



US 20140373395A1

(19) **United States**(12) **Patent Application Publication**
White(10) **Pub. No.: US 2014/0373395 A1**(43) **Pub. Date: Dec. 25, 2014**(54) **SOLAR POWERED L.C.D./L.E.D./O.L.E.D.
FOOTWEAR**(52) **U.S. Cl.**CPC . *A43B 23/24* (2013.01); *A43B 5/00* (2013.01);
A43B 3/12 (2013.01)USPC **36/137**(76) Inventor: **Bonnie Patricia White, Windsor (GB)**(21) Appl. No.: **14/365,457**(22) PCT Filed: **Dec. 13, 2011**(86) PCT No.: **PCT/GB2011/001717**

§ 371 (c)(1),

(2), (4) Date: **Jun. 13, 2014****Publication Classification**(51) **Int. Cl.***A43B 23/24* (2006.01)*A43B 3/12* (2006.01)*A43B 5/00* (2006.01)(57) **ABSTRACT**

Footwear 9, e.g. a Trainer, comprises an Upper 1 and a Sole 2a, serves as a mounting means for a Control Panel with Touchscreen capability 3, and Qwerty Keyboard 4, with a Controller 3b under control panel 3, located in Upper 1, and an L.C.D., L.E.D., or O.L.E.D. Display Screen 2b, located in Cavity 2c, cut out of 2a to allow screen depth that is flexible and goes completely round the Sole 2a, 2b is supported by 2c and Sole 2a, displaying moving text and graphics in optional settings. The Display screen 2b is controlled by Screen 3 or 4, and has solar power capability 6, as does screen 12. A USB Port 7, in upper 1, recharges built in Battery 11, and also a battery light indicator 8. A battery 11, a controller 13, and an extra display screen 12, which can be controlled by 2d, 13, 3, 4.

