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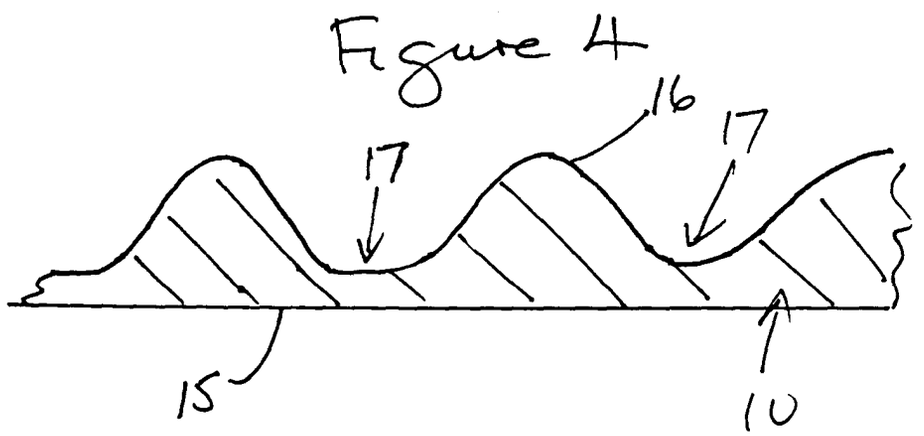
(54) Numnahs

(57) A numnah (10) comprises a layer of a foamed plastic material having a first face (16) for engagement with the back of the horse and a second face (15) for engagement with the underside of the saddle. The first face (16) has a repeated curvate profile defined by intersecting sine waves.



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Description

Field of the Invention

[0001] This invention relates to numnahs, i.e. to saddle-cloths for placing on the backs of horses beneath the saddles.

[0002] A known form of numnah, i.e. that described in British Patent Specification No. 2 280 345, to which reference should be made, is in the form of a mat which comprises a layer of foamed polyvinylchloride at least one face of which has a smooth surface which, in use, is disposed in frictional engagement with the horse's back to prevent substantial slipping of the saddle on the horse's back.

[0003] When this known form of numnah is in use, the back of the horse tends to sweat, as is evident from the formation of a "wet patch" on the back of the horse, which is readily visible when the numnah is removed from the back of the horse.

[0004] The presence of this layer of sweat on the back of the horse is something which causes discomfort to the horse and it is accordingly an object of the present invention to provide improved designs of numnah which will not cause any discomfort to the horse.

Summary of the Invention

[0005] According to a first aspect of the present invention there is provided a numnah in the form of a layer of foamed plastic material having a first face for engagement with the back of the horse and a second face for engagement with the underside of the saddle, characterised in that the first face has a repeated curvate or undulating profile.

[0006] The repeated profile may be of sinusoidal form and is preferably defined by two transversely intersecting waveforms. For example, the waveforms may intersect at an angle of the order of 80°, i.e. at an angle of between 75° and 85°.

[0007] The numnah may be produced from a sheet of closed cell foamed plastic material, e.g. foamed polyvinylchloride, of the order of 20 to 30 mm. in thickness, the sheet being split in two down the middle to produce two numnahs each having a surface of the required profile cut across the closed cell foam. In use, the area of the surface of the numnah in contact with the back of the horse is increased as compared to a numnah formed from a flat sheet of foamed plastic material, and the majority of said surface is constituted by the spaces between the cell walls, i.e. there are a large number of small air pockets in contact with the back of the horse. As a result, when the numnah is removed from the back of the horse, the horse's back is not covered in sweat.

[0008] According to a second aspect of the present invention there is provided a numnah in the form of a layer of foamed plastic material having a first face for engagement with the back of the horse and a second face for engagement with the underside of the saddle, characterised in that the foamed plastic material is an open-celled plastic material having a non-permeable skin which forms the second face of the numnah.

[0009] The foamed plastic material may be a polyurethane.

Brief Description of the Drawings

[0010]

Figure 1 is a plan view of a numnah,

Figure 2 is a schematic view showing a numnah beneath a saddle,

Figure 3 is an underneath plan view of a first form of numnah,

Figure 4 is a cross-sectional view along the line 4 - 4 of Figure 3, and

Figure 5 is a sectional view of a second form of numnah.

