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(54) **INFANT CRAWLING PANTS**

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(57) **ABSTRACT**

(21) **Appl. No.: 13/427,719**

An infant crawling pants comprises a pants garment comprising an exterior, an interior, a buttock area and knee areas. At least one buttock protection device is configured to be joinable to the interior at the buttock area, in which the joined buttock protection device is generally unnoticeable from the exterior. The buttock protection device comprises at least a pack containing a viscous material. At least one knee and shin protection device is configured to be joinable to the interior at each of the knee areas, in which the joined knee and shin protection device is generally unnoticeable from the exterior. The knee and shin protection device comprises at least a pack containing a viscous material.

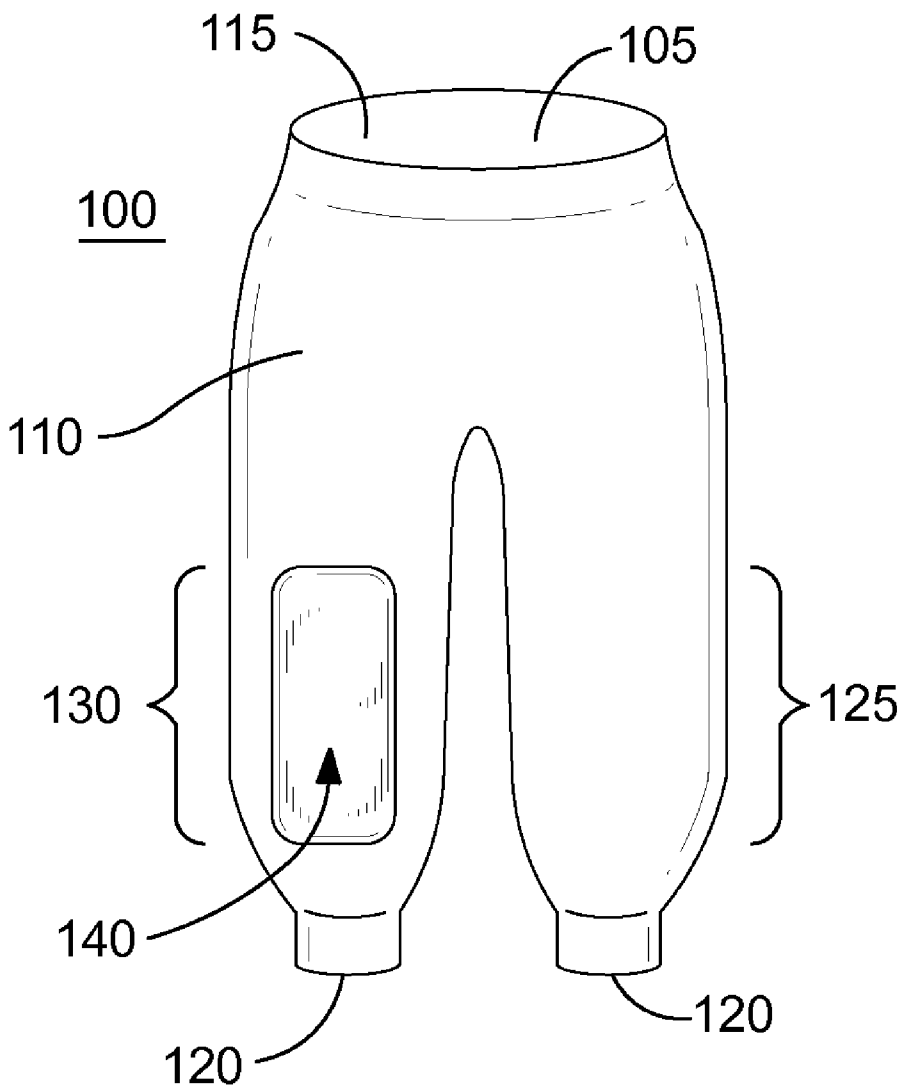
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Publication Classification

