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(71) Applicant: **Melba Products Limited**
**Bury**
**Lancashire BL9 9NX (GB)**

(72) Inventor: **Dawson, John**
**Padiham**
**Lancashire**
**BB12 9AP (GB)**

(74) Representative: **Harrison Goddard Foote**
**Orlando House**
**11c Compstall Road**
**Marple Bridge**
**Stockport SK6 5HH (GB)**

(54) **A pedestrian or traffic barrier**

(57) A pedestrian or traffic barrier comprising an upright panel (11) curved away towards one side thereof in opposed end regions (19) each of which has a ground engaging foot (13) whilst a further foot (12) extends obliquely from an opposed face of the panel (11). The barrier is of one-piece moulded construction and has ballast chambers (14, 15 and 16). The feet (12 and 13) are offset with respect to a longitudinally centre line (18) of the barrier thus to avoid a trip hazard.

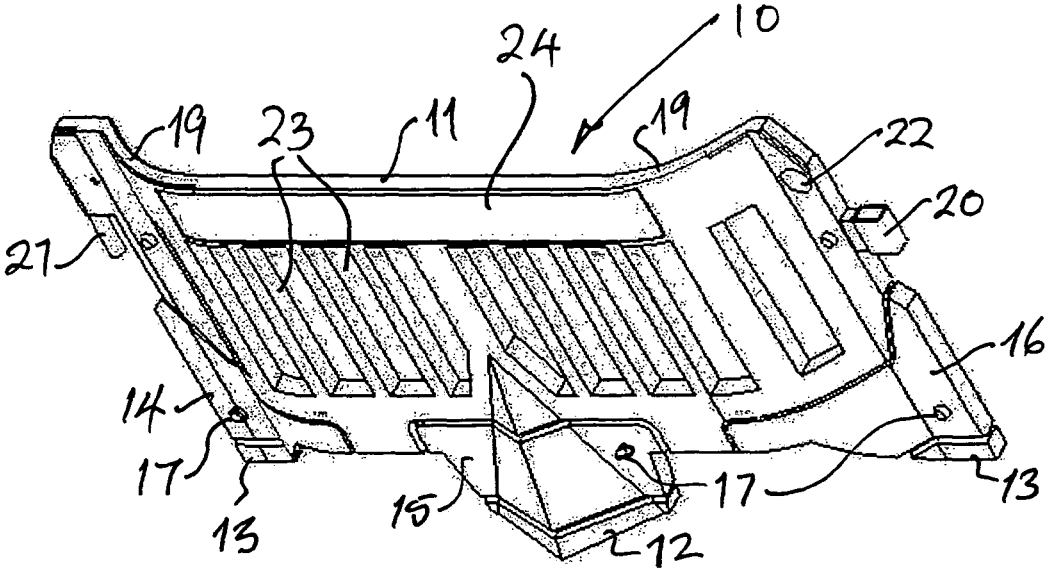


Fig. 1

EP 1 865 111 A1

## Description

**[0001]** This invention concerns barriers of the kind placed around a construction or road repair site for the protection of pedestrians and of the type where a number of such barriers may be linked together for crowd control at events.

**[0002]** Conventionally, such barriers are approximately 2 metres in length and 1 metre high and generally comprise a panel, apertured to avoid wind resistance and having a pair of feet which are rotatable from an operative position extending transversely to the barrier to support it in an upright position, to a position aligned with the longitudinal centre line thereof for stacking and transportation.

**[0003]** Such feet often present a trip hazard to pedestrians and it is an object of the present invention to provide a pedestrian control barrier in which such hazard is substantially reduced.

**[0004]** According to the present invention there is provided a pedestrian or traffic barrier comprising an elongate panel and at least two ground engaging portions to support the panel upright on the ground; characterised in that the ground engaging portions are in fixed disposition on the panel and are offset from a longitudinal centre line thereof thus to avoid presenting a trip hazard.

**[0005]** Preferably, one ground engaging portion extends from one face of the panel in a central region of the panel, and two further ground engaging portions are located in opposed end regions of the panel.

**[0006]** At least one of the ground engaging portions extends obliquely from the panel.

**[0007]** Preferably, the end regions of the panel are curved away from said longitudinal centre line, and each terminates in a foot extending generally parallel to said longitudinal centre line.

**[0008]** Said one ground engaging portion may be V-shaped in plan tapering upwardly to merge with said one face of the panel, the sides of the V defining therewith an angle in excess of 120°, and preferably in the region of 150°.