Description of the Preferred Embodiments

[0011] As shown in Figures 1 and 2, a typical numnah 10 is shaped so as to fit beneath the saddle 11 of a horse and includes a central portion 12 which is of greater length (in the direction of travel of the horse) than two side portions 13 and 14. The configuration of the numnah 10 will, of course, depend on the type of saddle 11 which is being used and, if appropriate, could be of rectangular form in plan view.

[0012] The form of numnah 10 shown in Figures 3 and 4 is produced by taking a sheet of a closed-cell foamed plastic material, such as foamed polyvinylchloride, or other foamed material having the appropriate strength and resilience characteristics, and splitting it down the middle to produce two numnahs 10 each having a regular, undulating, curvate profile, as indicated in Figure 4. Thus, each of the two numnahs 10 formed in this way has a flat face 15 which will contact the underside of the saddle 11 and a face 16 of undulating, sinusoidal profile. The troughs 17 of the sine waves are shown in Figure 3 and, as will be seen, there are two sets of sine waves which intersect one another transversely at angles of the order of 80° to one another so that the visual appearance of the face 16 of each numnah 10 corresponds somewhat to that of a quilt.

[0013] Starting with a sheet of foamed plastic material of, for example, 25 mm. in thickness, it is possible to produce two numnahs 10 each having a minimum thickness of about 5 to 7 mm. and a maximum thickness of about 18 to 20 mm. The height of each of the sine waves will thus be within the range of from 11 to 15 mm. and the spacing between adjacent peaks or troughs in each

of the sine waves will typically be about 25 mm.

[0014] In another example, starting with foamed plastic sheet having a thickness of 21 mm., the separation between the waves was again 25 mm. and the peak height was 11 mm. Thus, each numnah 10 had a minimum thickness of 5 mm. and a maximum thickness of 16 mm.

[0015] Thus, as an approximation, each of the numnahs 10 will have a minimum thickness which is approximately a quarter of the thickness of the original sheet of foamed plastic material, and a maximum thickness which is approximately three quarters of the thickness of the original sheet of foamed plastic material.

[0016] When one of the numnahs 10 is placed on the back of the gorse with the undulating profle face 16 in contact with the back of the horse, the surface area of the numnah 10 in contact with the horse is increased as compared to thatobtained with a flat surface, thereby increasing the frictional hold of the numnah 10 on the back of the horse.

[0017] The differing pressure caused by the undulating profile allows any sweat to be removed from the horse's back. This keeps the horse dry and comfortable and maintains the adhesion of the numnah 10 to the back of the horse. Thus, upon removing the saddle 11 and the numnah 10 after riding a horse, the back of the horse will be found to be dry and not covered in sweat. The fact that the cell structure has been cut also assists in avoiding the creation of sweat in that it creates a very large number of very small air pockets in the surface of the numnah 10 in contact with the back of the horse.

[0018] The alternative form of numnah 20 shown in Figure 5 is formed from a layer of an open-celled foamed plastic material, as opposed to a closed-cell foamed plastic material. One example of a suitable material is a foamed polyurethane, and the method of production of the foam is such as to obtain the structure shown in Figure 5. Thus, one face 21 of the numnah 20 comprises a non-permeable skin and this is the surface of the numnah 20 which will be in contact with the saddle.

[0019] Adjacent the skin forming the face 21 there is a permeable layer 22 of progressively reducing density which merges into a porous layer 23, the exposed face 24 of which contacts the back of the horse. It will be appreciated that Figure 5 is purely illustrative and that there will, in fact, be no clearly defined boundaries between the different layers forming the numnah 20.

[0020] The face 21 is not plate-finished and the skin which provides said face 21 (which will be in contact with the saddle) is produced solely by appropriate control of the foaming procedure. The face 24 of the numnah 20 which contacts the back of the horse is extremely porous so that any sweat produced on the back of the horse will soak away into the interior of the numnah, thereby ensuring the comfort of the horse. The non-porous skin which provides the face 21 will prevent the sweat from reaching the interface between the numnah 20 and the saddle, thereby ensuring effective frictional contact of the numnah 20 with the saddle.

