

Paris 2021
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PATENT BREVET FR 1563510 Prix sur demande / Price upon request

FRENCH PRESENTATION

INPI Base de Brevets FR 1563510 B1 Partenariat / Brevet à vendre

Madame, Monsieur,

En moyenne chaque humain accomplit par jour, l'équivalent de six kilomètres à pieds.

Nous sommes plus de sept milliards sur Terre. Pouvons-nous convertir, la marche humaine, en crédit ?

« The Human foot is a masterpiece of engineering and a work of Art. »
Leonardo da Vinci.

Artiste, je suis l'inventrice d'un brevet français dans le domaine « objet du quotidien ». Le sujet est une semelle universelle ou objet connecté tout public. Vous trouverez dans cette présentation des possibilités non exhaustive au brevet. De part sa qualité "semelle" l'innovation avec l'ensemble de ses technologies et vertus, se déplace dans différents contenants chaussure. Avec ses surfaces multiples conçues pour maintenir des talonnettes, l'innovation est surface pour nanotechnologies avec pour originalité une semelle brevetée. Vous êtes guidés dans vos parcours, par l'intelligence artificielle de Google ou informations web à l'image de la sneaker "Barcelona project" de easyJet. La connaissance du web sensorielle. L'Homme amélioré.

Vous comprendrez la nécessité relative d'un accessoire au brevet pour une utilisation de ce type, comme votre smartphone. La séparation de l'objet avec nos smartphones est un atout dans cette quête de protection de vie privé avec un monopole en France et le " Made in France " pour rayonnement internationale ce brevet à pour ambition d'optimiser les besoins de communication d'une communauté. Comme tout objet connecté avec pour particularité la discrétion dû à l'emplacement de l'innovation. Pour les enfants, le produit est un complément à la surveillance des parents, agissant comme une protection et communication invisible au regard extérieur. L'innovation peut envoyer et recevoir des informations. Tout public, l'innovation répond aux besoins de regroupements des humains. L'innovation tend vers les domaines

de l'évènementiel, réseaux de rencontres, parcours pour esprits créatifs. Dans le domaine des sports extrêmes, les passionnés évoluent en milieu Naturel ou hostile. La semelle est un témoin qui accompagne le sportif en quête de sensations responsables. Le plaisir du sportif se trouve dans l'action et la performance, l'innovation calcule l'espace conquis et le situe ou le guide et par le mouvement fait office de chargeur. Grâce à la géolocalisation, pour les sports outdoors. L'innovation en osmose avec la voute plantaire de l'utilisateur, espaces capteurs et transmetteurs ou appuis inscrits sur la semelle universelle, les utilisateurs, se verraient attribuer un lexique de mouvements définis, leur permettant de s'échanger des informations.

Pour le coronavirus, la semelle peut avec des impulsions signaler aux utilisateurs lorsqu'ils sont au-delà des distances de sécurité. Vous pouvez grâce à l'innovation posséder votre propre application. L'emplacement du produit est en opposition aux marchés téléphoniques existants, avec le même potentiel d'utilisateurs. Le Monde.

Dans le domaine des textiles intelligents ou technologies, cette semelle est à observer comme un écrin étanche et non compressible, non sujet aux variations de températures, apte à recevoir l'évolution des technologies et des sociétés. Ne nécessitant pas de contact direct avec la peau et permettant aux talonnettes insérées de diffuser leurs utilités, à travers la semelle brevetée. Avec les wearables technologies nous portons des structures améliorées, apte à transmettre des informations sur l'utilisateur et capable d'interagir sur son utilisateur.

L'innovation possède son propre extracteur, tige, permettant à son utilisateur de saisir l'objet en favorisant le maintien du produit, repoussant la dégradation de l'objet. Chaque surface de la semelle universelle et son extracteur est à observer comme une peau qui accueille les technologies. Vous pouvez observer des dessins, fait à partir de photos des maquettes échelles 1 de l'innovation, à titre d'exemples et non limitatifs au brevet.

Sa version à multiple surfaces n'est pas représentée. L'objet de par sa définition à la capacité de simplifier nos quotidiens. Votre esprit associé à un produit novateur. Afin de cibler le besoin de votre communauté, prenez connaissance du sujet.

Je vous remercie de considérer ma proposition. Dans l'attente d'une réponse favorable.

Veillez, accepter mes sincères salutations,

ENGLISH PRESENTATION

INPI Base de Brevets FR 1563510 B1 Partnership / Patent for sale

Madam, Sir,

On an average day, each human, completes the equivalent of six kilometers on foot.

We are more than seven billions on Earth. Can we credit the human walk?

