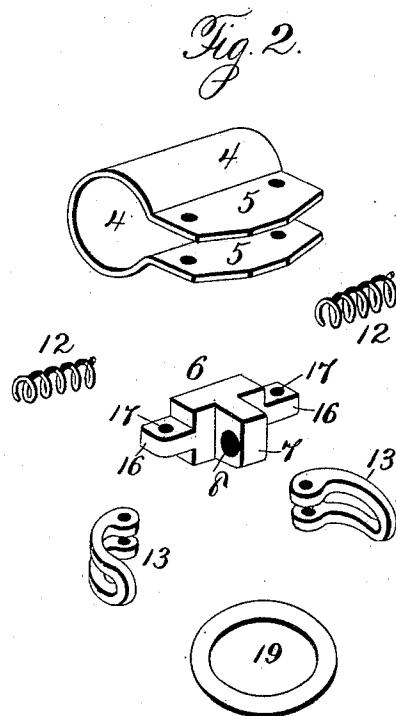
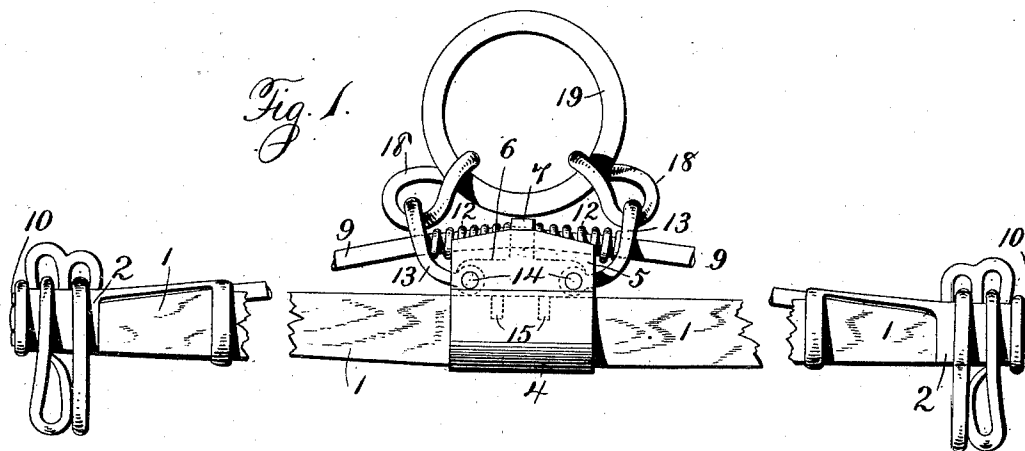


(No Model.)

G. M. AYERS.
WHIFFLETREE.

No. 476,117.

Patented May 31, 1892.



Witnesses:
Jas. C. Hutchinson.
Dennis Sumby.

Inventor.
George M. Ayers,
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Atty.

UNITED STATES PATENT OFFICE.

GEORGE M. AYERS, OF PITTSFIELD, PENNSYLVANIA.

WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 476,117, dated May 31, 1892.

Application filed August 27, 1891. Serial No. 403,907. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. AYERS, a citizen of the United States, residing at Pittsfield, in the county of Warren and State of Pennsylvania, have invented new and useful Improvements in Whiffletrees, of which the following is a specification.

This invention has for its object to provide a novel, simple, and efficient means for relieving a draft-animal from shocks occasioned by suddenly starting a vehicle or when the latter meets an obstruction.

To accomplish this object my invention involves the features of construction and the combination or arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of a whiffletree embodying my invention, and Fig. 2 is a perspective view of the clip, bearing-block, levers, springs, and draft-ring detached from each other for the purpose of clearly exhibiting their construction.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The numeral 1 indicates the wooden body of a whiffletree provided at its extremities with ferrules 2, having draft-hooks or other suitable trace attachments.

The central portion of the whiffletree-body is surrounded by a metallic clip 4, between the horizontal flanges 5 of which is arranged a bearing-block 6, having a centrally-projecting ear 7, perforated, as at 8, for the passage of a truss rod 9, the end portions of which are secured by screw-nuts 10 or otherwise. The truss-rod rests upon the bearing-block and is properly retained in position by the perforated ear, and on the truss-rod at each side of the ear is arranged a coiled or other spring 12, bearing at one end against the ear and at the opposite end against a swinging lever 13, which, as here shown, is bifurcated or made in the form of a link or loop, pivoted to the bearing-block through the medium of a vertical pivot-pin 14 and embracing the truss-rod in such manner that if the levers be drawn toward each other they operate to compress the two springs and

thereby place them under increased tension. The bearing-block is provided at its inner side with projecting studs 15, engaged with suitable recesses in the wooden body of the whiffletree, so that the bearing-block is securely held from displacement along the length of the whiffletree. The extremities of the bearing-block are cut away or recessed to form tenons 16, each having an orifice 17 for the passage of one of the pivot-pins 14. The inner extremities of the levers embrace the tenons and engage the pivot-pins, so that accurate bearings for the levers are provided. The levers are each loosely connected with a link 18, engaged with a draft-ring 19, adapted to be connected in any suitable manner with a doubletree or other proper part of a vehicle, all in such manner that when the draft-strain is applied to the extremities of the whiffletree through the medium of the draft traces or chains, the levers will be drawn toward each other against the power of the two springs, and consequently the draft-animal is relieved from all shock occasioned by suddenly starting or stopping the vehicle or where the vehicle meets an obstruction.

The construction and arrangement of parts provide a strong, substantial, and durable spring attachment for whiffletrees which fulfills all the conditions required to relieve shock, while the construction is simple, economical, and efficient.

I have described and shown my invention as applied to a whiffletree; but obviously it can be applied to a doubletree; and, furthermore, it is well adapted for application to yokes for all kinds of vehicles.

The truss-rod is composed of a continuous length of metal, and it materially strengthens the whiffletree, thereby rendering it strong, substantial, and durable in use, while by passing the continuous truss-rods through a projecting part of the bearing-block, the latter is securely retained in correct position under all circumstances.

Having thus described my invention, what I claim is—

1. The combination, with a whiffletree and a clip secured thereto centrally between its ends, of a pair of levers pivotally connected at their inner ends with the said clip, a spring interposed between the two levers and com-

pressed when the latter move toward each other, and a draft-ring flexibly connected with the outer ends of the two levers to swing them toward each other when the draft is applied, substantially as described.

2. The combination, with a whiffletree, of a clip engaging the same, a bearing-block, a pair of levers pivotally engaged with the clip and bearing-block, a truss-rod connected at its extremities with the whiffletree and resting against the bearing-block, and a spring or springs mounted on the truss-rod between the two levers, and means for swinging the levers toward each other to increase the spring-tension, substantially as described.

3. The combination, with a whiffletree, of a bearing-block connected therewith and provided with a projecting part or ear, a truss-rod extending through the said projecting part or ear, a pair of levers pivotally engaged with the bearing-block, a pair of springs arranged, respectively, between the levers and the projecting part or ear, and means for

swinging the levers toward each other for increasing the tension of the springs, substantially as described.

4. The combination, with a whiffletree, of a clip engaging the same, a bearing-block interposed between the extremities of the clip and provided with a projecting part or ear, a pair of levers connected with the clip and bearing-block by pivot-pins, a truss-rod extending through the levers and the projecting part or ear of the bearing-block, a pair of springs arranged, respectively, between the levers and the projecting part or ear, a draft-ring or similar device, and links connecting the draft-ring or other device with the levers, substantially as described.

In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

GEORGE M. AYERS. [L. S.]

Witnesses:

B. J. AYERS,

GEO. S. AYERS.