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(54) **PORTABLE SURFACE COVERING**

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(57) **ABSTRACT**

A portable 'surface covering' for mainly outdoor use, in a horizontal or inclined plane, subject to support from the underlying substratum. The 'surface covering' has means to maintain its position in loose, unstable, easily penetrated substratum, using tube pegs, 'envelopes', or a down-turned edge or edges/fin or fins; with versions made from a range of materials of various flexibilities/strength. The 'surface covering' in one embodiment is smooth, used as a slide, and has versions that can be multi or single lane, various lengths, one piece, or requiring assembly from a plurality of pieces or units, which may overlap other units to create various length slides, in the inventions pathway/cycleway embodiment each individual unit may also be physically linked at the point of overlap and the surface be of a non-slip nature. FIG. 12 shows how a representation of the 'surface covering' can be arranged.

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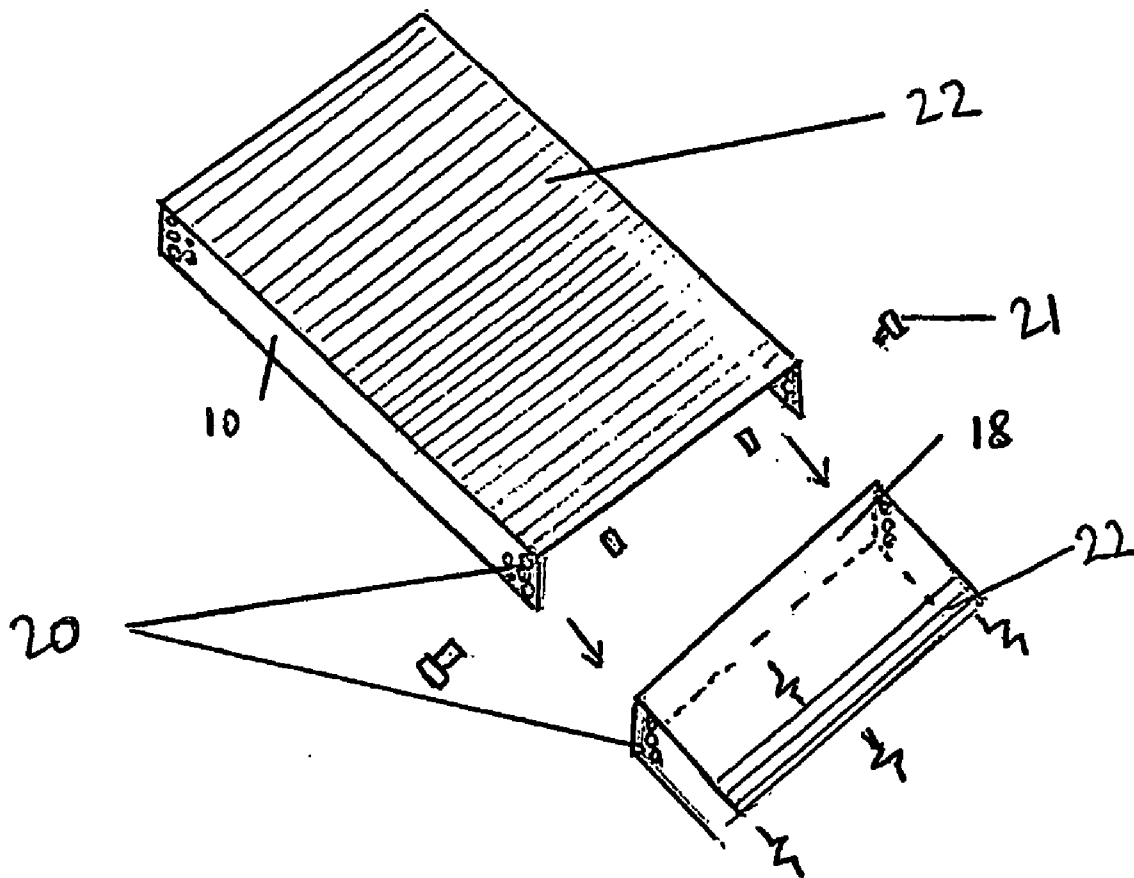


fig 1

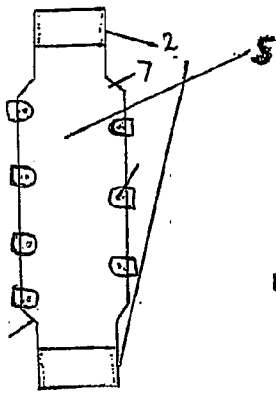


Fig 1 a

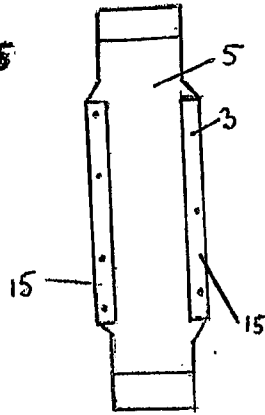


fig. 2,

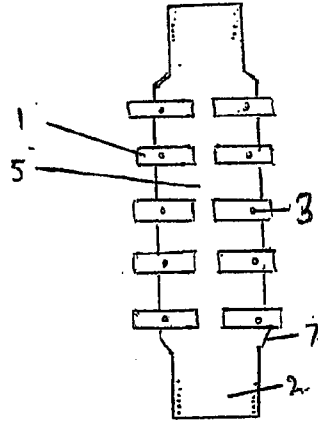


fig. 4.

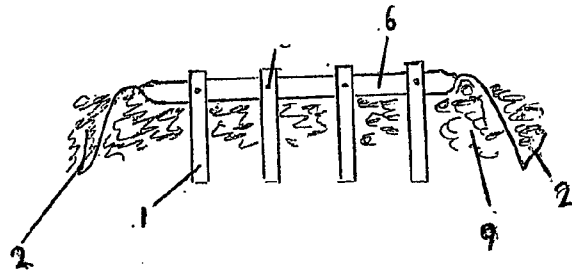


fig 3

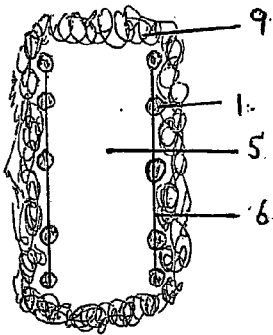


fig. 5.

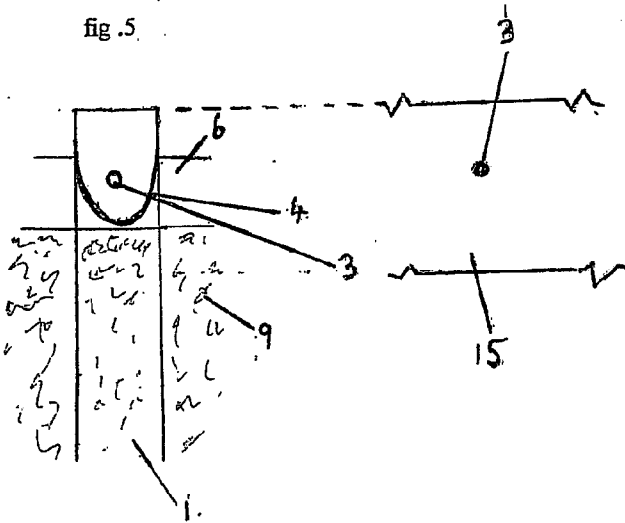


fig. 6.