"The human foot is a masterpiece of engineering and a work of Art." Leonardo da Vinci.

Artist, I am the inventor of a french patent in the field of "everyday objects". The subject is a Universal sole or connected object for all audience. The innovation sole, accessory for heels, or multiple layers can receive nanotechnologies. In this presentation of the patent, few ideas or perspectives of the subject for introduction to reading the innovation. The innovation is located in the inner space of the shoe, the object is in osmosis with the user foot archs. Modern man, original like the "Barcelona project " of easyJet we are users of technologies products with that medium. The sole innovation object, brings together all the technologies as a connected sole.

You are guided by artificial intelligence, from Google to any web information. Improved Humain with as uniqueness a universal sole for patent. Knowledge of the web sensorily. Mastering human capacities. In order to maintain independence and autonomy, this sole is a witness like any other connected object with for uniqueness the discretion. In security it is essential. For children, the product is a complement to the supervision of the parents, acting discreet for outside viewers with an effective medium. Like protecting our elders with the same geolocation. The patent as for ambition to optimize communication between humans on societies evolutions. The separation of the patent with our smartphones is an asset for anti-blutooth trust. You could use the innovation to own your own community app. The location of the object is in opposition to existing mobile telephony markets, with the same potential of users. World.

The innovation support the humain need of regrouping, you may understand the possibility or not of a accessory of the patent like your phone. Trails for creative minds, the subject have other utilities for uses such as events, dating networks. For any outdoors sports in needs, such as geolocation, transmit information to relatives or warn authorities. In the field of extreme sports, enthusiasts evolve in a natural or hostile environment.

The sole is a witness that accompanies the athletes in search of responsible sensations. The innovation can calculate the space conquered, guide, and by the movement of the user act as a battery charger. For concept, users, may have their own lexical of defined moves allowing them to exchange informations, due to the different supports inscribed on the universal sole, just as much space sensors of the effort provided by the user.

For the coronavirus to keep safe distance, the sole can help with signal impulses the users from being beyond barriers gestures. In the field of intelligents textiles or technologies, this sole is to be observed as a waterproof and incompressible case, no subject to temperature variations, able to receive the evolutions of technologies developments according to the new means of societies. Not requiring direct contact with skins allowing the inserted heels to distribute their virtues in a patent. With the wearables technologies we wear improved garment a second skin. The innovation has its own extractor, upper, more or less high, allowing the user to remove the product with lower

degradation of the object and better size of the product. Every surface of the sole and extractor have to be seen like a receiver of technologies.
You will be able to observe drawings made from scale 1 innovation models, no limiting the patent. The multiple layers form is not represented. The innovation by definition have the capacity to simplify our daily lives.
Your spirit associated to a " Made in France " patent.
Perhaps, in order to target the need of your community, you can read the innovation.
Thank you for considering my proposal to become thoughtful with the patent.
Pending a favourable response.
In this perspective, please accept my sincere greetings,

ENGLISH TRANSLATION OF THE FRENCH PATENT

Connected object or Universal sole
Patent FR 1563510 B1
Compensation soles

The world of footwear is evolving towards ever more personalization of products, in particular with regard to the insoles that can be added to the interior of the shoe. In an effort to appear to be taller or to develop the comfort of the foot, many people use small accessories that fit in the shoe under the heel, which are called heel spur cushion pads. These devices are either simply placed on the bottom of the shoe or well stucked and available in different thicknesses, in particular 0.5 and 1 cm. Unfortunately, experience shows that existing devices hardly remain in place, ceasing to play their role and causing discomfort for the user. Moreover, these devices are often easily detectable or even directly visible when the user takes off his shoe. The present invention provides a shoe insole for the purpose of maintaining correctly in place, and over time, the heel (s) inserted (s) in the shoe, and in a way that is aesthetic and as visible as possible. According to the invention, a shoe insole comprising a first face capable of being in contact with the bottom of a shoe and a second face capable of being in contact with the foot of the user of the shoe, the sole comprising a front part capable of being to take place in the front part of the shoe and a rear part able to take place in the rear part of the shoe in the vicinity of the heel, is characterized in that the rear part comprises at least two lamellae superposed one above on the other, a first layer being arranged in the extension of the front part of the sole and under a second one, a housing which can substitute between the first and the second strip. The face in contact with the shoe can advantageously have a anti-skid surface. The size of the first line can be used for universal soles or adapted to each existing size. The sizes of the other strips are deduced from that used for the first strip. The first strip can advantageously appear in a central part, and

elsewhere if essential, a surface created a thickness intended to upgrade the comfort associate to walking: shock absorption and reactivity, and also containing any other modern technology (steps measurements, monitoring vital parameters such as body temperature, heart rate, etc.) The nature of the materials used for the sole is potentially unlimited but can, due to its volume, be adapted to receive smart textiles using digital and nanotechnology and / or cosmeto-textiles and / or bioactive textiles and any other textile or material belonging to the family of wearable technologie. The sole can include three segments, a first accomodation which can substitute between the first and the second segment and a second accomodation which can substitute between the second and the third segment. This principle can evidently be extended to a larger number of segments. Advantageously, at least one heel accessory is inserted in a accomodation between the first and the second line. The length of the second segment could usefully be determined as a function of the usual dimensions of the heels available on the market which will in this way be well maintained between the first and the second segment.