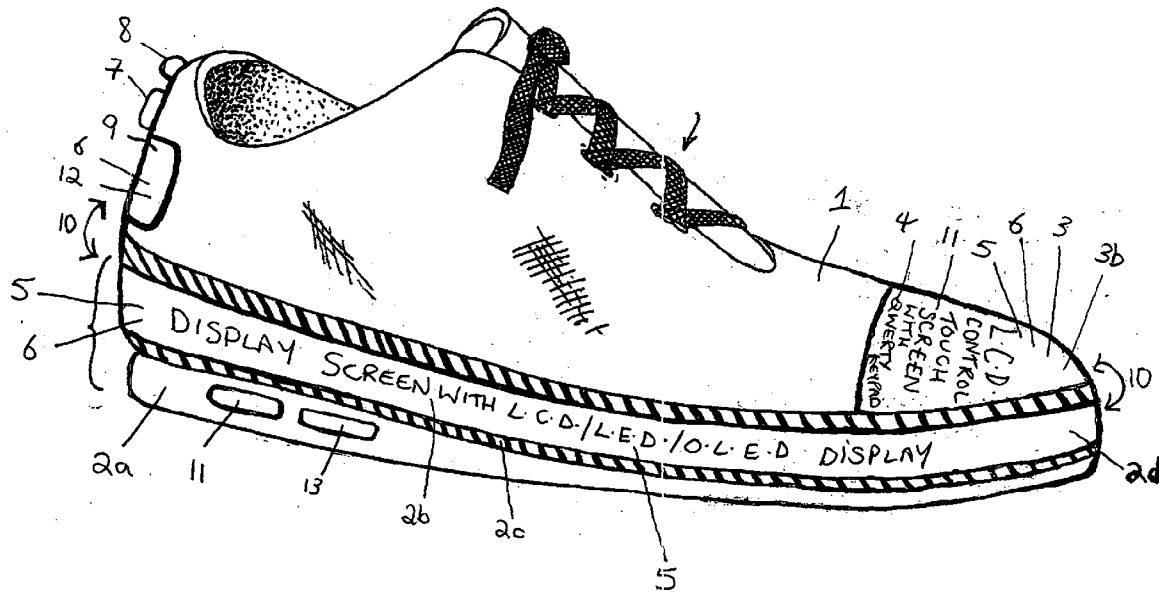


FIGURE 1

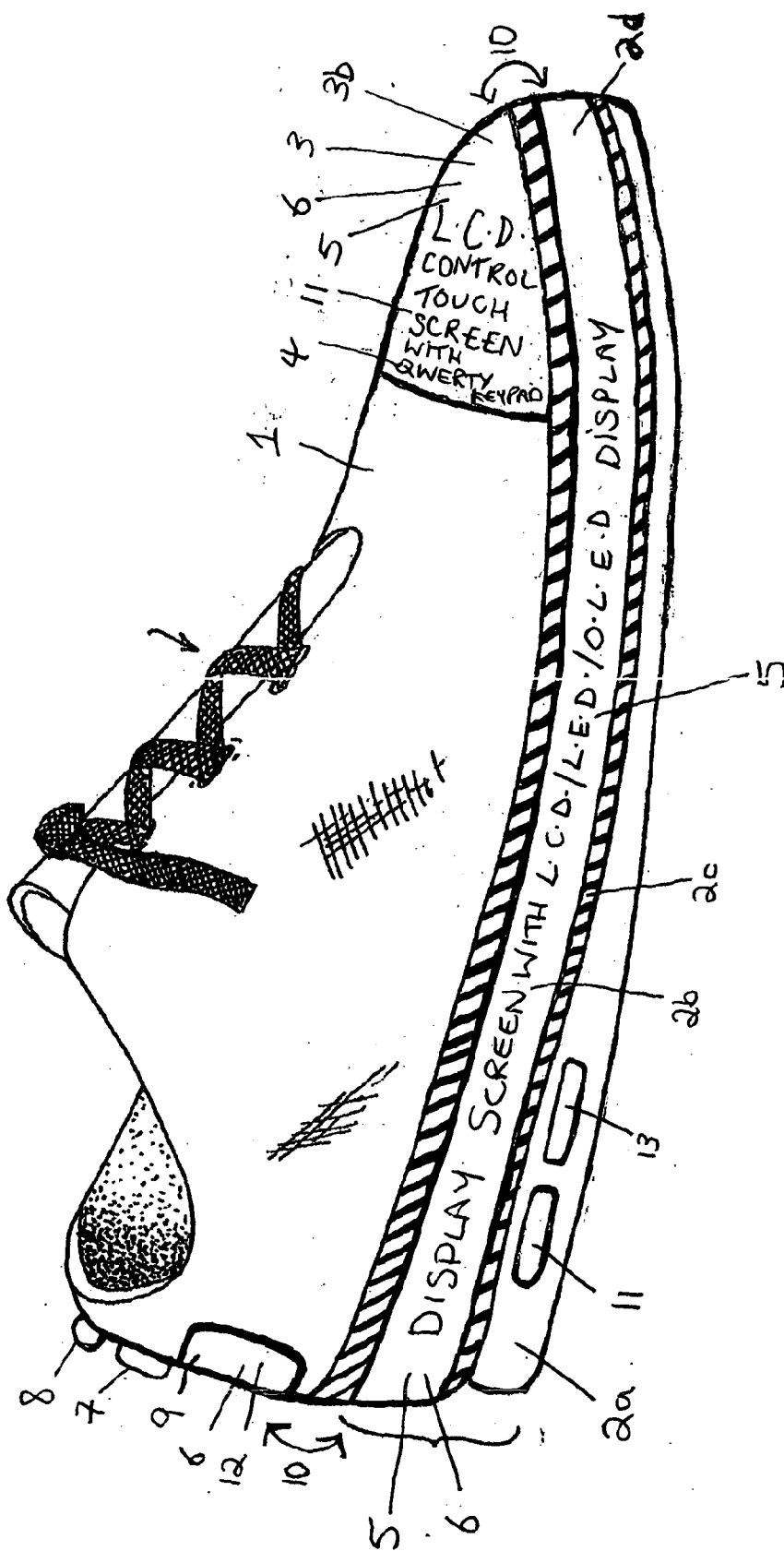


FIGURE 2

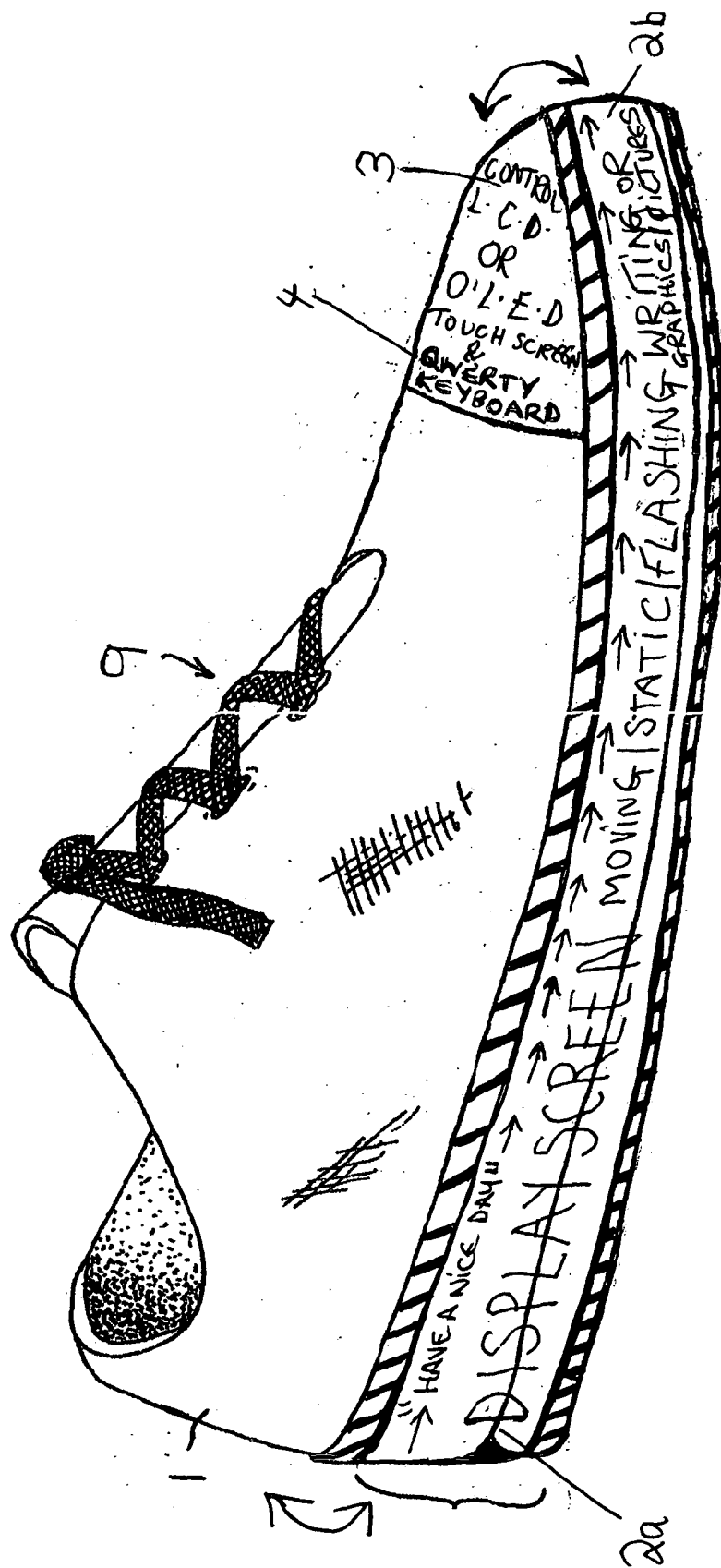
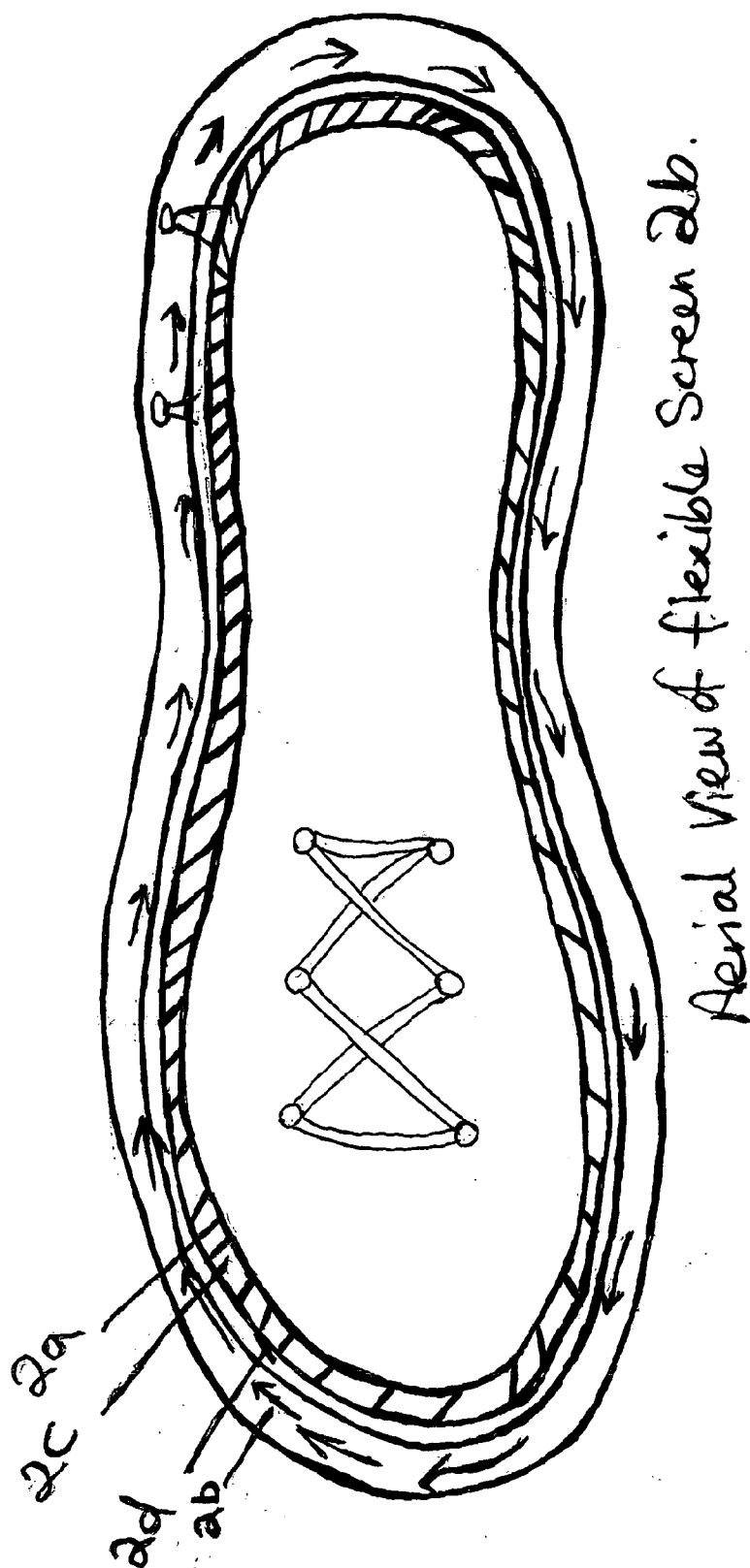