[0021] The foamed plastic material from which the numnah 20 is formed can be of any desired colour and, if desired, the face 24 of the numnah 20 which contacts the back of the horse can be profiled, as described above with reference to Figures 3 and 4, as opposed to being flat. The thickness of the foamed plastic material can be varied in dependence on the requirements of the horse and rider. For example, the thickness may be from 5 to 35 mm. with a numnah of lesser thickness being used for dressage and a numnah of greater thickness being used for cross-country riding.

Claims

1. A numnah in the form of a layer of foamed plastic material having a first face for engagement with the back of the horse and a second face for engagement with the underside of the saddle, characterised in that the first face has a repeated curvate or undulating profile.

2. A numnah as claimed in Claim 1, in which the repeated profile is of sinusoidal form.

3. A numnah as claimed in Claim 1, in which the repeated profile is defined by two transversely intersecting waveforms.

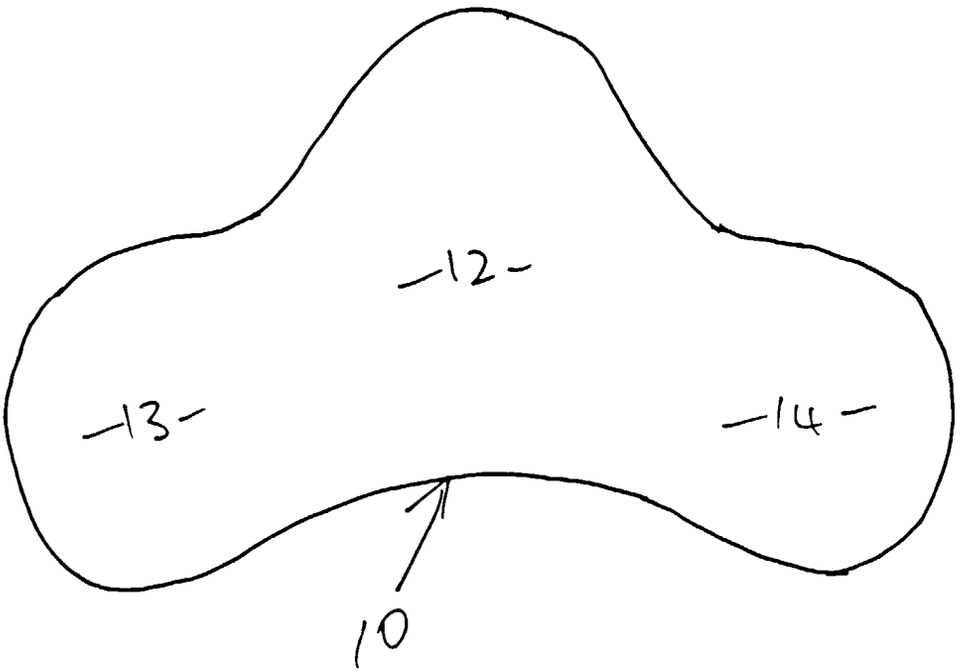
4. A numnah as claimed in Claim 3, in which the waveforms intersect at an angle of the order of 80°.

5. A method of making two numnahs, each as claimed in any one of the preceding claims, which method includes taking a sheet of closed cell foamed plastic material and splitting the sheet in two down the middle to produce two numnahs each having a surface of the required profile cut across the closed cell foam.

6. A numnah in the form of a layer of foamed plastic material having a first face for engagement with the back of the horse and a second face for engagement with the underside of the saddle, characterised in that the foamed plastic material is an open-celled plastic material having a non-permeable skin which forms the second face of the numnah.

