

[54] REFRIGERANT WRAP FOR AN ANIMAL'S LIMB

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[22] Filed: Feb. 6, 1973

[21] Appl. No.: 330,030

[52] U.S. Cl. 128/379, 128/403

[51] Int. Cl. A61n 5/00

[58] Field of Search 128/399, 402, 403, 254, 128/258, 268, 379, 382

[56] References Cited

UNITED STATES PATENTS

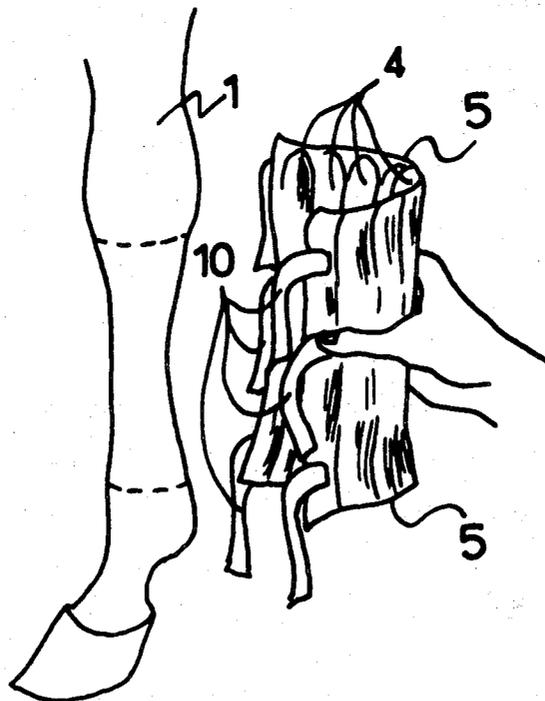
3,429,315	2/1969	McDonald	128/403
3,587,578	6/1971	Walker	128/402

Primary Examiner—Lawrence W. Trapp

[57] ABSTRACT

A device adapted to wrap around an animal's limb such as one leg of a horse and containing a refrigerant to allay fever, relieve pain and reduce inflammation into that limb or leg. The refrigerant wrap includes a plurality of refrigerant cells held side by side into a series of adjoining pockets interspaced by fold lines for simple manufacturing and to evenly wrap around the limb or leg for relatively uniform cooling treatment around the latter. The refrigerant wrap includes attachment bands of the Velcro type particularly suited for non-annoying and adjustable attachment of the wrap, such as for instance around the leg of a horse. The refrigerant wrap preferably also includes a wire mesh to be at least partially shapable according to the concerned limb to evenly surround the latter and more securely hold into place.