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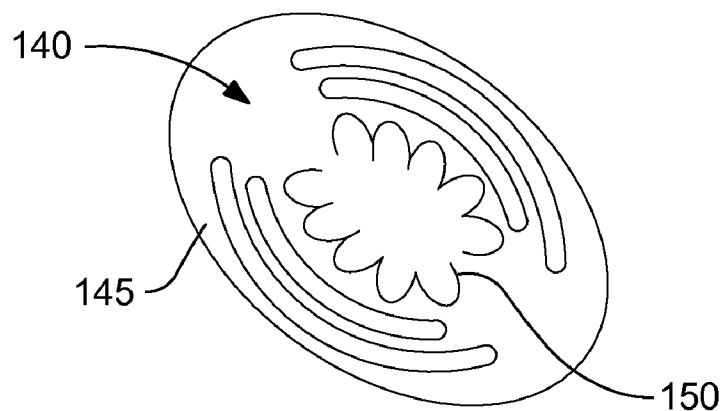


Figure 1A

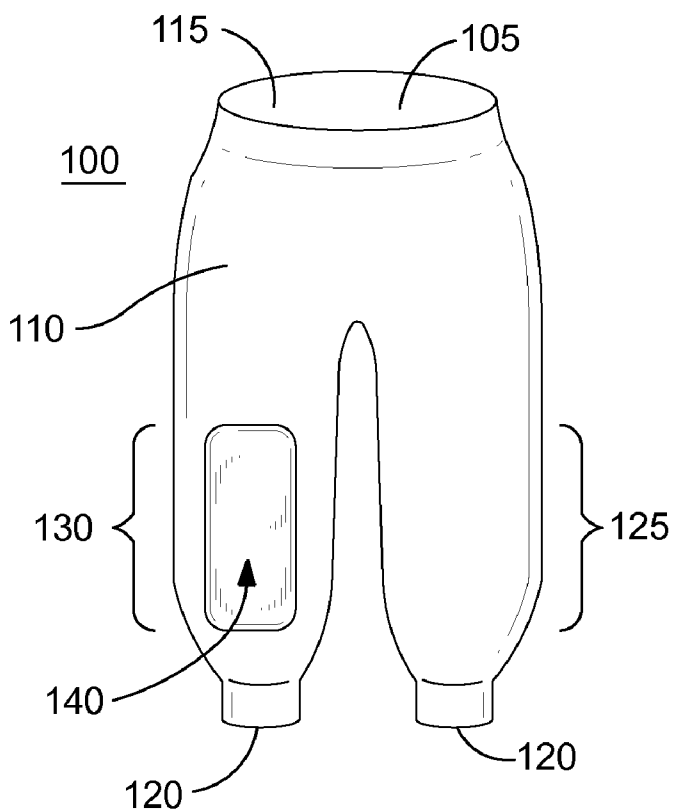


Figure 1B

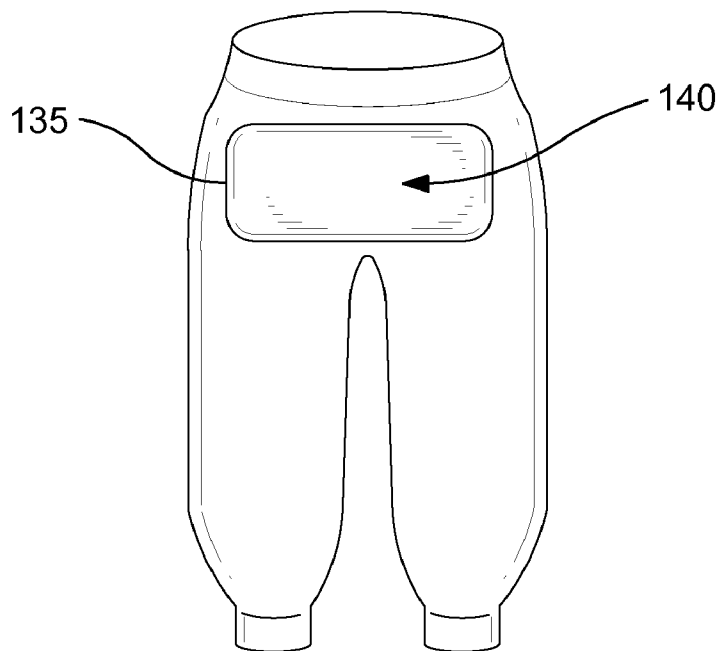


Figure 1C

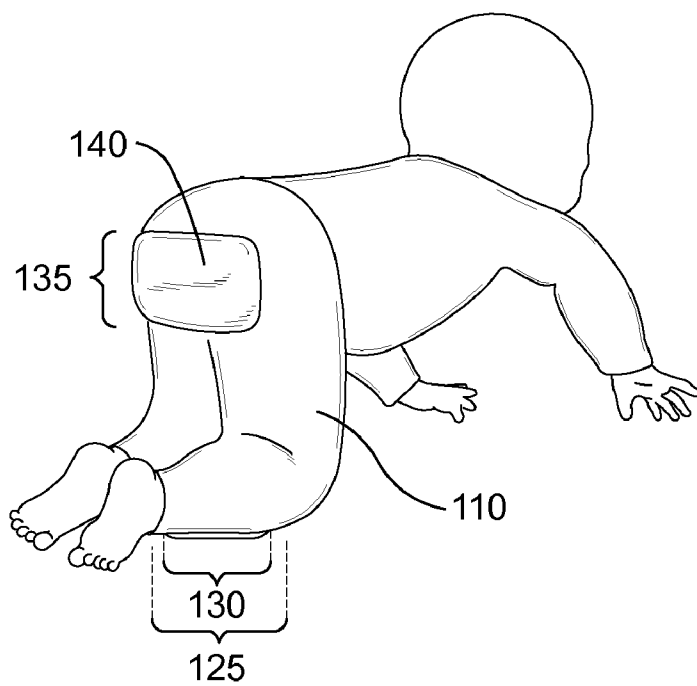


Figure 1D

INFANT CRAWLING PANTS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present Utility patent application claims priority benefit of the U.S. provisional application for patent Ser. No. 61/517,123 filed on Apr. 13, 2011 under 35 U.S.C. 119 (e). The contents of this related provisional application are incorporated herein by reference for all purposes to the extent that such subject matter is not inconsistent herewith or limiting hereof.

FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not applicable.

REFERENCE TO SEQUENCE LISTING, A TABLE, OR A COMPUTER LISTING APPENDIX

[0003] Not applicable.

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FIELD OF THE INVENTION

[0005] One or more embodiments of the invention generally relate to children's clothing. More particularly, one or more embodiments of the invention relate to protective children's clothing.

BACKGROUND OF THE INVENTION

[0006] The following background information may present examples of specific aspects of the prior art (e.g., without limitation, approaches, facts, or common wisdom) that, while expected to be helpful to further educate the reader as to additional aspects of the prior art, is not to be construed as limiting the present invention, or any embodiments thereof, to anything stated or implied therein or inferred thereupon.

[0007] Often, children crawl across surfaces such as hard wood floors and tiles. Sometimes children put pressure on joints including the knees. Often, children will receive bruising or abrasions around these joints as a result of crawling over a hard surface.

[0008] Sometimes, children receive brush burn on their skin as a result of clothing or carpeting rubbing against their skin as they crawl. In some instances children can receive a serious injury such as a muscle tear as a result of crawling on a hard or rough surface.

[0009] In view of the foregoing, it is clear that these traditional techniques are not perfect and leave room for more optimal approaches.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The present invention is illustrated by way of example, and not by way of limitation, in the figures of the accompanying drawings and in which like reference numerals refer to similar elements and in which:

[0011] FIG. 1A illustrates an exemplary protective pad according to an embodiment of the present invention;

[0012] FIG. 1B illustrates a front view of an exemplary clothing use of the protective pads shown in FIG. 1A, according to an embodiment of the present invention;

[0013] FIG. 1C illustrates a back view of an exemplary clothing use of the protective pads shown in FIG. 1A, according to an embodiment of the present invention; and

[0014] FIG. 1D illustrates an exemplary clothing use of the protective pads shown in FIG. 1A, according to an embodiment of the present invention.

