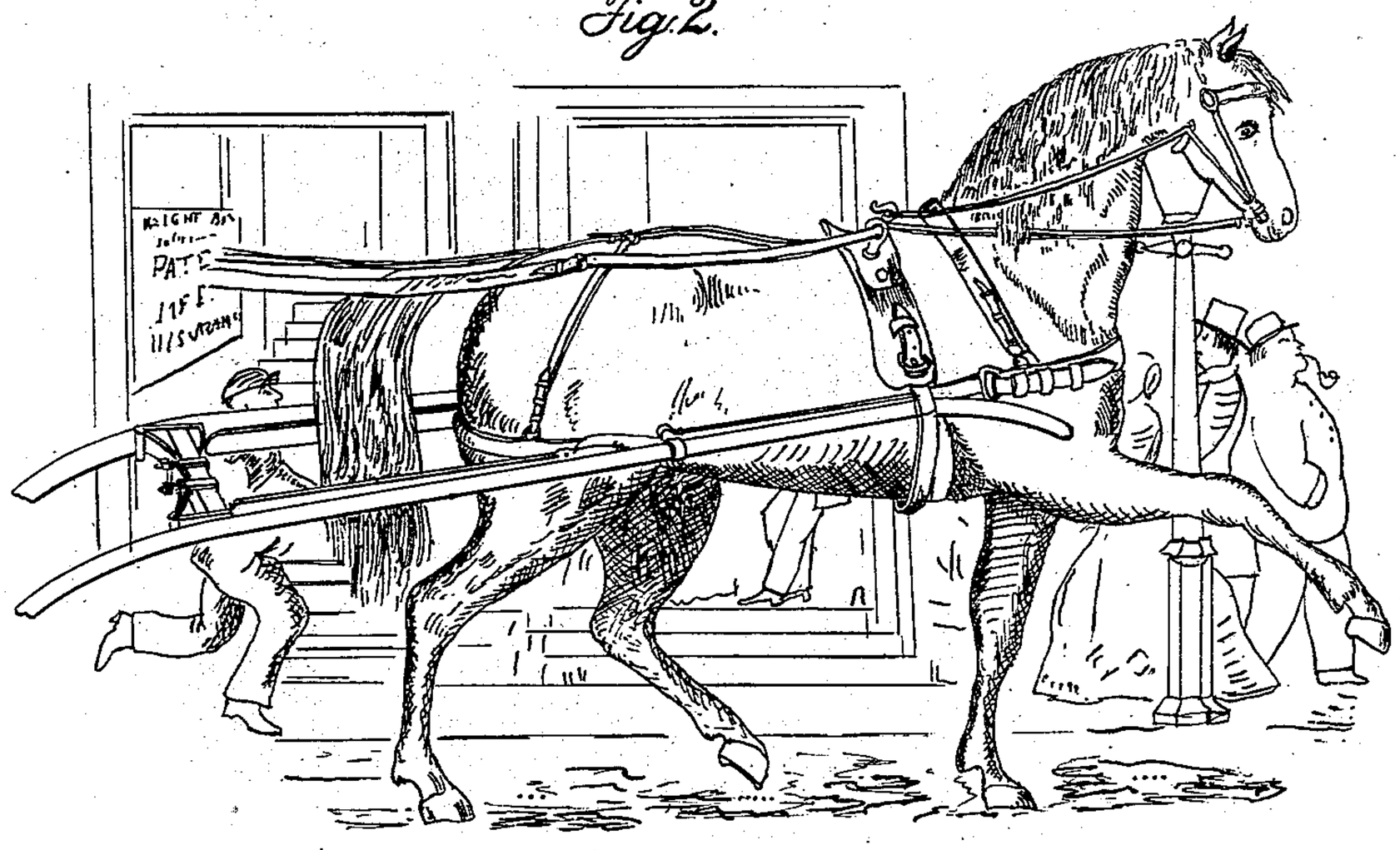


Fig. 2.



Witnesses.
H. C. Webber
Sam'l Pennybacker

Inventor.
Oliver N. Weaver
By Knight Bros
Attys

United States Patent Office.

OLIVER N. WEAVER, OF DOVER, KENTUCKY, ASSIGNOR TO HIMSELF AND G. W. WINTER, OF AUGUSTA, KENTUCKY

Letters Patent No. 61,781, *dated February* 5, 1867.

IMPROVEMENT IN WHIFFLE-TREES.

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

TO WHOM IT MAY CONCERN:

Be it known that I, OLIVER N. WEAVER, of Dover, Mason county, Kentucky, have invented a new and useful Improvement in Whiffle-trees; and I do hereby declare the following to be a full, clear, and exact description thereof; reference being had to the accompanying drawings, making part of this specification.

This invention relates to a construction of whiffle-trees adapted to greatly lessen the jars incident to starting the vehicle, and to violent collision with rocks and other obstacles encountered in travelling. For this purpose I construct my whiffle-tree of a semi-elliptical spring or bow A, attached by its middle, in rear of the lower cross-bar B of the shafts, by means of clips C C′. Two yokes, D D′, pivoted to the ends of the said spring-tree and embracing the bar, terminate in the usual hooks *d d′*, or other customary device for attaching the tugs.

The beneficial effect of this arrangement is of a quadruple character, namely, to relieve the horse, the driver, the harness, and the vehicle, of all sudden jars and jerks. It is well adapted to lessen the danger of baulking in a young horse, by enabling him to get a start and come to his load gradually. It is even stronger than the common arrangement of whiffle-trees, in front of the cross-bar, because it avails the whole strength of the bar. It does not take up any room; for the tug-hooks may be even nearer to the cross-bar than are those of the ordinary whiffle-tree.

Another decided advantage is, that it keeps each trace constantly taut, notwithstanding the ride or shifting pull on the tugs, incident to the motion of the animal, which, especially with long-reaching horses, causes a vibratory action of the vehicle by pulling alternately first on one trace and then on the other. In a word, the device discharges the functions of a balance or fly-wheel, which operates to secure a sustained, continuous, and comparatively uniform motion of the vehicle, notwithstanding the presence of obstructions, and the various disturbing causes which are liable to jar and strain the horse. I prefer to construct my spring in two or more plates or leaves, of which that farthest from the cross-bar extends nearly all or quite the width between the shafts, and is sufficiently long and sensitive to entirely take up the side or oscillating draught of the horse; while the shorter plate, or plates, serve to receive and modulate any excessive jar or jerk. The improvement may be substituted for the common whiffle-tree in a few minutes, and without any weakening or disfigurement of the cross-bar by holes or otherwise. The invention may be made available for double harness by forming either the double-tree or the single-trees on this principle.

I claim herein as new, and of my invention—

The spring whiffle-tree A, adapted for fastening in rear of the shaft's cross-bar, its ends being provided with the yokes D D′, and terminating in hooks, or other devices, for the attachment of the tugs, as set forth.

In testimony of which invention I hereunto set my hand.

O. N. WEAVER.

Witnesses:

GEO. H. KNIGHT,

JAMES H. LAYMAN.