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(54) **Harness accessory for a horse**

(57) Harness accessory, such as a saddle or a harness tree, intended to rest on the back of a horse or other animal which serves as a racing, work or riding animal, said saddle or harness tree including the present harness accessory as a body part thereof. According to the present invention said harness accessory body part includes a stiff, bent metallic member such as a bent steel member (1), having a shape essentially compliant with the shape of the horse's back.

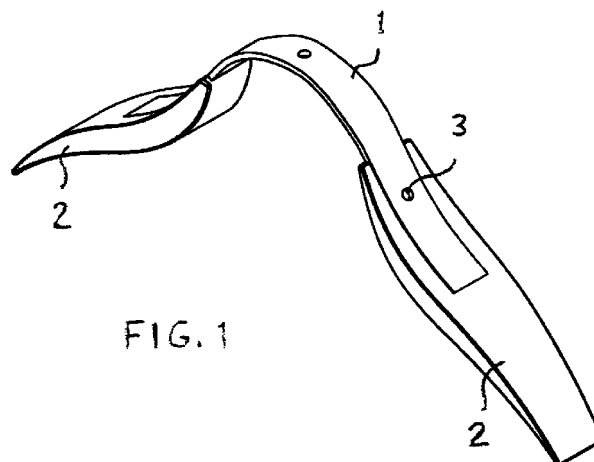


FIG. 1

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## Description

**[0001]** The present invention relates to a harness accessory, such as a saddle or a harness tree, intended to rest on the back of a horse or other animal which serves as a racing, work or riding animal, said saddle or harness tree including the present harness accessory as a body part thereof.

**[0002]** In a horse harness, by which the horse pulls a vehicle, an essential part of the harness is formed by the harness tree that supports the shafts. Harness trees today in common use provide no space above the withers, but rather, are arranged to entirely rest on the withers thus causing compression and abrasion on the horse's skin and muscles. The fitness of the harness tree on the horse's back is extremely essential inasmuch the load imposed by the harness and shafts is focused on a very sensitive point of the horse's musculature whose overburdening will cause a plurality of different complications in the horse's shoulder, forelegs and long spinal musculature.

**[0003]** Another accessory developed to rest against the horse's back is the saddle. The weight of conventional, series-production saddles having a polymer or wooden tree is imposed on a very small area of the horse's back, actually on four different points only. Hence, these saddles put the load on the back in a point-like manner to both sides of the withers and, respectively, in a point-like manner on the horse's spinal musculature at the rear of the saddle tree. One problem associated with conventional saddle trees is the fatigue deformation of the saddle tree material over long-term use, which makes the saddle more and more annoying to the horse.

**[0004]** It is an object of the invention to provide a harness accessory of a rigid construction free from the above-mentioned drawbacks. The harness accessory according to the invention is characterized in that the tree part of the harness accessory includes a stiff, bent metal member made, e.g., from spring steel, and having a shape essentially compliant with the shape of the horse's back.

**[0005]** A preferred embodiment of the harness accessory according to the invention is characterized in that the bent steel member is connected at least one contoured padding element arranged to rest against the horse's back.

**[0006]** Another preferred embodiment of the harness accessory according to the invention is characterized in that the number of contoured padding elements is two and they are provided with pockets into which the ends of the bent steel member are fastened.

**[0007]** A still another preferred embodiment of the harness accessory according to the invention is characterized in that the material of the bent steel member is spring steel.

**[0008]** The padding element suitable for use in conjunction with the bent steel member according to the

invention is advantageously made accurately compliant with the shape of the horse's back using the method disclosed in EP Pat. Appl. No. 98203108.0-2314.

**[0009]** Use of a stiff, bent steel member in conjunction with the body part of a ferrule-equipped harness tree and a saddle tree offers a plurality of benefits. Firstly, the member stiffens these structures thus contributing to an improved durability. Secondly, the bent steel member can be contoured to leave a sufficient clearance between its upper part and the horse's withers so that the harness accessory will not rest abrasively on the withers, but rather, the weight of the harness accessory rests on padding elements aligned onto the strong muscles of the horse.

