United States Patent [19]

Lindner

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[45] **Nov. 4, 1975**

[54] **TRAFFIC BARRICADE**

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[73] Assignee: **Beatrice Foods Co.**, Chicago, Ill.

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[52] **U.S. Cl.** **256/64;** 404/6

[51] **Int. Cl.²** **E01F 13/00**

[58] **Field of Search** ..... 256/64, 13.1, 1; 47/39; 40/125 H; 404/6, 7

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Primary Examiner—Dennis L. Taylor

Attorney, Agent, or Firm—Dominik, Knechtel, Godula & Demeur

[57] **ABSTRACT**

A molded barricade having identically formed legs supporting a reflective panel, and weight boxes demountably mounted at opposite ends to a pair of spaced, aligned legs on each face side of the reflective panel. The boxes are interlocked to the spaced legs and positioned along the length thereof by leg supports. The legs are pivotally mounted to inset bearing walls at the opposite sides of the panel, and the tops of the legs have tapered faces for abuttingly engaging the faces of the panel.

11 Claims, 13 Drawing Figures

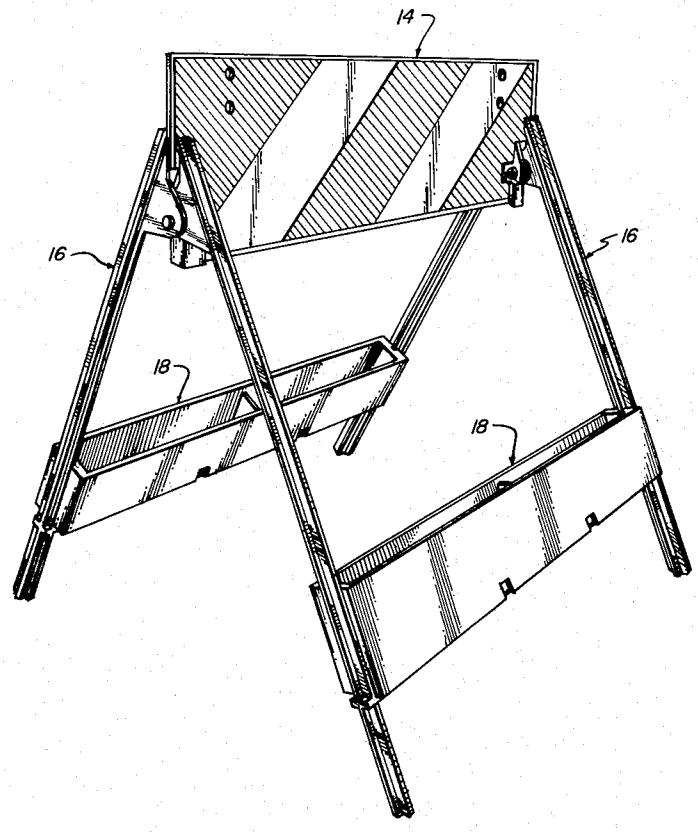


FIG. 1

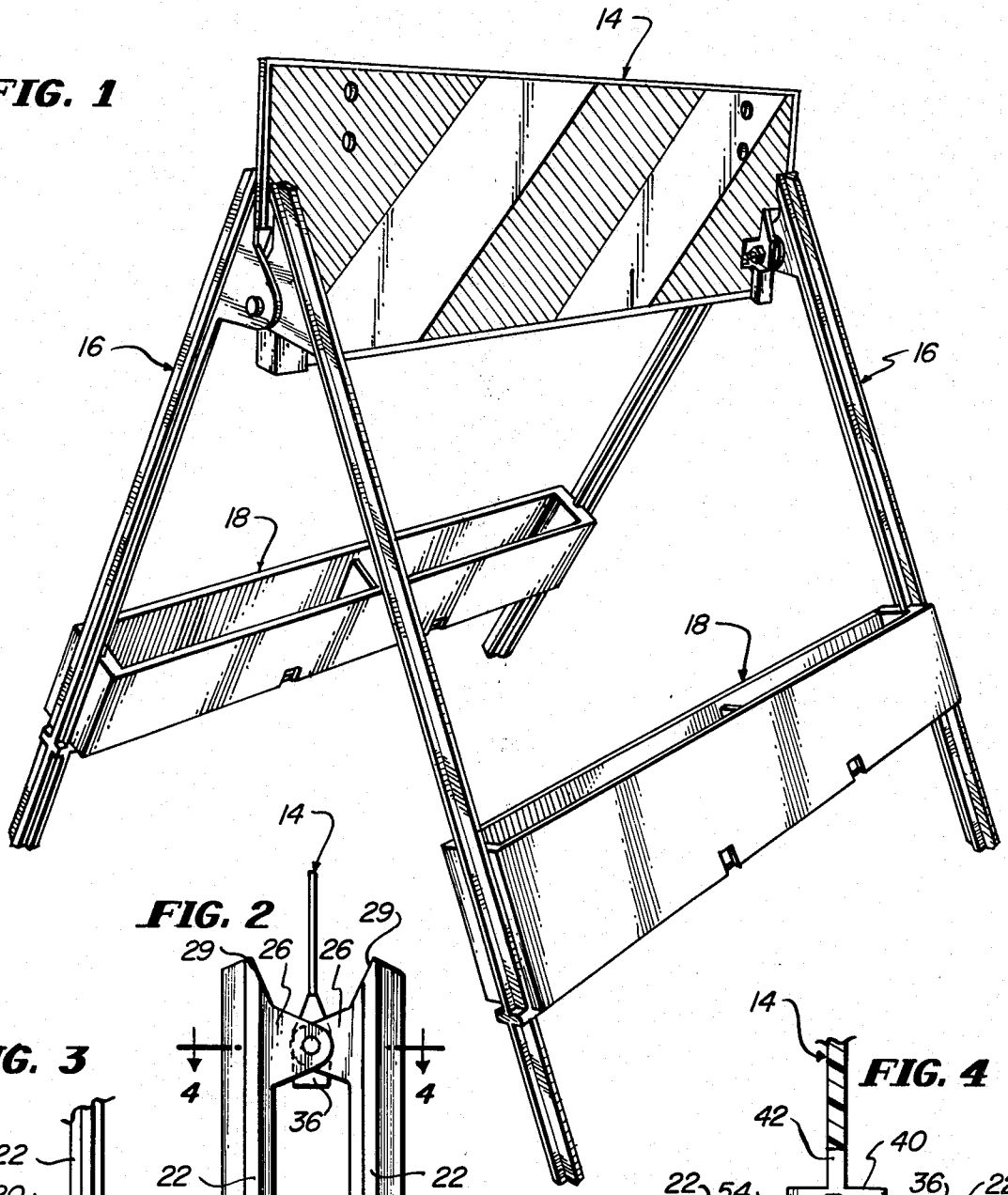


FIG. 2

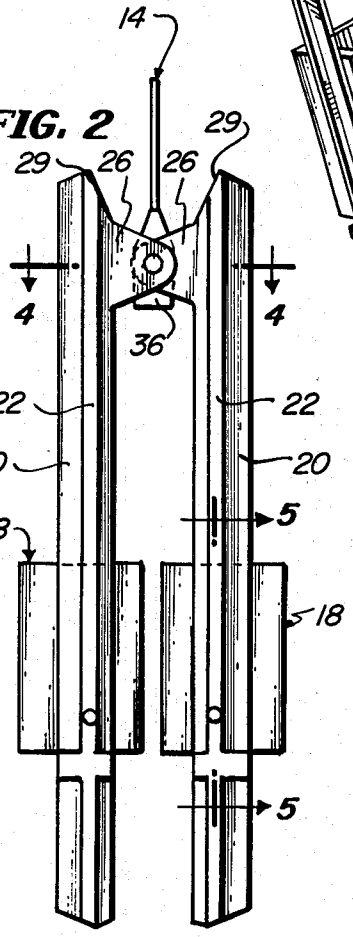


FIG. 3

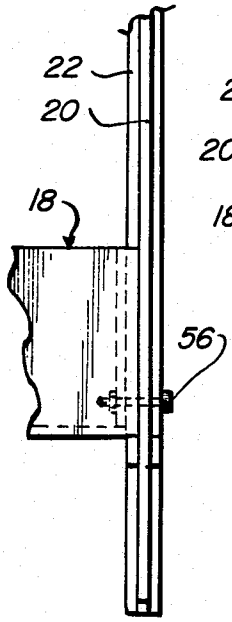


FIG. 4

FIG. 5

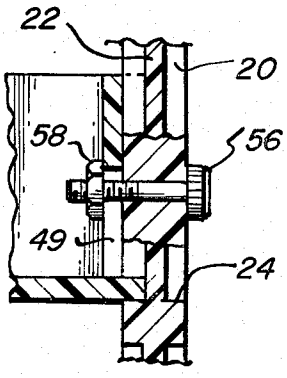


FIG. 6

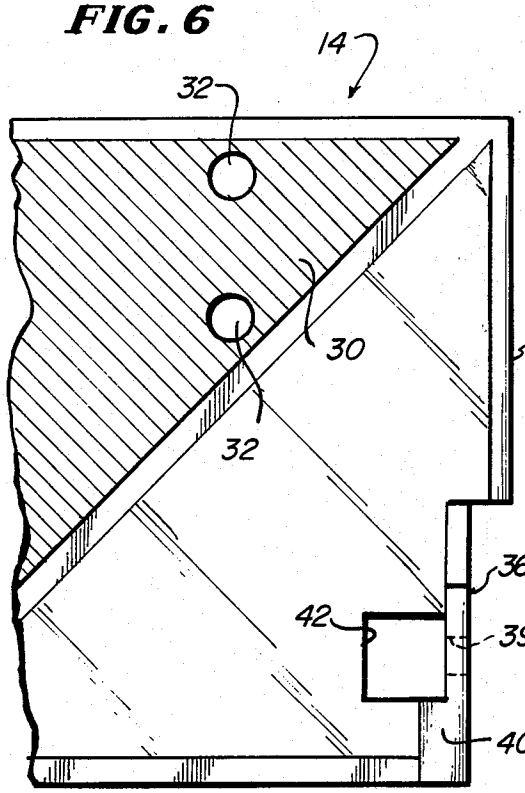


FIG. 7

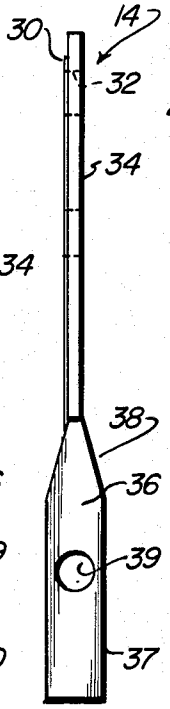


FIG. 9

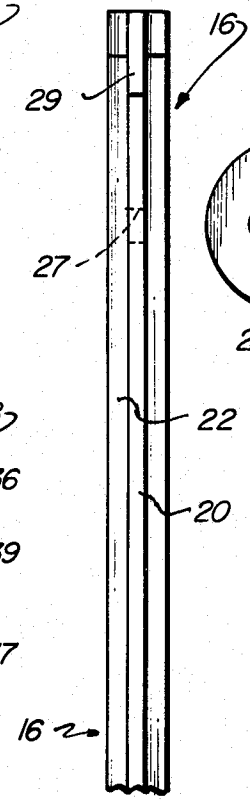


FIG. 8

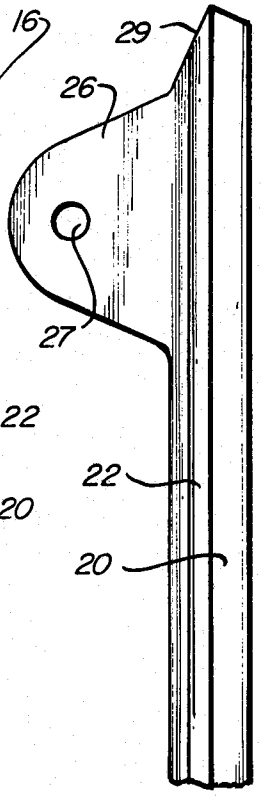


FIG. 10