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If more than two lines are used, heels can be placed in the spaces that are created, with or without superimposing one on the other that would be recommended in the case where there are only two segments. The sole can be made in one piece or made in two parts, the second strip being sewn on and / or stuck to the rest of the sole. Any other technique better suited to the nature of the separate parts to be kept in place in a lasting and reliable manner is profitable. It is up to the skilled person in charge of making this wedge sole to choose the most suitable technique. In the case of several lines, the same recommendations concerning the conception of the fabrication, a single element or several stuck fabrics or any other possibilities of construction, should be taken into consideration. Advantageously, the first line is extended by a excrescence. The primary objective of this piece is to facilitate the extraction of the sole of the shoe in which it is inserted. Indeed, in the case of certain shoes such as, for example, ankle boots, this extraction would probably be difficult without a relief such as the design. The shape of the shoe can determine the size of the excrescence. We recommend that this tongue can, in its vertical part, be cut by the user so that it does not protrude from the shoe. The design also has at least one other advantage. In fact, the internal part of the excrescence will be in contact with the foot inserted in the shoe and in particular with the rear part of the heel. A particular care must therefore be taken in the production of the fabric, in particular as regards its internal surface, so as to improve the comfort of the user, particularly in the case where the position of the heel in the shoe is not that which had been foreseen by the designers of the shoe. Indeed in the case of the use of cups heels, the foot of the user will be in a higher position relative to the sole of the shoe and therefore, the heel will be above the position which had been provided for him by the designers of the shoe, which will often generate discomfort for the user.

This is why it is advisable for the user, for the comfort and the invisibility of the sole and to keep a natural gait, to lift to the maximum of 3.5 to 4 centimeters, so as to preserve the invisibility of the sole in a classic shoe. The excrescence and the first segment can be produced in one piece. In such a case, the entirety of the sole can be in one piece or the second line can be attached to the group comprising the first line and the excrescence by possibilities of techniques known to those skilled in the art such as bonding and / or making stitching and / or any other technique best suited to the materials used to design these different fabrics. The excrescence may also include a base which is inserted under the rear part of the first line. The design can be separated from the first segment. In particular in the case where the rod is associated with a base, it is possible to dissociate the rod and base design from the rest of the sole. Indeed the shape and in particular the length of the design are parameters which are dependent on the shoe where the sole is inserted. We understand that boots will allow the use of a long and enveloping design without its existence being suspected by an outside observer. In contrast, a moccasin-type shoe will only allow the use of a brief fabric. The user has the possibility of adding a conventional sole to his size over the sole accordions to the invention in order to keep the invention invisible.

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The rod can also be breakable so as to leave the user an adaptation possibility. For this purpose, the design may be oversized so as to be easily adaptable to a maximum of situations. When the rod and its base are separable from the rest of the sole S, it may be necessary to provide an adequate adhesion system between the base and the rest of the sole to plan to use the rod and remove the invention without certain elements remaining in the shoe. As an adequate adhesion system, it will be possible to use, by way of example without this being limiting, micro-suction cups on the base which would cooperate with the rest of the sole to obtain a reliable adhesion and a positioning of the sole on the base. Therefore if the rod and the base are separated from the rest of the sole, it becomes possible to use different conceptions without changing the rest of the sole. The sole may also include shock absorbing elements or elements that are structurally different from the rest of the sole. For reasons of comfort, it may be relevant to integrate elements with mechanical properties different from the rest of the sole. Finally, the sole can incorporate, in the materials constituting it, but in a nonlimiting manner, intelligent textiles, bioactive textiles, cosmeto-textiles, shape memory materials, hydrocolloid materials, e-textiles and / or contain areas / spaces suitable for receiving thicknesses intended to improve the well-being of the user (shock absorber, digital technology, micro- capsules, nano materials, etc.), consequently making the sole an element of the family of the wearable technologies. Other features and advantages of the invention will become apparent from the following description of a proposed production with reference to the accompanying drawings but which is in no way limiting.