9 Claims, 10 Drawing Figures



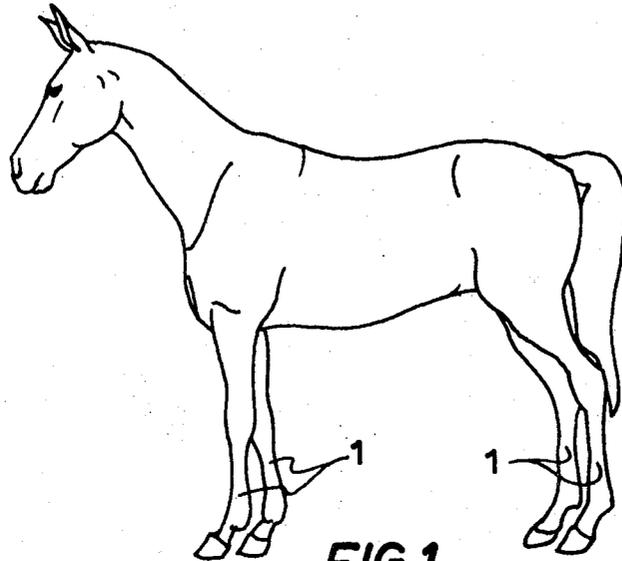


FIG. 1

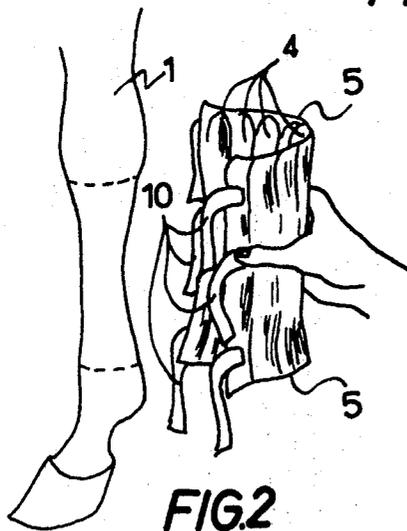


FIG. 2

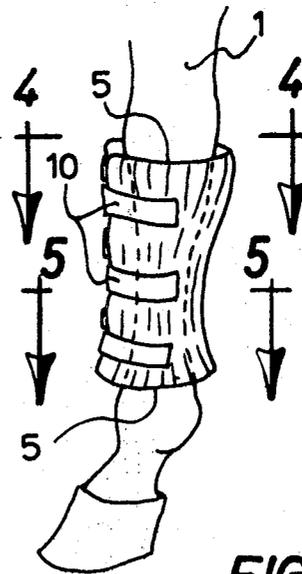


FIG. 3

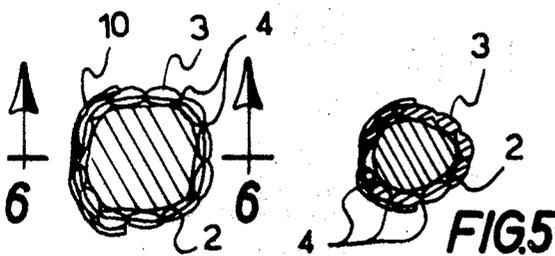
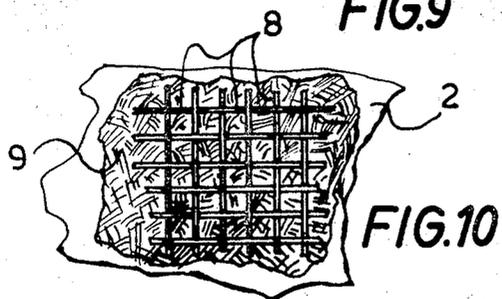
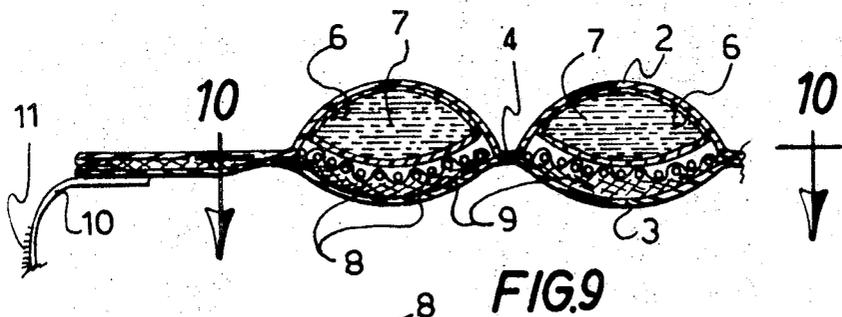
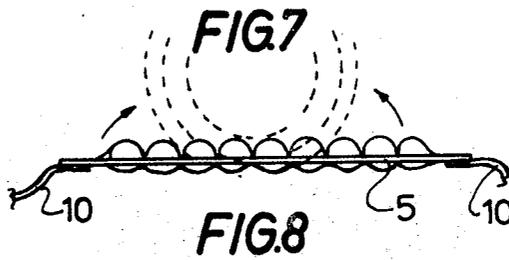
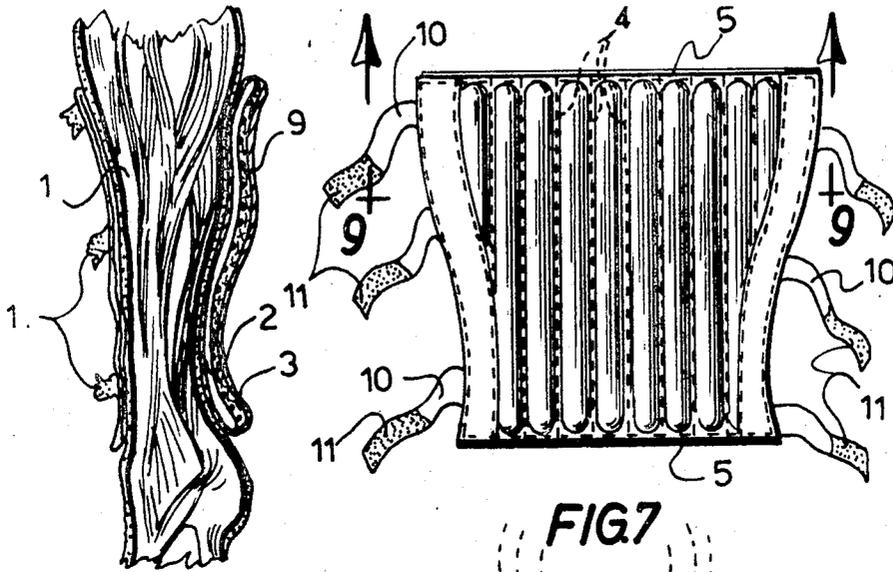


