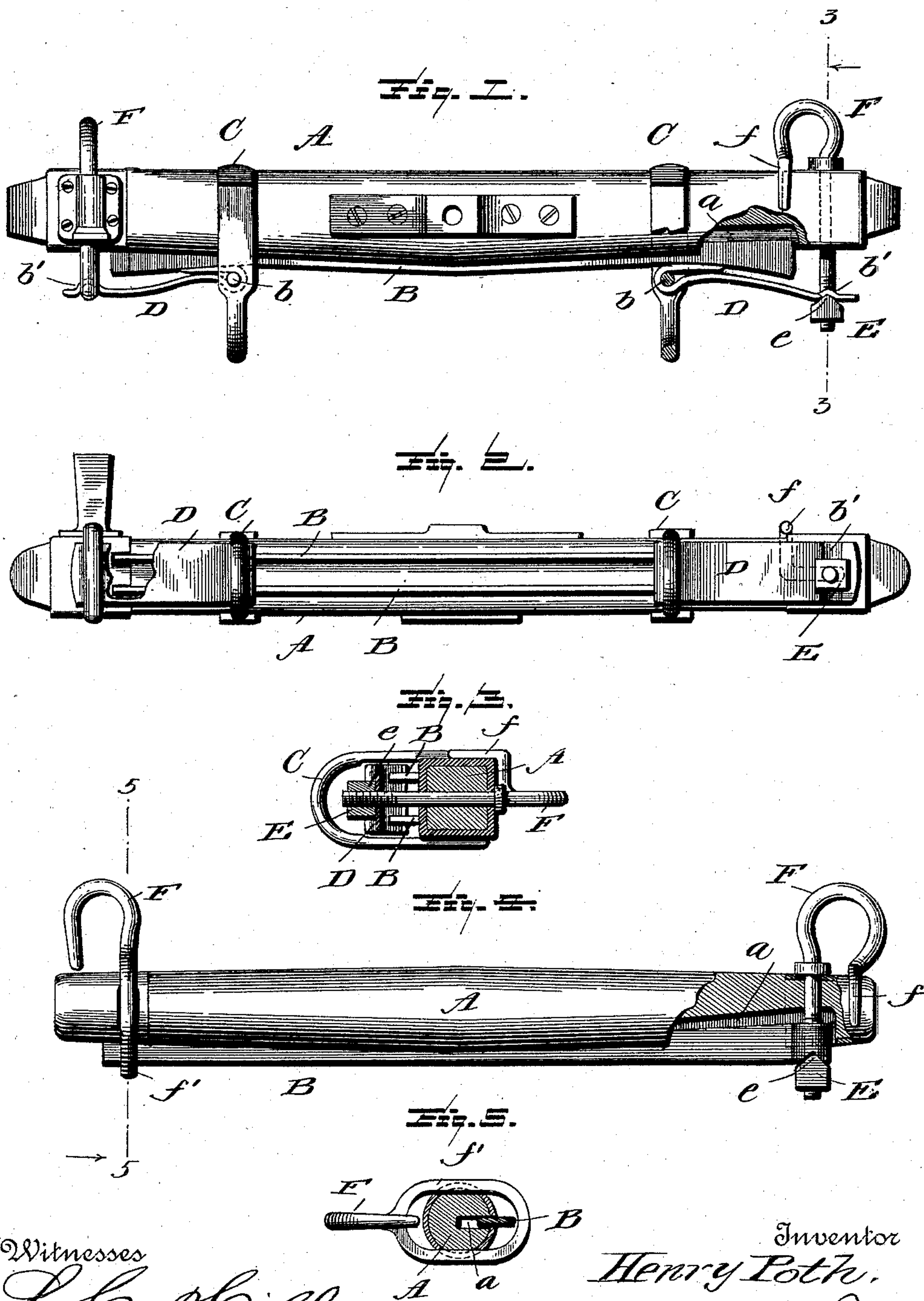


(No Model.)

H. POTH.
WHIFFLETREE.

No. 474,565.

Patented May 10, 1892.



Witnesses
L. C. Hills
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UNITED STATES PATENT OFFICE.

HENRY POTH, OF CRAFTON, PENNSYLVANIA.

WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 474,565, dated May 10, 1892.

Application filed February 20, 1892. Serial No. 422,230. (No model.)

To all whom it may concern:

Be it known that I, HENRY POTH, a citizen of the United States, residing at Crafton, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Single and Double Trees; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in singletrees and doubletrees; and it has for its objects, among others, to provide an improved, simple, cheap, and strong device which shall take the jar and strain off the team in starting and which will not be broken under heavy strain. I form the wood portion with a longitudinal slot or groove, in which is arranged a metal spring set on edge to receive the strain on edge. There is no strain on the wood portion until after the spring has reached the limit of its elasticity. The trace-hook is revolvably held in position to facilitate application of the trace. An auxiliary spring may be interposed to first receive the strain, which, later, is received by the spring in the groove of the wooden portion.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of my improved singletree with a portion broken away. Fig. 2 is a front view thereof. Fig. 3 is a cross-section on the line 3 3 of Fig. 1. Fig. 4 is a side elevation of a modified form with a portion broken away. Fig. 5 is a cross-section on the line 5 5 of Fig. 4.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the wooden portion, which is provided with a longitudinal groove or recess *a* upon its rear face, and within this groove is arranged the steel spring

B, which is a thin flat spring, with its outer edge normally extended beyond the outer face of the wooden portion, as seen in Figs. 1 and 4. There may be one or more of these springs. In Fig. 2 I have shown two.

In the forms shown in Figs. 1, 2, and 3 clips C are employed, which embrace the wooden portion and are provided with cross-bars *b*, to which or around which are secured the springs D, the free ends of which extend toward the ends of the device, as seen in Fig. 1, and are there formed with a transverse bend or depression *b'*, as seen best in Fig. 1, for the reception of the convex face *e* of the nut E upon the end of the trace-hook F. This serves to prevent turning of the nut. This spring D receives the jar or strain upon the first starting of the team and then bears upon the spring or springs B, as will be readily understood from Fig. 1. The trace-hooks are rotatably held in the ends of the wooden portion, and each has a right-angled portion *f*, which is designed to engage the top of the singletree, as shown in Figs. 1 and 3, to hold the same locked and prevent accidental displacement of the traces. The hook-trace may be easily turned around for attachment of the trace when desired.

In the form shown in Figs. 4 and 5 the supplemental springs D are omitted and the shanks of the trace-hooks are passed through loops or eyes in the ends of the springs B, which extend into the ferrules on the ends of the singletree, as seen in said views; or the trace-hook may have a loop *f'* to encircle the ferrule, as seen at the left of Figs. 4 and 5. The operation is the same in all instances.

What I claim as new is—

1. A whiffletree recessed at its rear side, a leaf-spring confined in said recess, trace-hooks secured to said whiffletree, and the shanks of said hooks bearing against said spring at the ends thereof, substantially as described.

2. A whiffletree recessed at its rear side, a leaf-spring confined in said recess, rotatable trace-hooks secured to said whiffletree, and the shanks of said hooks bearing against said spring at the ends thereof, substantially as specified.

3. The combination, with the body portion having a longitudinal groove, of a flat spring

set on edge in said groove, trace-hooks, and interposed springs extending from the said spring to the said hooks and connected therewith, as set forth.

- 5 4. The combination, with the body portion and its longitudinal groove and spring set on edge therein, of the springs at the ends, the trace-hooks having their shanks engaged by said springs, and adjusting-nuts on said

shanks and bearings on the springs, as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY POTH.

Witnesses:

J. S. KENNEDY,
J. R. BRADDOCK.