FIGURE 3



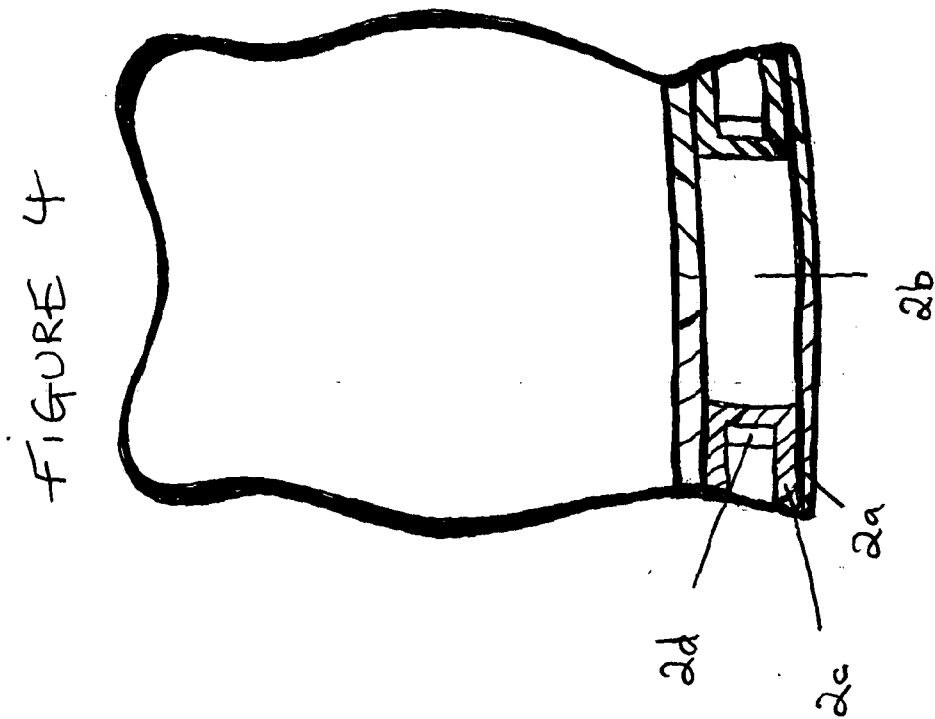
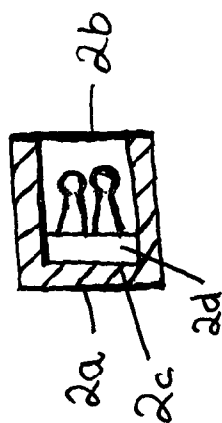
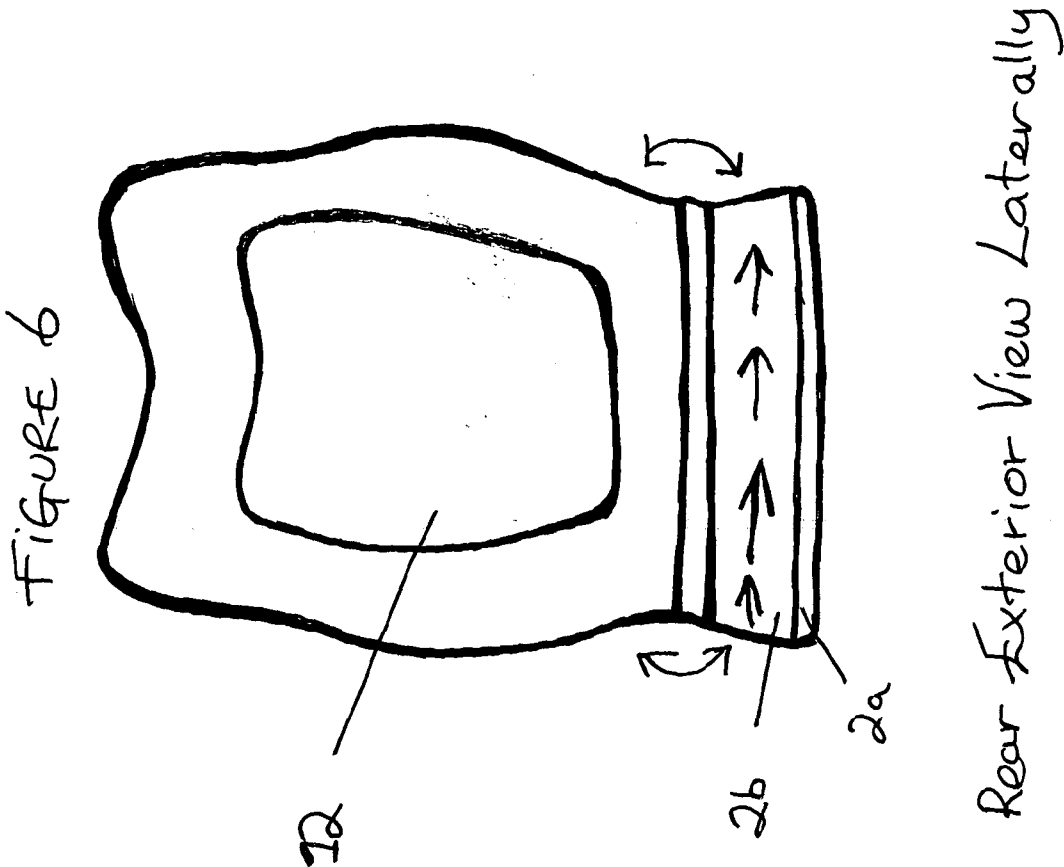


FIGURE 5



Cavity of Circuit Board



SOLAR POWERED L.C.D./L.E.D./O.L.E.D. FOOTWEAR

FIELD OF THE INVENTION

[0001] This invention relates generally to all types of Footwear, that can have both Upper and Sole, HG but not limited to, by way of an example, Trainers, Shoes, Boots, High Heeled Shoes, Low Heeled Shoes, even open toed Shoes, of all types, or just a Sole, any type of Footwear a user could wear, which holds the foot in place, for example Flip Flops, but not limited to. All types of footwear that this invention can be applied to can either be open toed, or closed toed, but not limited to.