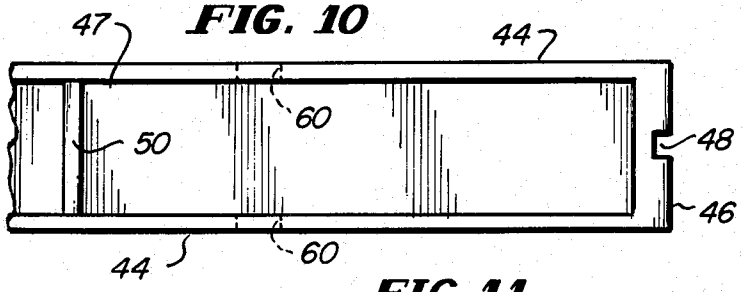


FIG. 11

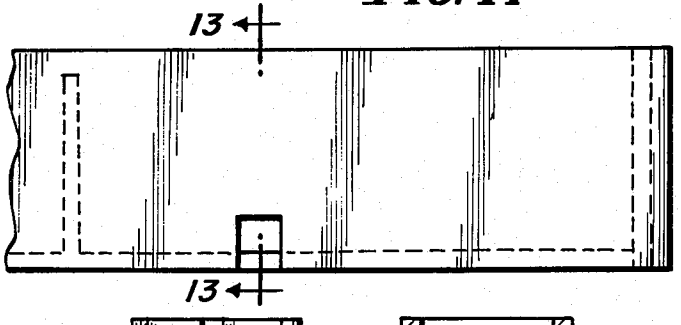
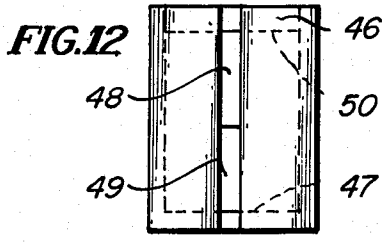


FIG. 12



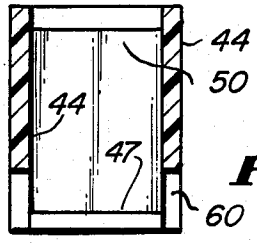
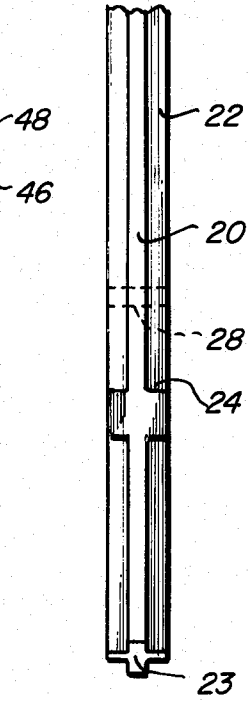
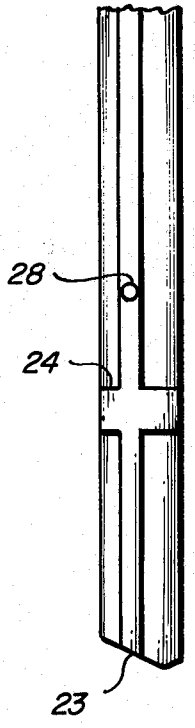


FIG. 13





TRAFFIC BARRICADE

This invention relates to a traffic barricade, and particularly relates to a vehicle traffic barricade in which component parts are advantageously formed and assembled; and wherein the barricade is anchored by improved means when erected.

