

(No Model.)

2 Sheets—Sheet 1.

J. C. SIMPSON.  
HARNESS.

No. 430,303.

Patented June 17, 1890.

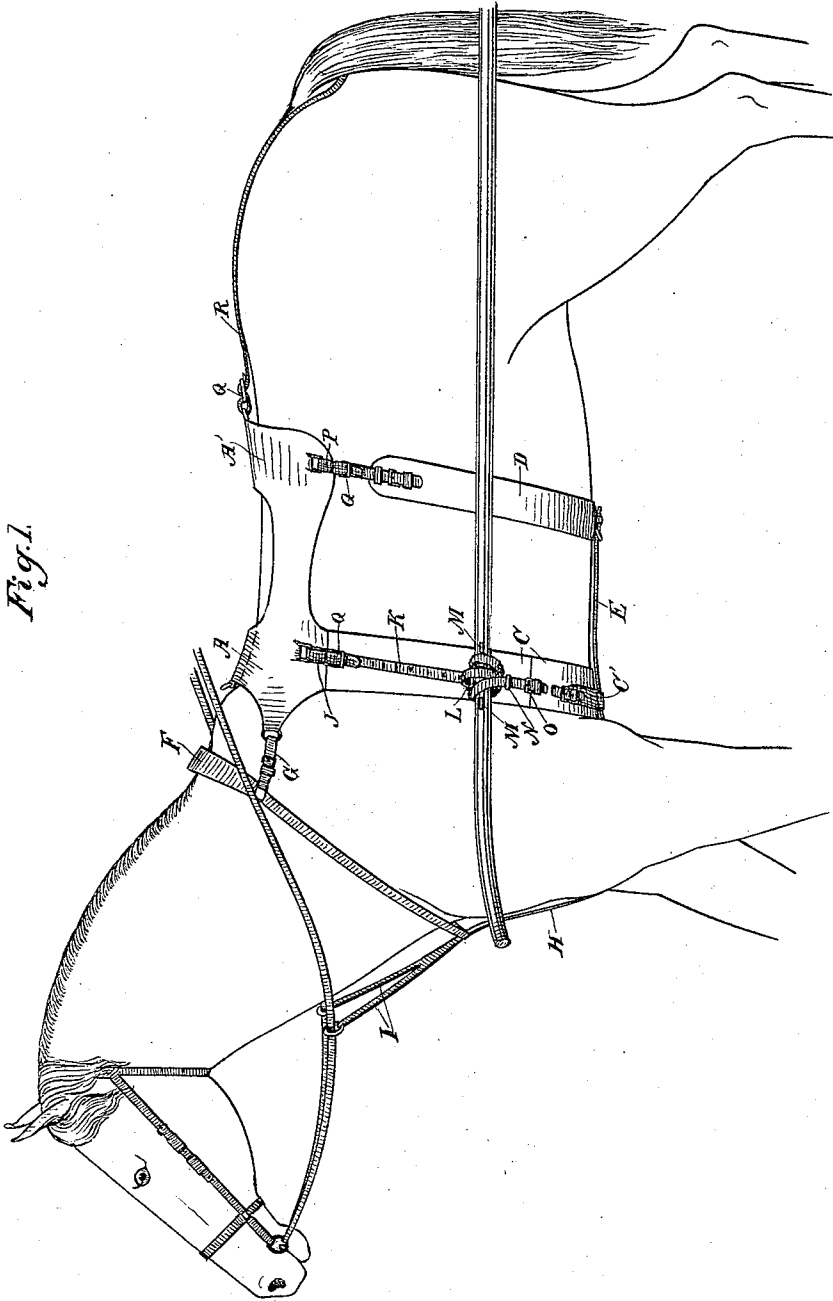


Fig. 1.

Witnesses,  
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G. H. Strong

Inventor,  
Joseph C. Simpson  
By Dewey & Co.  
attys

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2 Sheets—Sheet 2.