Fig.1 is a perceptive view of a sole according to the invention, made of memory-form material, with a damping element, Fig.2 is a lateral elevation view of a second mode of making a sole according to the invention, made of memory-shaped material,
Fig.3 is a side elevation view of a third mode of making a sole according to the invention, made of memory-shaped material, with removable heel,
Fig.4 is a side elevation view of the sole of Fig.1,
Fig.5 is a top view of the sole of fig.2,
Fig.6 is a top view of the sole of Fig.1,
Fig.7 is a cross-section view of a sole according to the invention in a shoe, with the user's foot also represented Fig.8 is a detail of Fig.7, without the compression force exerted by the foot,
Fig.9 is a side elevation view of the sole of Fig.1, the foot being represented before its support on the sole. Fig.10 is a view similar to Fig.9, the tongue being of a different shape, the tongue forming part with the rest of the sole and the sole with an insert,
Fig.11 illustrates schematically in lateral view a single heel and a stack of four heels,
Fig.12 to 21 are schematic lateral views of different modes and more flexible suitable to cover the foot, Fig.22 shows a larger and more flexible sole at the user's size, suitable for covering the foot,
Fig.23 is a perspective view of a sole according to the invention without a damping element,
Fig.24 is a side elevation view of the sole of Fig.23 without heels
Fig.25 is a view similar to Fig.24 with four heels

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Fig.26 is a lateral elevation view of a tongue according to the invention with its base, the heel being removable, Fig.27 is a view of the sole of Fig.25 with the tongue of the same type as in Fig.26, the base being longer,
Fig.28 is a lateral elevation view of another method of making a tongue according to the invention, equipped with lateral guides, and its base,
Fig.29 is a top view of the tongue of Fig.28, and its base,
Fig.30 is a top view of a sole according to the invention, without side guides,
Fig.31 is a view of the tongue of Fig.29 with the sole of Fig.30, without lateral guides,
Fig.32 to 35 illustrate different modes of making a sole according to the invention,
Fig.33 illustrating a heel integrated into a recess of the lower slat,
Fig.36 to 41 are top views of different shock absorbers according to the invention, each view depicting a shock absorber in place in a left sole for men and a right sole for women,
Fig.42 to 44 are other lateral elevation views of a sole according to the invention, with lateral guides, Fig.45 is a view of the

underside of a sole according to the invention, for right foot, with lateral guides, Fig.46 is a view from under the sole of Fig.45
Fig.47 is a side view of the base of a sole according to the invention,
Fig.48 is a top view of a left sole according to the invention in one size for women, and
Fig.49 is a top view of a straight sole according to the invention, in one size for man.
Fig.50 is a side elevation view of a sole according to the invention, in universal size, with lateral guides, Fig.51 is a side view of a pedestal according to the invention, with an insert,
Fig.52 is a rear view of the base of Fig.51,
Fig.53 is a side view similar to Fig.4
Fig.54 is a realistic side view of an openwork shoe equipped with sole according to Fig.53,
Fig.55 shows a shoe foot fitted with a sole according to the invention,
Fig.56 is a rear view of another method of constructing a pedestal according to the invention, incorporating an insert, Fig.57 is a front view of the base of Fig.56,
Fig.58 is a view from above the base of Fig.56,
Fig.59 is a perspective view of the base of Fig.56,
Fig.60 is a side view of another method of making a sole according to the invention, incorporating a tongue at the level of the upper slat, and a second upper slat,
Fig.61 is a top view of the sole of Fig.60,
Fig.62 is a view similar to Fig.60, incorporating heels,
Fig.63 is a top view of the sole of Fig.62,
Fig.64 is a perspective view of the sole of Fig.62 integrated into the base of Fig.59,
Fig.65 is a view similar to Fig.64 from another angle,
Fig.66 is a view similar to Fig.62
Fig.67 is a side elevation view of the sole of Fig.64
Fig.68 is a view similar to Fig.67, the base does not include a removable front shoe,
Fig.69 is a perspective view of another way of making a sole according to the invention equipped with a tongue at the level of the upper slat,
Fig.70 is a lateral elevation view of another mode of realisation of a sole according to the invention, with hollowed-out slats,