Traffic barricades of conventional construction have a warning panel which commonly have reflective materials on opposite faces. Such reflective materials are commonly presented as traffic indicators to indicate vehicle direction by conventional diagonal striping. Such a panel is usually provided with pivoted legs at each of the opposite sides of a panel, and such legs are collapsed for storing the barricade; and such legs are extended for erecting the barricade in use. The legs are further commonly provided with cross braces which may be removably mounted between the angularly spaced legs on each side of the panel, or between the straight leg spacing on each face side of the panel.

Conventional practice of the art provides constructing such barricade from wood wherein component leg and panel parts are separately and differently fabricated. The erected barricade must also be anchored so that weather elements and minor impacts do not upset the erected barricades. This has been commonly performed by placing weighted bags across the braces or cross supports between the legs.

It is an object of the present invention to provide a barricade in which component parts are more efficiently and more economically made by integrally forming a plurality of parts in a small number of configurations so that each basic configuration can be selectively assembled at any one of a plurality of locations.

Another object of the present invention is a barricade which permits quick mounting of improved leg support means which additionally serve as means for anchoring the erected assembly by receiving weighted material in improved ways.

Yet still another object of the present invention is a barricade in which leg members are identically molded, and which leg members may be interchangeably positioned to support a warning panel by pivotal mountings. A related object is to provide identically formed open box leg braces which can be similarly mounted between spaced aligned legs on either face side of the warning panel. A still further related object is to utilize such open top boxes for more efficiently receiving weighted materials to anchor the erected barricade.

Still yet another object is to provide a barricade wherein a molded warning panel has integrally formed side bearing walls cooperatively disposed with mounted leg members of identical construction so that said panel is supported by the leg member in improved ways.

The foregoing objects are now attained together with still other objects which will occur to practitioners by the invention of the following disclosure which includes drawings wherein:

FIG. 1 is a perspective view of the erected barricade assembly;

FIG. 2 is a portional side elevational view of the barricade assembly in collapsed position;

FIG. 3 is a portional front elevational view, on a reduced scale, of the interlock box and leg components;

FIG. 4 is a sectional view taken along the line 4—4 of FIG. 2;

FIG. 5 is a portional sectional view taken along the line 5—5 of FIG. 2;

FIG. 6 is a portional front elevational view of the warning panel;

FIG. 7 is an end elevational view of the panel shown in FIG. 6;

FIG. 8 is a side elevational view of a leg member;

FIG. 9 is a front elevational view of the leg member shown in the view of FIG. 8;

FIG. 10 is a top elevational view of an open top box which supportingly engages spaced aligned leg members;

FIG. 11 is a front elevational view of the box shown in the view of FIG. 10;

FIG. 12 is an end elevational view of the box shown in the views of FIGS. 10 and 11; and

FIG. 13 is a sectional view taken along line 13—13 of FIG. 11.

The barricade assembly shown in the view of FIG. 1 illustrates the major component parts as the reflective panel 14, support legs 16 and a cross brace or open top box 18. Turning now to the views of FIGS. 8 and 9, the leg members are seen to have an elongated body portion 20 which is planar, and elongated ribs 22 extending normally to body portion 20.

The body portion 20 and rib portions 22 impart a cruciform configuration to the leg members in cross-section. Such cruciform configuration can be noted, for example, from angled foot portion 23. when the legs are mounted as shown in FIG. 1, the body portion 20 may be considered as comprising a front arm and a back arm relative to the face of the warning panel 14; and the elongated ribs 22 may be considered as comprising inside and outside arms relative to the face of the warning panel 14.

The upper part of the arms have a wing member 26 which is a lateral extension of the back arm of the elongated body portion 20. Such wing extension 26 is shown with a mounting bore 27. The lower part of the leg has a mounting bore 28 which passes through rib 22 or outside and inside arms of the cruciform configuration of the leg member.

