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(54) **Motorcyclist protective barrier**

(57) The present invention relates to a modular plastic element, designed for operating as a road barrier for motorcyclists, characterized in that said modular plastic

element comprises a molded plastic polymeric material hollow body, which can be applied to existing motor vehicle road safety barriers.

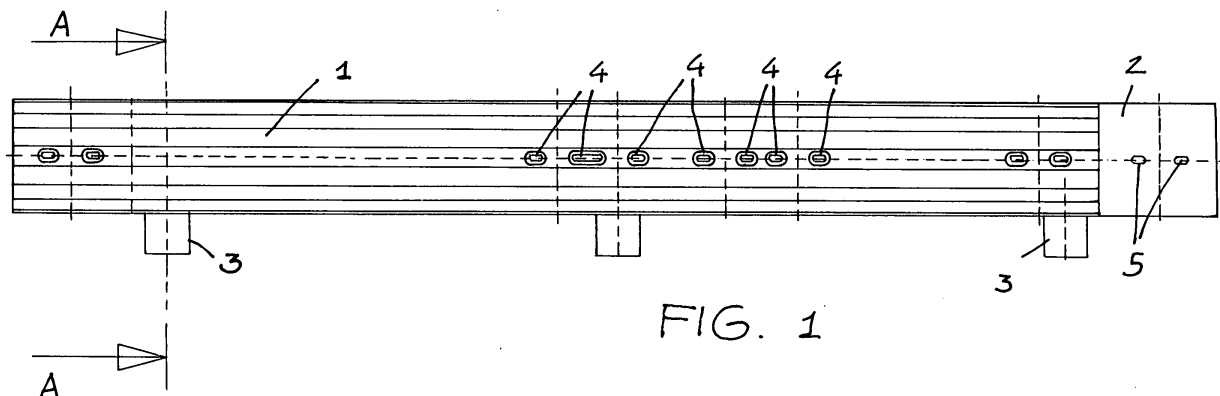


FIG. 1

Description

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a molded modular plastic material element, designed for providing a road protective barrier, in particular for motorcyclists.

[0002] As is known, roads on the sides of which are present obstacles or dangers are conventionally protected by safety barriers, designed for preventing the vehicle from exiting the road surface for dangerous condition, such as a slope, a bridge and so on.

[0003] Prior barriers have been constructed in different arrangements and shapes, and by using metal or concrete materials; the most common and diffused being the so-called "guardrails" which comprise one or more metal strips having a double or triple wave configuration, and being supported by poles driven into the ground.

[0004] This supporting poles, conventionally formed by standardized "C" or "I"-shape section members, have cutting corners directed toward the vehicle running direction, and constitute localized hard point which could have very serious consequences for an impacting human body.

[0005] Actually, mainly at bending regions, and at diverging varying height zones, very dangerous conditions are provided for motorcyclists, and it could happen that, in bad atmospheric conditions and due to erroneously handlings of the motorcycle, the motorcyclist could loose their equilibrium, thereby falling to the ground.

[0006] In such an event, the motorcyclist is frequently separated by his motorcycle, and slip on the road surface in an outward direction.

[0007] If the road surface ends with a grass region, then such a falling could have no consequence, but, if a safety barrier is present, as mentioned, then an impact against the supporting poles would cause very serious injuries.

[0008] Accordingly, from the above it should be apparent that prior safety barriers, even they are very useful for motor vehicles including a large mass motor vehicle body, are such as to increase the risks for two wheel drivers.

SUMMARY OF THE INVENTION

[0009] Accordingly, the aim of the present invention is to overcome the above mentioned drawbacks of prior safety barriers, by providing a protection barrier system, including a plurality of modular plastic material elements, of hollow construction and having a small thickness, adapted to specifically provide a motorcyclist road barrier which can be also applied to existing road barriers, and which can be made by prior methods, and using suitably strong materials.

[0010] Within the scope of the above mentioned aim,

a main object of the present invention is to provide such a safety barrier adapted to absorb the impact energy by a human body, and provide a non dangerous contrast surface, while preventing any injuries or damages from being produced.