[0015] Unless otherwise indicated illustrations in the figures are not necessarily drawn to scale.

DETAILED DESCRIPTION OF SOME EMBODIMENTS

[0016] Embodiments of the present invention are best understood by reference to the detailed figures and description set forth herein.

[0017] Embodiments of the invention are discussed below with reference to the Figures. However, those skilled in the art will readily appreciate that the detailed description given herein with respect to these figures is for explanatory purposes as the invention extends beyond these limited embodiments. For example, it should be appreciated that those skilled in the art will, in light of the teachings of the present invention, recognize a multiplicity of alternate and suitable approaches, depending upon the needs of the particular application, to implement the functionality of any given detail described herein, beyond the particular implementation choices in the following embodiments described and shown. That is, there are numerous modifications and variations of the invention that are too numerous to be listed but that all fit within the scope of the invention. Also, singular words should be read as plural and vice versa and masculine as feminine and vice versa, where appropriate, and alternative embodiments do not necessarily imply that the two are mutually exclusive.

[0018] It is to be further understood that the present invention is not limited to the particular methodology, compounds, materials, manufacturing techniques, uses, and applications, described herein, as these may vary. It is also to be understood that the terminology used herein is used for the purpose of describing particular embodiments only, and is not intended to limit the scope of the present invention. It must be noted that as used herein and in the appended claims, the singular forms "a," "an," and "the" include the plural reference unless the context clearly dictates otherwise. Thus, for example, a reference to "an element" is a reference to one or more elements and includes equivalents thereof known to those skilled in the art. Similarly, for another example, a reference to "a step" or "a means" is a reference to one or more steps or means and may include sub-steps and subservient means. All conjunctions used are to be understood in the most inclusive sense possible. Thus, the word "or" should be understood as having the definition of a logical "or" rather than that of a logical "exclusive or" unless the context clearly necessitates otherwise. Structures described herein are to be understood

also to refer to functional equivalents of such structures. Language that may be construed to express approximation should be so understood unless the context clearly dictates otherwise.

[0019] Unless defined otherwise, all technical and scientific terms used herein have the same meanings as commonly understood by one of ordinary skill in the art to which this invention belongs. Preferred methods, techniques, devices, and materials are described, although any methods, techniques, devices, or materials similar or equivalent to those described herein may be used in the practice or testing of the present invention. Structures described herein are to be understood also to refer to functional equivalents of such structures. The present invention will now be described in detail with reference to embodiments thereof as illustrated in the accompanying drawings.

[0020] From reading the present disclosure, other variations and modifications will be apparent to persons skilled in the art. Such variations and modifications may involve equivalent and other features which are already known in the art, and which may be used instead of or in addition to features already described herein.

[0021] Although Claims have been formulated in this Application to particular combinations of features, it should be understood that the scope of the disclosure of the present invention also includes any novel feature or any novel combination of features disclosed herein either explicitly or implicitly or any generalization thereof, whether or not it relates to the same invention as presently claimed in any Claim and whether or not it mitigates any or all of the same technical problems as does the present invention.

[0022] Features which are described in the context of separate embodiments may also be provided in combination in a single embodiment. Conversely, various features which are, for brevity, described in the context of a single embodiment, may also be provided separately or in any suitable subcombination. The Applicants hereby give notice that new Claims may be formulated to such features and/or combinations of such features during the prosecution of the present Application or of any further Application derived therefrom.