FIG. 4

FIG. 5



REFRIGERANT WRAP FOR AN ANIMAL'S LIMB

This invention relates to a refrigerant device more particularly of the type for cooling treatment of an animal, including a human being.

Among the refrigerant devices of the above type which have so far been proposed, this is concerned with those of the kind which wraps around an animal's limb. Each of the refrigerant devices of the above kind forms only one or two refrigerant chambers and they are thus relatively difficult to wrap around an animal's limb to evenly follow the contour thereof and, therefore, do not produce even cooling around the limb. Besides, the anterior refrigerant devices of the above kind are of relatively complex construction, since the fluid and airtight chambers for the refrigerant are integrally formed therein and thus special care must be taken to ensure the desired tightness.

It is a general object of the invention to provide a refrigerant wrap of the above kind which is adapted to allay fever, relieve pain and reduce inflammation into an animal's limb and, in particular, into one leg of a horse by wrapping the same around that limb or leg.

It is a more specific object of the invention to provide a refrigerant wrap of the above kind which is constructed of separate slender refrigerant cells held side by side into a series of adjoining pockets forming fold lines between each other for easier manufacturing and uniform wrapping and for more even cooling action around the limb or leg of the animal.

It is another object of the invention to provide a refrigerant wrap of the above kind which includes a mode of attachment thereof to afford fast and easy attachment particularly suited and advantageous to secure the wrap around the leg of an animal or horse without substantially annoying the latter and which allows adjustment to the size of the corresponding leg.

It is a more specific object of the invention to provide a refrigeration wrap of the above kind with attachment bands of the Velcro type for fast, easy and adjustable attachment of the wrap into operative position around one leg of an animal such as a horse.

It is a further object of the invention to provide a refrigerant wrap of the above kind which is shapable at least partially according to one limb to more evenly surround the latter and thus more uniformly cool the same and to more securely hold around the same.