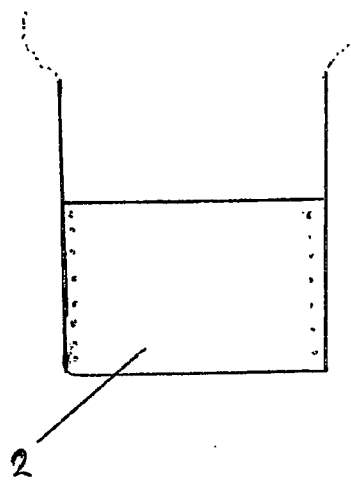
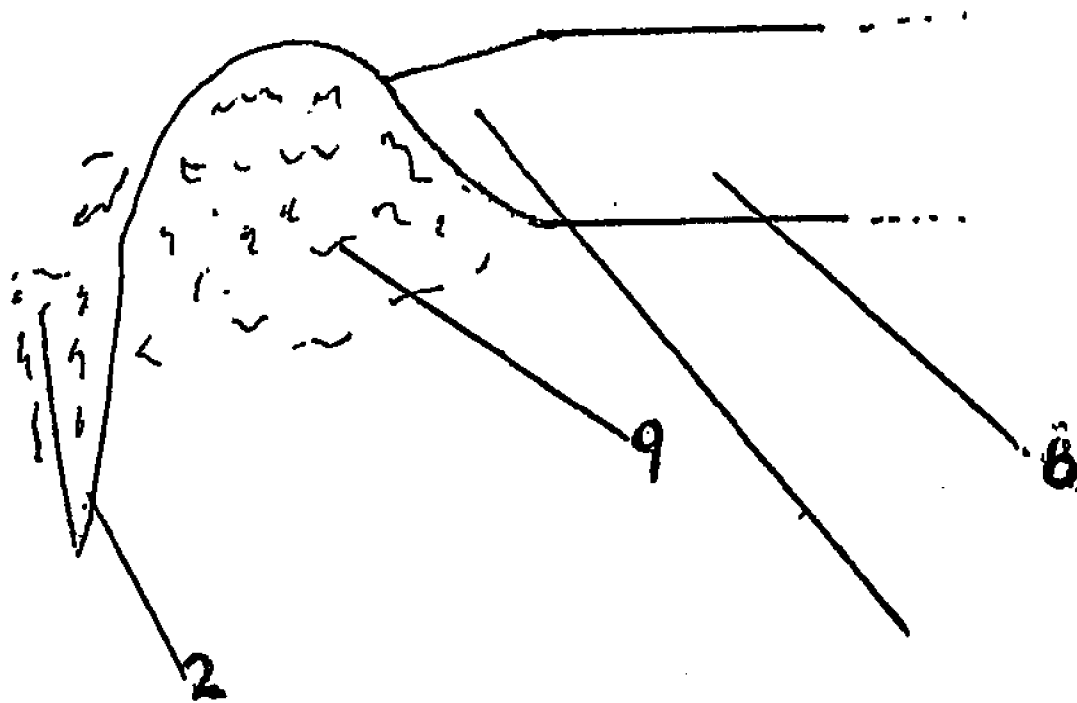
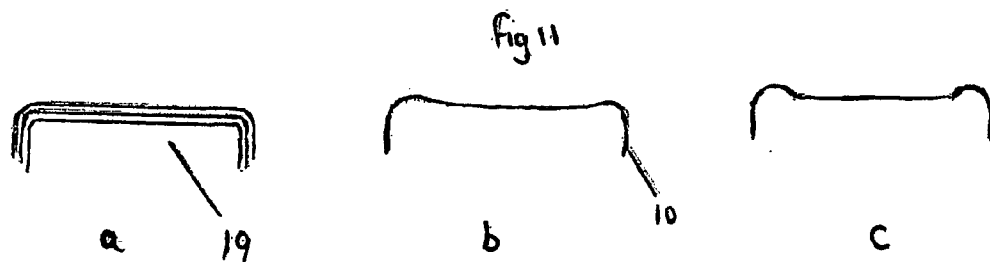
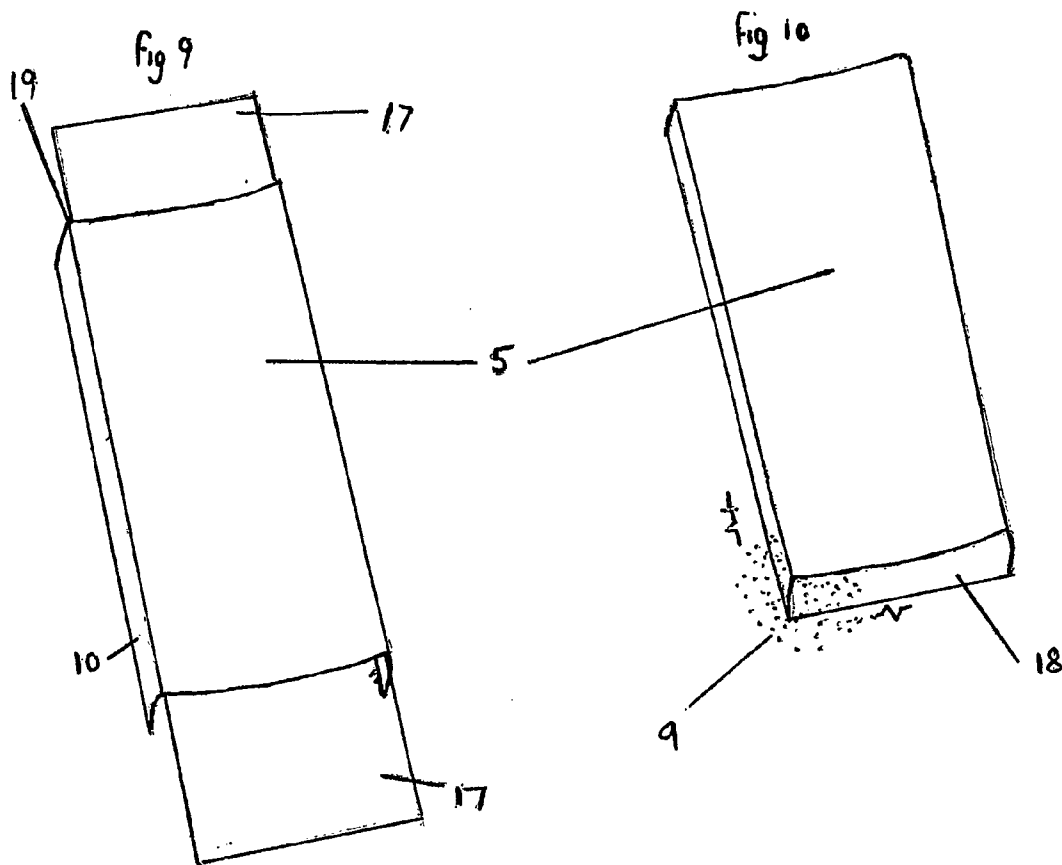
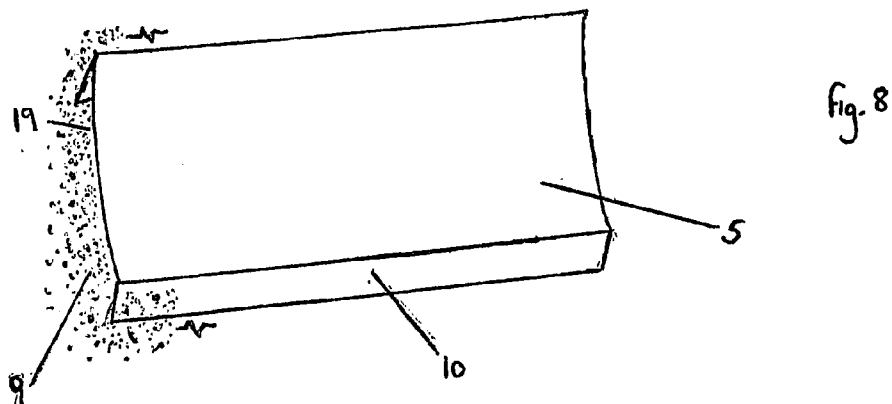
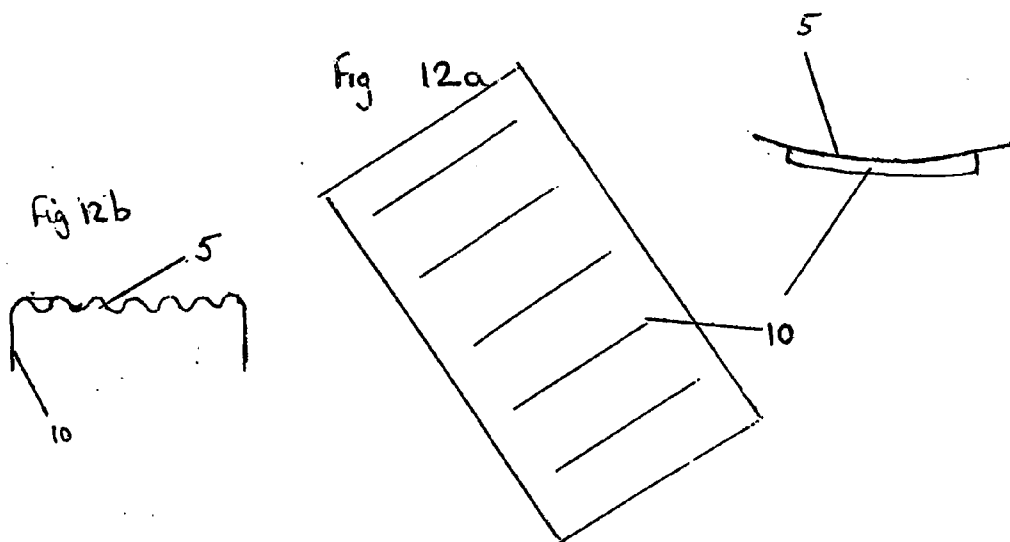
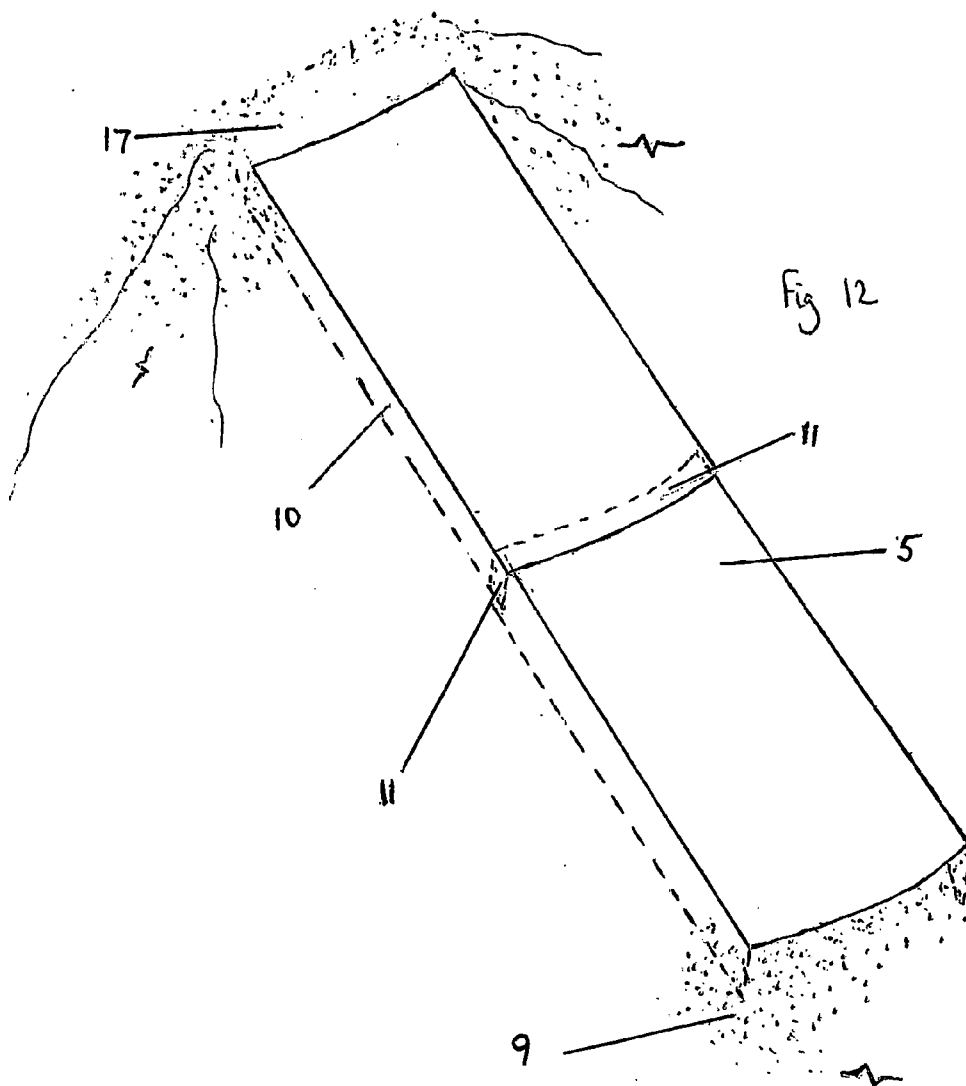


