

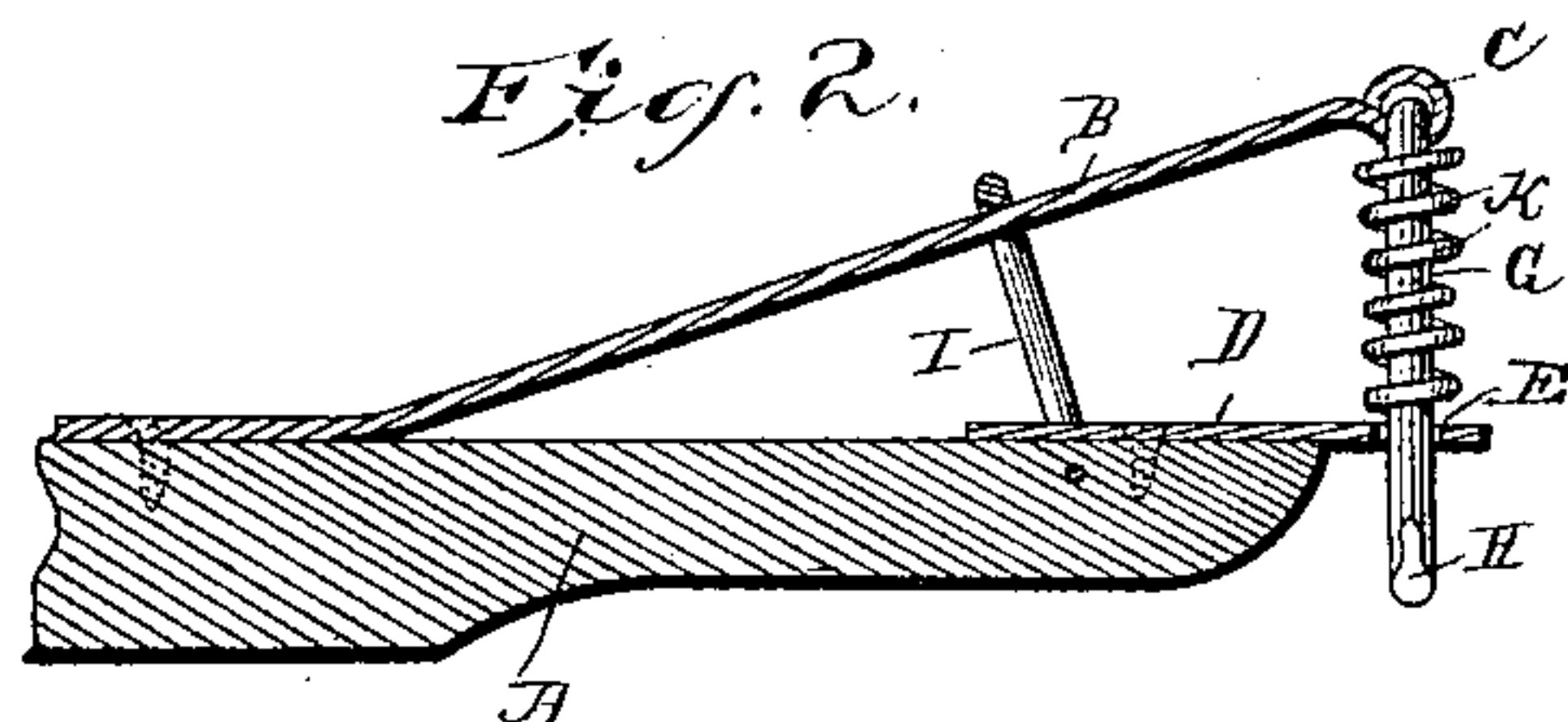
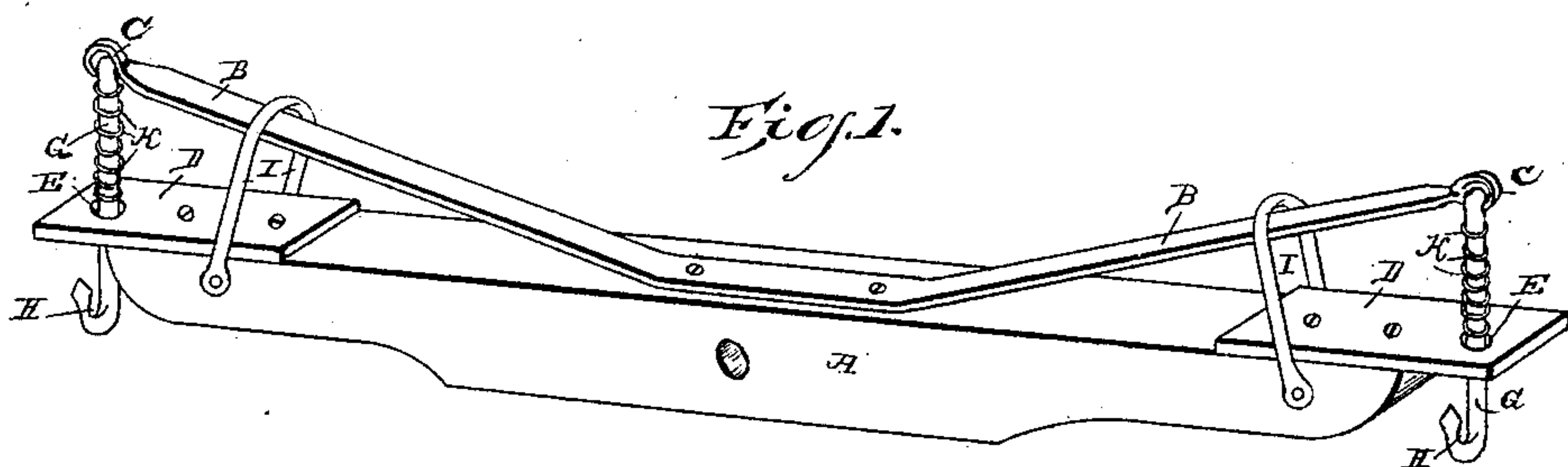
(No Model.)