The invention will now be described in detail with reference to the embodiments thereof which are illustrated, by way of example only in the accompanying drawings, wherein:

FIG. 1 is a side view of a horse;

FIG. 2 is an elevation view of one leg of a horse with a refrigerant wrap according to the invention in the process of being mounted thereon;

FIG. 3 is an elevation view of a refrigerant wrap operatively attached around one leg of a horse;

FIGS. 4 and 5 are cross-sectional views as seen along lines 4-4 and 5-5 respectively in FIG. 3;

FIG. 6 is a cross-sectional view as seen along line 6-6 in FIG. 4;

FIGS. 7 and 8 are side and end views respectively of a refrigerant wrap according to a second embodiment of the invention;

FIG. 9 is a cross-sectional view as seen along line 9-9 in FIG. 7; and

FIG. 10 is a cross-sectional view as seen along line 10-10 in FIG. 9.

The horses, and in particular the racing horses, are subject to inflammation, fever and pain into their legs 1 and more specifically into the cannon or shank portion of the latter.

The illustrated refrigerant wrap includes a pair of outer flexible sheets 2,3, of fabric or other suitable material, forming the inner and outer sides respectively of the wrap. The two flexible sheets 2, 3 are sewn around the periphery and by a series of laterally spaced-apart seams 4 extending from one to the other of two opposite edges 5 of the sheets. The above seams thus define a series of side-by-side slender pockets and form fold lines interspersing the latter.

A slender or tubular bag 6 containing a suitable chemical refrigerant is inserted into each slender pocket. A plurality of sealed, liquid-tight and separate bags of refrigerant 7 are thus laterally spaced from each other and extend transversely of the wrapping direction. The chemical refrigerant may be, for example, of the type used in the well known refrigerating packs known in the trade under the trademark "Ice-pak."

A shapable wire mesh 8 is preferably inserted with a layer 9 of insulating material intermediate the tubular refrigerant bags 6 and the outer sheet 3. The wire mesh allows to shape the wrap according to the concerned limb or leg for more even cooling around the latter and to better hold the wrap in place.

Bands or straps 10 are secured at one end to the outer sheet 3 and have their other end provided with complementary Velcro bands or material 11 of sufficient length to allow adjustable attachment of the straps 10 around the limb.

The seam along the upper edge 5 of the wrap might be replaced by a slide fastener or zipper to allow easy access into the afore-mentioned slender pockets, whereby the bags could be removed at will for cleaning the outer sheets 2, 3 of the wrap and, if desired, to remove the refrigerant bags 6 to cool and even freeze the latter.

I claim:

1. A refrigerant wrap for an animal's limb comprising, in combination, a pair of sheets of flexible material secured together face to face along spaced lines extending from one to the other of opposite edges of said sheets and forming corresponding fold lines, and along another line extending along one of said edges, said lines of securement of said sheets forming a series of laterally juxtaposed slender refrigerant pockets, a plurality of slender chemical refrigerant bags extending lengthwise into said slender refrigerant pockets respectively, and fastening means secured to at least one of said sheets of flexible material and arranged to secure said sheets in wrapped position around said limb with said bags extending lengthwise of said limb.

2. A refrigerant wrap as defined in claim 1, wherein said slender chemical refrigerant bag constitute fluid-tight tubular bags containing a chemical refrigerant.

3. A refrigerant wrap as defined in claim 2, wherein said sheets are secured together by seams extending along said lines of securement.

4. A refrigerant wrap as defined in claim 3, further including another seam securing said sheets together along the other of said opposite edges and confining said sealed tubular bags between said sheets.

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5. A refrigerant wrap as defined in claim 4, further including a shapable wire mesh sheet and an insulating layer secured intermediate said pair of sheets of flexible material.

6. A refrigerant wrap as defined in claim 5, wherein said fastening means includes complementary Velcro bands cooperatively secured to said one sheet of flexible material and arranged to adjustably roll said refrigerant wrap around an animal's limb.

7. A refrigerant wrap as defined in claim 1, further

having said sheets forming an aperture extending along the other of said opposite edges in communication with said pockets.

8. A refrigerant wrap as defined in claim 7, further including a releasable fastener secured along said aperture for selective closing of the latter.

9. A refrigerant wrap as defined in claim 8, wherein said releasable fastener constitutes a zipper.

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