fig 7.







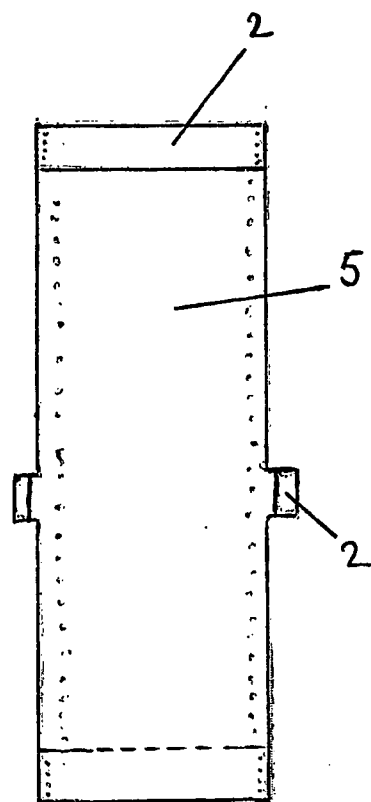
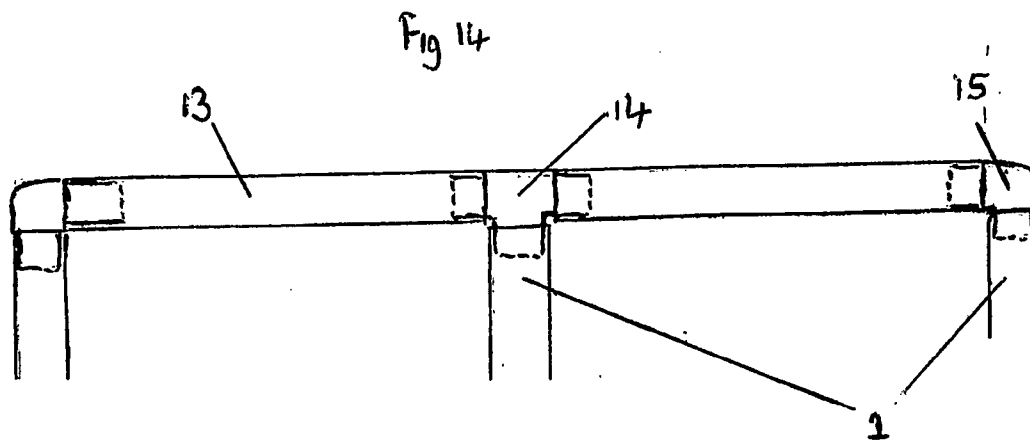