BACKGROUND OF THE INVENTION

[0002] People in everyday life use different types of Footwear to go about their everyday business. I want to turn what is a very boring necessity into something that serves a purpose, something that solves a problem, and in addition something that is fun for all, that is also eye-catching and attractive to the eye, and enables the user to be seen clearly in poor visibility and easily and from afar in normal visibility.

[0003] We live in a constantly changing world, where it is now fashionable in society to get noticed, people crave attention and want to be noticed, and are finding new ways to be noticed, to gain attention and envy from others, and status symbols are society's ways of doing this.

[0004] At present, our homes, our Cars, and even the way we dress, dictate who we are as people, and have become a measure of our success. My invention will change the norm. My invention will be the new status symbol for everyone to own.

[0005] All types of Footwear will never be boring again.

[0006] My invention would be Solar Powered but not limited to, making in environmentally friendly, cost effective and it would save energy.

[0007] It will make the user be seen more clearly, not only in the day but at night, which is an interesting safety feature.

[0008] It will reflect the mood of the user, and allow them to make a statement of some kind, be it in a humorous way, or even serious, and can also be used for stunning visual displays and advertising.

[0009] It will be protected from the elements via a waterproof membrane/cover, but not limited to.

[0010] A revolutionary and innovative use for all types of Footwear that will inspire creativity, and bring excitement to the world of Footwear.

BRIEF SUMMARY OF THE INVENTION

[0011] This invention covers all types of Footwear, comprising a so-called Upper (1), and Ground Engaging Body (Sole) (2a), for both left and right Footwear (9), and in this example of the invention is a Trainer, but not limited to, and also covers any type of footwear that can be worn by the user which can just comprise a Sole, for example Flip Flops. This embodiment of this invention also applies to all types of Footwear (9), including open or closed toe Footwear (9), high heeled, low heeled, and Footwear (9), for both Genders. Including and not limited to Boots, Shoes, and any and all types of Footwear (9).

[0012] This invention is for the use of a Waterproof Flexible Display Screen (2b), in either L.C.D./L.E.D./OR O.L.E.D., but not limited to, that wraps around the entire Sole (2a), of

the Footwear (9). It has Solar Power capability (6), with built in small solar panels (6), in both the Upper (1), in Screens (3 and 4), and in Screens (2b), located in the Ground Engaging Body (Sole) (2a), and extra Display Screen (12), located in the rear of the Upper (1), of Footwear (9), but not limited to.

[0013] Control Screen (3) enables the use of Display Screen (2b) and its different functions and modes. Built in below the Screen (3), is a Controller/Circuit Board (3b), to enable function but not limited to.

[0014] There is also a built in Rechargeable battery (11), located built into the Sole (2a), of the Footwear (9). There is also a Controller/Circuit Board (13), also located built into the Sole (2a), of the Footwear (9).

[0015] Behind the Waterproof Flexible Display Screen, is a Circuit Board (2d), which extends around the entire length of the Sole (2a), around the Footwear (9), and which sits snugly against a cut out Cavity (2c), around the entire Sole (2a) of the Footwear (9).

[0016] In this example which is not limited to, the L.E.D. tiny light bulbs are attached to the Circuit Board (2d). These are covered by the exterior Waterproof Flexible Display Screen (2b), that extends around the entire length of the Sole (2a).

[0017] There is a Battery Indicator Light (8), situated on the rear Upper (1), of Footwear (9). Supporting the Rechargeable battery (11), which is built into the Sole (2a), of the Footwear (9).

[0018] There is also an Alternative Charging USB Socket Port, (7), to also support Rechargeable Battery (11).

[0019] There is also an extra Display Screen (12), to work alongside or work independently from the Waterproof Flexible Display Screen (2b).

[0020] This is a potentially life saving invention, that would allow much clearer visibility of the user by other road users, in poor weather conditions and poor visibility.

[0021] The Solar Power capability would save energy and be helpful to the environment.

[0022] There is a fun element in which the user is enabled to show the world how they are feeling on a given day and make a personal statement in the form of Words, Sentences and Graphics and the like, but not limited to.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] By way of embodiment of this invention will now be described with reference to the accompanying Drawings which are a perspective view of differing angles/forms of Footwear (9), article embodying the invention in which:

[0024] FIGS. 1 to 6 illustrate embodiments of the invention.

[0025] FIG. 1

[0026] FIG. 1 illustrates an article of Footwear (9), with a side view, showing examples of all its features, with the main feature being a waterproof flexible L.E.D. Display Screen (2b), but not limited to, that is supported by the cavity (2c), and sits in cavity (2c), and is built into the Ground Engaging Body (Sole) (2a), around the entire length of the Sole (2a), from start to finish, around the Footwear (9). Going continually all the way round the Footwear (9).

[0027] Behind the Waterproof Flexible L.E.D. Display Screen (2b), as an example but not limited to, is a Circuit Board (2d), that sits snugly in the Cavity (2c) of the Ground Engaging Body (Sole) (2a), and extends the entire length of the Sole (2a), from start to finish. By way of this example of the embodiment of the invention, the Circuit Board (2d), has lots of L.E.D. tiny bulbs covering the Circuit Board (2d),

which are attached to the Circuit Board (2d), and which extend round the entire length of the Ground Engaging Body, (Sole) (2a), from start to finish going continually all the way round the Footwear (9).

[0028] The Circuit Board (2d), sits snugly in the cavity of the Sole (2c), and extends the entire length of the Sole (2a) from start the finish.

[0029] In this example of the embodiment of the invention, and not limited to, to enable the waterproof L.E.D. Display Screen (2b) to work, there is a Control Screen (3), located in the Upper (1), from which the user activates the 'On' option of the touchscreen button on the on/off touchscreen button, located in (3), or located in the Manual Qwerty Keyboard (4), types in on the Touchscreen (3), or the Qwerty Manual Keyboard (4), either words, phrases, sentences, etc., or uses the graphics options, and so whatever option is chosen will appear on the waterproof L.E.D. Flexible Display Screen (2b), and will be scrolled completely around it continually in a loop, or if the user so decides they could use the static or static flash option, but not limited to, and when they have finished they simply turn the waterproof L.E.D. Flexible Display Screen to the 'Off' option, by selecting and activating the Off Switch on the touchscreen button located in (3), or the Manual Qwerty Keyboard, located in (4).

[0030] Beneath the Control Screen (3), located on the Upper (1) of the Footwear (9), sits a Controller/Circuit Board to enable the Control Functions.

[0031] By having a TouchScreen Control Screen and a Manual Control Screen, it allows for malfunction of either, and offers a back up of the alternative.

[0032] FIG. 1

[0033] The numbers on FIG. 1 are for the following.

[0034] No. 1—is the Upper part of the Footwear (9).

