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Remarks:

A request for addition of claims 5-10 has been filed pursuant to Rule 88 EPC. A decision on the request will be taken during the proceedings before the Examining Division (Guidelines for Examination in the EPO, A-V, 3.).

(54) **Magnetic element for footwear, clothes and accessories**

(57) MAGNETIC ELEMENT FOR FOOTWEAR, CLOTHES AND ACCESSORIES, constituted by a body easily integral into the materials used for the manufacture of an article, garment, item of footwear or similar suitable to be worn by the user, who benefits from the bio-magnetic effects in a prolonged and constant manner. The body of the magnetic element is made up of at least one surface that is noticeably flat for its adhesion

and integration into the material, be it textile, leather or other, by means of a conventional method, such as gluing, sewing, heat welding, ultra sound or something similar. In an alternative embodiment the body of the magnetic element has a domed pressure surface for the carrying out of a massage to the skin by contact or pressure.

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Description

AIM OF THE INVENTION

[0001] The aim of the present application is a magnetic element for footwear, clothes and accessories that has significant innovations and advantages.

[0002] More specifically the new invention comprises a magnetic element suitable for fitting in footwear, ordinary clothes and some accessories for personal daily use, which allows the user to enjoy the beneficial and therapeutic advantages of bio-magnetism. The elements of the new invention have a reduced size, have a high magnetic potential and some shapes suitable to be fitted in clothes, by the user personally, by factories or workshops.

BACKGROUND OF THE INVENTION

[0003] The beneficial effect obtained by the application of magnetic fields to the human body is currently known. In effect, the therapeutic effect of bio-magnetism has been reflected in the manufacture of instruments and tools for the application of magnetic fields onto the body of a person for a short period of time, such as during intensive treatment.

[0004] Also there are specific in-soles that are made up with the application of magnetic fields onto acupuncture points on the sole of the foot. These insoles are manufactured expressly in a specific manner as a therapeutic application, without permitting mass manufacture or by ordinary clothes manufacturers, because of the complexity of the manufacturing process.

DESCRIPTION OF THE INVENTION

[0005] The magnetic element for footwear, clothing and accessories, aim of the present registration, is characterised because its make up is small in size and can be incorporated in diverse places to ordinary every day elements of people, such as clothing, footwear and accessories, in such a way that the user carries a continuous treatment of bio-magnetism around with himself/herself that helps him/her to stay healthy and strong.

[0006] In addition, it has been sought to integrate the bio-magnetic element easily in the fabrics and manufacture materials of said objects or articles, with which the manufacturer can manufacture them without any particular difficulty.

[0007] In effect, it has been envisaged that the magnetic elements can be fitted to specific areas of the articles in such a way that once the item of clothing is worn by the user or in its ordinary daily use, said elements are applied to basic acupuncture or similar points so that its powerful magnetic field is directly applied on said points. The magnetic power of said elements makes it unnecessary for them to be in contact with the skin, but the bio-magnetism acts through other garments worn in

between without reducing their effect.

[0008] The magnetic elements are small in size, the aim being that they are not a nuisance and are easy to handle during the manufacture of articles. These elements by preference have a flat shape with at least one surface notably flat so as to be fitted into the garment being manufactured. Said fixing can be by any conventional means, such as gluing, sewing, heat sealing or by ultra sound, in a resistant manner so that the garment can be washed or cleaned in the normal manner.

[0009] Principally two simple presentations have been envisaged, without reducing the possibility of other practical embodiments. In the first case each element is made up of a strip with a reduced thickness, in a flexible material and which can be fixed to a fabric or something similar with ease. Because of its flexibility and reduced thickness it becomes an integral part of said fabric, in a completely discreet way.

[0010] In the second case the element can be made up with a lenticular body or similar, which has at least one side with a domed or rounded shape aimed at being pressed against the skin of the wearer. As is the case of the elements used in the manufacture of shoe insoles, for example bracelets (armbands), corsets, neck bands. In this case the element, given its shape, in addition to the beneficial effect of bio-magnetism exercises a massage by applying pressure.

[0011] These elements can have their magnetic orientation in any way that is desired, but it is advantageous that the positive or negative pole to be arranged in a perpendicular or parallel position to the future application onto the skin. This arrangement of the orientation of the positive and negative poles directs the bio-magnetic flows in the most effective manner.

[0012] As has already been mentioned, the element can be made up from a flexible or rigid element and in which the shape is unalterable, depending on the application for which it is intended. In addition, the element has to be unalterable by the means of cleaning and washing of the article onto which they are fitted.

[0013] An item of clothing or article can have multiple magnetic elements arranged on the most appropriate areas. These elements are easy to fit during the manufacture of the garment or article from conventional materials to which they are glued, sewn or welded during the patterning and manufacture of the same. This makes the task easier for the manufacturer, as the manufacturer does not depend on semi-prepared products in which the magnetic material has been fitted, as occurs in other applications.

[0014] The magnetic element can be integrally formed of magnetic material, or as an alternative in a plastic support with magnetic particles dispersed in the centre or on the surface, in both cases offering a high density of magnetic flow. This high density of flow or magnetic radiation deeply penetrates the body of the user, even through other garments that are being worn.

[0015] For example, people with tiredness of the legs,

varicose veins, swollen or painful feet can considerably improve with garments that incorporate one or several magnetic elements of the new invention. These items can be shoes, tights, socks, compression bandages or others applied onto the legs and feet.