Fig 13

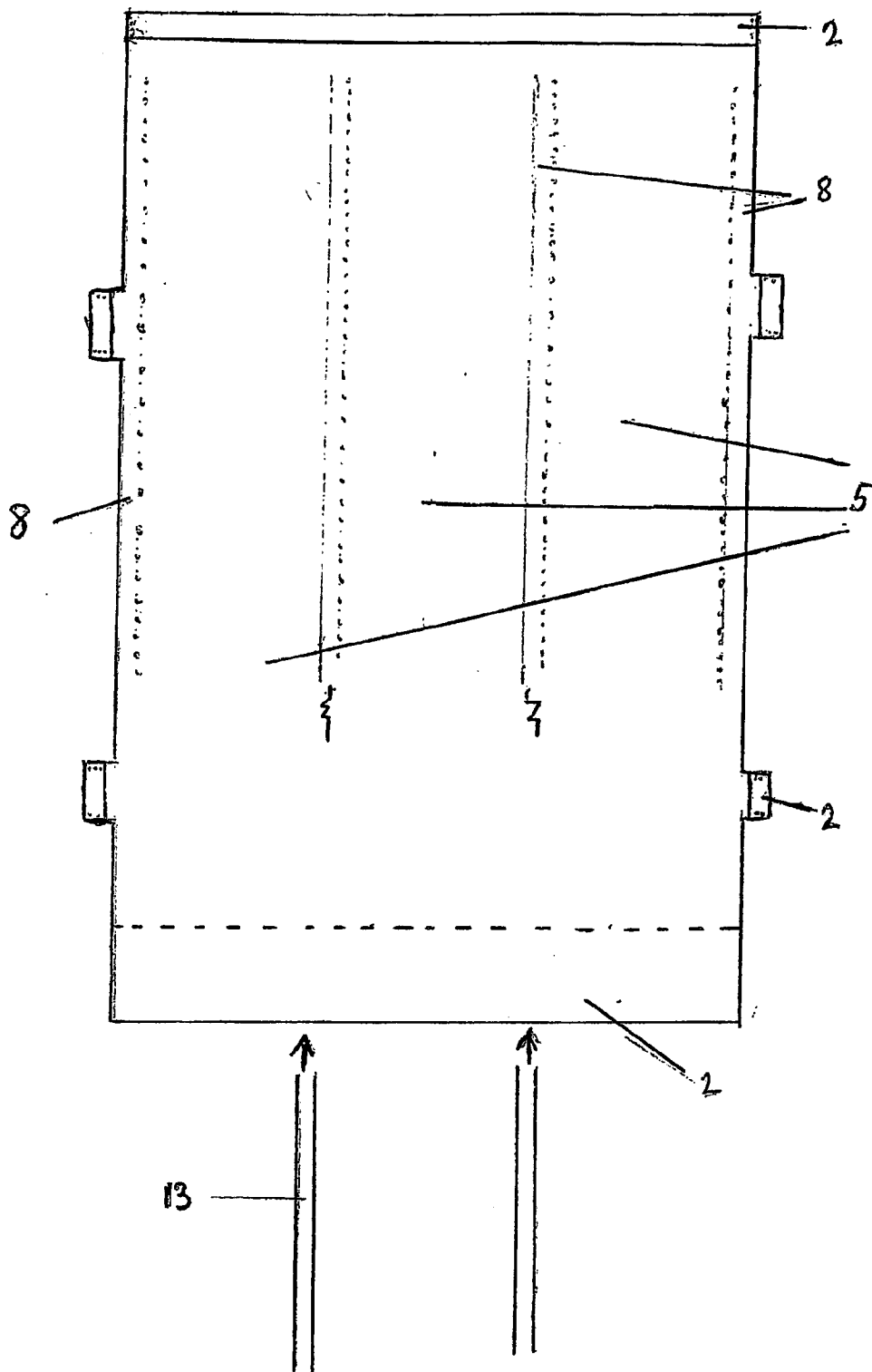


Fig 15

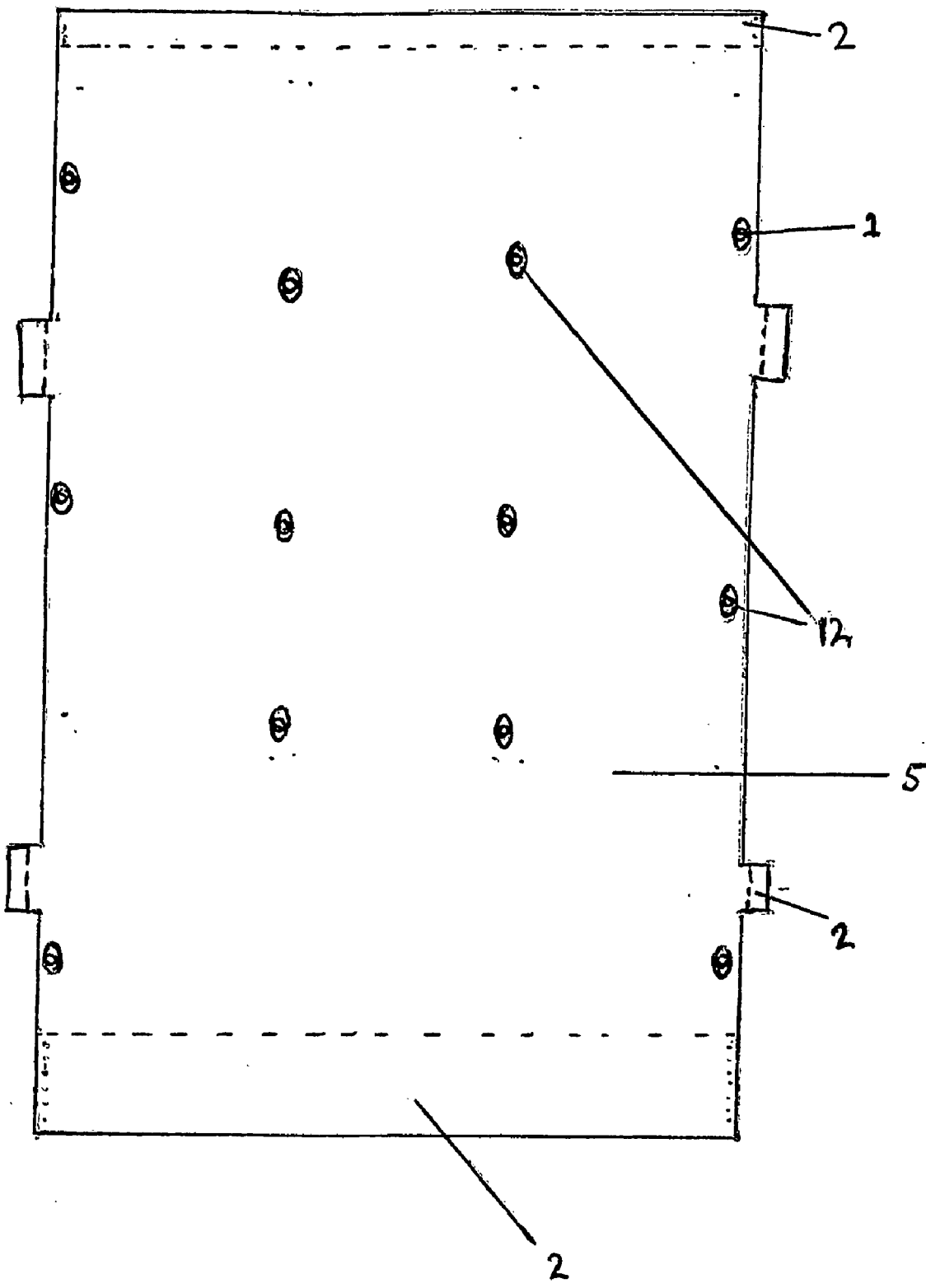
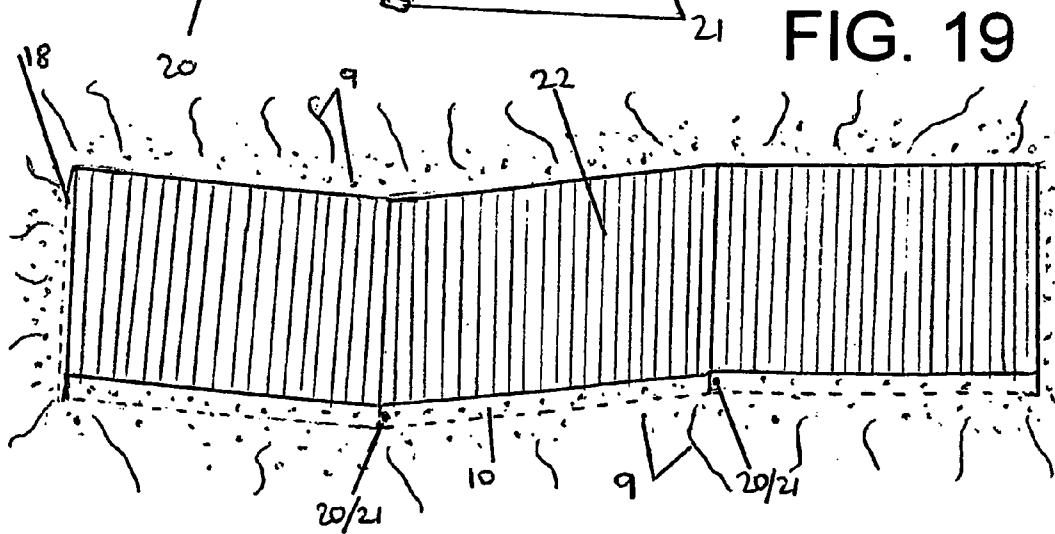
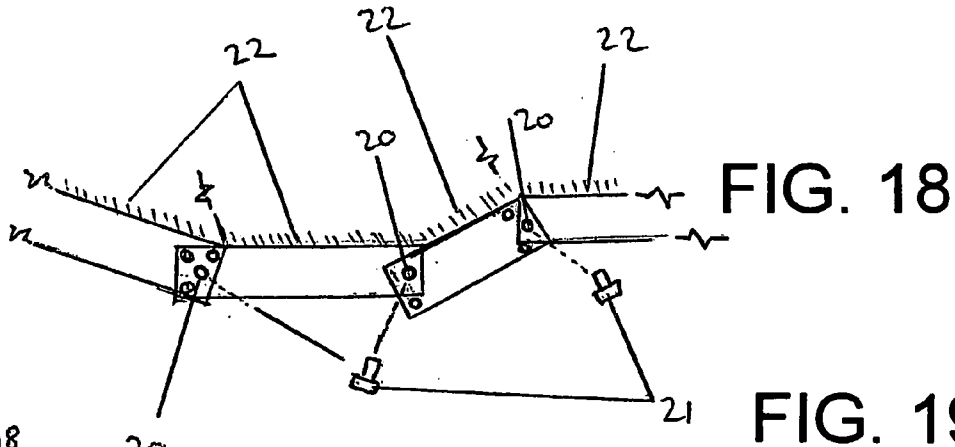
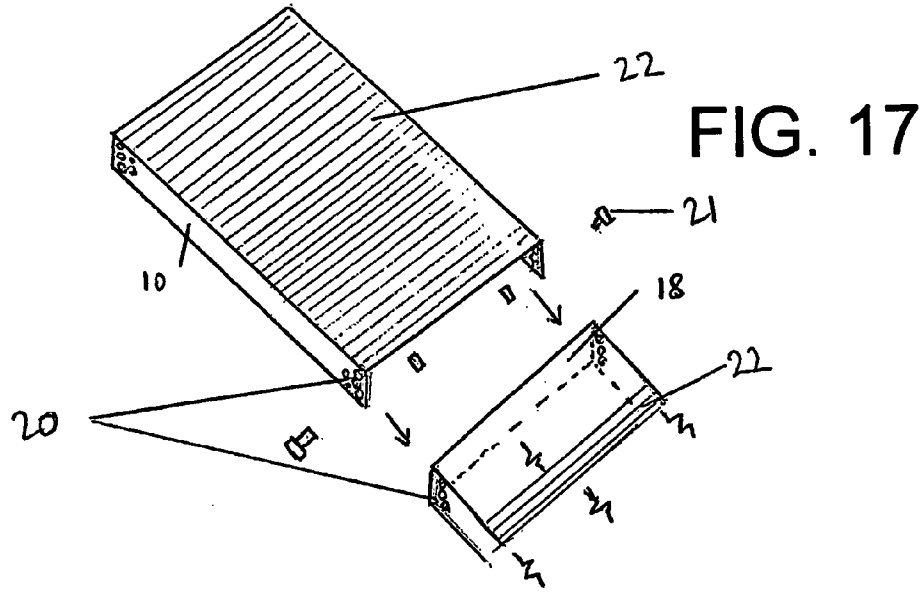