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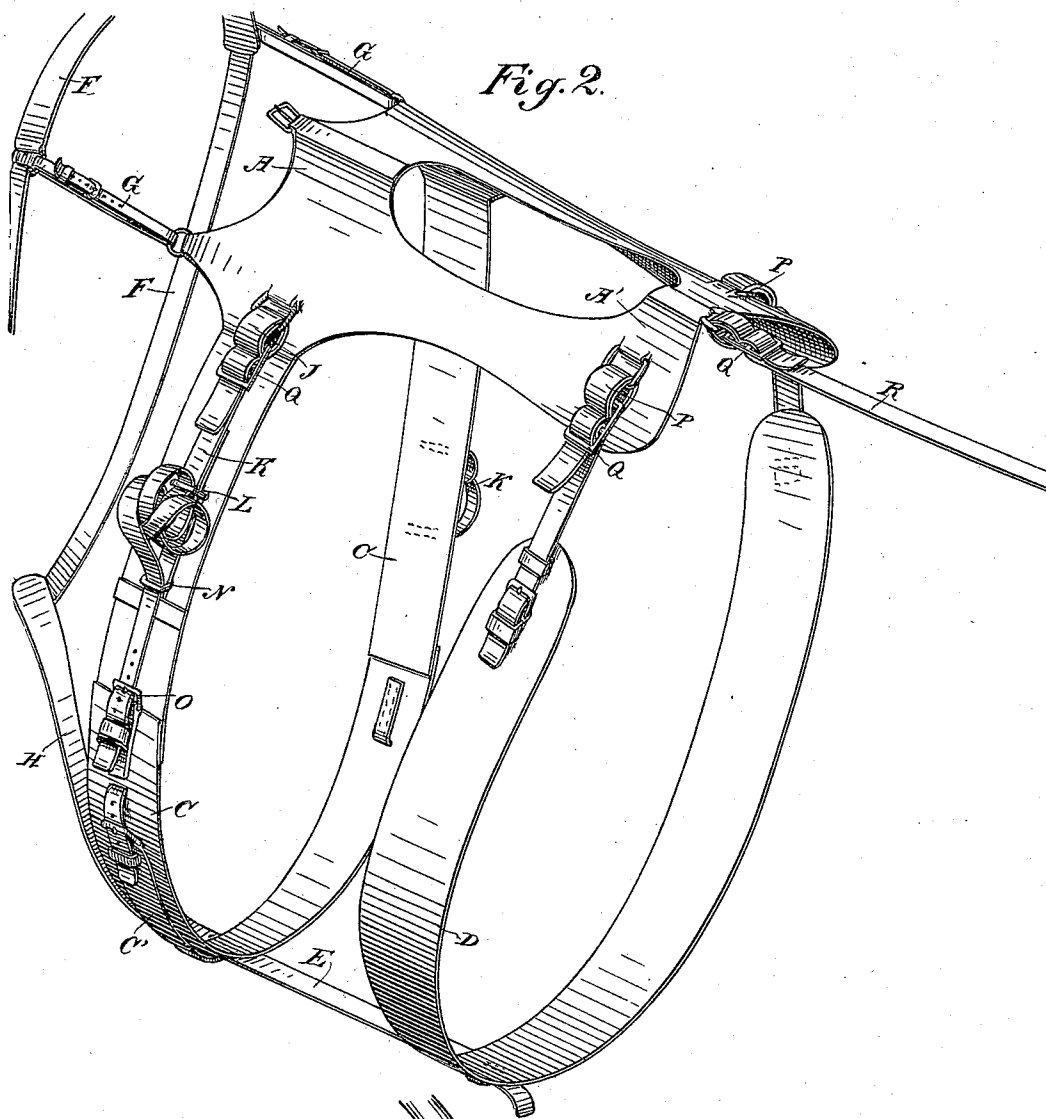


Fig. 2.