[0023] References to “one embodiment,” “an embodiment,” “example embodiment,” “various embodiments,” etc., may indicate that the embodiment(s) of the invention so described may include a particular feature, structure, or characteristic, but not every embodiment necessarily includes the particular feature, structure, or characteristic. Further, repeated use of the phrase “in one embodiment,” or “in an exemplary embodiment,” do not necessarily refer to the same embodiment, although they may.

[0024] As is well known to those skilled in the art many careful considerations and compromises typically must be made when designing for the optimal manufacture of a commercial implementation any system, and in particular, the embodiments of the present invention. A commercial implementation in accordance with the spirit and teachings of the present invention may be configured according to the needs of the particular application, whereby any aspect(s), feature(s), function(s), result(s), component(s), approach(es), or step(s) of the teachings related to any described embodiment of the present invention may be suitably omitted, included, adapted, mixed and matched, or improved and/or optimized by those skilled in the art, using their average skills and known techniques, to achieve the desired implementation that addresses the needs of the particular application.

[0025] It is to be understood that any exact measurements/dimensions or particular construction materials indicated herein are solely provided as examples of suitable configurations and are not intended to be limiting in any way. Depending on the needs of the particular application, those skilled in the art will readily recognize, in light of the following teachings, a multiplicity of suitable alternative implementation details.

[0026] FIG. 1A illustrates an exemplary protective pad according to an embodiment of the present invention. In some embodiments the pad **140** includes an outer material **145**. In one embodiment the outer material **145** at least partially encases an inner material **150**. In some embodiments, the outer material is puncture resistant. Suitable outer materials include, but are not limited to, a gel, plastic, rubber, and a polymer. Suitable inner materials include, but are not limited to, a gel, plastic, rubber, a liquid, water, air, helium, hydrogen, a polymer, and combinations thereof. In some embodiments, the outer material encases a void.

[0027] FIG. 1B illustrates a front view of an exemplary clothing use **100** of the protective pads shown in FIG. 1A, according to an embodiment of the present invention. The bottoms include an inner surface **105** and an outer surface **110**. Suitable materials for the outer surface include, but are not limited to, cotton, denim, corduroy, fur, nylon, polyester, linen, acrylic, acetate, nylon, silk, rayon, leather, lace and quilting. Suitable materials for the inner surface include, but are not limited to, cotton, denim, corduroy, fur, nylon, polyester, linen, acrylic, acetate, nylon, silk, rayon, leather, lace and quilting. In some embodiments the outer surface is non-flammable. The inner surface may be non-flammable in some embodiments. The bottoms also include an upper opening **115**. In some embodiments of the present invention, a lower opening **120** is provided. The upper opening **115** may include a fastening mechanism. Suitable fastening mechanisms include, but are not limited to, a waistband, an elastic waistband, a button, a hole, a zipper, a hook and loop material, and a combination thereof. In some embodiments, the lower opening **120** may include a fastening mechanism.

[0028] The bottoms **100** may include at least one of a first area **125**, and a second area **130**. In some embodiments the first area contacts the lower area of a leg. In some embodiments the second area contacts the knee area of a leg. A pad **140** is provided. In some embodiments, the pad **140** is provided in at least one of the first area **125**, and the second area **130**. Suitable shapes for the pad include but are not limited to, a square, a circle, an oval, a cube, a rectangle, an octagon, a pentagon, a parallelogram, a trapezoid, a triangle, and a cylinder. In some embodiments, the pad **140** protects at least one of a knee and a buttocks from potential injury. The pad may protect from potential injury while crawling. In some embodiments, the pad **140** may be placed in a pocket on the bottoms **100**.

[0029] FIG. 1C illustrates a back view of an exemplary clothing use of the protective pads shown in FIG. 1A, according to an embodiment of the present invention. The bottoms may also include a third area **135**. The third area **135** may contact the buttock area, in many embodiments. In some embodiments, the pad **140** is provided in the third area **135**.