**[0009]** The panel may be of one-piece moulded construction having a hollow interior.

**[0010]** The hollow interior may include at least one enclosed chamber to contain ballast.

**[0011]** The enclosed chamber may include a closable port to enable filling and disposal of the ballast.

**[0012]** The ground engaging portions may be disposed with respect to the panel and to each other so as to minimise the risk of tilting about the longitudinal centre line.

**[0013]** The curved end region of the panel may be of reducing cross-section to enable face to face stacking of a plurality of said panels and their respective ground engaging portions.

**[0014]** Opposed end portions of the panel may be spaced laterally with respect to the longitudinal centre line of the panel sufficiently to permit a stack of panels to be engaged by the forks of a forklift truck without the use of a pallet.

**[0015]** The barrier may be produced by blow moulding of a high density polyethylene.

**[0016]** The barrier may have formations enabling a plurality of such barriers to be linked together end to end, and to enable attachment thereto of one or more lanterns.

**[0017]** The barrier may be apertured to avoid wind resistance.

**[0018]** An embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Fig. 1 is a perspective view of a barrier made in accordance with the invention;
Fig. 2 is a plan view;
Fig. 3 is an underside view; and
Fig. 4 is an elevation.

**[0019]** Referring now to the drawings, the barrier 10 comprises an elongate panel 11 and at least two ground engaging portions comprising a central foot 12 and opposed end feet 13.

**[0020]** The barrier is of one-piece moulded construction produced by blow moulding from high density polyethylene and thus has a hollow interior. The interior is walled to produce three enclosed chambers 14, 15 and 16 above the feet 12 and 13, with closable ports 17 enabling the chambers to be filled with ballast such as water or sand. The chambers may be emptied for storage and/or transportation of the barrier.

**[0021]** It will be seen from Figs. 1 to 3 that the panel 11 has a longitudinal centre line illustrated at 18 in Fig. 2 with end region curvature 19 terminating in the ground engaging feet 13 disposed, therefore, on one side of the centre line 18 while the ground engaging foot 12 lies on the opposite side of the centre line 18. The foot 12 which is generally in the central region of the panel is v-shaped in plan tapering upwardly to merge with the adjacent face of the panel as can be seen in Fig. 1.

**[0022]** As can be seen in Fig. 3 the foot 12 is undercut with respect to the opposite face of the panel thus forming a V-shaped recess 25. The sides of the V define with their respective faces of the panel an angle in excess of 120° and preferably in the region of 150°. It can therefore be seen that the foot 12 is obliquely displaced from the adjacent face of the panel so that a pedestrian's foot engaging the foot 12 of the panel would glance off the latter and thus avoid the trip hazard which would otherwise be present in a foot extending normal to the face of the panel.

**[0023]** Similarly, the feet 13 at the terminal ends of the curved end portions 19 once again are designed to avoid a trip hazard while providing adequate support for the barrier in conjunction with the foot 12, the feet 12 and 13 lying on opposite sides of the longitudinal centre line 18.

**[0024]** As can be seen from Figs. 2 and 3, the ground engaging feet 12 and 13 are disposed with respect to the panel and to each other so as to minimise the risk of tilting about the centre line 18.

**[0025]** Also as can be seen from Figs. 2 and 3, the curved end regions 19 of the panel are of reducing cross-section to enable face to face stacking of a plurality of such barriers and their respective ground engaging feet.

**[0026]** Further as can be seen from Figs. 2 and 3, the opposed end portions of the panel are spaced laterally with respect to the longitudinal centre line 18 thereof sufficiently to permit a stack of panels to be engaged by the forks of a forklift truck without the need for a pallet. Thus stacks of such panels can be manoeuvred from place to place more readily.

**[0027]** End formations 20 and 21 are provided to enable a plurality of such barriers to be linked together end to end, and further formations one of which is illustrated at 22 are provided on opposed faces of the barrier for attachment of warning lanterns. The barrier is apertured by a series of upright slots 23 along its length to minimise wind resistance and to reduce its weight. An elongate upper region 24 on each face of the panel 11 is provided for reflective or other high visibility material.

**[0028]** A barrier produced in accordance with the invention is of increased stability when compared with conventional flat barriers having detachable and rotatable feet, and has no surface extending at right angles to the general plane of the barrier which could cause a trip hazard. Being of one-piece moulded construction the barrier is less expensive to produce when compared with conventional barriers, is lightweight and readily stackable.

**[0029]** It is not intended to limit the invention to the above example only, many variations being possible without departing from the scope of the appended claims. For example, the barrier may have more than one V-shaped protruding foot extending from an otherwise flat or flatter barrier.