7. A numnah as claimed in Claim 6, characterised in that the first face has a repeated curvate or undulating profile.

Figure 1



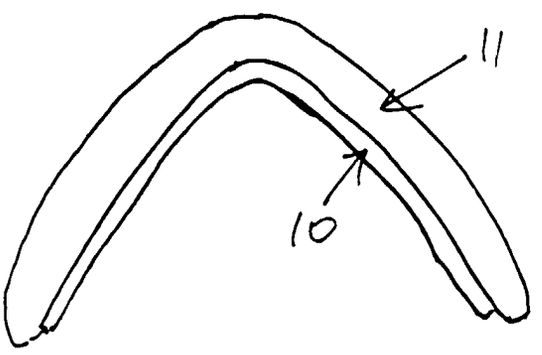


Figure 2

Figure 5

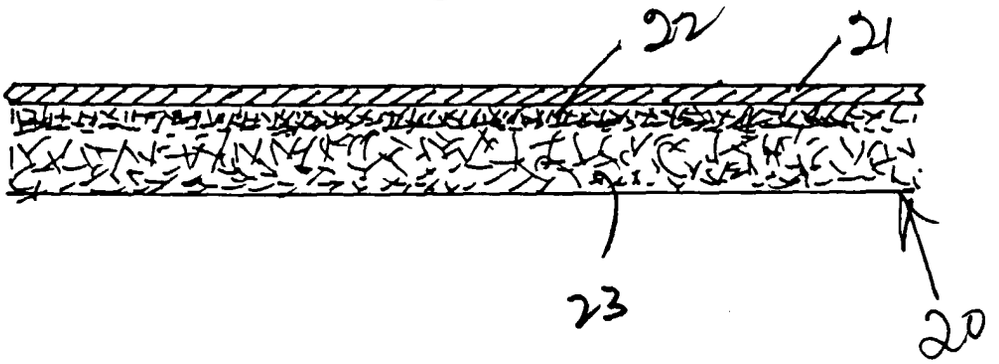
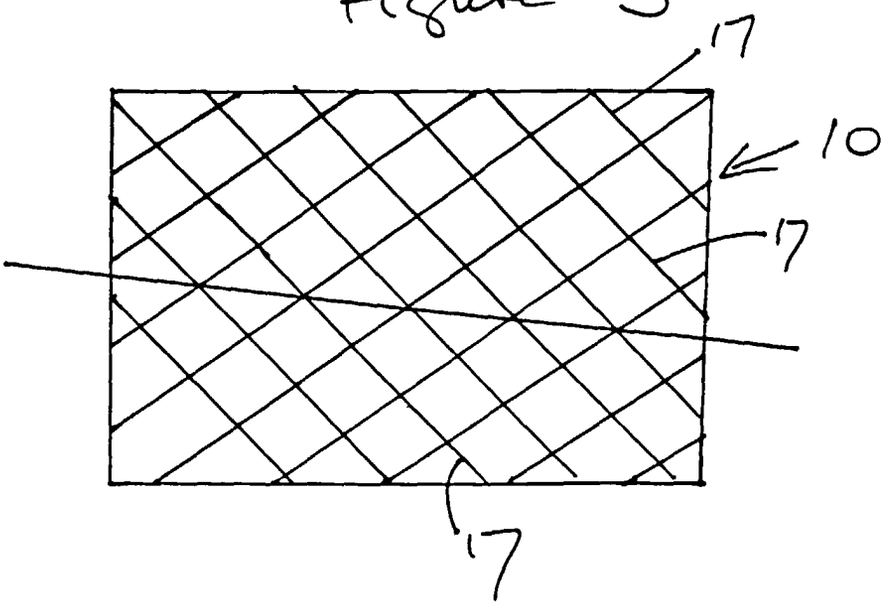


Figure 4

Figure 3



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EUROPEAN SEARCH REPORT

Application Number
EP 00 30 9765

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 2 331 223 A (HEPBURN JAMES) 19 May 1999 (1999-05-19)	1-4	B68C1/12
Y	* abstract; figure *	7	
A		5,6	

X	US 5 575 139 A (GREEN CHRIS L) 19 November 1996 (1996-11-19)	6	
Y	* abstract; figures *	7	
A		1,5	

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	25 January 2001	Martin, A

CATEGORY OF CITED DOCUMENTS

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25-01-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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US 5575139 A	19-11-1996	NONE	

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82