**[0010]** In the following, the invention will be described in greater detail by way of making reference to the appended drawings, in which

FIG. 1 shows a harness tree according to the invention in an oblique view taken from in front of the structure which is comprised of a bent steel member with end paddings;

FIG. 2 shows in a top view the structure of FIG. 1; and

FIG. 3 shows in a side view the same structure of FIGS. 1 and 2.

**[0011]** Referring to FIG. 1, therein is shown a harness accessory according to the invention, particularly suitable for use as a harness tree, which is intended to rest against the back of a horse or other animal serving as a harness riding, work or riding horse, said harness accessory including a metallic bent member 1 such as a bent steel strip that can be fabricated from, e.g., spring steel into a shape that is essentially compliant with that of a horse's back. With the help of screws or bolts, for example, stirrup hooks can be mounted on the holes 3 of the bent steel member 1 illustrated in the diagram. Hence, the bent steel member 1 has the holes 3 made thereto. The padding elements are contoured accurately compliant with the shape of the corresponding area on the horse's back. As mentioned above, this step may be accomplished particularly advantageously with the help of the method disclosed in EP Pat. Appl. No. 98203108.0-2314 using a milling machine controlled by a computer. The material of the padding element may be, e.g., injection-moulded cellular plastic or other suitable material of high resilience.

**[0012]** The upper parts of the padding elements, on the side not facing the horse's back, are made pockets or the like recesses into which the ends of the bent steel member are inserted to make the harness accessory a compact and visually pleasing form. The shape of the bent steel member 1 is easiest to comprehend from FIG. 3. The curved top part of the member is made such that leaves a sufficient clearance above the withers to

both sides of the horse's back at the same time as the shaft-supporting padding elements rest correctly contoured against the strong musculature of the horse's back.

**[0013]** To those versed in the art it is obvious that the invention is not limited to the exemplifying embodiment described above, but rather, can be varied within the scope and spirit of the appended claims. Accordingly, the invention may also be employed in a saddle by fastening the bent steel member to the front part of the saddle tree, to the underside of the tree, and then equipping the saddle tree with necessary paddings arranged to rest against the strong structures of the horse's body. Herein, the bent steel part provides improved durability of the saddle without imposing any load on withers. Naturally, the materials of the bent member and the paddings are not limited by those mentioned above. Obviously, the invention is also applicable to animals others than a horse.

## Claims

1. Harness accessory, such as a saddle or a harness tree, intended to rest on the back of a horse or other animal which serves as a racing, work or riding animal, said saddle or harness tree including the present harness accessory as a body part thereof, **characterized** in that said harness accessory body part includes a stiff, bent metallic member such as a bent steel member (1), having a shape essentially compliant with the shape of the horse's back.
2. Harness accessory according to claim 1, **characterized** in that to the bent steel member (1) is connected at least one contoured padding element (2) arranged to rest against the horse's back.
3. Harness accessory according to claim 2, **characterized** in that the number of contoured padding elements (2) is two and they are provided with pockets into which the ends of the bent steel member (1) are fastened.
4. Harness accessory according to any of claims 1 — 3, **characterized** in that the material of the bent steel member (1) is spring steel.