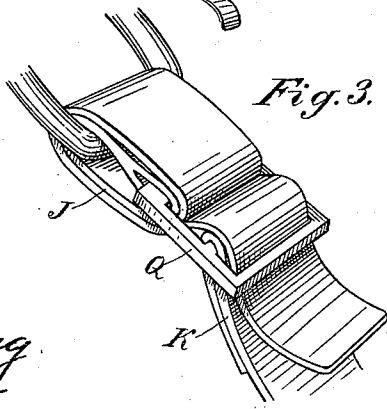


Fig. 3.

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# UNITED STATES PATENT OFFICE.

JOSEPH C. SIMPSON, OF OAKLAND, CALIFORNIA.

## HARNESS.

SPECIFICATION forming part of Letters Patent No. 430,303, dated June 17, 1890.

Application filed February 18, 1890. Serial No. 340,931. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH C. SIMPSON, a citizen of the United States, residing in Oakland, Alameda county, State of California, have invented an Improvement in Harnesses and Saddles; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in light harnesses, such as are specially adapted for road-driving and for use on trotting-tracks.

It consists in certain details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view of my harness in place. Fig. 2 shows the saddle elastic straps and manner of attaching them to the body of the harness and the shaft-loops. Fig. 3 is a view of the fasteners.

The object of my present invention is to do away with the traces and breeching ordinarily used upon harness and to substitute therefor a harness which will permit free use of the shoulders and quarters, and thus increase the speed.

It also consists of a peculiarly-constructed saddle with two independent girths, either with or without the other parts of the harness, elastic connections for the girths, means for securing the shafts, and certain other peculiarities of construction.

A A' is my saddle, which consists of a front and a rear portion, each fitting the back of the horse properly. These two parts are united by flexible side or connecting pieces, so that the whole saddle occupies considerable space in the direction of the length of the horse's back. The front portion of the saddle has a rigid tree, while the back portion and sides are made of sufficiently heavy leather to hold their shape, while having some flexibility. The space between the front and back portion of the saddle I have shown left open for ventilation; but it may be somewhat modified when used for racing purposes. In connection with this saddle I use two girths C and D. The girth C is connected with the front portion of the saddle, and passes around the body of the horse in the usual place, just back of the shoulder. The rear girth is attached to the posterior part of the saddle,

the distance between the girths being regulated on the top by the length of the saddle and on the bottom by a strap E, which connects the two girths together and prevents their being separated to a greater extent than is determined upon. By this construction I am enabled to fix the saddle at any desired point and prevent its slipping upon the shoulders or otherwise shifting its position, which is liable to occur by reason of the swelling by inhalation indulged in by horses when the girths are drawn.

To the front of the saddle-tree is connected the neck-strap F, by means of two straps G—one upon each side—these straps being provided with buckles, so that they may be lengthened or shortened to adjust the neck-strap, as may be desired. The lower part of the neck-strap is connected with the center of the forward girth by a strap H, and the martingales I may be attached to this strap, so as to occupy the usual position.

In order to overcome the ill effects of rigid and uneven bands around the body of the horse, the billets of the forward girth are buckled to an elastic belly-band C' after having been run through openings at each end of the broad leather belly-band C, the elastic band C' extending around underneath the band C.

The shaft-loops are supported from each side of the forward portion A of the saddle-tree by elastic bands J. In the ordinary trotting-harness there is a greater tension upon the false girth which passes outside of the belly-band and connects with the shaft-loops upon each side than there is upon the band which passes directly around upon the body of the horse, and by suspending the shaft-loops from these strong elastic webs I overcome this tension by allowing a certain elasticity of movement of the parts. In place of the ordinary shaft-loops I have shown a long strap K upon each side. The upper ends of these straps are connected with rings upon the tree through the intervening elastic webbing J and a peculiar fastener, to be hereinafter described.

Rings L are fixed to the girth just above the points where the shafts are to be held and the straps K are doubled, so that the folds or bights are passed through the rings and form the loops into which the shafts are in-

served. It will be seen that these loops can be raised or depressed to hold the shafts at any desired height. The shafts have inequalities or lugs M upon them, so that when the loops are drawn tight about the shafts these inequalities will prevent the shafts from slipping forward or backward. The strap is then passed about the shaft with two turns—one before and one behind the loop—the end is put through a ring N, fixed to the girth below the loop, and is secured by a buckle O upon the upper end of the lower part of the forward girth.