[0035] No. 2a—Is the Ground Engaging Body (Sole), of the Footwear (9).

[0036] No. 2b—Is the Waterproof Flexible L.E.D. Display Screen (but not limited to).

[0037] No. 2c—Is the Cavity, cut out to accommodate and support the Waterproof Flexible Display Screen (2b).

[0038] No. 2d—Is the Circuit Board that extends all the way round the Ground Engaging Body (Sole) (2a), of the Footwear (9), from start to finish, and which sits snugly in the Cavity (2c), built into the Ground Engaging Body (Sole), (2a), of the Footwear (9).

[0039] No. 3—Is the Waterproof TouchScreen Control Screen, which can be L.C.D./L.E.D./OR O.L.E.D., but not limited to. Which controls the text and graphics scrolling functions and on/off function of the Waterproof Flexible Display Screen (2b).

[0040] No. 3b—Is the Controller/Circuit Board built into the Upper (1) of Footwear (9), and situated underneath the Waterproof Control Touch Screen (3), to allow function of Control Screen (3), but not limited to.

[0041] No. 3b—Is also the Controller/Circuit Board to allow function of Manual Qwerty Keyboard (4), positioned on the Upper (1) of Footwear (9).

[0042] No. 4—Is the Manual Qwerty Keyboard which sits on the Upper (1), of the Footwear (9).

[0043] No. 5—Waterproof Screen that is located in the Upper (1) of Footwear (9), that means the Control Touch Screen (3), and Manual Qwerty Keyboard (4), are Waterproof. For example by means of a Membrane cover, or as an alternative that the Screen itself is waterproof.

[0044] No. 5 also applies to the Flexible Display Screen (2b) which itself is Waterproof to prevent water from entering the inner workings of the Footwear (9), in poor weather conditions.

[0045] No. 5 also applies to the extra Display Screen (12), located in the rear Upper (1), of the Footwear (9).

[0046] No. 6 are the built in small Solar Panels which are located in the Touch Control Screen (3), and also the Manual Qwerty Keyboard (4), both located in the Upper (1) of the Footwear (9), and also, are built into the Waterproof Flexible Display Screen (2b), located in the Ground Engaging Body (2a), and also the extra Display Screen (12), located in the rear Upper (1) of Footwear (9).

[0047] No. 7. Alternative charging USB Socket, located in the rear of the Upper (1) of the Footwear (9), as a means to charge the built in Rechargeable battery (11) as a power source as an alternative to the Solar Power Source (6).

[0048] No. 8 is a Battery Indicator LED Light, but not limited to, that is positioned in the rear Upper (1) of Footwear (9), and tells the user if the battery is low and needs recharging.

[0049] No. 9. is the Left or Right Footwear, all types of Footwear, not limited to Trainers for example.

[0050] No. 10 are the arrows on FIG. 1 which are used as a way of demonstrating moving continually scrolling text or graphics, but not limited to.

[0051] No. 11 is the Rechargeable Battery built into the Ground Engaging Body (Sole) (2a), of the Footwear (9).

[0052] No. 12 is the extra Display Screen, which is waterproof (5), located in the rear Upper (1), of the Footwear (9), that can work either independently or alongside the Waterproof Flexible Display Screen (2b), located in the Ground Engaging Body (Sole) (2a), of the Footwear (9).

[0053] No. 13 Is the Controller/Circuit Board which acts as a Mother Board for workings of all the Screens, (3, 4, 2b, and 12), and for other additional functions of the Footwear (9), but not limited to. It has complex programmes built into it to aid functionality, and would be capable of controlling all of the functions from 1-13 as shown in FIG. 1.

[0054] FIG. 2

[0055] Is the same as FIG. 1, but for the size of the Flexible Waterproof Display Screen (2b), which in this FIG. 2 is larger and takes up more room of the Sole (2a), than the FIG. 1 Screen (2b), and is another example of the Waterproof Flexible Display Screen, but not limited to. Which can either be L.C.D./L.E.D. OR O.L.E.D., but not limited to any of these.

[0056] It demonstrates on (2b) in text that the Display Screen (2b) has moving, static, Flashing text, Graphics and pictures, but is not limited to.

[0057] FIG. 3

[0058] Is an aerial view of the Footwear (9). It demonstrates the moving text and graphics on (2b), on the Waterproof Flexible Display Screen (2b), go all the way round the Footwear (9), from start to finish and continuously scroll text and Graphics. The reason for this is to show that the Waterproof Flexible Display Screen (2b), which is supported by the Cavity (2c), in the Sole (2a), of the Footwear (9), which also supports the Display Screen (2b), also wraps around the entire length of the Sole (2a), of the Footwear (9), as does the Cavity (2c), and the Circuit Board (2d), which both also wrap continuously round the entire length of the Sole (2a), of the Footwear (9).

[0059] It also demonstrates the Cavity (2c), cut out from the Sole (2a), that supports and accommodates the Display

Screen (2b), and it also demonstrates the Circuit Board (2d), that sits snugly in the Cavity (2c), all the way round the Sole (2a) of the Footwear (9), and shows that the Circuit Board (2d), sits behind the Waterproof Flexible Display Screen (2b), all the way round the Footwear (9).

[0060] In this example of the invention which is not limited to, FIG. 3 shows L.E.D. Bulbs attached to the Circuit Board (2d). Which would be an L.E.D. Waterproof Flexible Display Screen (2b).

[0061] FIG. 4

[0062] Is a rear lateral view of the Footwear (9). It shows as though the rear of the Footwear (9) was transparent, and one could see through it to see the different sections that make up the Waterproof Flexible Display Screen (2b).

[0063] These include the Cavity (2c), the Sole (2a), the Circuit Board (2d), and the Waterproof Flexible Display Screen (2b).

[0064] FIG. 5

[0065] Is the interior of Screen (2b), and a miniature version of the layers of the Waterproof Flexible Display Screen (2b), and what lay behind it. It also shows by way of an example but not limited to, the L.E.D. Bulbs which are attached to the Circuit Board (2d).

[0066] So what you have here is the Cavity (2c) (built into the Sole) (2a), of the Footwear (9), the Circuit Board (2d), which sits snugly against the Cavity (2c), and the L.E.D. lights, which are attached to the Circuit Board (2d), and finally the exterior Waterproof Flexible Display Screen (2b) which covers the aforementioned L.E.D. bulbs, and also the Circuit Board (2d), and the Cavity (2c).

[0067] FIG. 6

[0068] An exterior rear view of the Footwear (9). Showing the extra Display Screen (12), and demonstrating that the Waterproof Flexible Display Screen (2b), wraps round the whole of the Sole (2a), of the Footwear (9), even extending to the rear and continuing round the Footwear (9).

DETAILED DESCRIPTION OF THE INVENTION

[0069] This invention covers all types of Footwear, comprising of a so-called Upper (1), and Ground Engaging Body (Sole), (2a), for both left and right Footwear (9), and in this example of the invention is a Trainer, but not limited to, and also covers any type of footwear that can be worn by the user which can just comprise of a Sole, for example Flip Flops. This embodiment of this invention also applies to all types of Footwear (9), including open or closed toe Footwear (9), high heeled, low heeled, and Footwear (9), for both Genders. Including and not limited to Boots, Shoes, and any and all types of Footwear (9).