B. C. SEATON.

WHIFFLETREE.

No. 373,488.

Patented Nov. 22, 1887.




Witnesses

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UNITED STATES PATENT OFFICE.

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WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 373,488, dated November 22, 1887.

Application filed August 25, 1887. Serial No. 247,867. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN CAPLIN SEATON, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented new and useful Improvements in Whiffletrees, of which the following is a specification.

My invention relates to improvements in whiffletrees; and it consists in a certain novel construction and arrangement of parts, fully set forth hereinafter, and specifically pointed out in the claims.

The object of the invention is to provide improved means whereby the starting of the draft-animal will not jerk the vehicle, and thus cause the occupants discomfort.

In the drawings, Figure 1 is a perspective view of a doubletree embodying my improvements. Fig. 2 is a longitudinal section through one end of the same.

I have shown my invention as applied to doubletrees; but it is obvious that I am not limited to this arrangement, as the same improvement may be applied to singletrees with equal effect.

Referring by letter to the drawings, A designates the doubletree, of the ordinary or any preferred shape, pivoted at the center, as usual, to the rear side of which, near the center, are secured the inner ends of the leaf-springs B B, adapted to spring normally away from the rear side of the doubletree, and having small eyes C C in the outer ends.

D designates a plate secured on the rear side of the doubletree at each end, which projects beyond the end of the doubletree, and is provided with an opening or eye, E.

G represents a sliding bolt, provided on the rear end with an eye to engage in the eye C, and operating at the forward end in the eye on the end of the plate D. The front end of the bolt G is provided with a hook, H, in which to engage the clevis on the rear side of the singletree. (Not shown.) The said hook H may be replaced by any other ordinary or preferred means of attaching the singletree thereto.

It will now be seen that when the horse or horses start they draw forwardly upon the bolts G and draw the ends of the springs B B

forwardly, and consequently there is no jar or jerk upon the doubletree or the carriage to which it is attached.

To limit the rearward motion of the outer ends of the spring B, to prevent their springing too far away from the rear side of the doubletree, I pivot the links I I to the said doubletree, and cause the spring to pass there-through. It will be seen that the said links do not limit the forward motion of the spring, but simply the backward motion.

In order to aid the leaf-springs B B in resisting the sudden pull by the horses, and thus reduce the jar upon the carriage to a minimum, I employ the coiled springs K K, around the bolts G, and bearing at the ends, respectively, against the end of the leaf-spring and the projecting end of the plate D. Therefore, when a strain is brought upon the front end of the bolt, the leaf spring B will be fixed and the coiled springs will be compressed, and the combination of the two will be capable of resisting even a very violent jerk by the horses, and thus render the starting of the carriage gradual and easy.

I wish it to be understood that I do not claim, broadly, the application of springs to a doubletree, whereby the draft of the horses will be applied gradually, so as to prevent a jerk upon the vehicle, as I am aware that it is not new.

Having thus described my invention, I claim—

1. As an improvement in whiffletrees, the whiffletree A, leaf-springs B B, secured thereto, the guide-eyes E E on the ends of the whiffletree, the bolts G, secured to the outer ends of the springs B, and operating in the said guide-eyes, and the springs K K, coiled around the said bolts and bearing at the front ends around the said guide-eyes, all constructed and arranged substantially as specified.

2. As an improvement in doubletrees, the doubletree A, leaf-springs B B, secured at the inner ends to the rear side thereof, near the center, and having the eyes C C in the outer ends, the plates D D, secured to the rear side of the doubletree, near the ends, and having the eyes E E therein, projecting beyond the ends of the doubletree, the bolts G, provided

at the rear ends with eyes to engage in the eyes C C, and at the front ends with the hooks H H, or their equivalents, the front ends of the bolts being adapted to operate in the eyes
5 E E, the coiled springs K K on the bolts G, between the outer ends of the springs B and the eyes E, and the limiting-links I I, pivoted on the doubletree and passing around the springs B B, to limit the rearward motion

thereof, all constructed and arranged substantially as and for the purpose specified.

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

BENJAMIN CAPLIN SEATON.

Witnesses:

P. G. TART,

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