Fig 1b



## PORTABLE SURFACE COVERING

[0001] This application claims the benefit of GB Application No. 0115512.2 filed Jul. 28, 2005, GB Application No. 0608573.2 filed May 2, 2006, and PCT/GB2006/002790 filed Jul. 26, 2006, which are hereby incorporated by reference in their entirety.

### DESCRIPTION

[0002] When moving on or over, loose, unstable, easily penetrated, surfaces over a wide or small area, for example, sand, gravel, loose earth, or snow, one can often encounter difficulties and restrictions with movements. Such difficulties are perhaps most obvious in the example of a wheeled vehicle such as a pushchair, which cuts into the loose surfaces, (for example sand/gravel), making movement forward very difficult. However, in some cases these relatively soft/loose areas could create opportunities for fun and enjoyment, particularly with the availability of man made equipment and tools, for example a simple bucket and spade, which offers enhanced enjoyment of the plentiful natural supply of sand and water to be found on the beach, by allowing, forming and shaping of the surface environment, involving the interaction of the equipment and the sand/and the water.

[0003] As has been stated many of these surfaces are by their very nature, relatively easy to move shape or form, in interaction with man made items. Indeed in the case of sand and gravel on a beach, Mother nature's forces of wind and waves alone, can lead to the formation of substantial sand dunes, gravel banks etc. The potentially unstable nature of the particles of, which these are formed, may restrict the range, or ease of possible use to which these natural forms of relief could be put without additional equipment and possible interaction with man.

[0004] My invention involves making available a form of 'surface covering' to interact and indeed, if necessary, be partially incorporated with; or secured to the aforementioned types of substratum, with means of securing, either separate to, or as an inherent part of the design of the 'surface covering'. The 'surface covering' may also brace or otherwise strengthen and stabilise or render in some way more useful for a proposed purpose, the underlying substratum. This 'surface covering' should be easily applied and removed as required allowing uses both temporary and permanent. For example, as a pathway or cycleway on loose sand/gravel, or as a fun slide on a sand dune or other heap of sand, either naturally occurring or man made. The means of securing and the 'surface covering' itself will now be described including a number of possible embodiments and variations or applications of the concept.

[0005] One method of securing the surface covering would be using tubular hollow pegs of a suitable material, this method is particularly suitable for securing any object to loose material substratum, for example sand, snow or gravel, as the material substratum is forced both inside and around the tube as it is inserted, creating a larger surface area and more weighting, thus giving more stability and resistance to lateral force than equivalent sized solid pegs. This enhanced stability may be further improved if the bottom end of the tubular pegs is curled over, or otherwise shaped to some extent.

[0006] Another method of securing the 'surface covering' would be suitable, particularly in the case of an embodiment

involving a quite rigid 'surface covering' made of suitable material, for example 2 to 4 millimetre thickness polyethylene or polythene, or other suitable material. In this case, the rigid or semi-rigid 'surface covering' itself could be formed to a shape with a predominantly downward facing edge or a plurality of edges formed at a suitable angle to the proposed top surface to enable a penetration of the substratum by such an edge or edges upon downward pressure being applied. This penetration could not only secure the 'surface covering' to the substratum, but also create a captive area below each individual 'surface covering' unit utilised, to the underside of the 'surface covering', thereby the loose or unstable substratum would be substantially retained in position due to the lateral restrictions imposed by the inserted downward facing edge or edges, and would offer support and strength to the 'surface covering' above. The man made 'surface covering' previously discussed would be made in suitable sized units, to allow reasonable portability, for example; in the case of a surface made of a thinner more flexible material such as 1500 gauge polythene sheet or similar, the unit size would be appropriate to allow reasonable carriage and manoeuvrability of the sheet when rolled up or spread out. If the created 'surface covering' unit, in another embodiment, is of a more rigid nature as in the example of the 2 to 4 millimetre thickness of the polythene or polyethylene then the unit size would be appropriate to that which allows easy carriage and manoeuvrability into position, with a plurality of such units being able to be inter-stacked one inside the other for carriage and interlinked or overlapped with one another to create a longer continuous 'surface covering', in interaction with the substratum, examples of use being; as a fun slide on a beach, or to create a pathway on loose sand, gravel or even snow.

[0007] With all embodiments of the 'surface covering' the finish may vary to suit possible uses, which include for example, use as a fun slide on a sandy beach whereby a smooth polished, shiny surface may be required; or in the case of a further embodiment, to be used as a pathway/roadway/slipway/cycleway, when requiring bridging of loose sand or gravel, or similar, a much more non-slip surface would be required, possibly involving ridging or other forming of the 'surface covering', or the application of a secondary non-slip coating.

[0008] These various embodiments and uses of the basic concept of a man made, portable, applied 'surface covering' are required to interact and if necessary be partially incorporated with, or secured to a loose or unstable, easily penetrated substratum, will now be described in further detail and with a number of possible variations to the design, manufacture and process involved, with reference to accompanying diagrams.

[0009] The 'Surface Covering'—Fun Slide Embodiment

[0010] When going to the beach, people often like to take a number of novelty fan items, which will allow them to take part in a range of enjoyable activities with their children. The beach environment poses unique problems, e.g. wind, loose sandy surfaces and salt water; which may restrict the range of products suitable for use, or require specialised design features to be an inherent part in the successful manufacture and use of such items.