## Claims

1. A pedestrian or traffic barrier comprising an elongate panel and at least two ground engaging portions to support the panel upright on the ground; **characterised in that** the ground engaging portions are in fixed disposition on the panel and are offset from a longitudinal centre line thereof thus to avoid presenting a trip hazard.

2. A pedestrian or traffic barrier according to claim 1 wherein one ground engaging portion extends from one face of the panel in a central region of the panel, and two further ground engaging portions are located in opposed end regions of the panel.

3. A pedestrian or traffic barrier according to claim 1 wherein at least one of the ground engaging portions extends obliquely from the panel.

4. A pedestrian or traffic barrier according to claim 2 wherein the opposed end regions of the panel are curved away from said longitudinal centre line and each terminates in a foot extending generally parallel to said longitudinal centre line.

5. A pedestrian or traffic barrier according to any preceding claim wherein said one ground engaging portion is V-shaped in plan tapering upwardly to merge with said one face of the panel, the sides of the V defining therewith an angle in excess of 120° and preferably in the region of 150°.

6. A pedestrian or traffic barrier according to any preceding claim wherein the panel is of one-piece moulded construction having a hollow interior.

7. A pedestrian or traffic barrier according to claim 6 wherein the hollow interior includes at least one enclosed chamber to contain ballast.

8. A pedestrian or traffic barrier according to claim 7 wherein the said at least one enclosed chamber includes a closable port to enable filling and disposal of the ballast.

9. A pedestrian or traffic barrier according to any preceding claim wherein the ground engaging portions are disposed with respect to the panel and to each other so as to minimise the risk of tilting about the longitudinal centre line.

10. A pedestrian or traffic barrier according to claim 4 wherein the curved end regions of the panel are of reducing cross-section to enable face to face stacking of a plurality of said panels and their respective ground engaging portions.

11. A pedestrian or traffic barrier according to any preceding claim wherein opposed end regions of the panel are spaced laterally with respect to the longitudinal centre line of the panel sufficiently to permit a stack of panels to be engaged by the forks of a forklift truck without the use of a pallet.

12. A pedestrian or traffic barrier according to any preceding claim produced by blow moulding of a high density polyethylene.

13. A pedestrian or traffic barrier according to any preceding claim having formations enabling a plurality of such barriers to be linked together end to end, and to enable attachment thereto of one or more lanterns.