[0011] Yet another object of the present invention is to provide such a safety protective barrier which can be made with such a length as to fit the contingent requirements and can be easily coupled to the support elements of the existing barrier, by latching elements or other types of safe connections.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The above mentioned as well as yet other characteristics of functional and constructional nature of the motorcyclist safety barrier according to the present invention will become more apparent hereinafter from the following detailed disclosure of a preferred embodiment thereof, with reference to the accompanying drawings, where:

Figure 1 is a front view illustrating a modular element for a safety barrier according to the present invention;

Figure 2 is a cross-sectional view, substantially taken along the cross-section line A-A of that same modular element;

Figure 3 is a top plan view illustrating that same modular element;

Figure 4 schematically shows two modular elements coupled or joined to one another; and

Figure 5 shows a motor vehicle road barrier, further including motorcyclist barriers.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0013] With reference to the number references of the above mentioned figures, it should be apparent that the motorcyclist barrier system 1 comprises a hollow body 6, having a vertical rear surface and a contoured front surface which latter, preferably, has a double-wave arrangement, likewise to a conventional metal road barrier.

[0014] Moreover, the modular element comprises short bearing legs, for bearing on the ground, as indicated by the reference number 3, and reentering end portions 2, which are offset at its two ends, thereby allowing any desired connection.

[0015] Moreover, in the longitudinal direction, are provided throughgoing holes 4 allowing to connect the motorcyclist barrier to the conventional motor vehicle barrier, by belts or cords, entrained on the rear metal poles 8 or of a mushroom head type, to be affixed to the same poles.

[0016] The modular elements 1 are arranged in an juxtaposed condition in the recessed portion 2 and being coupled by round head screws, engaged in holes 5

therefor.

[0017] Thus, the system will provide a second barrier, at a level less than of the existing motor vehicle barrier, but having an aspect similar to the latter and generally held in the contour of the latter.

[0018] In this connection it should be apparent that the motorcyclist barrier would not modify the performance of the motor vehicle barrier, since the impact resistance of the motorcyclist barrier is much less than that of the motor vehicle barrier, but it will properly oppose to an impacting human body, by absorbing a most part of the impacting energy.

[0019] In particular, the modular element 1 has been made by molding a plastic material, and in particular by a rotomolding process.

[0020] The material for said motorcyclist barrier can be advantageously comprise linear polyethylene or other strong and resilient plastic material, used in a required color, which can be similar to the metal color of the motor vehicle barrier, or could have any other desired colors, for example a color adapted to provide a contrast and signaling effect.

[0021] As is known, linear polyethylene, which has a comparatively low cost and is broadly used, has a very good strength against mechanical stress and atmospheric agents and does not become brittle under conventional use condition.

[0022] Moreover, it can be easily processed, by any known methods, and can be easily colored with a long duration color effects.

[0023] In adverse atmospheric conditions, typically in very hot or cold climates, it would be also possible to use a cross-linked polyethylene material, providing very constant physical and other properties.

[0024] The above disclosure and accompanying drawings illustrate only by way of an indicative example the motorcyclist modular barrier, which specific arrangement and size could be practically changed depending on the contingent use requirements.

[0025] Moreover, all the details can be replaced by other technically equivalent elements.

[0026] In practicing the invention, the used materials, as well as the contingent size and shapes, can be any, depending on requirements.