[0011] This embodiment of my invention involves the opportunity to create a fun slide; based on the concept of the 'surface covering', but which for the purpose of description of this embodiment may be referred to as a slide or fun slide. The fun slide, which can be used wet or dry, either horizontally or inclined, is preferably lightweight, portable and can be

quickly secured on the beach in usable form as a slide; making use of the natural substratum below for support, with or without prior intervention and modification.

[0012] This embodiment of the invention would have the advantages of being able to withstand the prevailing conditions; in particular loose sand wind and salt, and be quickly dismantled and packed into an easily transportable form after use. It will be a simple matter to store, transport and erect the fun slide either on a horizontal sand base close to water as a wet slide, requiring personal momentum for use or, if secured to an incline such as a sand dune, sandbank or man made sand bill, a traditional slide, based on gravitational force could be made and used either wet or dry, allowing hours of fun with only a short set up and pack away sequence.

[0013] The main inventive concepts of the slide relate to the means of anchorage, portability and use of existing natural support encompassed within the design for the various versions, locations and conditions envisaged 'Envelopes', which can be filled with sand and if required, completely buried to avoid loose edges, is one such means of anchorage, another one being the, use of tubular pegs; which can easily be pushed into the sand, the sand being forced into the tube providing weighting and additional stability. These pegs could be either fitted permanently to the slide; or require assembly to form part of the slide on site.

[0014] An alternative means of anchorage in the case of a more rigid version of the slide, could be to have shaped, downward facing, edge, edges, or fins, at an angle to the main slide surface, which cut into the sand as the slide is laid down on the sand surface.

[0015] The fun slide may incorporate a plurality of forms of anchorage, incorporated Within the slide or separate to it and may be available as one rollable or foldable piece; or as single units, usable on their own or linked together in a form that is easy and safe to use, whilst remaining easy to assemble and pack away to a portable state.

[0016] The fun slide may be manufactured in a number of versions varying in size as well as design; dependant on further studies and tests to establish the most appropriate methods and materials for manufacture of a successful working product. Some versions may also vary in order to appeal to separate markets, for example a multi-lane version which may be suitable for commercial hire; a mini version suitable for toddlers to use; as well as a standard version of medium length for children or adults. All versions may follow the basic design principles and inventive concepts, of being portable, lightweight, usable wet or dry, with means of securing to loose sand or similar substratum, which supports the slide as the two interact, due to the partial insertion or incorporation of the 'surface covering', (or 'slide') in a horizontal or inclined plane in a range of adverse conditions.

[0017] This embodiment of the invention will now be described in further detail with reference to the accompanying drawings, including a number of possible versions and variations in the way the embodiment could be made or operated.

#### WITH REFERENCE TO THE DRAWINGS

[0018] FIG. 1 shows a top view of version 1 of the fun slide, when ready to roll up for transport, but omitting the plastic shrouding which may be necessary between tube pegs.

[0019] FIG. 1a shows the shrouding plastic, between tube pegs, viewed from above and ready to roll up.

[0020] FIG. 2 shows an underneath view of the version 1 fun slide, when ready to roll up.

[0021] FIG. 3 shows a top view of the version 1 fun slide when ready to use.

[0022] FIG. 4 shows aside view of the version 1 fun slide when ready to use.

[0023] FIG. 5 shows detail of fixing method of hollow tube pegs to side of sheet on version 1 of the fun slide.

[0024] FIG. 6 shows close up of envelope design.

[0025] FIG. 7 shows how the envelopes are filled with sand and buried if necessary.

[0026] FIG. 8 shows version 2 of the fun slide, whereby the material of composition is of a more rigid nature; viewed from above, and to the side.

[0027] FIG. 9 shows version 2, viewed from above, showing a possible extra flap of suitable material as could be added, at the top and/or bottom of the slide.

[0028] FIG. 10 shows version 2 with a possible downward facing securing edge to the top end of the slide.

[0029] FIG. 11 shows version 2, end views of a range of possible profiles that the slide may be moulded to.

[0030] FIG. 11a shows how a number of the slide units could be stacked together for transport or storage.

[0031] FIG. 12 shows a perspective view including how, two or more units can be arranged with an overlap to create a longer slide run. It also shows the slide on a bank of sand, with the possible additional flap of plastic partially buried at the top of the slide.

[0032] FIG. 12a shows a variation of version 2 slide, with fin mouldings on the underside of the slide shown, and an end view, of the same.

[0033] FIG. 13 shows version 3 of the slide, with sand 'envelopes' on all sides; used to keep the slide surface sheet taut.

[0034] FIG. 14 shows a close up of the side rails or lane dividing rails, which may be inserted into sewn over sleeves; with T and Elbow connectors to connect tube pegs fur downward insertion into the sand fur anchorage as in version 4 of the slide, multi or single lane, large, medium or toddler sized.

[0035] FIG. 15 shows version 4 of the fun slide, with sewn over sleeves at edges and between lanes (if applicable), viewed from above.

[0036] FIG. 16 shows version 4 view of the underside, multi-lane fun-slide.

[0037] FIG. 17 shows non-slip surface or surface coating of the pathway/cycleway etc. embodiment of the 'surface covering'.

[0038] FIG. 18 shows the physical, pivoting connection between units of the proposed 'surface covering', pathway embodiment, side view

[0039] FIG. 19 shows perspective view of pathway embodiment

#### DESCRIPTION OF PARTS LABELLED ON DIAGRAMS

[0040] 1. Plastic (or other suitable material) tube pegs for pushing into sand for anchorage.

[0041] 2. Open envelope type pockets for weighting with sand and burying, suitable for any or all of the versions.

[0042] 3. Version 1 attachment bolts to trap sheet in tube peg.

[0043] 4. Version 1 cut in the tube pegs into which plastic or (similar material) sheet edge is slid and trapped.

[0044] 5. Main sliding surface of fun slide, all versions.

[0045] 6. Version 1 turned up edge of sheet.

[0046] 7. Version 1 tapered angles at each end of slide, allowing turning up of sheet edge.

[0047] 8. Version 4 sewn over sleeve at edges or lane divisions.

[0048] 9. Sand, earth, gravel, snow, or similar substratum.

[0049] 10. Version 2 downward facing edge, edges, fm or fins to individual unit parts of this more rigid embodiment of the slide.

[0050] 11. Overlapping edges, and slide surface of individual units of version 2 slide, as arranged when creating a longer slide.

[0051] 12. Version 4, holes in underside of sheet, through which tube pegs protrude for anchorage into sand base.

[0052] 13. Hollow plastic tubes used as lane divisions or edges to sheet versions of the slide.

[0053] 14. T connectors between plastic tube lane dividers or edgings and tube pegs.

[0054] 15. Elbow connectors between plastic tube lane dividers or edgings and tube pegs.

[0055] 16. Version 1 Plastic shroud, overlapping sheet edges, between the tops of the tube pegs.

[0056] 17. Version 2 slide with possible additional flap of plastic at top of slide.

[0057] 18. Possible extra downward facing edge to the top end of a slide unit on a version 2 of the slide.

[0058] 19. Version 2 of the slide, open end to a slide unit, to allow bridging of one unit with the next if required.

[0059] 20. Physical connection points, between 2 units of pathway embodiment.

[0060] 21. Bolts, or other fastening device.

[0061] 22. Non-slip surface or coating.

[0062] All versions of the fun slide are to be made from suitable materials, for example plastic, the main slide base having properties that render it slippery when wet or dry in its own right or with the addition of a silicone or similar polish, but also durable and flexible to a degree, depending on whether each version requires rolling or folding for transport. Tube pegs or lane divider tubes to be corrosion resistant, strong but lightweight if for beach use. Fixing bolts or stitching thread to be nylon or similar.

[0063] At each end, or down the sides of beach versions of the fun slide could be a single or plurality of flaps 17 or 'envelopes' 2 (enclosed on three sides), creating open pockets which can be filled with sand and buried if required. These would secure or prevent the ends of some versions of the slide being caught or torn by stray limbs etc., as the user enters or exits the slide. A further advantage of these additions may be that at the bottom of the slide a more gently inclined run off area, or mini jump may be created due to the flexibility of the plastic in this area.

