

# PATENT SPECIFICATION

DRAWINGS ATTACHED

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## COMPLETE SPECIFICATION

### Improvements in or relating to Barriers and Like Guards

I, WILLIAM EDWARD APPLEBY, a British Subject of 46 Silversea Drive, Westcliffe-on-Sea, Essex, do hereby declare the invention for which I pray that a patent may be granted to me, and the method by which it is to be performed to be described in and by the following statement:—

This invention relates to barriers and like guards.

- 10 An object of the invention is to provide a unit, a number of which can readily be assembled one to another to form a barrier structure defining for example a pre-determined route or delimiting a site area, the units forming a barrier structure when dismantled being capable of stacking whereby the same can readily be transported to, for example, a further site for re-erection.

- 15 A barrier unit according to the invention comprises broadly a substantially rectangular frame, legs for supporting the frame on the ground in a substantially vertical position, said legs extending outwardly from one side of the frame and spaced apart from one another lengthwise of the frame and a ground engaging foot at the outer end of each leg, each said foot extending transversely of the frame so as to project outwardly on either side thereof, the ground engaging feet being interconnected at least on one side of the frame by a cross bar or cross bars. The cross bar or each cross bar can be permanently secured to the ground engaging feet or may be removable therefrom.

- 20 The legs may each be formed in one piece, each leg being secured at its upper end preferably in a permanent manner, to the appropriate side member of the frame. Alternatively, the legs can be detachable from the frame, whereby stacking of the barrier units and transport thereof is facilitated. Further, the ground engaging

foot of each leg can be formed integral with the leg, for example by suitably bending the leg, or as is preferred each foot portion is made separately and subsequently secured to the leg. The frames and legs are for preference made from tubular metal, the required form of both the frame and legs being obtained by bending the tube, a unit comprising a rigid one-piece structure being obtained by welding.

Preferably the frame of the barrier unit is provided at its opposite ends with means for connecting the same to adjacent units. For this purpose the frame of the unit can be provided at one end with at least one staple and at least one corresponding hook member at the other end, adjacent barrier units being interconnected by inserting the hook member of one unit in the staple of a further unit.

Embodiments of the invention will now be described by way of example with reference to the accompanying drawings in which:—

Figure 1 is a perspective view of a barrier unit according to one embodiment of the invention,

Figure 2 is a view from one side,

Figure 3 is an end view as seen from the left of Figure 1.

Referring to Figures 1, 2 and 3 of the accompanying drawings the barrier unit comprises an oblong frame, the side of longer length providing the horizontal rails 1 of the frame, the shorter sides providing the vertical stiles 2. The frame has a pair of legs 4 and 5 for supporting the frame above the ground each leg having a ground engaging foot 6 at its lower end, the said feet being interconnected by a cross bar 7 which extends lengthwise in relation to the frame and is disposed to one side thereof. The frame and legs are made from metal

tubing, the feet and cross bar being made from metal bar of suitable cross-section the components being welded together to form a rigid one-piece structure.

- 5 The oblong frame is formed for example from a single length of metal tubing suitably bent, the free ends of the tubing after the tube is bent being suitably welded together. Struts 8 extending between the
- 10 horizontal rails 1 of the frame are provided at spaced intervals to reinforce the frame, each strut consisting of a straight length of tubing each of which is secured to the frame by welding. Each leg 4, 5 is also formed
- 15 from a single length of metal tubing the tube being bent for a portion of its length from one end so that each leg is substantially L shape. The legs are assembled to the frame so as to be spaced apart from
- 20 one another lengthwise of the frame each leg being arranged with the bent portion 9 lowermost the said bent portions extending towards one another and the vertical leg portions diverging from one another
- 25 from their upper ends which are welded to the lower horizontal rail of the frame. Each ground engaging foot 6, each of which consists of a straight length of metal bar, is welded to the lower bent end of each
- 30 leg. The feet 6 are each arranged at right angles to the frame and extend outwardly on both sides of the frame the frame and legs being offset in the lengthwise direction of the feet to provide on one side of the
- 35 frame a greater length of foot than on the other side. The foot portions of longer length are connected by the cross-bar 7 consisting of a length of bar material which is welded at its opposite ends to each said
- 40 foot portion, the cross-bar extending parallel to the frame and spaced to one side thereof. A hook member 10 is welded to the stile 2 at one end of the frame and a staple 11 to the stile 2 at the opposite end
- 45 of the frame.

- A barrier unit according to the above described embodiment is primarily intended for the construction of a continuous barrier structure delimiting a site area the required
- 50 number of barrier units being arranged end to end to provide a continuous barrier around the perimeter of the site area the individual units being interengaged by hooking the hook member 10 of one unit
  - 55 in the staple 11 of an adjacent unit. When assembling the barrier the units are arranged with the cross-bar 7 of each unit outside the enclosed site area so that individuals at the barrier stand on the cross
  - 60 bars thus minimising any tendency for the units to tilt inwardly or towards the site area. Individuals standing on the cross

bars also minimise or prevent any tendency for the units to slip or slide on the ground.

#### WHAT I CLAIM IS :—?

1. A barrier unit comprising a substantially rectangular frame, legs for supporting the frame on the ground in a substantially vertical position, said legs extending outwardly from one side of the frame and being spaced apart from one another lengthwise of the frame, and a ground engaging foot at the outer end of each frame so as to project outwardly on either side thereof, the ground engaging feet being interconnected at least on one side of the frame by a cross bar or cross bars.

2. A barrier unit according to claim 1 wherein the or each cross bar is permanently secured to the feet.

3. A barrier unit according to claim 1 wherein the or each cross bar is detachably secured to the feet.

4. A barrier unit according to claim 1, 2 or 3 wherein the legs are each formed in one piece, each leg being secured by its upper end to the appropriate side member of the frame.

5. A barrier unit according to claim 4 wherein the legs have vertically extending portions which diverge from one another from the upper ends of the legs, the lower ends of the legs extending towards one another.

6. A barrier unit according to claim 1 wherein the legs are detachable from the frame.

7. A barrier unit according to any one of claims 1 to 6 wherein the ground engaging foot of each leg is formed integral with the leg.

8. A barrier unit according to any one of the preceding claims wherein means are provided at each end thereof for connecting the same to adjacent units.

9. A barrier unit according to claim 8 wherein the connecting means comprise a staple at one end and a hook member at the opposite end.

10. A barrier unit according to any one of the preceding claims wherein the frame and legs at least are made of metal tube.

11. A barrier unit as herein described with reference to and as shown in the accompanying drawings.

12. A barrier comprising a plurality of interconnected barrier units as claimed in any one of the preceding claims.

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