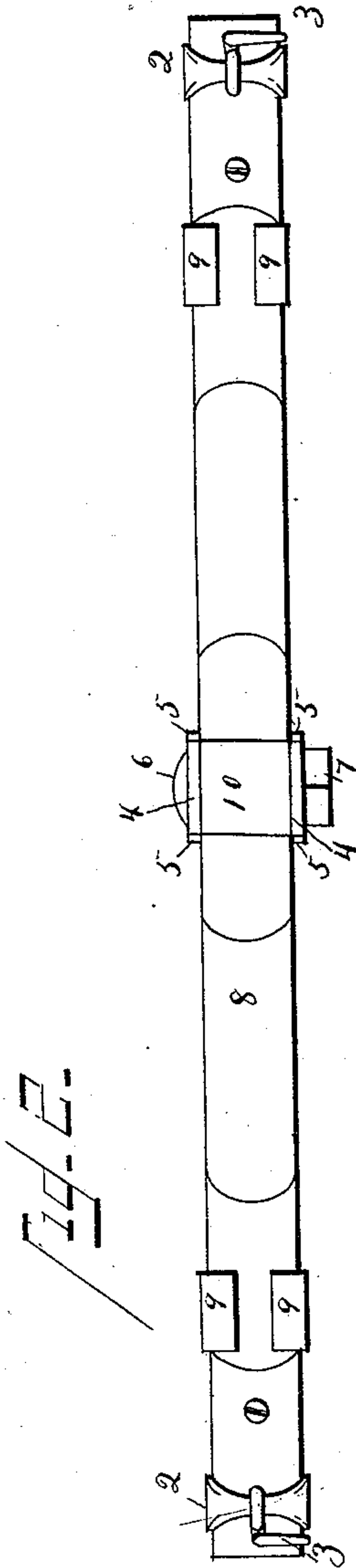
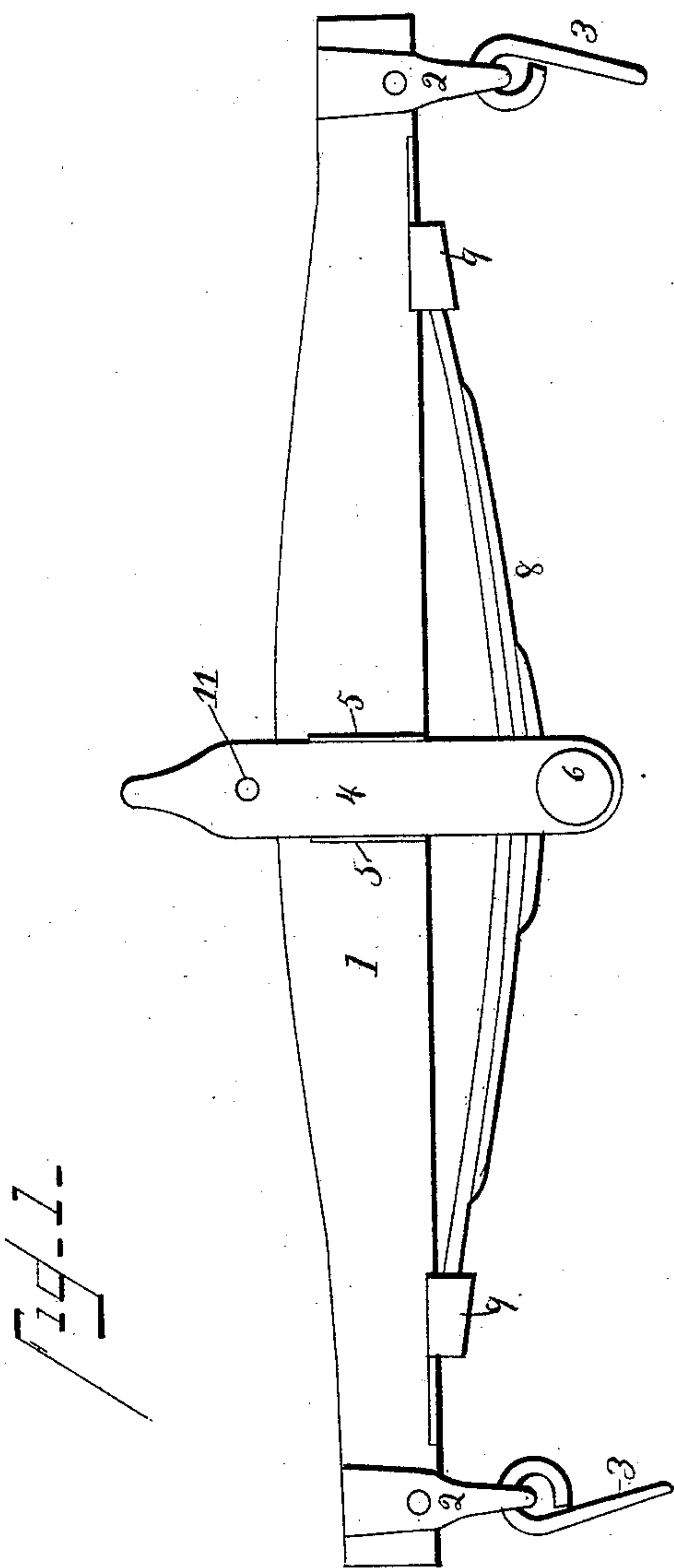