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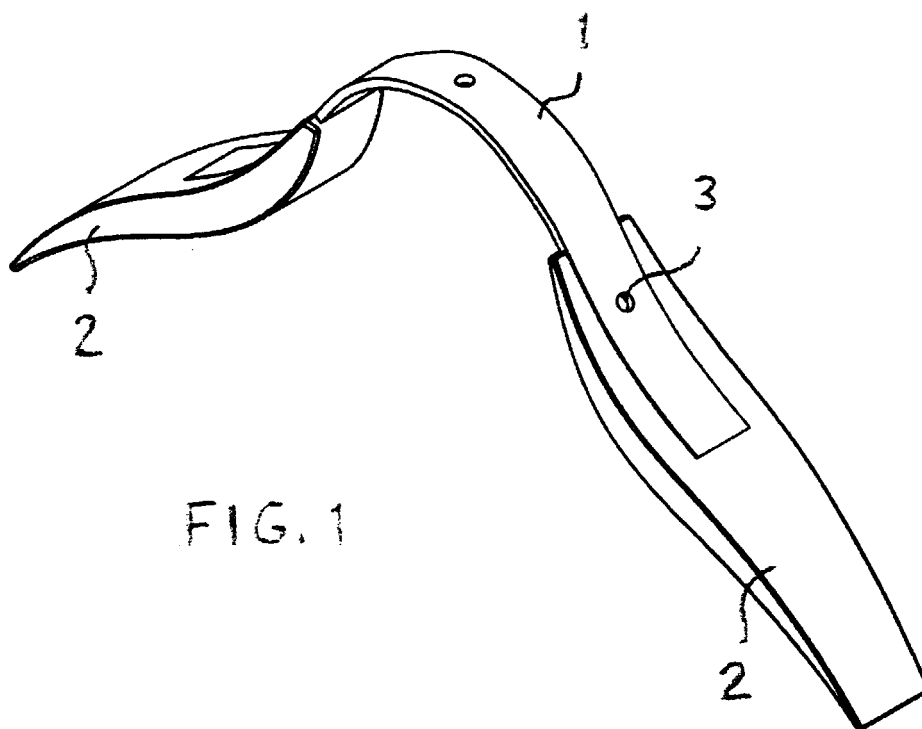


FIG. 1

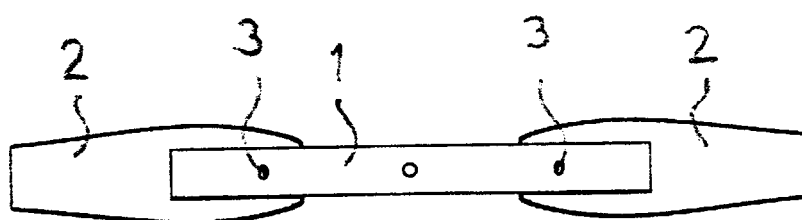


FIG. 2

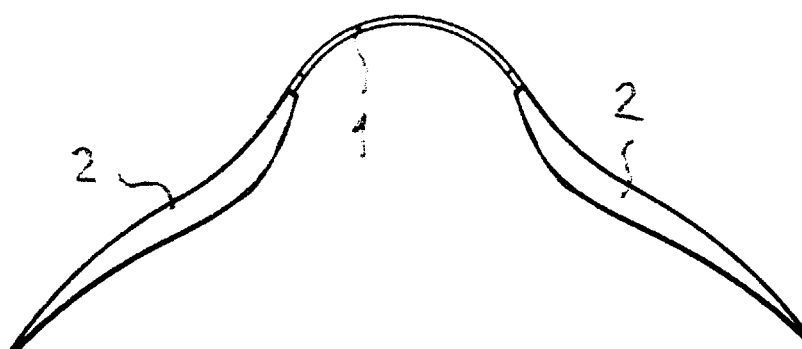


FIG. 3



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# EUROPEAN SEARCH REPORT

Application Number  
EP 00 20 1336

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	GB 13900 A A.D. 1914 (LECKIE & AL) 9 June 1915 (1915-06-09)	1,2	B68C1/02
Y	* figures *	3	
X	GB 171 340 A (MCDONALD) 17 December 1921 (1921-12-17) * the whole document *	1,4	
A	US 3 835 621 A (GORENSCHEK M) 17 September 1974 (1974-09-17)	1	
Y	* figure 9 *	3	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B68C
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		21 July 2000	Martin, A
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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 20 1336

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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21-07-2000

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US 3835621 A	17-09-1974	NONE	