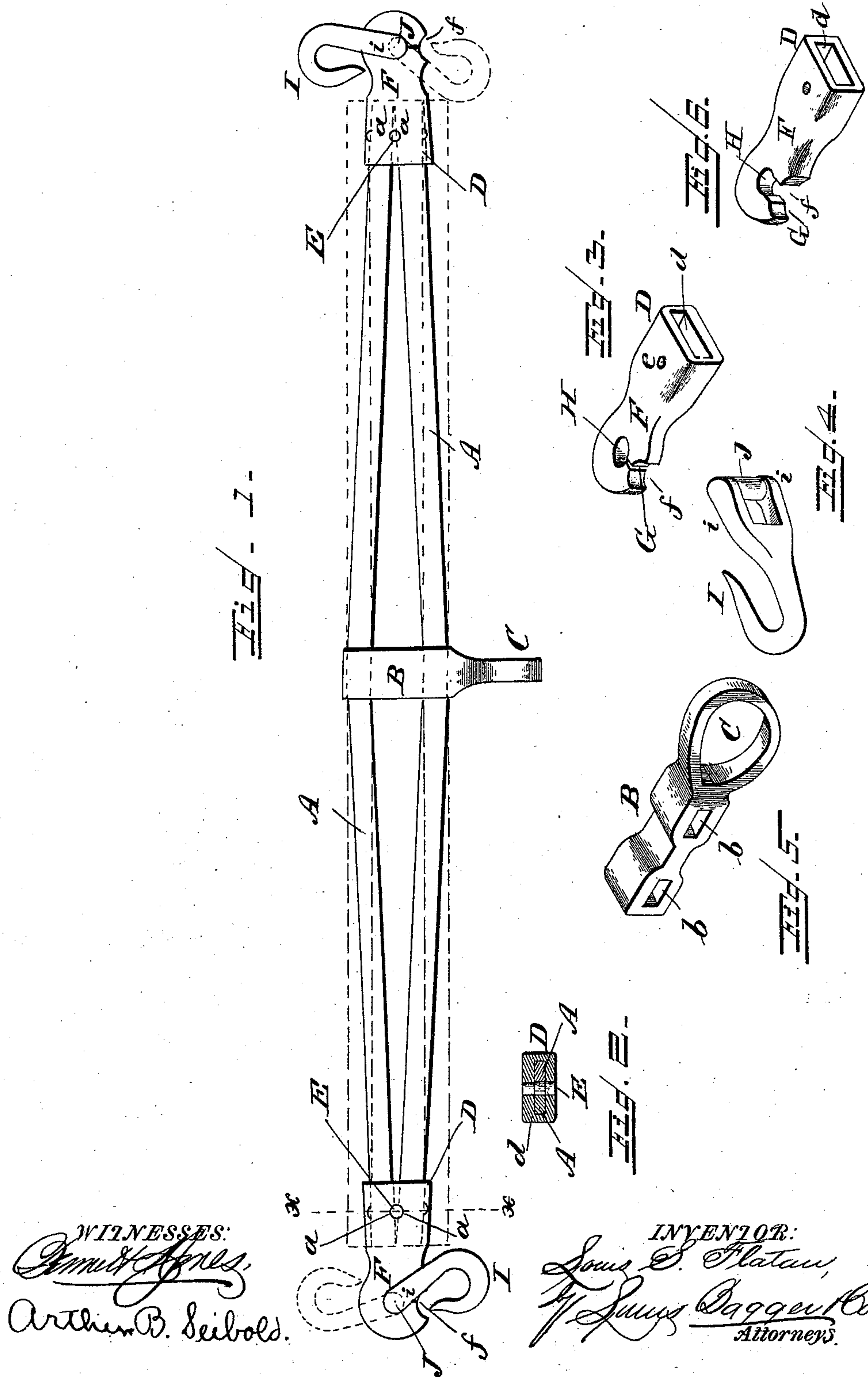


(No Model.)

L. S. FLATAU.
WHIFFLETREE.

No. 485,622.

Patented Nov. 8, 1892.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 485,622, dated November 8, 1892.