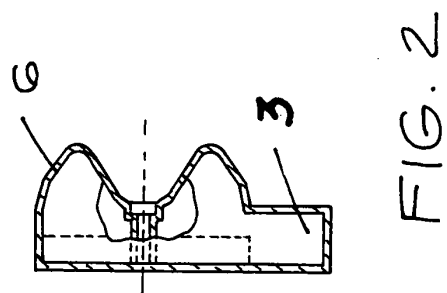
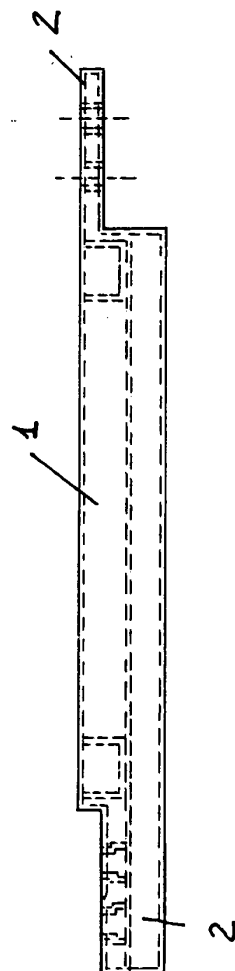
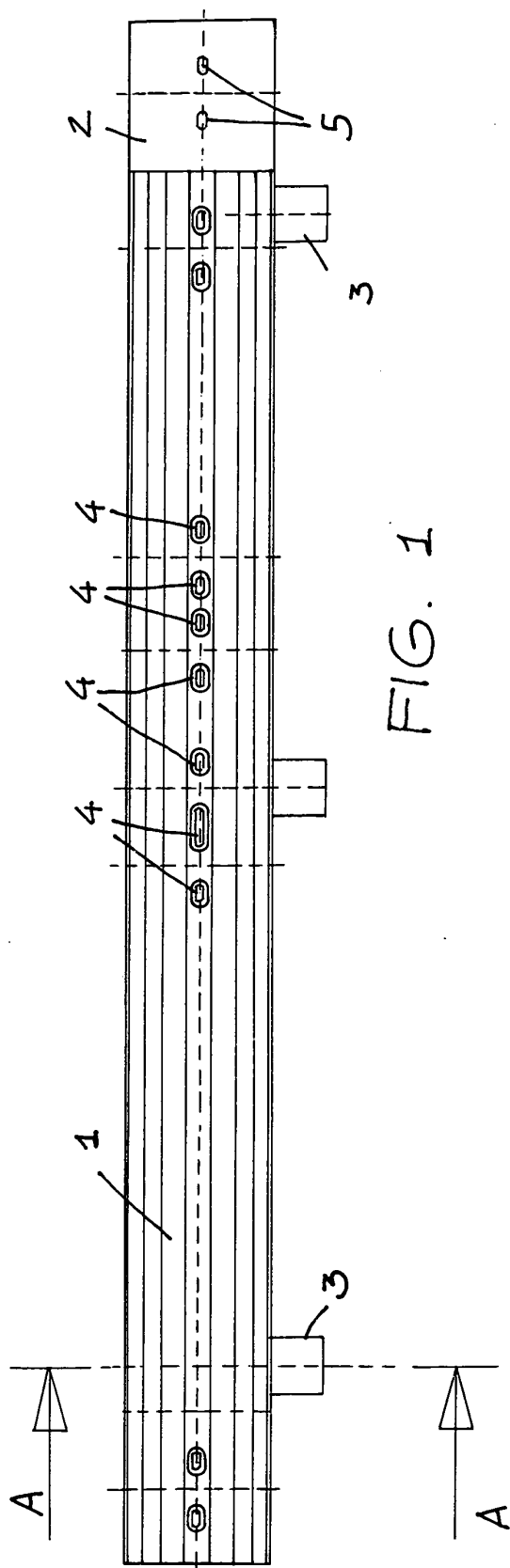
[0027] From the above disclosure and the accompanying drawings, it should be easily possible to detect the very great advantages, of economic and functional nature, characterizing the modular plastic element designed for making a motorcyclist barrier according to the present invention.

which can be applied to existing motor vehicle road safety barriers.

2. A modular plastic element according to the preceding claim, **characterized in that** at least a face thereof has a waved contour.
3. A modular plastic element, according to one or more of the preceding claims, **characterized in that** said material of said body comprises linear polyethylene.
4. A modular plastic element, according to one or more of the preceding claims, **characterized in that** said material of said body comprises cross-linked polyethylene.
5. A modular plastic element, according to one or more of the preceding claims, **characterized in that** said body has a thickness from 3 to 15 mm.
6. A modular plastic element, according to one or more of the preceding claims, **characterized in that** said body comprises, at a bottom portion thereof, ground bearing elements.
7. A modular plastic element, according to one or more of the preceding claims, **characterized in that** said body comprises, at end portions thereof, recessed portion designed for providing a continuous pattern as a plurality of modules are series coupled.
8. A modular plastic element, according to one or more of the preceding claims, **characterized in that** said modular plastic element can be coupled to the rear construction or motor vehicle road barrier through middle holes and any desired type of connecting means.
9. A modular plastic element, designed for operating as a safety barrier for motorcyclists, having practical, economical and functional advantages, according to one or more of the preceding claims, and substantially as broadly disclosed and illustrated in the preceding disclosure and in the accompanying drawings, enclosed in the present Utility Model Application and for the intended aim and objects.