[0064] FIGS. 1-5

[0065] FIGS. 1 and 2 show the version 1 slide from above and below when ready to roll up, this version can be made in a variety of lengths and be single or multi-lane. The slide sheet surface 5 is made of a flexible plastic, or other suitable material, for example polythene, to enable rolling or folding for transport and storage. It is narrower at each end by the width of the upstanding sides 6 (the end flaps/envelopes do not need sides as they are to be buried in the sand.) The corners 7 between the ends 2 and the main sheet surface 5 are not right angles but tapered to allow a fold and crease when the sides are folded up; this could allow water to be retained within the sheeted area 5, if needs be. In this case the under

sides of the sheet ends would be mounded up 9, also to help retain water. The sheet would be a convenient width for its proposed use, probably between 300-600 mm, with sides 6 turned up around 100 mm. Length of the sheet would vary from about 900 mm-1500 mm total for a mini toddler fun slide, to perhaps 4.5 m for a fast fun slide for older age groups, with the option to overlap and thereby join more than one slide sheet to create a slide for a huge sand dime or a long seafront slide-run.

[0066] FIG. 1a, shows the version 1 slide viewed from above when ready to roll up, with extra shrouding strips in place between tops of the tube pegs, these will prevent stray feet etc., from hitting the tube pegs that protrude from the sand.

[0067] In FIG. 2, the hollow tube pegs 1 are shown lying parallel to the sheet surface 5 as they would be when about to be rolled up for the transportation of a version 1 slide.

[0068] FIGS. 3 and 4 show the version 1 slide, as it would be when pinned down to the surface of the sand 9. The attached tubes could be used like tent pegs and pushed into the sand to create a turned up sheet edge 6 securing the sheet to the sand; and keeping sand off the slide, or water on the slide for longer if required, whilst providing a surface onto which the user can slide in the normal way if the slide is mounted on an incline, or run and slide or dive and slide, if the slide is horizontal. If the ends are mounded up as previously described, a shallow depth of water would be retained, with the slide horizontally mounted in which one could splash around as in a paddling pool or slide on the wet surface. Such tube pegs would be able to rotate through 90 degrees from the rolled up transport position in order to be pushed into the sand, while keeping the sheet taut and anchored to the soft sand

[0069] FIG. 5 shows the lightweight tubes 1 that are about 40 mm diameter in order to secure a medium length slide for use by children or adults, but could be as little as 20 mm diameter for a toddlers slide, or considerably larger diameter (60-100 mm) for a large and heavy duty multi-lane slide. There is an angled cut 4, in the tube 1 to around half its diameter in an upward angled direction. The edge of the sheet 6 slides into the slit before being trapped and secured with a round-headed bolt 3 or similar, thus fastening the tube pegs to the edges of the slide sheet. Tubes may be spaced at about 300-600 mm intervals down each side of the sheet FIG. 6 shows the end sections of the version 1 slide sheet with stitching to form envelopes to be filled with sand if necessary to secure the slide top and bottom in the sand these may be omitted if it is found that a simple flap of plastic is sufficient when buried to secure ends of sheet.

[0070] FIG. 7 shows how sand may be formed into a mound if needed to provide raised ends to the sheet surface, thereby allowing the retention of a shallow amount of water if the slide is on a horizontal base.

[0071] By changing the strength and design of the tube type pegs to solid type, then the fun slide could be used on different mediums like grass and soil.

[0072] FIGS. 8-12. Version 2 Slide

[0073] In a second version of the fun slide (version 2) the composition of the slide is of a much more rigid or stiff plastic, 'for instance 2-3 mm gauge polythene, UPVC. Or similar, or another suitable material, with the slide being composed of one or more individual units. However the thickness of the unit is governed by that which will offer a reasonably comfortable ride over the overlaps of a multi unit slide,

each of which has a plain, flat or curved top surface, 5, with a substantially downward facing edge or plurality of edges, (which maybe up to approximately 100 mm in depth.), and formed at an angle to the slide top surface 5. These edges can be pushed into the sand as the slide is being laid into position in order to secure it, the underside of the slide surface ending up in contact with the sand surface for support and cushioning. If extra strength and above ground raised edges are required to the slide surface 5, then the slide may include a contoured above ground shape to the sides of the slide as shown FIG. 11c. Alternatively, a gentle curve, concave to the surface of the slide, as shown FIG. 11b may be adequate to guide the user down a slide of width approximately 300 mm, or, particularly if the slide was slightly wider, for instance 600 mm, then a more or less flat slide surface as in 11a would be perfectly sufficient. All measurements and angles are approximate, and may vary to suit variations of this or other versions of the slide. Each unit of this version of the slide could well have, if necessary, a slight tapering of width, as shown in the accompanying diagrams, with the top of the unit being narrower than the bottom, this would help with the overlapping of the top of one unit with the bottom of the unit above, as shown FIG. 12. It would also make stacking a number of the slide units together for transport or storage more easy.

**[0074]** It would be possible for the slide in some version to have only one down facing edge, formed most likely to the top edge of the slide surface, this would still allow overlapping of units, if required, and some degree of fixing to the substratum below, and could necessitate construction using a thicker, stronger, more rigid material.

**[0075]** A slide suitable for toddlers in the form of version 2 could comprise a single slide unit, which may also be used as the top unit of a longer slide comprising a plurality of slide units. The unit of a single unit toddler slide, or the top unit of a multi unit longer slide may vary from other units; with either a flap of plastic 17, possibly more flexible than the rest of the unit, or with a downward facing end piece 18, as shown in FIG. 10, making the unit in this variation, comprise three downward facing edges, which could in one scenario, be the one and only necessary and chosen format for all slide units of either a single or multi unit slide. In the case of the variation with the flap of plastic, this could be partially buried in the sand; this would soften the edge at the entry point of the slide by the user, preventing trapped skin etc. Further down a slide comprised of a plurality of slide units, each unit could be open ended 19 at one or both ends if required in order to overlap or bridge another slide unit as in FIG. 12. This version 2 of the slide could be made in a convenient length unit to stack and carry, for example 900-1200 mm; this would allow use of a small, single unit slide suited to toddlers involving the creation of a mound of sand (if one is not readily available), of roughly the profile of the proposed slide, of a chosen gradient onto which the slide 'mould' is impressed before use. A flap of plastic at the bottom, to provide a run off to the bottom of the single unit slide as well as a launch area flap at the top, is another possibility, the flap at the bottom end could be folded under the slide if such a unit was wanted for a mum-unit longer slide or for transport.

**[0076]** If several slide units are linked by overlapping of the unit below (or in front) to create a longer slide run, as shown in FIG. 12, each unit could be stacked inside the last for transport purposes, as FIG. 11a (like plastic garden chairs). A multi unit slide such as this, could be used horizontally close

to the sea as a wet slide, only able to be used in one direction due to the overlapping units, or using a sand dune or similar beneath the slide units, as a dune slide of varying length dependant on the number of units laid down. A possible fourth downward edge 18 to a variant of a slide unit would create a box-shaped enclosure, which could be used to contain other units for transport or storage if required. This particular box unit may be of slightly larger dimensions, and could be used as a single unit slide or, the bottom unit of a multi-unit slide.

**[0077]** Version 2 of the fan slide would be manufactured using an appropriate method, for example, vacuum forming or similar plastic heat moulding type processes, similar to the way in which plastic garden furniture is made; or other suitable process. The small individual unit size of this version, could still allow the creation of a large or multi-lane version by interlinking of units arranged side by side, or one behind or above the other.

**[0078]** In another possible variation of version 2 slide, the downward facing edge form of anchorage is replaced with downward facing fin or a plurality of fins along or across the underside of the slide surface. If across the underside, these mouldings would brace the slide surface during manufacture, to a concave shape if required, as shown on FIG. 12a. In other respects this variation would be substantially as other variants of version 2 but need not be tapered in width. A further possible variation to the slide surface of version 2; would be the presence of a corrugated surface as shown in FIG. 12b. This may enhance the speed of the slide due to the reduced surface contact with the user, the underside of the corrugations being supported by the sand. The down turned edges/ends would remain as in other variants of the version 2 slide.

**[0079]** If all slide units of version 2 are, in one possible variation, consistent in shape, with both ends 19 open to allow bridging for interconnection and to create a simpler design to produce, then an alternative to either end flaps 17 or a downward facing end edge 18, as previously described would be a safe edge trim applied to the edge at the top end of the slide, or other similar safety edge creating procedure; such as a thickening of the plastic moulding to the underside of the slide surface edge, thereby making the top edge safe.