14. A pedestrian or traffic barrier according to any preceding claim having apertures therein to avoid wind resistance.

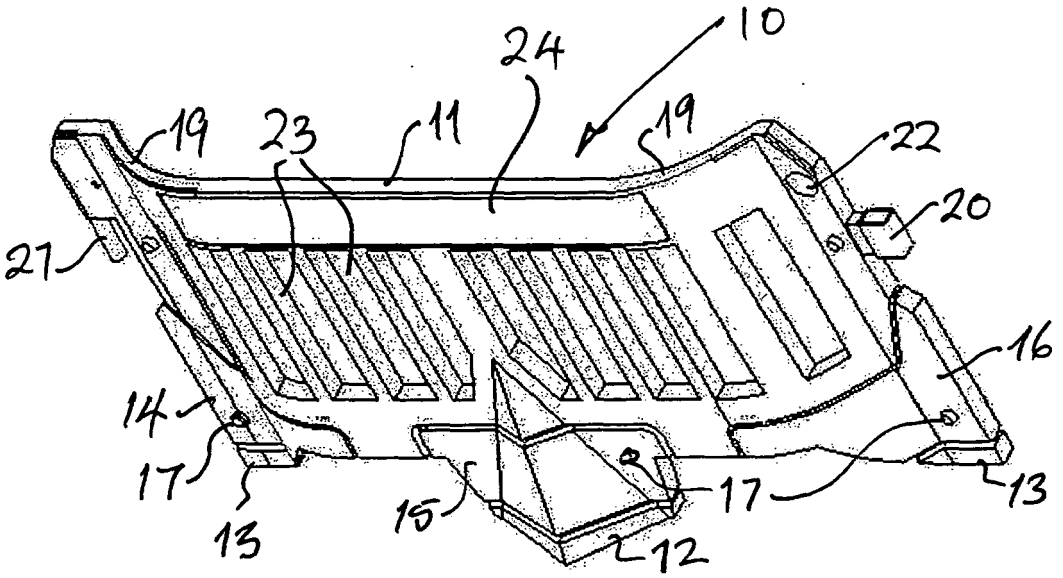


Fig. 1

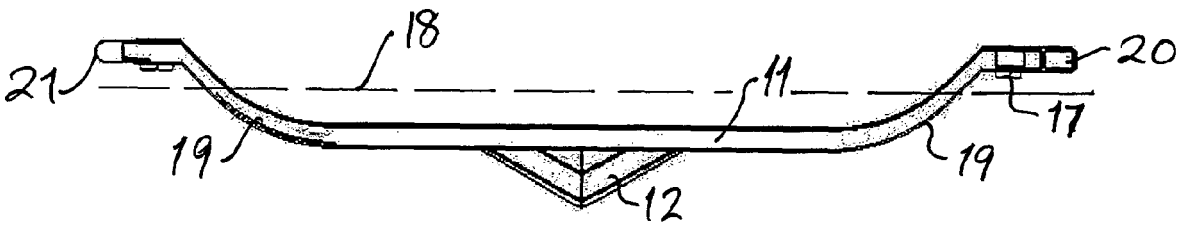


Fig. 2

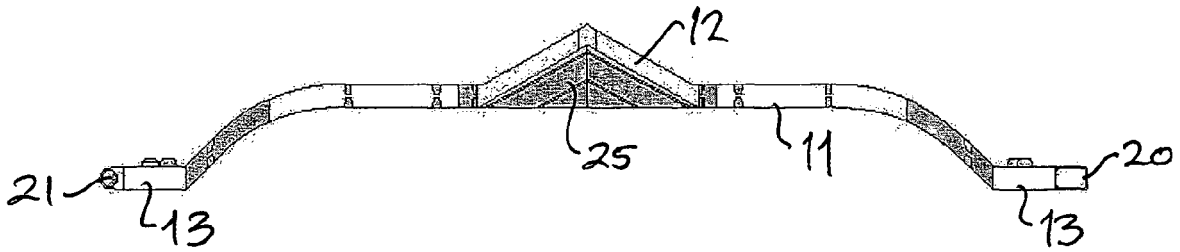


Fig. 3

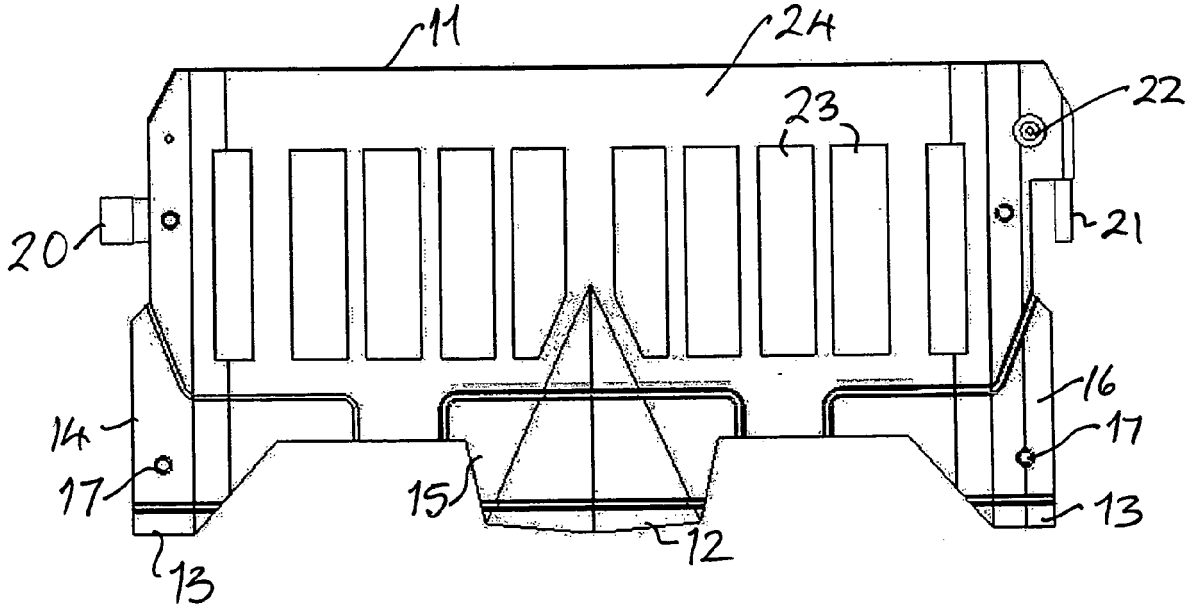


Fig. 4

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# EUROPEAN SEARCH REPORT

Application Number
EP 07 25 2227

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| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
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TECHNICAL FIELDS SEARCHED (IPC)

E01F
A63C

The present search report has been drawn up for all claims

| Place of search | Date of completion of the search | Examiner |
|---|---|---|
| Munich | 18 September 2007 | FLORES HOKKANEN, P |

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## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 07 25 2227

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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