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Fig.71 is a view similar to Fig.70, with four heels, Fig.72 is a lateral elevation view of another sole according to the invention, comprising a hollow lower slat, a compressible memory upper slat and an insert, Fig.73 and 72 are lateral elevation views of other soles according to the invention, comprising a hollow lower slat, a compressible memory upper slat and lateral guides, Fig.74 is a side-elevation view of another sole according to the invention, with the upper

and lower slats incorporating elements acting as heels, with a damping element at the front of the sole, Fig.75 and 76 are lateral views of the bases according to the invention, Fig.77 is a lateral elevation view of another sole according to the invention, the upper slat being extended by a tongue, Fig.78 is a view of the sole of Fig.77 inserted into a base according to Fig.56 to 59, Fig.79 is a top view of a pedestal design according to Fig.75, Fig.80 is a view similar to Fig.75 Fig.81 is a side elevation view of a sole according to the invention, Fig.82 is a side view of the sole of Fig.81 in a pedestal according to Fig.80, Fig.83 is a perspective view of a sole according to the invention incorporating a geolocation insert, Fig.84 is a top view of the sole of Fig.83, Fig.85 is an illustration of the concept of Fig.83 and 84, Fig.86 is a lateral elevation view of another sole according to the invention, with an insert, the lower slat being hollow and the upper slat being compressible, with memory of form, Fig.87 is a view similar to Fig.86, the sole being closed, Fig.88 is a detail, on a larger scale, of the rear part of the sole of Fig.86, Fig.89 is similar to Fig.86, with heels inserted, Fig.90 is similar to Fig.89, a foot compressing the sole, Fig.91 and 92 illustrate the geolocation concept allowed by an insert in the sole, and Fig.93 illustrates the insertion of a sole according to the invention. For the whole description, the relative terms such as high, low, lower, upper, right, left are to be understood by reference to a sole in condition of use, inserted in a shoe, the shoe being worn by an individual. Fig.1 shows a first mode of realisation of a sole S according to the invention. The main component of the sole S, when viewed laterally, has a coated Y shape, the lower part of the Y extending towards the front part 3 of the sole S while the two arms of the Y extend towards the back part 4 of the sole S. The upper side 2 of the sole S, intended to be in contact with the user's shoe C, is visible. The two branches of the Y form two slats 5, 6 superimposed one above the other. The first lamella, or lower lamella, 5 is in the lower part of the sole S, in the vicinity of the lower face 1. The second lamella, or upper lamella, 6 is in the upper part of the sole S, in the vicinity of the upper face 2. Housing 7 is provided between the first slat 5 and the second slat 6. Housing 7 accommodates several heels 8. The length of housing 7 is determined by the length of the second slat 6 and its point of encounter with the first slat 5. It is understood that the first and second slats 5, 6 are sized in such a way as to generate a housing 7 whose dimensions are compatible with an effective hold of the 8 heel.

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A tab 9 is provided on the back of the sole S. The lower part of tab 9 is extended by a base 10 which is inserted under the first slide 5. In this way, when the sole is in place in a shoe C, a pull on the tab 9 allows to lift the sole S by acting on the slide 5 through the base 10. In this way the extraction of sole S, shoe C, is facilitated. We note the presence of a damping element 11 at the level of the front part 3 of the sole S. The damping element 11 can be replaced by any other device that the user would like to integrate and be

accommodated by any part of the sole S. Finally, an insole 12 is present under the face 1 of the sole. This is to show that the sole S accords to the invention can be placed on a conventional insole 12. The sole S may optionally be shorter than the sole 12. It should be noted that the sole illustrated in FIG. 1 to 6, and Fig.9, comprises a shape memory element which crashes under the weight of the foot. Fig. 2 and 3 make it possible to better visualize the structure of a sole S accords to the invention. Fig.2 shows a sole S compressed under the action of a foot while Fig.3 shows a sole S at rest. Note the presence of lateral guides 2a and 2b at the level of the upper face 2 of the sole S. These guides projecting from the upper face 2, towards the outside of the sole and upwards, allow a better retention of the sole S in the shoe C. The sole shown in Fig.2 and Fig.3 does not have a tongue. Such a sole could usefully be installed, for example in dance shoes and other similar low shoes. Fig.4 illustrates the use of a tongue 9 and its base 10 with the sole S seen in Fig. 2 and 3. Fig. 5 and 6 are top views allowing a better understanding of the shape of a sole accords to the invention. The sole illustrated in Fig.5 does not have a tongue while the sole illustrated in Fig.6 has a tongue accords to another embodiment where the tongue has two lateral notches 9a and 9b. Fig. 7 and 8 make it possible to apprehend the sole S in a situation in a shoe C, and in contact with a foot P in the case of Fig.7. We note the presence of a damping element 11 which extends longitudinally, along a lateral edge of the sole S. Fig. 9 and 10 illustrate a sole S accords to the invention, using a shape memory material, provided with a tongue 9 accords to two different embodiments, a foot P coming into contact with the sole S. Fig. 11 to 22 illustrate numerous variant embodiments of the S sole. It can be seen in particular that when the tongue 6 is not in one piece with the rest of the sole, it is possible to add it in different ways. (Fig. 12 to 14) Figs. 23 to 35 and Fig. 42 to 44 illustrate from many embodiments of a sole S accords to the invention. In particular Fig. 42 illustrates the sole S with the heels, Fig. 43 without the heels 8, the tongue 6 being at rest and Fig. 44 illustrates the sole S without the heels 8, the tongue being raised by the insertion of the heels 8. Fig. 36 to 41 illustrate numerous possibilities for inserting a damping element 11 accords to the invention. Fig. 42 to 69 illustrate numerous other embodiments of a sole accords to the invention. Fig. 51 and Fig. 56 in particular, illustrate the possibility of using an active insert 11. It will be noted that it is possible to use a second upper strip 6 '(see in particular FIGS. 64 and 65) so as to separate the heels 8 into two groups in order to hold them better. It is obvious that it is possible to use other lamellae in ways to optimize the hold.