[0070] This invention is for the use of a Waterproof Flexible Display Screen (2b), in either L.C.D./L.E.D./OR O.L.E.D., but not limited to, that wraps around the entire Sole (2a), of the Footwear (9). It has Solar Power capability (6), with built in small solar panels (6), in both the Upper (1), in Screens (3 and 4), and in Screens (2b), located in the Ground Engaging Body (Sole) (2a), and extra Display Screen (12), located in the rear of the Upper (1), of Footwear (9), but not limited to.

[0071] Control Screen (3) enables the use of Display Screen (2b) and its different functions and modes. Built in below the Screen (3), is a Controller/Circuit Board (3b), to enable function but not limited to.

[0072] There is also a built in Rechargeable battery (11), located built into the Sole (2a), of the Footwear (9). There is

also a Controller/Circuit Board (13), also located built into the Sole (2a), of the Footwear (9).

[0073] Behind the Waterproof Flexible Display Screen, is a Circuit Board (2d), which extends around the entire length of the Sole (2a), around the Footwear (9), and which sits snugly against a cut out Cavity (2c), around the entire Sole (2a) of the Footwear (9).

[0074] In this example which is not limited to, the L.E.D. tiny light bulbs are attached to the Circuit Board (2d). These are covered by the exterior Waterproof Flexible Display Screen (2b), that extends around the entire length of the Sole (2a).

[0075] There is a Battery Indicator Light (8), situated on the rear Upper (1), of Footwear (9). Supporting the Rechargeable battery (11), which is built into the Sole (2a), of the Footwear (9).

[0076] There is also an Alternative Charging USB Socket Port, (7), to also support Rechargeable Battery (11).

[0077] There is also an extra Display Screen (12), to work alongside or work independently from the Waterproof Flexible Display Screen (2b).

[0078] This is a potentially life saving invention, that would allow much clearer visibility of the user by other road users, in poor weather conditions and poor visibility.

[0079] The Solar Power capability would save energy and be helpful to the environment.

[0080] There is a fun element in which the user is enabled to show the world how they are feeling on a given day and make a personal statement in the form of Words, Sentences and Graphics and the like, but not limited to.

[0081] Wherein the Upper or Body (1) includes a mounting means for a Visual Control Screen (3) and a Controller/Circuit Board (3b). It is also a mounting means for a Manual Qwerty Keyboard (4) as an alternative to Control Screen (3).

[0082] It also provides the mounting means for a Flexible Waterproof Display Screen (2b), which is supported by a Cavity (2c), and behind the Display Screen (2b), is a Circuit Board (2d), which in this example but not limited to, has L.E.D. Bulbs attached to it, which sit behind the exterior of the Display Screen (2b). The aforementioned continue all the way round and are supported by the Sole (2a), of the Footwear (9), around the whole length of the Sole (2a).

[0083] This invention also provides mounting means for a Battery Indicator light (8), and an alternative USB charger port (9), both located in the rear Upper (1) of the Footwear (9).

[0084] The invention also provides mounting means for the extra Display Screen (12), located on the rear Upper (1), of Footwear (9).

[0085] This invention also provides mounting means for a Rechargeable Battery (12), and a main Controller/Circuit Board (13), located built into the base of the Sole (2a) of the Footwear (9).

[0086] This invention is for the use of a Waterproof Flexible Display Screen (2b), which can be either L.C.D./L.E.D./O.L.E.D., but not limited to, and which is built into the Sole (2a), and sits snugly in the Cavity (2c), of the Sole (2a), and is supported by the Sole (2a), and wraps around the entire Sole (2a) of the Footwear (9) from start to finish, and in this example of the invention, but not limited to on FIG. 1, is L.E.D., but the Flexible Waterproof Display Screen (2b), can be of differing types of Screen, and not limited to. Behind the Flexible Waterproof Display Screen (2b), is a Circuit Board (2d), which sits snugly in the cavity (2c), of the Sole (2a), and the Circuit Board (2d), extends all the way round the Sole

(2a), its entire length, around the Footwear (9), from start to finish, and in this example, but not limited to, the Circuit Board (2d), is covered in tiny L.E.D. Bulbs, which cover the Circuit Board (2d), extending all the way round the Waterproof Flexible Display Screen (2b), going around the entire length of the Sole (2a), from start to finish, but in not limited to.

[0087] The Flexible Waterproof Display Screen (2b), is controlled by either the TouchScreen L.C.D./L.E.D./OR O.L.E.D. Control Screen (3), located in the Upper (1), of Footwear (9), or the Manual Qwerty Keyboard, (4), also located in the Upper (1), of Footwear (9). These Control screens, enable the user to type in words, sentences and the like, but not limited to, and also graphics, which would then be displayed continually scrolling around the Flexible Waterproof Display Screen (2b), or the user can use other options, such as static, or flashing text, or graphics. The waterproof screens (5) are for Screen (3), (4), (2b), and 12).

[0088] Below the Control Screen (3), and located in the Upper (1), of the Footwear (9), is a Controller/Circuit Board (3b) for the function of the Control Screen (3), but not limited to.

[0089] In the internal workings (11) built into the Ground Engaging Body (Sole), (2a), of the Footwear (9), is a Rechargeable Battery (11), and located in the rear of the Upper (1), of the Footwear (9), is a Battery Indicator Light (8), to inform user when Battery needs to be recharged. Located in the rear of the Upper (1), is also an Alternative Charging USB Socket (7), positioned below Battery Indicator Light (8).

[0090] Located in the rear Upper (1), of the Footwear (9), is an extra Rear Display Screen (12), which can either work separately/independently to the Flexible Waterproof Display Screen (2b), or works alongside it and repeats exactly what is Displayed in (2b). This extra Display Screen (12), works alongside the Waterproof Flexible Display Screen (2b), and is powered by the controller (13), built into the Ground Engaging Body, (Sole) (2a), of the Footwear (9), and/or Circuit Board (2d).

[0091] All Screens, whether Control or Display Screens have Solar Power capability.

[0092] The two main sources of Power itself are the Solar Power sources located in Upper (1), built into the Control Screen (3), and also built into the Manual Qwerty Keyboard (4), and also built into the Waterproof Flexible Display Screen (2b). The alternative source of power comes from the rechargeable Battery located in the internal workings (11), which has a rechargeable Battery (11), of the Footwear (9). There is an alternative USB Port Battery Charger (7), located on the rear of the Upper (1) of the Footwear (9).

[0093] There is a main Controller/Circuit Board (13), which has multiple complex programmes built in, to aid functionality of Control Screen (3), and (4), and also Display Screen (2b), and extra Display Screen (12).

[0094] Wherein the Upper or the body (1), includes mounting means for a visual Control Screen/Display Screen (3), not limited to L.C.D./L.E.D./O.L.E.D. Display/Control Screen, (3), including a Touch-Screen Keyboard, (3), but not limited to, amongst many of its features from the menu, and below it, a Manual Keyboard (4), as a back-up to the Touch Screen Keyboard, in case of temporary malfunction, and also for user preference.