(No Model.)

P. FISHER.
SINGLETREE.

No. 424,873.

Patented Apr. 1, 1890.



WITNESSES:

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UNITED STATES PATENT OFFICE.

PETER FISHER, OF POMEROY, OHIO.

SINGLETREE.

SPECIFICATION forming part of Letters Patent No. 424,873, dated April 1, 1890.

Application filed December 9, 1889. Serial No. 333,075. (No model.)

To all whom it may concern:

Be it known that I, PETER FISHER, a citizen of the United States, and a resident of Pomeroy, in the county of Meigs and State of Ohio, have invented certain new and useful Improvements in Singletrees; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

My invention relates to improvements in singletrees for wagons and other vehicles; and its object is to provide a singletree having a spring combined therewith in such manner
15 that the same shall have a slight yielding movement when the horse starts, thereby rendering the operation of starting the vehicle easier and making the strain upon the animal more uniform.

20 The invention consists in the combination, with a singletree horizontally movable, of a clip secured to the cross-bar of the shafts and carrying at its free end a leaf-spring the ends of which bear against the said singletree, as
25 hereinafter more fully described.

The invention also consists in certain other novel features of construction and new combination of parts, hereinafter fully described, and definitely pointed out in the appended
30 claim.

In the accompanying drawings, Figure 1 is a plan view of a singletree constructed according to my invention. Fig. 2 is a front view of the same.

35 In the said drawings, the reference-numeral 1 designates an ordinary singletree having at the ends the clips 2, to which the usual trace-hooks 3 are secured.

The numeral 4 designates the central clip, which is secured to the cross-bar of the shafts in the ordinary manner. This clip consists of a plate or band of metal bent over upon
40 itself, so as to embrace the singletree, as seen in Fig. 2.

45 The singletree is provided on its upper and lower sides with lugs or ways 5, which serve as guides for the clip and prevent any lateral movement thereof on the tree. The ends of the clip are connected by means of a bolt 6,
50 passing therethrough and also through the

outer leaf of the spring hereinafter described. This bolt is headed at one end and screw-threaded at the other to receive a correspondingly-threaded binding-nut 7.

The numeral 8 designates an ordinary leaf- 55 spring composed of any number of leaves desired, united together at or near their centers by bolts or rivets. The ends of the inner leaf of the spring are embraced by and work in flanged lugs 9, near the ends of the single- 60 tree. The outer leaf of the spring is provided with a curved boss 10, perforated to allow the bolt 6 to pass therethrough and secure the spring to the clip. At its rear end, or where the clip is secured to the shafts, it is 65 provided with a bar 11, which limits the backward movement of the singletree.

From the above it will be seen that I provide a simple and inexpensive device where- by the singletree may have a slight forward 70 movement before the vehicle is started, thus preventing sudden jars and shocks and rendering the strain upon the horse and harness more uniform.

While I have described my invention as 75 being especially applied to singletrees, it is obvious that it may be used in connection with doubletrees without departing from the invention and with equally good results.

Having thus described my invention, what 80 I claim is—

The combination, with the singletree 1, having the lugs 5 5 upon its upper and lower sides, and the flanged lugs 9 near each end, of the clip 4, embracing the singletree and 85 guided by lugs 5 5, the spring 8, the ends of the inner leaf of which work in the lugs 9 and the outer leaf provided with a boss 10, the headed bolt 6, passing through the clip and boss, and the bar 11, carried by the clip 90 for limiting its movement, substantially as described.

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

PETER FISHER.

Witnesses:

GEO. TITUS,

WALTER E. HYSELL.