[0030] FIG. 1D illustrates an exemplary clothing use of the protective pads shown in FIG. 1A, according to an embodiment of the present invention. In some embodiments, the pad may have a first dimension. The first dimension may be in the range of a width that covers the area sufficiently. In some

embodiments, the width of pad **140** for area **135** may be wide enough to provide some hip protection. In some other embodiments, the width may only provide protection of the spine. In some embodiments, the pad **140** for area **130** may only be wide enough to cover the knee cap. In some other embodiment the width may surround the sides of the knee. In some embodiments, the pad may have a second dimension. The second dimension may be in the range of a height that covers the area sufficiently. In some embodiments, the height of pad **140** for area **135** may extend to opening **115**. In some other embodiments, the height may be determined by the size of the garment. In some embodiments, the pad **140** for area **130** may only be high enough to cover the knee cap. In some other embodiments, the height may cover the shin area. In some embodiments, the pad may have a third dimension. The third dimension may be in the range of thickness that is consistent with the material used for the pad.

[0031] In one embodiment the pad is removably joined to at least one of the first area **125**, the second area **130**, and the third area **135** by a joining mechanism. Suitable joining mechanisms include, but are not limited to, an adhesive, a hook and loop material, a button, a zipper, a strap, or combinations thereof. In some embodiments, the pad **140** is removably joined to at least one of the first surface and the second surface **110**. In some embodiments the pad is configured to cup at least one of the first area **125**, the second area **130**, and the third area **135**. In some embodiments, the pad may have multiple portions that are cupped. For example, but not limited to, the pad may have a top portion that is cupped for a knee cap, and a bottom portion that is cupped for a shin. In some embodiment, the pad may be configured to easily bend between the portions. In some embodiments, the pads are removable for washing the garment. In some other embodiments, the pads may remain with the garment when washing.

[0032] In some embodiments the pad **140** is joined to at least one of a knee, a buttock, or a lower leg. The pad may be removably joined to at least one of the knee, the buttock, or the lower leg, in some embodiments. In one embodiment, the pad **140** is removably joined from at least one of the knee, the buttock, or the lower leg by a connecting mechanism. Suitable connecting mechanisms include, but are not limited to, an adhesive, a hook and loop material, a button, a zipper, a strap, or combinations thereof. In some embodiments, the pad **140** joins directly to at least one of the knee, the buttock, or the lower leg.

[0033] In one embodiments, the pad **140** is moisture resistant. In some embodiments, the pad **140** is joined to a substance. Suitable substances include, but are not limited to, cotton, wool, bamboo, hemp, polyester and combinations thereof. In some embodiments, the substance is removably joined to the pad **140**.

[0034] Those skilled in the art will readily recognize, in light of and in accordance with the teachings of the present invention, that any of the foregoing steps may be suitably replaced, reordered, removed and additional steps may be inserted depending upon the needs of the particular application. Moreover, the prescribed method steps of the foregoing embodiments may be implemented using any physical and/or hardware system that those skilled in the art will readily know is suitable in light of the foregoing teachings. For any method steps described in the present application that can be carried out on a computing machine, a typical computer system can,

when appropriately configured or designed, serve as a computer system in which those aspects of the invention may be embodied.

[0035] All the features disclosed in this specification, including any accompanying abstract and drawings, may be replaced by alternative features serving the same, equivalent or similar purpose, unless expressly stated otherwise. Thus, unless expressly stated otherwise, each feature disclosed is one example only of a generic series of equivalent or similar features.

[0036] Having fully described at least one embodiment of the present invention, other equivalent or alternative methods of protective pad according to the present invention will be apparent to those skilled in the art. The invention has been described above by way of illustration, and the specific embodiments disclosed are not intended to limit the invention to the particular forms disclosed. For example, the particular implementation of the pad may vary depending upon the particular type clothing used. The pad described in the foregoing were directed to clothing bottom implementations; however, similar techniques are and implementations of the present invention are contemplated as within the scope of the present invention, such as other areas of clothing, including, but not limited to, clothing tops, footwear, and headwear. The invention is thus to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the following claims.