[0095] Wherein the Ground Engaging Body, (Sole), (2a), is cut out all the way round the sole (2a), from start to finish

going around the footwear (9), to accommodate the Flexible Waterproof L.E.D. screen depth, (2b) for a Flexible L.E.D. Display Screen (2b), and behind the Waterproof Flexible L.E.D. Screen (2b), which can be clearly seen on the sole of the Footwear (2a), also accommodates, a Circuit Board (2d), covered in L.E.D. Bulbs, but not limited to, for this example of the invention, which sits snugly against the cavity (2c) of the Sole (2a), and can incorporate, but is not limited to an L.C.D./L.E.D./O.L.E.D. Display Screen (2b), that goes all the way round the Trainer (Footwear) (9), Ground Engaging Body, (Sole), (2a), from one side of the footwear all the way round to the other side and back again continuously, (2b), as shown in the accompanying picture, in real time, and would have the options of showing words, phrases, sentences, pictures, images, graphics, moving continuously scrolling all the way round the Ground Engaging Body, (Sole), (2b), or the other options of static, static flashing, flashing moving, in the Ground Engaging Body, (Sole), (2b).

[0096] The visual L.C.D./L.E.D./O.L.E.D. Display/Control Screen, (3), located in the Upper, (1), will be waterproof protected by a Membrane Cover, (5). The L.C.D./L.E.D./O.L.E.D. Display Screen (2b), located in the Ground Engaging Body (2a) will have a screen that is waterproof (5), (without a membrane cover), and also takes advantage of also being Solar Panelled, (6), making both the L.C.D./L.E.D./O.L.E.D. Display/Control Screen (3), located in the Upper, (1), and the L.C.D./L.E.D./O.L.E.D. Display Screen (2b), located in the Ground Engaging Body (Sole), (2a), both vital sources of solar energy, through two Solar Panels (6), located in both (2b), and (3), and Qwerty Keyboard (4), on both the left and right Footwear, (9).

[0097] The alternative Charging USB Socket, (7) could be used as a back up, in case of temporary malfunction, instead of solar energy (6). The USB can also be used to expand memory and downloads, or download alternative programmes for the Display Screen (2b) and extra Display Screen (12). The Battery Indicator Light (8), located in the rear of Upper (1), above the Charging USB Socket (7).

[0098] The left and right Footwear (9), will both be Solar Powered (6), by 2 Solar Panels (6), each on both the left and right of each Footwear (9). One panel is located and built into the Ground Engaging Body (Sole), (2b), and continues all the way around (2b), and the second panel is located in Upper (1) and built in the Visual L.C.D./L.E.D./O.L.E.D. Display Control Screen (3) and Qwerty Keyboard (4). The left and right Footwear (9), with all the features illustrated in the accompanying picture FIG. 1, from 1-11, will have identical features in both left and right Footwear (9).

[0099] The arrows (10), located at both ends of Footwear (9), represents movement scrolling, of Words, Phrases, Sentences, Pictures, Images, and Graphics.

[0100] The internal workings of the invention (11), consisting of a Rechargeable Battery (11), and a Controller (13), which could have the capacity to technically control all the workings of the Footwear (9) and the Controller (13), would also hold all the complex programs for functionality and the like and is not limited to, and is located built in internally within the Ground Engaging Body, (Sole), (2a), and also located on Upper (1), under (3) and (4), is a Controller/Circuit Board (3b), for (3), and also in the Circuit Board (2d), which sits snugly in cavity (2c), and is located in the Ground Engaging Body (Sole) (2a), of the Footwear (9), and the Circuit Board (2d), sits snugly in the Cavity (2c), located built into the Ground Engaging Body, (Sole) (2a), of the Footwear (9).

There would also be internal wiring (11), built into the Footwear (9), and below Control Screen (3), and also behind extra Display Screen (12), but not limited to.

[0101] The Solar Panels built in (6), on Screens (3,4,2b and 12).

[0102] The Extra Display Screen (12), would support or work independently of Display Screen (2b).

[0103] This invention covers all of the things I said in my Summary of the Invention and the Brief Descriptions of FIGS. 1-6, and also would cover everything, from No. 1,2a, 2b,2c,2d,3, 3b,4,5,6,7,8,9,10,11,12, and 13, as I have set out previously, but is not limited to.

[0104] The USB Socket (7) is fitted with an electrical element, to be engaged by a corresponding electrical connector element, (e.g. from a USB connector Plug) provided with a side cavity (7) and accessed laterally at the rear Upper (1) of the Footwear (9). The USB Socket (7), will be protected by a snap shut cover (5), to protect from water, hence making it waterproof.

[0105] Controls for all the Screens (3),(4),(2b), and (12), is located on Upper (1) of the Footwear (9), and they are controlled from the Touchscreen Control Screen (3), or Manual Qwerty Keyboard (4). Providing ON/OFF function and menus with different options. Also offering a main option of typing text directly in that would be displayed on the Display Screens (2b), and also (12), or offering the options of Graphics, but not limited to. The control for the Circuit Board (2d) is linked to Control Screens (3) and (4), and the main Controller/Circuit Board (13). The control for the main Controller/Circuit Board (13) is linked to the Control Screen (3) and (4). The Control for Screen (12), is linked to the Controller/Circuit Board, (13), and the Circuit Board (2d), and Controller Circuit Board (3b), all of these have the capability to be interlinked if one or the other fails to work.

[0106] Signal transmission as another embodiment of this invention may be Infra Red, as an added extra to Manual Controls both on (3) and (4).

[0107] In another embodiment of the invention, all screens, (3), (4), (2b) and (12) will receive a Video and Audio Signal (11), which are connected internally of the Footwear (9).

[0108] As another example there could be light displays that change colour and shape on the screens (2b), and (12), either pre programmes could be used, which are built into (13), or they could be downloaded using the USB port (7).

[0109] There could also be the use of a Remote Control for the Infra Red option as an alternative to the manual controls of Screen (3) and (4). Which would be used to control Screens (2b), (12) and (3) and (4).

[0110] Both the left and right Footwear (9) would have identical features but not limited to.

[0111] The Sole (2a), would be cut out its entire length to accommodate not only the Screen (2b) size, but also to allow room for the Cavity (2c) itself and the Circuit Board (2d) and the L.E.D.'s attached to the Circuit Board (2d), which would fit snugly against the Cavity (2c).

[0112] This invention would allow the user to be seen more easily in poor weather conditions, and would allow drivers and any road users a clearer view of the user on poorly lit areas and dark nights, with poor visibility, this invention could in effect be life saving, and prevent users from being run over. The user would be clearly seen day or night. Which is an important safety feature.

[0113] On a non important basis, it would allow the user to make a statement, either by a single word, a phrase or a

sentence but not limited to, or with the use of graphics, how they feel on a particular day. For example the Flexible Display Screen (2b) could say, "Have a nice day", which would scroll around the entire length of the Ground Engaging Body (Sole) (2a), repeatedly without stopping until the user decides they want it to stop. There are other options of static, flashing and the like but are not limited to.