Application filed February 17, 1892. Serial No. 421,796. (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, and in which—

Figure 1 is a plan view of my improved whiffletree. Fig. 2 is a transverse sectional view on line *x x*. Fig. 3 is a perspective view of one of the end caps which confine the ends of the tree and to which the hooks are fastened. Fig. 4 is a perspective view of the hook detached and removed from the tree. Fig. 5 is a perspective view of the central brace, also removed from the tree; and Fig. 6 is a detail view of the end cap with its head, showing the latter as it appears when sprung open for the insertion of the hook.

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

This invention relates to whiffletrees—both doubletrees and singletrees—made wholly of metal; and it consists in the novel and improved construction and combination of parts of a device of that class, as will be hereinafter more fully described and claimed.

Referring to the drawings, A A designate two steel bars of suitable length and shape, and which may be square, rectangular, round, or oval in cross-section, as may be preferred. These bars, which are of even length and are shown on the accompanying drawings as rectangular in cross-section, are inserted parallel to each other through apertures *b b* in the central brace B, which is preferably of malleable cast-iron and provided with a hook or eye C, as usual, for its attachment to the wagon, if the device is a doubletree, or to the ends of the doubletree, if the device is intended for a singletree. After the bars have been inserted through these apertures *b b* parallel to each other, as indicated by the dotted lines in Fig. 1, the ends are grasped and forced together, so that they may be inserted end-

wise into the slightly-tapering socket *d* in the cap or end piece D. This cap has a hole *e* drilled through it for the insertion of a pin or rivet E, which when driven through the cap will pass between the inserted ends of the arms A A, which should be recessed, as shown at *a a*, to make room for the pin. In this manner the pin or rivet E acts as a wedge to force the inner ends of arms A A outwardly against the sides of the cap-socket *d*, binding them firmly therein and at the same time forming an additional fastening by passing through the aperture formed in the ends of the arms by the registering semicircular pin-recesses *a a*. Thus it will be seen that the caps will be fastened firmly upon the tree—one at each end—simply by means of the pin or rivet E.

The cap D, which is also, by preference, of malleable cast-iron, has a head F projecting outwardly from the socket, which is cut away on its rear side, as shown at *f*. A slit G is cut radially into the head F, so that the sides of this may be spread apart, as shown in Fig. 6, for the insertion of the inner end of the hook I. This hook is preferably cast in one piece with the post J, connecting its inner ends *i i*. After the post J has been inserted into the central bore or aperture H, into which the slit G opens, the parts of the head F are forced together again, as shown in Fig. 1, thereby fastening the hook firmly in place and yet permitting its projecting end to move freely forward and back or from the open position shown on the left side of Fig. 1 into the closed position shown on the right side of the same figure.

Instead of casting the hook with a solid post J, which necessitates the splitting or slotting of head F at G, for the insertion of this post, the head may be left solid and intact, simply having the central bore or aperture H, and the hook can then be attached to the head by driving a pin through the ends *i i* of the hook and through the aperture H.

When the traces are to be hooked to the tree, the hooks are swung back with the end or point of the hook opposite to the recess *f*. The link or cockeye is then inserted and the hook is swung forward again into the position shown in full line on the right side of Fig. 1. This locks the trace firmly in place

and effectually prevents accidental slipping or unhitching of the traces.

By this construction I produce a whiffletree combining great strength, stiffness, and durability with a minimum of weight. The arms 5 A A being of steel, may be made very light, as they mutually brace and support each other. The parts are few and easily put together, so that neither machinery nor skilled labor is 10 necessary in the manufacture of my improved all-metal whiffletree. The steel bars A A being cut to the proper length, any boy or unskilled workman can assemble the parts with the use of the most common tools, thus mak- 15 ing it possible to place this tree on the market at a very small cost, as compared with metallic trees or trees of wood and metal combined, which require skilled labor and expensive machinery for their production.

Having thus described my invention, I 20 claim and desire to secure by Letters Patent of the United States—

As an improved article of manufacture, the whiffletree comprising the metal bars A A, having registering end recesses *a a*, middle 25 brace B, having apertures *b b*, end caps D, having heads F, hooks I, and cross-bar or pivot J, and rivets E, constructed and combined substantially as and for the purpose herein shown and set forth. 30

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:

AUGUST PETERSON,
LOUIS BAGGER.