[0037] Claim elements and steps herein may have been numbered and/or lettered solely as an aid in readability and understanding. Any such numbering and lettering in itself is not intended to and should not be taken to indicate the ordering of elements and/or steps in the claims.

[0038] What is claimed is:

1. An infant crawling pants comprising:
 - a pants garment comprising an exterior, an interior, a buttock area and knee areas;
 - at least one buttock protection device being configured to be joinable to said interior at said buttock area, in which said joined buttock protection device is generally unnoticeable from said exterior, said buttock protection device comprising at least a pack containing a viscous material; and
 - at least one knee and shin protection device being configured to be joinable to said interior at each of said knee areas, in which said joined knee and shin protection device is generally unnoticeable from said exterior, said knee and shin protection device comprising at least a pack containing a viscous material.
2. The infant crawling pants as recited in claim 1, in which said knee and shin protection device further comprises at least a cupped portion being configured to cup a knee.
3. The infant crawling pants as recited in claim 2, in which said knee and shin protection device further comprises at least a portion being configured for covering a shin.
4. The infant crawling pants as recited in claim 1, in which said pack further comprises a puncture proof material cover.
5. The infant crawling pants as recited in claim 4, in which said puncture proof material cover further comprises a soft material.
6. The infant crawling pants as recited in claim 1, in which said viscous material comprises a gel type substance.
7. The infant crawling pants as recited in claim 1, in which said buttock protection device further comprises a generally rectangular shape.

8. The infant crawling pants as recited in claim 1, said knee and shin protection device further comprises a generally rectangular shape.

9. The infant crawling pants as recited in claim 1, in which said buttock protection device and said knee and shin protection device are each further configured to be removably joined to said interior.

10. The infant crawling pants as recited in claim 1, in which said buttock protection device and said knee and shin protection device are each further configured to be adhered to a surface of said interior.

11. The infant crawling pants as recited in claim 10, in which said buttock protection device and said knee and shin protection device are each further configured to be adhered by a hook and loop material.

12. The infant crawling pants as recited in claim 1, in which said buttock protection device and said knee and shin protection device are each further configured to be washable with said pants garment.

13. The infant crawling pants as recited in claim 1, in which said pants garment further comprises a waistband.

14. The infant crawling pants as recited in claim 1, in which said pants garment further comprises leg openings.

15. An infant garment comprising:
means for clothing a lower portion of an infant;
means for protecting a buttock area, said buttock protecting means being configured to be joinable to an interior of said clothing means, in which said joined buttock protecting means is generally unnoticeable from an exterior of said clothing means; and
means for protecting knee and shin areas, said knee and shin protecting means being configured to be joinable to an interior of said clothing means, in which said joined knee and shin protecting means is generally unnoticeable from an exterior of said clothing means.

16. An infant crawling pants comprising:
a pants garment comprising an exterior, an interior, a buttock area, knee areas, a waistband and leg openings;
at least one buttock protection device being configured to be adhered to a surface of said interior at said buttock area and washable with said pants garment, in which said joined buttock protection device is generally unnoticeable from said exterior, said buttock protection device comprising at least a pack containing a gel type material; and

at least one knee and shin protection device being configured to be adhered to a surface of said interior at each of said knee areas and washable with said pants garment, in which said joined knee and shin protection device is generally unnoticeable from said exterior, said knee and shin protection device comprising at least a cupped portion being configured to cup a knee, at least a portion being configured for covering a shin and at least a pack containing a gel type material, said pack further comprising a soft puncture proof material cover.

17. The infant crawling pants as recited in claim 16, in which said buttock protection device further comprises a generally rectangular shape.

18. The infant crawling pants as recited in claim 16, said knee and shin protection device further comprises a generally rectangular shape.

19. The infant crawling pants as recited in claim 16, in which said buttock protection device and said knee and shin protection device are each further configured to be adhered by a hook and loop material.

20. The infant crawling pants as recited in claim 16, in which said buttock protection device and said knee and shin protection device are each further configured to be removably joined to said interior.

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