[0114] It is a fun invention but most importantly it could save lives and although making a statement is fun and allows the user to show off, by far the most important aspect of this invention is the clear visibility it would allow to user to have, and that it would save users lives by allowing others to see the user clearly in all types of conditions, including the most hazardous. Although on the surface the invention is fun, there is a much deeper reason for it, to save lives in poor weather conditions and poor lighting conditions.

[0115] Other modifications and embodiments of the invention, which will be readily apparent to those skilled in this art, are to be deemed within the ambit and scope of the invention, and the particular embodiment (s), herein before described may be varied in construction and detail, e.g. interchanging (where appropriate if desired), different features of each, without departing from the scope of the patent monopoly hereby sought.

1. (canceled)

2. All types of Footwear both left and right, comprising a so-called Upper or Body, and a Ground Engaging Body, but not limited to the aforementioned, but would also apply to all types of Footwear, both left and right, that has a differently constructed so-called Upper or Body, or comprises of just a Ground Engaging Body, for example, Flip Flops,

wherein either the so-called Upper or Body, includes mounting means for a Visual Display and Control Screen (3), that supports Touch Screen capability, having the means to use either L.C.D., L.E.D. or O.L.E.D. Display capability optionally, but not limited to, and to control functions of a Visual Display Screen, located in the Ground Engaging Body Cavity,

wherein the so-called Upper or Body, includes mounting means for a Manual Qwerty Keyboard, located in the so-called Upper or Body, to also control functions of the Visual Display Screen, as an added alternative and back up, to the L.C.D., L.E.D. or O.L.E.D. Visual Display and Control Screen, that supports Touch Screen Capability, having the means to use either L.C.D., L.E.D. or O.L.E.D. Display capability, but is not limited to.

3. The article of Footwear of claim 1, wherein the L.C.D., L.E.D. or O.L.E.D. Visual Display and Control Screen, located in the so-called Upper or Body, of the Footwear, is Waterproof protected, with the option of a Transparent Waterproof Membrane Cover.

4. The article of Footwear of claim 1, wherein the L.C.D., L.E.D. or O.L.E.D. Visual Display and Control Screen, and the Manual Qwerty Keyboard, both located in the so-called Upper or Body, would have the capability to function using Solar Power with a built in Solar Panel, located in the L.C.D., L.E.D. or O.L.E.D. Visual Display and Control Screen, and the Manual Qwerty Keyboard.

5. The article of Footwear of claim 1, wherein the L.C.D., L.E.D. or O.L.E.D. Visual Display Screen, would also have Solar Power capability to function with a built in Solar Panel, located in the Visual Display Screen, supported by the Ground Engaging Body.

6. The article of Footwear of claim 1, wherein the L.C.D., L.E.D. or O.L.E.D. Visual Display and Control Screen, located in the so-called Upper or Body of the footwear, will provide an ON/OFF function and controls for to cancel a signal and controls, located in the so-called Upper or Body.

7. The article of Footwear of claim 1, wherein the Manual Qwerty Keyboard, located in the so-called Upper or Body, of the Footwear, will also provide an ON/OFF function to cancel a signal and controls for itself and for the Visual Display Screen, located in the Ground Engaging Body, and also to back up the L.C.D., L.E.D. or O.L.E.D. Visual Display and Control Screen, in case of malfunction.

8. The article of Footwear of claim 1, wherein the L.C.D., L.E.D. or O.L.E.D. Visual Display and Control Screen, located in the so-called Upper or Body, will also provide an ON/OFF function to cancel a signal and controls of the Visual Display Screen, located on the Ground Engaging Body.

9. The article of Footwear of claim 1, wherein the Ground Engaging Body, has a cavity, cut out to accommodate screen depth, to support an L.C.D., L.E.D. or O.L.E.D. visual display screen, all the way round the whole length of the Ground Engaging Body, from one side of the Footwear, to the other, and back again, which has the capability of either, L.C.D., L.E.D. or O.L.E.D. capability, and is not limited to, and would have the capability to display, words, phrases, sentences, pictures, images, graphics, moving continuously all the way round the display screen, located built into the cavity, in the Ground Engaging Body, with the options of static, static flashing, flashing moving, words, phrases, sentences, pictures, images, and graphics, and not limited to.

10. The article of Footwear of claim 1, that has Guts/ internal workings of the Footwear, located under the L.C.D., L.E.D. or O.L.E.D. Visual Display and Control Screen, located on the so-called Upper and Body, comprising of a Circuit Board.

11. The article of Footwear of claim 1, that has Guts/ Internal workings of the Footwear, located under the Manual Qwerty Keyboard, located on the so-called Upper or Body, comprising of a Circuit Board.

12. The article of Footwear of claim 1, that has Guts/ internal workings of the Footwear, supported and built into the Ground Engaging Body, and located in the Cavity of the Ground Engaging Body, of the Ground Engaging Body, comprising of a Circuit Board, by way of example, and not limited to, the Circuit Board fits snugly against the cavity, it has attached to it, amongst other electronics and the like that

cover a circuit board, electrical circuits, which are covered in multiple tiny L.E.D Bulbs, which are displayed all the way around the Ground Engaging Body, for the entire length of the Ground Engaging Body, for its whole length from start to finish.

13. The article of Footwear of claim 1, wherein the L.C.D., L.E.D. or O.L.E.D. visual display screen, would be waterproof itself, (in this example not using a transparent membrane cover, which is optional).

14. The article of Footwear of claim 1, comprising of a rechargeable USB Socket/Port, located in the so-called Upper or Body, at a heel end of the article of Footwear, enabling recharging of battery, located internally in a base of the footwear, located internally in the Ground Engaging Body.

15. The article of Footwear of claim 1, comprising of a USB Socket/Port, also enabling expansion of memory and downloads, would be fitted with an electrical connector element to be engaged by a corresponding electrical connector element, for example from a USB connection plug, provided with a side cavity on and projecting from a rear heel end situated on the so-called Upper or Body, located at USB socket.

16. The article of Footwear of claim 1, wherein the USB socket, will also be protected by a snap shut cover, to protect from water damage.

17. The article of Footwear of claim 1, comprising of a L.E.D. Battery Indicator Light, located in the so-called Upper or Body of the Footwear, which indicates if charge of an Internal Battery is Low, and needs charging, or is or has been Fully Charged.

18. The article of Footwear of claim 1 wherein an Audio Signal transmitter is operative to transmit said signal by infra-red transmission.

19. The article of Footwear of claim 1, operative to receive a Video and Audio signal, which are connected internally of the Footwear, to transmitters which are housed and located under the L.C.D., L.E.D. or O.L.E.D. Visual Display and Control Screen, located in the so-called Upper or Body, and located internally within the Ground Engaging Body.

20. The article of Footwear of claim 1, wherein the Video and Audio signal may be associated with a Speaker and Apertures in the Footwear, located in the so-called Upper or Body, to provide for direct audio/video signal transmission.

21. The article of Footwear of claim 18, wherein controls for said transmitters are provided on the articles of footwear.

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