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In Fig. 56 to 59, a base accords to the invention can be seen comprising a front part in the form of a visor 13 which can be detached from the sole, just as it is possible to separate the visor 13 from the base and from the tongue. The base accords to the invention, when it comprises the visor 13, takes the

form of an interior liner which can be used alone or with the rest of the sole accords to the invention. The base 9 in the form of a slipper is close to a skin and provides comfort for the user and a " second skin " effect. Fig. 60 to 63, we can see a sole comprising a tongue 15 in the extension of the upper sipe 6. The tongue 15 facilitates extraction and can also cooperate with slots 14 provided in the base 9 for better retention. Four slots are shown here but this figure is not limiting and can naturally be adapted, in particular accords to the size of the tongue. Fig. 70 to 74 illustrate an embodiment of the sole accords to the invention where the sipe 5 is hollowed out and the sipe 6 is compressible, with shape memory to allow better concealment of the heels 8. Fig. 75 and 76 illustrate variants of bases accords to the invention. The visible base Fig. 75 provides better foot support through the use of lateral reinforcements 16, 17 and an elastic element 18. Fig. 77 illustrates another embodiment of a sole accords to the invention, the upper sipe 6 being extended by a tongue 15 and one can see FIG. 78 this sole inserted in a base accords to FIG. 56 to 59. The embodiment of FIG. 75 is also visible in Fig. 79 to 82. Fig. 83 to 85 and Fig. 91 and 92 illustrate the possibility of inserting a geolocation insert 11 in a sole accords to the invention. Figs. 86 to 90 illustrate the possibility of using hollow strips and / or of compressible material to better conceal the heels 8 and improve the comfort of the foot. Fig. 93 illustrates the insertion of a sole S accords to the invention. It is recalled here that accords to the invention, the sole S comprises all of the elements described here, whether they are integral with the sole S or not. In particular, the base 10 and the tongue 9 form part of the sole S. The sole accords to the invention can be produced using numerous materials and in particular those which a person skilled in the art is accustomed to using. Nevertheless, we can usefully cite certain materials such as the materials used in the pharmaceutical field such as terry cloth on latex treated anti-bacteria, the non-woven multi-stretch plaster, hydro colloid fabrics, silicones such as for example a 1mm silicone gel of thickness whose viscoelastic properties are close to those of skin, carbon fiber reinforced plastics (CFRP), multidirectional weaves, in 3D or 4D, based on fibers, geotextiles, polyurethane foam, cellulose fibers, leather, viscose, synthetic fibers derived from petroleum such as acrylic, polyester, polyamide, nylon. Recycled and recyclable textiles are obviously taken into account in the materials that can be used in the sole accords to the invention. By way of example, bamboo fiber will be mentioned, which can be in the form of pulp in which the material is extremely fine. Regarding nanomaterials, it should be noted that the nano-coating of microcapsules with a polymer membrane filled witz substance is by far the most common process (cosmeto-textiles, micro-encapsulable active ingredients).

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Other polymers combine the beneficial action of muscle compression with the properties of bio-ceramics. The HT concept company has developed a bio-

