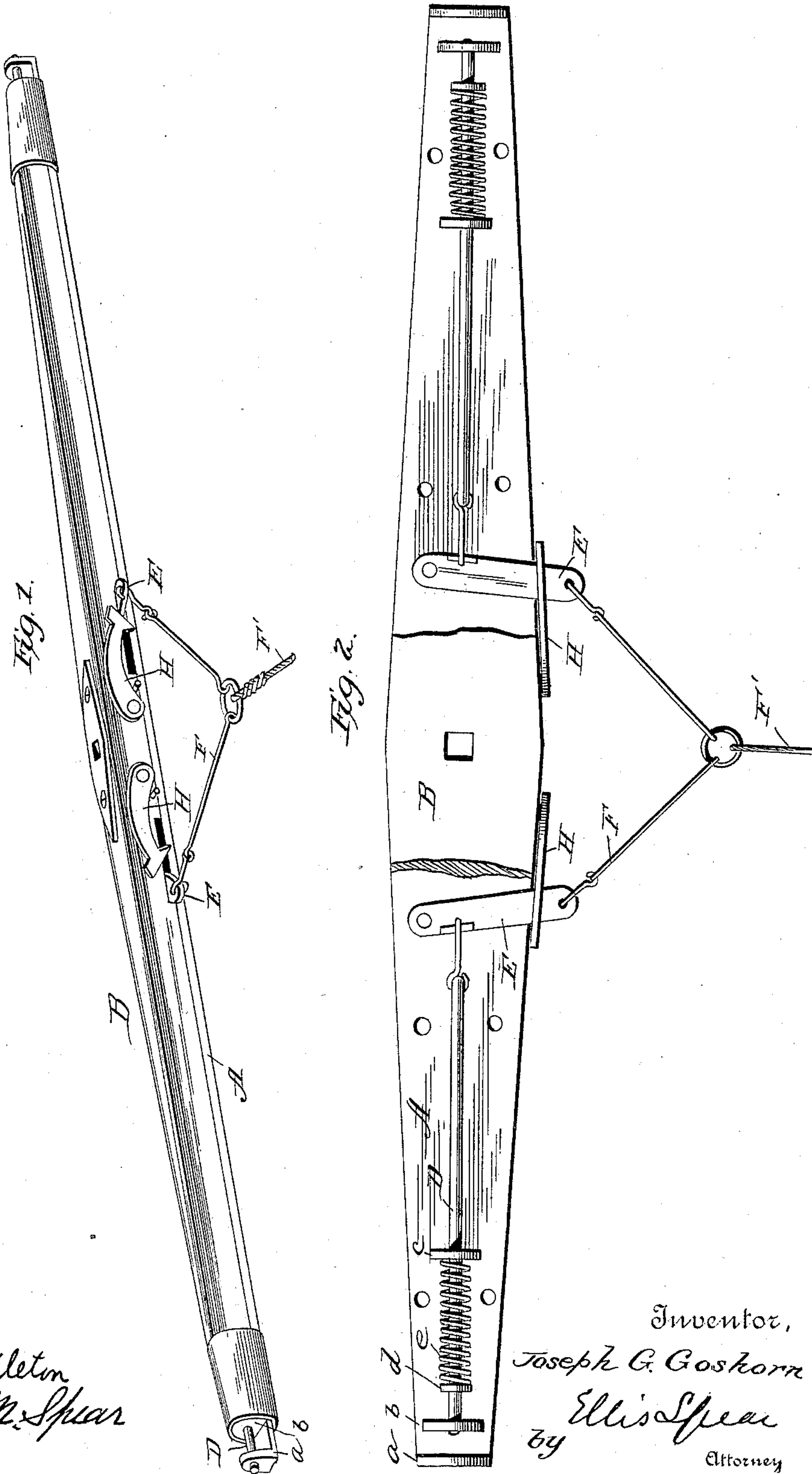


(No Model.)

J. G. GOSHORN.  
DETACHABLE WHIFFLETREE.

No. 405,548.

Patented June 18, 1889.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JOSEPH G. GOSHORN, OF SPRING RUN, PENNSYLVANIA.

## DETACHABLE WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 405,548, dated June 18, 1889.

Application filed April 8, 1889. Serial No. 306,490. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH G. GOSHORN, of Spring Run, in the county of Franklin and State of Pennsylvania, have invented a new and useful Improvement in Detachable Whiffletrees; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to whiffletrees of that class in which the traces or tugs are held to the whiffle by detachable connections, consisting of bolts normally pressed out by springs and capable of retraction to detach the horse from the vehicle at the will of the driver.

The invention consists of improved details of construction designed to give greater compactness and strength with certainty of operation and economy in manufacture.

In the accompanying drawings, in which my invention is illustrated, Figure 1 is a perspective view of the complete article. Fig. 2 is a plan view of the plate carrying the operating parts.

In the drawings I have shown the article as formed of a metal plate, preferably of steel, and a wooden upper part. The plate is marked A, it being in length and lateral dimensions the size of the whiffletree, and of sufficient thickness to firmly sustain the working parts. On this plate are set the lugs and levers which hold and operate the bolts. Both ends are alike and a description of one will serve for both. On the end of the plate are two vertical lugs *a b*, with a space between fitted to receive the end of the tug or its clip. A little farther toward the center—say about six inches—is another lug of the same size and shape, (marked *c*.) These are all perforated in line for the attaching-bolt D, which has a collar *d*, serving as a bearing for a spring *e*, and as a stop to limit the outward movement of the bolt. The coiled spring *e* bears at one end against this collar and at the other end on the collar *d*, thus tending to force the bolt outward. To the inner end of the bolt is attached a wire or chain which connects the bolt to a lever E, pivoted on the plate. The outer or free end of the lever projects beyond the plate and has a hole to receive a cord, link, or chain F, which connects to the other lever E, one being on one side of the central bolt and the other on the other side.

The levers are of the second order, and when drawn together by pulling on the cord or chain F' the bolts are retracted so that the end is drawn out of the space between the two outer lugs, and then the tug is released. In order to retain the lever in this retracted position, two hooks H are provided on the outside, which engage and hold the levers so long as it is desired to hold the bolts out of engagement with the tugs.

The upper or wooden part of the whiffletree (marked B) is of the ordinary shape, except that its under surface is flat and hollowed to fit over the projections on the plate A. It then covers all the working parts and protects them and gives the whole the appearance of an ordinary whiffletree. The center bolt-hole is through the iron and wood, and the whole has all the necessary strength. The connecting cord or chain below the levers is extended by the connection F' to any convenient part of the carriage within reach of the driver, and at any time when necessary—as from the occasion of the horses taking fright and running away—the tugs can be released by simply pulling the cord F'. As is well known, the holdback-straps can be, as they preferably are, so attached that they may be drawn out when reversed, as by the releasing of the tugs.

In attaching the tugs all that is necessary is to draw back and hook the bolts and then introduce the ends of the tugs between the outer lugs and release the hooks.

What I claim is—

1. In combination with the plate A, carrying spring-bolts and operating-levers for said bolts, a wooden part B, fitting over the plate A and covering the operating parts, substantially as described.

2. In combination with the plate A, carrying spring-bolts and operating-levers therefor, pivoted hooks for engaging said levers to hold the bolts out of engagement, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

J. G. GOSHORN.

Witnesses:

WALTER P. KEENE,  
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