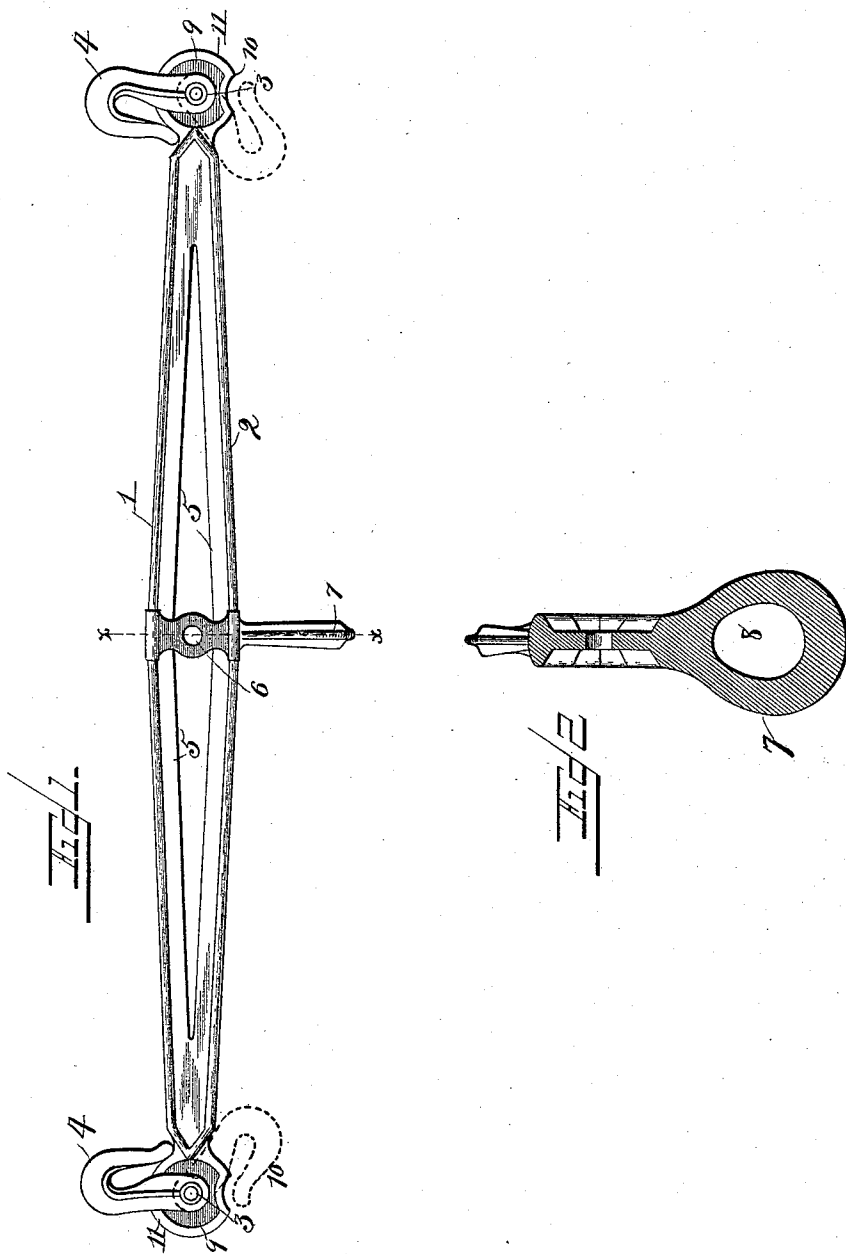


(No Model.)

L. S. FLATAU.
WHIFFLETREE.

No. 486,863.

Patented Nov. 29, 1892.



WITNESSES:
J. L. Curry
Charles Jones

INVENTOR:
Louis S. Flatau
J. L. Curry & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

LOUIS S. FLATAU, OF PITTSBURG, ASSIGNOR TO THE FLATAU MANUFACTURING COMPANY, OF DALLAS, TEXAS.

WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 486,863, dated November 29, 1892.

Application filed March 14, 1892. Serial No. 424,848. (No model.)

To all whom it may concern:

Be it known that I, LOUIS S. FLATAU, a citizen of the United States, and a resident of Pittsburg, in the county of Camp and State of Texas, have invented certain new and useful Improvements in Whiffletrees; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in all-metal whiffletrees—both single and double trees—either of cast or wrought metal, according to the size and requirements of the same; and the object of the invention is, in the first place, to provide an improved construction of whiffletree made of a single piece of metal, whereby I secure important advantages with respect to strength, economy, durability, and lightness, and, in the second place, to so construct the solid metal ends or heads of the tree that they will interlock with the trace-hook and thereby effectually prevent the link or eye of the trace-coupling from becoming accidentally disconnected.

With these objects in view my invention consists in the improved construction and combination of parts of an all-metal whiffletree, which will be hereinafter more fully described and claimed.

Referring to the accompanying drawings, Figure 1 represents a plan view of a whiffletree constructed in accordance with my invention; and Fig. 2 is a cross-section, on an enlarged scale, on the line *x x*, Fig. 1.

Like letters of reference denote corresponding parts in all the figures.

In the said drawings the whiffletree is shown as comprising two bars 1 and 2, tapering from the center toward each end, where they are joined together and provided or formed with a flat circular solid metal head 9, having an aperture for the passage of the bolt or rivet 3, by which the trace-hook 4 is pivoted to said head. The bars 1 and 2 on their inner sides are formed with a strengthening-rib 5 and at the center with a web 6. They are also formed with a rearwardly-extending curved arm 7, having an opening 8 therein, whereby it can be connected with a vehicle.

For the shorter lengths or smaller sizes the whiffletree is made of cast malleable iron or steel, the arms 1 and 2, the ribs 5, the heads 9, the web 6, and the arm 7 being all made integral or in a single piece, and by means of the ribs and central web great strength is assured with a minimum amount of metal.

For doubletrees or the larger sizes of whiffletrees it is preferable to form the same of wrought metal by rolling or by stamping from dies of suitable construction.

The circular heads 9 are cut away on their rear side, as shown at 10, and the lip of the trace-hook 4 is of such length and shape that it, when the hook is turned on its pivot 3, will impinge against the circular flange 11 of head 9. Not until the hook is swung all the way back, or into the position shown in dotted lines, will there be sufficient space between the circular flanged head and the lip of the hook for the insertion of the link or eye at the end of the trace, (not shown;) but at this point sufficient space will be left for this purpose by the inlet or opening formed between the lip of the hook and the cut-away part 10 of head 9. After the insertion of the trace-link the hook is swung back into its normal position (shown in full line) and the trace is securely locked in place.

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

As an improved article of manufacture, a whiffletree consisting of the bars tapering from the center toward the ends, where they are joined together, the strengthening-ribs on their inner sides, the central web, and outwardly-extending arm having an opening therein, the circular flanged heads with central apertures and cut-away or notched on their rear sides, all being constructed integral with each other, and the trace-hooks pivoted to said heads, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

LOUIS S. FLATAU.

Witnesses:

C. J. STAMBAUGH,
A. F. BRITTON.