

(No Model.)

J. W. CLAYTON.
TRACE HOOK.

No. 576,339.

Patented Feb. 2, 1897.

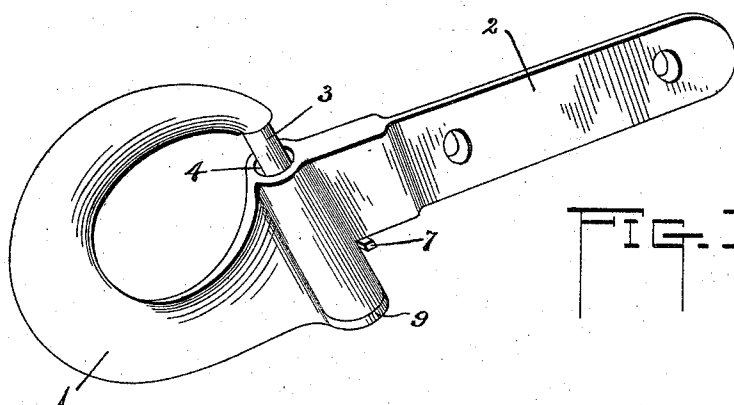


FIG. 1.

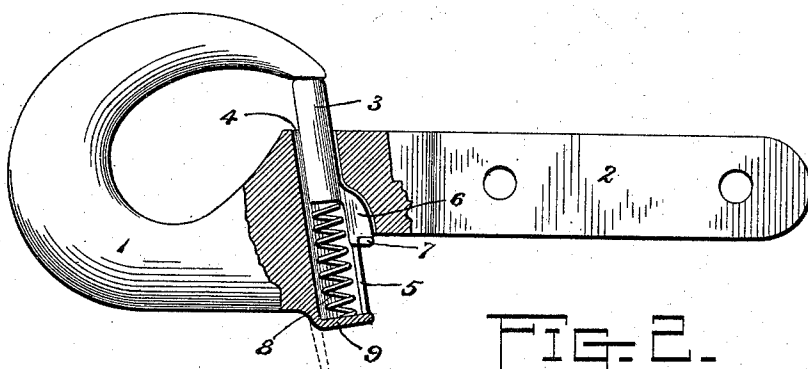


FIG. 2.

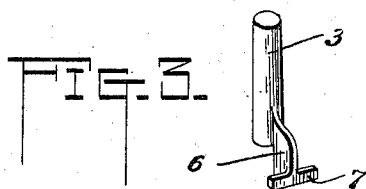


FIG. 3.

Witnesses

A. M. Poynton.
J. F. Riley

By his Attorneys,

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Inventor

UNITED STATES PATENT OFFICE.

JOHN WILLIAM CLAYTON, OF CHATTANOOGA, TENNESSEE.

TRACE-HOOK.

SPECIFICATION forming part of Letters Patent No. 576,339, dated February 2, 1897.

Application filed March 28, 1896. Serial No. 585,262. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAM CLAYTON, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented a new and useful Trace-Hook, of which the following is a specification.

The invention relates to improvements in trace-hooks.

The object of the present invention is to improve the construction of trace-hooks and to provide a simple, inexpensive, and efficient one which will be strong and durable and which will enable a trace to be readily connected to and detached from a whiffletree or a whiffletree-chain when the latter is employed.

A further object of the invention is to provide a trace-hook which, when in engagement with a whiffletree-chain or the like will be securely locked and absolutely prevented from becoming accidentally unlocked.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a trace-hook constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a detail perspective view of the spring-actuated bolt.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a trace-hook provided with a shank 2, consisting of the attachment-bolt adapted to be readily secured to the end of the traces in any suitable manner. The hook curves upward and forward and terminates over the rear end of the shank a short distance therefrom to form a mouth or entrance through which an eye or link of a whiffletree or the like is introduced to engage it with the trace-hook. The trace-hook is adapted to be applied directly to a whiffletree, or to be connected with a chain of the whiffletree or any other analogous construction, and the mouth of the trace-hook is normally closed to confine an eye or link or the like by a spring-actuated pin or bolt 3, arranged in an open-

ing 4 of the shank of the hook and disposed transversely of the same.

The shank of the hook is slightly enlarged at the opening 4 to provide a casing or housing, and the hook proper extends below the attachment-plate and is provided with a slot 5, through which extends a web or flange 6 of a finger-piece 7. The finger-piece consists of the said web and a pair of lugs projecting laterally from the lower end of the web, and extending slightly from the side faces of the shank 2 and engaging the lower face of the same to form a stop. The housing is arranged perpendicular to the shank, and the upper end of the locking-pin is of less area than the point of the hook, and it is completely covered by the same to prevent the locking-pin from being accidentally operated through anything striking the upper end of said pin. The locking pin or bolt is held in engagement with the point of the hook by a spiral spring 8, interposed between the inner end of the pin or bolt and the adjacent end 9 of the casing or housing, and the end 9 consists of a projection or piece adapted to be bent against the adjacent end of the casing or housing to close the same. The spring holds the finger-piece normally against the attachment-bolt and the adjacent portion of the latter is grooved to provide a way for the web or flange 6. By inverting the bolt its head or finger-piece is arranged beneath the attachment plate or shank, and is partially concealed and protected by the same to prevent the bolt from becoming accidentally depressed through the movements of a trace. The upper portion of the bolt is located directly beneath the point of the hook and its end is of greater area than the said point, so that it does project beyond the point of the hook and cannot be accidentally engaged and depressed through the movements of a trace.

The mouth of the hook is readily opened by depressing the finger-piece against the action of the spiral spring, and the latter is securely housed and the parts are protected and cannot easily become clogged or inoperative by an accumulation of dust, water, snow, and the like.

It will be seen that the trace-hook is exceedingly simple and inexpensive in construction and positively reliable in operation, and

that it will prevent a trace from being accidentally unhooked, and at the same time enable it to be readily connected with and detached from an eye or link of the whiffletree or whiffletree-chain.

Changes in the form, proportion, and minor details of the construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

10 What I claim is—

A trace-hook comprising a shank 2 consisting of a plate adapted to be secured to a trace and extended downward at its inner end and provided with an opening to form a housing, 15 the latter being disposed substantially perpendicular to the shank, and the extension being slotted at its front beneath the shank, a curved hook formed integral and extending rearward from the shank and curved upward over the 20 rear end thereof, the point of the hook being located directly above the top of the housing, the locking-pin arranged in the housing, disposed perpendicular to the shank and abut-

ting against the end of the hook to close the mouth thereof, the upper end of the locking- 25 pin being of less area than the point of the hook to prevent the locking-pin from being accidentally operated, the finger-piece formed integral with the lower end of the locking-pin and composed of a web projecting through 30 the slot of the said extension and normally arranged in a recess of the lower edge of the shank, and lugs projecting laterally from the lower end of the web engaging the lower edge of the shank to form a stop, and projecting 35 laterally therefrom to be engaged by the fingers to operate the locking-pin, and a coiled spring for engaging the lower end of the locking-pin, substantially as described.

In testimony that I claim the foregoing as 40 my own I have hereto affixed my signature in the presence of two witnesses.

JOHN WILLIAM CLAYTON.

Witnesses:

A. S. ALLEN,
G. E. TAYLOR.