Claims

1. A modular plastic element, designed for operating as a road barrier for motorcyclists, **characterized in that** said modular plastic element comprises a molded plastic polymeric material hollow body,



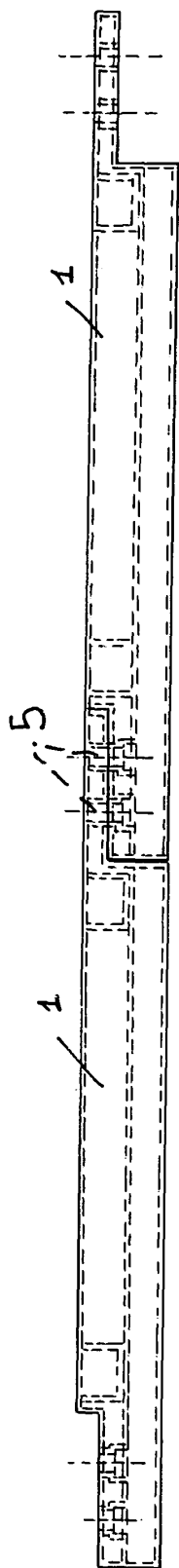


FIG. 4

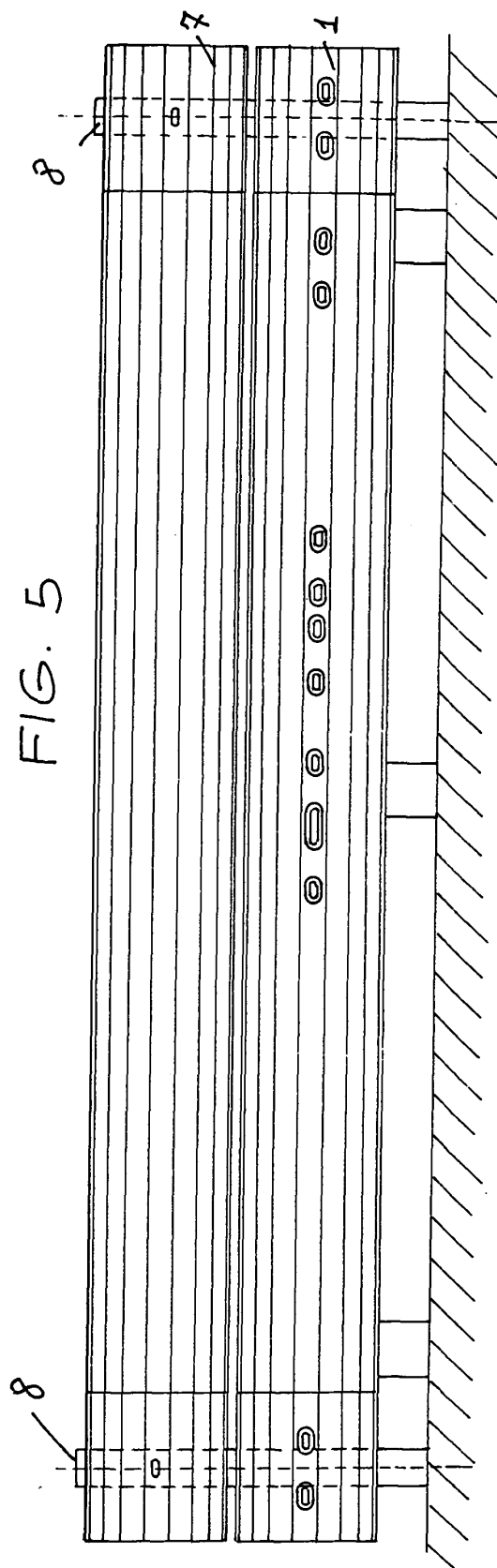


FIG. 5



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EUROPEAN SEARCH REPORT

Application Number
EP 05 00 0571

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		11 April 2005	Kriekoukis, S
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P4/C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 00 0571

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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