elastic polyurethane membrane loaded with metallic microparticles of volcanic origin that capture infrared radiation, associated by coating with the textile, it is then applied using the Body-mapping method to target the areas requested . In the nonwoven field, mention may be made of synthetic fibers intended primarily for disposable products for hygiene and medical care. Intelligent technical textiles (smart textiles, e-textiles for electronic textiles) are textiles capable of reacting "on their own " by adapting to their environment. These textiles can incorporate computer, digital or electronic components, but also innovative polymer materials such as shape memory polymers, etc. Smart textiles are part of the broad field of "wearable technologies". Smart clothing has an additional function besides clothes. When perspiration rises, perspiration dissolves a substance causing a heat absorption reaction. To obtain this type of reaction, other manufacturers rely on the spinning of two- component fibers. This technique consists in extruding different polymers without mixing them to combine their respective properties. Other active polymers for air-conditioned clothing are revolutionary, such as the Soleta company, which has developed with the Luxilon Industries company, a fiber whose cooling properties are neither based on the addition of phase change materials (PCM) not on the filament composition but on the structure of the base polymer. Thanks to the alternation of its hydrophobic and hydrophilic molecules which simultaneously ensure the evaporation of perspiration and thermal conductivity. It functions as a moisture absorbing pump body in releasing the freshness . This polymer gives yarns suitable for knitting sports equipment. The manufacturers have developed bi-elastic fabrics, the advantage of which is the capacity for multidirectional elongation, which makes it possible to best match the movements of the body and obtain a second skin effect. Beyond comfort, these textiles have useful properties in terms of performance. Thanks to muscle compression, they stimulate blood circulation and improve oxygenation which is beneficial during recovery after exercise. Another advantage is that they provide better muscle support. This reduces vibrations and therefore energy loss and the risk of micro-lesions. The advent of synthetic fibers in the textile industry did not only optimize the spinning and weaving processes... They also revolutionized the very making of clothes (fabrics). Less radical than non-woven, seamless techniques (seamless on the sides). Two other techniques can be used to make items without seams. 1 / Use of ultrasound : the vibratory phenomenon of the wave caused by sound, converted into heat, makes it possible to assemble the parts together. 2 / Heat sealing : this technique eliminates the elastics by offering clean cut edges. Manufacturers must design new fibers that meet new public expectations related to mobility, health and well-being (the interactions of textiles with the human body constitute one of the priority areas of development for functional textiles, poly sensoriality and well- being linked to sport, mobility, health, aging.) for example a fabric that changes color in case of fever, refreshing clothes. It does not matter, therefore, whether these fibers are natural,

synthetic, bio-sourced or blended, as long as they are multifunctional, saving energy and raw materials and better still recyclable. The factory of the future : textiles consume labor. It is important to find assembly methods that are easier, such as 3D knitting, to produce at a lower cost and possibly be able to relocate production sites. Molding techniques and for example sand molding and polystyrene molding known as the Lost Foam PMP process, injection molding, bimetal molding, centrifugal molding (for composites, reinforcement plus resin), flexible impression molding, ect ... It is also possible to consider adding new functions to the sole, for example : - Protect from external risks thanks to communicating fabrics - Diagnose and deliver drugs through dressings equipped with microprocessors - Check the outside temperature, thermoregulation effect between -30 and +20, toxic gas present, UV index, etc. - monitor vital parameters such as body temperature, insulin level, breathing, heart rate ... - Warn the user and his doctor in the event of danger, using built-in chips or sensors, - Consolidate bone reconstruction using a resistant reinforcing fabric, - better eliminate perspiration, prevent bacterial or fungal infections, retain heat thanks for example to silver composite textile fibers, - improve comfort with technical textiles capable of ensuring sound insulation and air filtration, - provide a speaker-type device to broadcast sound by communicating through a bluetooth- type wireless communication technology, - Resist stains and aging, reduce odors and provide aromas with changing scents, energizing in the morning, soothing in the evening ... - Providing comfort, safety, performance thanks to lightness, resistance to abrasion and tears, - Breathability (impermeability to water and permeability to perspiration) relevant for sportswear, - Integrate a transmitter responsible for transmitting digital signals, via a detector controlling sports activity, body temperature, climate, degree of humidity and ozone, level of ultraviolet rays, heartbeats to transmit them at a hospital or medical center, the speed of the race, the distance covered, - Promote well-being and health with cosmetotextiles, and provide an anti-stress, anti- perspirant, antipollution, insecticide, antibacterial function and : or contain microcapsules in which essential oils are incorporated or even moisturizing products diffused in contact with the skin, providing a thermoregulatory effect, - Communicate with conductive textiles such as e-textiles, capable of storing energy. - Integrate a geolocation device making it possible to broadcast the position of the wearer of the sole on an external request and / or following the activation of an emergency device by the wearer, allowing children or lost hikers, mountaineers stuck under an avalanche, sailors fallen from their boats, disoriented elderly people, to send a distress signal, the geolocation system being advantageously placed in a compartment where the device could withstand shocks, stay safe from the water, do not deform, support the weight of the body, do not hinder the user,