**[0080]** FIGS. 13-16

**[0081]** In the case of version 3 of the fun slide, the slide surface would be as version 1, but a plurality of the buried pockets 2, similar to those described at the top and the bottom of other versions of the slide could be used on all sides as in FIG. 13. These may vary in size and spacing as required, to keep the sheet taut and restrained.

**[0082]** Version 4 of the fun slide involves the sewing over, or other appropriate fixing technique of the edges of the sheet or a 'pinch' of sheet at lane divisions to create sleeves 8, into which can be pushed a plurality of tubes, of plastic or other suitable material, which could act as lane dividers or edgings, depending on whether a single or multi-lane fun slide is required. An above view of a multi-lane slide is shown in FIG. 15. If the underside of the sleeves have exit points 12 as shown on FIG. 16, cut into the slide sheet sleeves 11, then T pieces 13, or elbow connectors 14 can be inserted, thus connecting the individual lane divider tubes with some shorter tube: pegs which would protrude at right angles to the slide base, enabling the anchorage of the slide to the sand by pushing the tube pegs down into the sand in the same way as version 1 of the fun slide. The detail of the assembly of such tubes is shown in FIG. 14.

**[0083]** Application of the various techniques of anchorage, lane division and edging of the aforementioned versions and variations of the slide, together with the variations in material composition and rigidity/foldability could be mixed, resulting in further hybrid versions of the slide, best suited to their individual proposed use. A good example of this hybridisation of techniques may be where the requirement of the finished slide product, is a large heavy duty, multi-lane version. This may incorporate the use of fixed tube pegs to the slide edges as in version 1 and tubular lane dividers within sleeves, with or without connected right-angled tube pegs, as in version 4. In addition it may be necessary to provide buried envelope style anchorage on all four sides at regular spacing as in version 3. Another hybrid, could be created by mixing the rigid units of version 2, with top and bottom end pieces of a thinner plastic as used in version 1 of the slide.

**[0084]** ‘Surface Covering’—Pathway Cycleway Embodiment, FIGS. 17-19

**[0085]** Substantially as previously described in version 2 of the aforementioned slide embodiment, if a few additional variations to the version 2 working design are made then the ‘surface covering’ would be suitable for farther uses. As shown FIGS. 17-19 the main variations that may be necessary would be, Inherent manufacture with, or application of a predominantly non-slip surface 23, and physical linking 20, of parts of a chain of the ‘surface covering’ units. Uses for this further embodiment of the invention could now include an easily created and used, temporary or permanent pathway, cycleway, jetty or similar as required to bridge any form of loose, unstable easily penetrated substratum 9 that otherwise would cause problems when being traversed on foot or with a wheeled item. Each unit would be made of a suitable material and appropriate size for use as a modified surface to the substratum, with the shape of the unit allowing partial incorporation of a somewhat downward facing edge or edges relative to the top surface of the unit, into the substratum. The interaction between the imposed surface and edging or edgings of the unit or units with the substratum would cause both securing and firming which would be beneficial for example, in the case of a sandy or similar substratum, previously formed into a loose pile, the application of the unit or units would strengthen the pile in terms of collapsibility under applied force in a certain direction or directions due to the retaining effect of the edges. The interaction between the substratum and the imposed surface would have mutual benefits: The sand or other substratum would support the surface covering, the surface covering and its edges would reduce movement of the sand or other stratum as the area under the ‘surface covering’ is traversed.

**[0086]** Further strengthening of a plurality of units and their underlying stratum could be achieved by a physical linking (FIG. 18) perhaps using a bolt and nut (or other appropriate fastening device 21 of a suitable non-corrosive but strong material, for example, nylon,) at some point where the downward facing edges of one unit overlap those of another. Such overlapping could allow a pivoting between adjacent linked units, a chain of the units thus formed would resemble a bicycle chain in flexibility (FIG. 19), although flexibility in one direction would be more restricted than in the other due to the restriction of the front edge of the top surface of the bridging unit against the adjacent bridged unit. A range of fastening holes 20 may be necessary to allow for lack of flexibility in this one direction, these holes being located in an appropriate position on the downward facing edges of a unit

within the over-lapped area, resulting in various bolt hole positions to facilitate an upward curve of the ‘surface covering’ if required (FIG. 18). Physical linking of the units could be previous to application to the underlying stratum or, as the units or groups of units are actually being laid. Fixings used for this linking could be removable at a later date if required allowing the chain of units to be separated for storage or repositioning.

**[0087]** All forms or embodiments of the ‘surface covering’, may have appropriate holes or attached extras to the main body, if necessary, if required, for example to create handles for carriage. Alternatively other means of carriage of a plurality of component parts of the invention, may be included as part of the invention, for example a string or other form of bag, with straps or bandies appropriate to requirements.

1-18. (canceled)

**19.** A portable surface cover for the purpose of allowing modification to the ease of use of a covered area, the portable surface cover comprising a first unit having:

a first end and an opposite end;

a top surface extending between the first end and the opposite end for supporting a user when an underside of the top surface is supported by penetrable substrate; and anchoring means for securing the first unit to the penetrable substrate, the anchoring means comprising at least one downward-facing edge of the unit, said at least one downward-facing edge being locatable in the penetrable substrate when the underside of the top surface is supported by the penetrable substrate,

said opposite end of the first unit being open so that end portions of the top surface and said at least one downward-facing edge are configured to overlap with a top surface and a downward-facing edge of another unit during use.

**20.** A portable surface cover according to claim 19, having a smooth surface to allow the portable surface cover to be used as a slide.

**21.** A portable surface cover according to claim 20, having a flap attached to one of the ends of the first unit.

**22.** A portable surface cover according to claim 21, wherein said flap is foldable under the first unit for transport.

**23.** A portable surface cover according to claim 19, wherein said first unit has two opposing downward-facing edges.

**24.** A portable surface cover according to claim 19, wherein said first unit is tapered in width such that the opposite end is wider than the first end to allow the opposite end to overlap with an end of another unit similar to said first unit.

**25.** A portable surface cover according to claim 19, wherein said first unit is configured to be stacked inside another similar unit for storage.

**26.** A portable surface cover according to claim 19, comprising at least one additional unit configured to be locatable end-over-end with the first unit to form an elongate surface cover.

**27.** A portable surface cover according to claim 19, having a non-slip surface suitable for improving movement across the surface by a pedestrian or wheeled vehicle.

**28.** A portable surface cover according to claim 19, in which said unit has a downward-facing edge at said first end.

**29.** A portable surface cover according to claim 19, covering a penetrable substrate such that:

the underside of the top surface is supported by the penetrable substrate; and

the anchoring means are located in the penetrable substrate, while the underside of the top surface is supported by the penetrable substrate, to anchor the unit to the substrate.

30. A portable surface cover according to claim 29, comprising the first unit and at least one other similar unit, wherein each of said units is positioned end-over-end with at least another one of the units, and each unit is physically linked to an adjacent unit at a point of overlap by removable fixings.

31. A portable surface cover according to claim 29, located on an incline.

32. A portable slide for playing outdoors, the slide comprising a first unit having:

- a first end and an opposite end;
- a slide surface extending between the first end and the opposite end for supporting a user when an underside of the slide surface is supported by penetrable substrate; and
- anchoring means for securing the first unit to the penetrable substrate, the anchoring means including at least one downward-facing edge, such that the anchoring means are locatable into the penetrable substrate when the underside of the slide surface is supported by the penetrable substrate,

said opposite end of the first unit being open so that end portions of the top surface and said at least one down-

ward-facing edge are configured to overlap with a top surface and a downward facing edge of another unit during use.

33. A portable slide according to claim 32, having a flap formed of a plastics material attached to one of the ends of the first unit.

34. A portable slide according to claim 32, wherein said first unit is tapered in width such that the opposite end is wider than the first end to allow the opposite end to overlap with an end of another unit similar to said first unit.

35. A portable slide according to claim 32, wherein said first unit is configured to be stacked inside another similar unit for storage.

36. A portable slide according to claim 32, comprising at least one additional unit configured to be locatable end-over-end with the first unit to form an elongate slide.

37. A portable slide according to claim 32, in which said unit has a downward-facing edge at said first end.

38. A portable slide according to claim 32, covering a penetrable substrate such that:

- the underside of the top surface is supported by the penetrable substrate; and
- the anchoring means are located in the penetrable substrate, while the underside of the top surface is supported by the penetrable substrate, to anchor the unit to the substrate.

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