The rings L and N are placed so near together that the swaying motion is reduced to a minimum, and the shafts and harness are practically inseparable until the strap is loosened from the buckle.

The straps K have a series of marks upon them, so that the shafts may be rapidly and accurately adjusted upon both sides.

When the harness is upon the horse, all that is necessary to complete the attachment of the vehicle is to place the shafts in the loops, wrap and buckle the strap. There are no traces to hitch and no breeching-straps to wrap and fasten.

The back girth D is connected with the rear portion of the saddle by an elastic P in the same manner as the forward girth. The fasteners Q, by which the elastics are connected, are plainly shown in Fig. 3, the elastic having one end fixed to the upper end of the fastener, passing thence through a ring upon the saddle-tree, thence around the upper bar of the fastener, thence again through the ring and between the upper and middle bar of the fastener, and thence being carried between the middle bar and the lower bar of the fastener. The strap K is attached to the middle bar of the fastener, and when the tension comes upon the straps the end of the webbing is pressed between the strap and the lower bar of the fastener, so as to hold it firmly in place and prevent it slipping, at the same time it is easily moved, when desired and adjusted to any required tension. The crupper-strap R is also attached to the tree by a webbing in a similar manner, and the same method of fastening is used in this case.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a harness, a saddle consisting of the front and back portions with the uniting side straps, the two girths attached, respectively, to the front and back portions of the saddle and connected together at the bottom, a neck-strap connected with the front of the saddle, and a strap connecting the lower end of the neck-strap with the forward girth, substantially as herein described.

2. In a harness, the saddle consisting of the front and rear portions, the front and rear girths with the elastic connecting webs or straps uniting the girths to the saddle, the

shaft-supporting loops with the billets or straps by which they are connected with the saddle, and the elastic connecting-straps, substantially as herein described.

3. In a harness, the saddle consisting of the front and rear portion, the two girths connected therewith, the shaft-supporting loops with the elastic connecting straps or billets uniting them to the saddle, and the rings fixed to the forward girth above and below the shaft-supporting loops, so that the shaft-loop straps may pass through these fixed supplemental rings, substantially as herein described.

4. In a harness, and in combination with the saddle-tree, the front and rear girths, and the crupper-strap having the elastic connecting webs or straps, the fastening devices consisting of the open frames Q in the form of a parallelogram having the three transverse bars, and the attachment of the webbing to these bars, substantially as herein described.

5. A harness consisting of the saddle having the front and rear portions, the front and rear girths connected with the front and rear of the saddle, respectively, and also united together at the bottom, the adjustable neck-strap connected at the top with the front of the saddle and at the bottom with the front girth, and the crupper-strap elastically connected with the rear of the saddle, the strap connected with the saddle and forming the loops, whereby the shafts are supported, and the rings fixed to the front girth above and below the shaft-loop, through which the shaft-loop straps or billets pass, whereby the traces and breeching may be dispensed with, substantially as herein described.

6. In a harness, a saddle consisting of front and back portions with the uniting side straps, the two girths attached, respectively, to the front and back of the saddle and connected together at their bottom, a tension and holding device between the saddle and the contiguous connecting-straps and consisting of a plate having three transverse bars, and the elastic webbing attached thereto and passing around and between said bars, substantially as herein described.

7. In a harness, the saddle having the front and rear girths united, as shown, straps connected with the upper front portion of the saddle, rings through which the folded-strap is passed to form a shaft-loop and rings below through which the straps pass after being wrapped about the shafts, and buckles upon the girths to secure the straps, substantially as herein described.

In witness whereof I have hereunto set my hand.

JOSEPH C. SIMPSON.

Witnesses:

S. H. NOURSE,  
H. C. LEE.