[0016] In order to complete the description that will be made below and for the purpose of giving a greater understanding of its characteristics, this present descriptive memorandum is accompanied by a set of drawings, which is illustrative but not limiting, where the most significant details of the invention are shown.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017]

Figure 1. Shows a plan view of a flat magnetic element.

Figure 2. Shows a front view of a flat magnetic element.

Figure 3. Shows a plan view of a domed magnetic element.

Figure 4. Shows a front view of a domed magnetic element.

Figure 5. Shows a plan view of an example of a shoe insole with therapeutic magnetic elements.

Figure 6. Shows a plan view of an example of a T-shirt with therapeutic magnetic elements.

DESCRIPTION OF A PREFERRED EMBODIMENT

[0018] In view of the commented figures on, and in accordance with the adopted numbering, a preferred embodiment of the invention can be seen in same that is not by way of limitation on the invention. This consists of an element having a reduced size, which is flattened and having high magnetic induction, made up of a body (1) where at least one surface (2) or face is significantly flat for its fixing or integration into a material, such as fabric, leather or similar of an item (4). In an alternative embodiment the body (1) of the magnetic element has, opposite to said side or fixing surface (2), a second surface (3) or face that is domed or pressed, preferably rigid and with its shape being partially or totally unalterable.

[0019] The body (1) is partially or totally made up from a flexible or rigid magnetic material, having an approximate induction per unit from 300 to 500 Gauss.

Claims

1. MAGNETIC ELEMENT FOR FOOTWEAR, CLOTHES AND ACCESSORIES, with therapeutic properties from bio-magnetism on the human or animal body at magnetic acupuncture points, **characterised in that** it is made up from a small sized body (1) that can be adhered or integrated, singularly or with a variable number to fabrics, leather and other

materials for the manufacture of items (4) by means of conventional methods, such as by gluing, sewing, heat welding and others; and **in that** the magnetic element has a flattened shape.

2. MAGNETIC ELEMENT FOR FOOTWEAR, CLOTHES AND ACCESSORIES, in accordance with claim 1, **characterised in that** the body (1) of said magnetic element has at least one surface (2) that is flat or noticeably flat to form a union with the manufacturing material of the article (4), garment or similar.

3. MAGNETIC ELEMENT FOR FOOTWEAR, CLOTHES AND ACCESSORIES, in accordance with claim 1, **characterised in that** the body (1) of said magnetic element has at least one surface (3) that is domed or rounded opposite to the surface (2) to form a union with the manufacturing material of the article (4), garment or similar, likely to carry out a massaging by pressure and/or contact with the skin.

4. MAGNETIC ELEMENT FOR FOOTWEAR, CLOTHES AND ACCESSORIES, in accordance with claim 1, **characterised in that** said element is made up of a body (1) or flat band and with reduced thickness; and **in that** said element is flexible.

Fig. 1

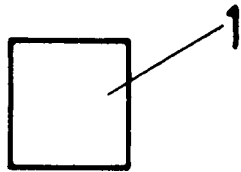


Fig. 2

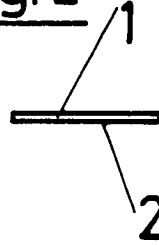


Fig. 3

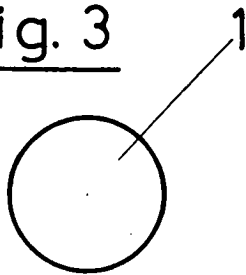


Fig. 4

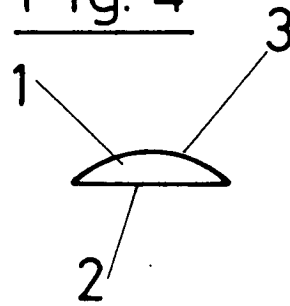


Fig. 5

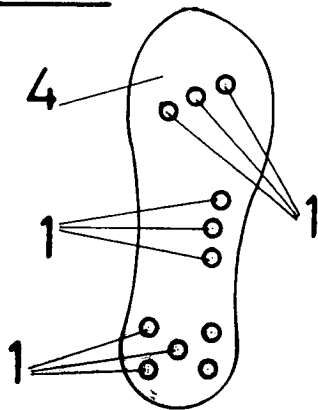
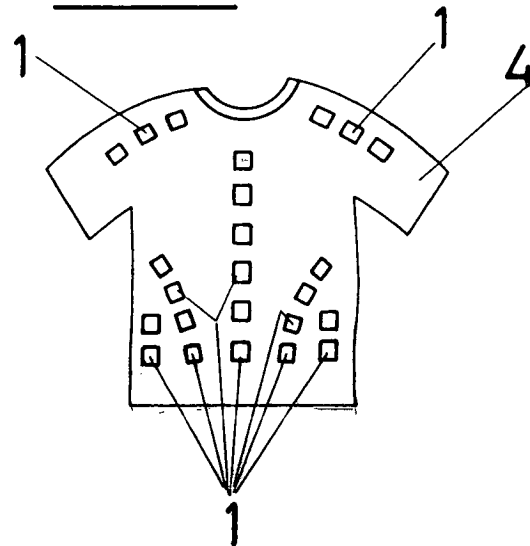


Fig. 6





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| Place of search MUNICH | | Date of completion of the search 11 February 2004 | Examiner Herry-Martin, D |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p> | | | |

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EPO FORM 1503 03.82 (P04C01)

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