Integrate an energy storage device of the battery or accumulator type capable of storing electrical energy resulting in particular from the movement of the wearer, pressure, heat, Furthermore, the sole may include non-slip zones, for example using notches or other aggressive geometry round made up of flexible and durable rubber. Notches can ensure maximum flexibility. Many embodiments have been described but those skilled in the art will be able to make other combinations based on the technical characteristics described here, without however departing from the scope of the invention. Claims 1. Shoe insole (S) comprising a first face (1) capable of being in contact with the bottom of a boot (C) and a second face (2) capable of being in contact with the foot (P) of the user of the shoe (C), the sole (S) comprising a front part (3) able to take place in the front part (C1) of the shoe (C) and a rear part (4) able to take place in the rear part (C2) of the shoe (C) in the vicinity of the heel, the part (4) comprising at least two strips (5), (6) superimposed one above the other, being arranged in the extension of the front part (3) of the sole and under a second sipe (6), a housing (7) being able to exist between the first (5) and the second sipe (6), characterized in that the first sipe (5) is extended by a tab (9). 2. Sole (S) accords to claim 1, characterized in that the sole (S) comprises three strips (5), (6), (6'), a housing (6) being able to remain between the first (5) and the second lamella (6) and a second housing which may remain between the second (6) and the third (6'). 3. Sole (S) accords to claim 1, characterized in that the sole (S) comprises more than 3 lamellae, each additional lamellae creating new distinct housings.

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4. Sole (S) accords to claim 1 or 2 or 3, characterized in that at least one heel piece (8) is inserted in the housing (7) between the first (5) and the second sipe (6). 5. Sole (S) accords to any one of claims 1 to 4, characterized in that the sole (S) is made in one piece. 6. Sole (S) accords to any one of claims 1 to 4, characterized in that the sole (S) is made in two or more parts, the second sipe (6) and the following ones, in the event that more than two sipes are envisaged, being sewn (s) and / or glued (s) and / or assembled accords to any other technique best suited to the materials used to make the sole, on (5) and / or the rest of the sole (S). 7. Sole (S) accords to claim 1 to 6, characterized in that the tongue (9) and the first strip (5) are made in one piece. 8. Sole (S) accords to claim 1 to 6, characterized in that the tongue (9) comprises a base (10) which is inserted under the rear part of the first strip (5). 9. Sole (S) accords to Claim 8, characterized in that the base (10) comprises a front part in the form of a visor (13). 10. Sole (S) accords to Claim 9, characterized in that the base (10) and visor (13) assembly is able to be detached from the sole (S). 11. Sole (S) accords to claim 9, characterized in that the visor (13) is able to be detached from the base (10) and from the tongue (9). 12. Sole (S) accords to any one of claims 8 to 11, characterized in that the base (10) comprises micro-suction cups which cooperate with the rest of the sole (S) to obtain adhesion and

positioning of the sole (S) on the plinth. 13. Sole (S) accords to any one of claims 1 to 6 or 8 to 12, characterized in that the tongue (9) is separated from the first strip (5). 14. Sole (S) accords to any one of the preceding claims, characterized in that it comprises a tongue (15) in the extension of the upper lamella (6). 15. Sole (S) accords to any one of the preceding claims, characterized in that it comprises damping elements (11). 16. Sole (S) accords to any one of the preceding claims, characterized in that it incorporates in the materials constituting it intelligent textiles, bioactive textiles, cosmo-textiles, shape memory materials, hydrocolloid materials, e-textiles and / or contain areas / spaces suitable for receiving thicknesses intended to improve the well-being of the user (shock absorber, digital technology, microcapsules, nano materials, etc.)

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17. Sole (S) accords to any one of the preceding claims, characterized in that it comprises a non-slip lower face. 18. Sole (S) accords to any one of the preceding claims, characterized in that it comprises a geolocation device. 19. Sole (S) accords to claim 18, characterized in that the geolocation device is arranged in a compartment where the device is able to withstand shocks, remain protected from water, do not deform, support the weight of the body and not interfere with the user. 20. Sole (S) accords to any one of the preceding claims, characterized in that it comprises a speaker device for diffusing sound by communicating by means of wireless communication technology. 21. Sole (S) accords to any one of the preceding claims, characterized in that it comprises a transmitter responsible for transmitting digital signals, via a detector monitoring sporting activity or body temperature or climate or the degree of humidity and ozone or the level of ultraviolet or heartbeat, running speed and distance traveled. 22. Sole (S) accords to Claim 21, characterized in that the transmitter is responsible for transmitting digital signals via a detector monitoring heartbeats to a hospital or a medical center. 23. Sole (S) accords to any one of the preceding claims, characterized in that it comprises an energy storage device of battery or accumulator type capable of storing electrical energy resulting in particular from the movement of the wearer or from the pressure or heat.

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