A box support 24 is formed in the leg member below mounting bore 28. This support has a substantially square cross-sectional configuration and is formed by support portions extending normally to the planes of adjoining arms of the cruciform configuration of the leg member. Supports 24 intercept bottom portions of the box 18 as illustrated in the view of FIG. 1.

The back arm of the leg member is formed with a tapered abutting face 29 above the wing extension 26. The tapered face 29 abuts against the face of the warning panel when the legs are extended in erected position as shown in the view of FIG. 1.

Looking now at FIG. 6, the base of the panel 14 is shown as having a traffic direction stripe 30 which is usually made from conventionally available reflective tape. By conventional indication, the stripes indicate traffic direction to the left relative to the views shown in the drawings. The panel is shown with a pair of light assembly mounting bores 32 towards each side of the panel. Such bores can receive mounting rods from battery casings of barricade light assemblies which are not shown since barricade light assemblies do not comprise a part of the present invention.

The opposite sides 34 of the warning panel are modified at their lower ends to form inset bearing walls 36. Such bearing walls have a plane which is normal to the

plane of the warning panel. The bottom of the bearing wall is defined by straight sides, and the upper part of the bearing wall is defined by tapered sides **38** which converge to the thickness of the warning panel.

A mounting bore **39** extends through the bearing wall. An inner wall extension or block **40** is coincidental with straight sides **37** of the bearing wall, and such extension terminates below mounting bore **39.** Inner wall extension **40** defines the bottom of a square configuration cutout **42** which communicates with mounting bore **39** to accommodate a pivot member shown in other views of the drawing.

The open top box, shown in greater detail in the views of FIGS. **10–13,** has a pair of spaced elongated side walls **44** and a pair of spaced end walls **46.** A bottom wall **47** forms the floor of a box. The end walls **46** have a groove **48** extending from the top of the end wall and terminating short of the bottom wall **47.** A slot **49** extends from the groove **48** to the bottom wall **47,** and such slot provides a passageway to accommodate a fastener as shown in another view of the drawing. A divider **50** is shown extending between the opposite pair of side walls **44,** such divider separating the chamber of the box for more conveniently receiving weighted materials.

Referring now to FIGS. **2–5,** it is seen that the identically formed legs can be placed at any of the four possible leg positions. A mounted pair of leg members at the side of the warning panel have their wing extensions **26** overlapped so wing extension mounting bores **27** and the bearing wall mounting passageway **39** form a common passageway. A pivot member is mounted in this common passageway, and such pivot member is shown as comprising a bolt element **52** with the head positioned outside the overlapping wing extensions. A nut and bolt assembly, commonly indicated as **54,** extends into cutout **42.**

The box interlock means shown as groove **48** engages the leg interlock means shown as rib **22,** said rib closely fitting the groove in the end wall of the box. A fastener shown as bolt **56** and nut **58** is mounted in leg mounting passageway **28** and slot **49** in the end wall of the box. The fastener and the support **24** cooperate to position the box along the length of the leg members. The top of the support **24** intercepts opposite end portions of the bottom wall **47** of the box, and the fastener secures the box to the leg members. Weighted material of various kinds can be deposited within the box to anchor the barricade in erected position. A plurality of drain holes **60** are provided in the side walls **44** along bottom wall **47** to allow drainage of collected water in the box as from weather, splashing or the like.

To achieve further advantages of the invention, all the component parts of the barricade may be molded from plastic material, only one mold being required for a leg member, another mold for the open box, and a third mold for the panel. The leg members **16** are demountably assembled with the panel **14** and the open top boxes **18.** The use of the identically formed parts allows quick and certain assembly. The boxes **18** are efficiently interlocked with leg members **16,** and such boxes are accurately positioned along the length of the leg members. The use of the open top boxes allows a greater variety of weight materials to be used than has previously been possible. Pulverulent materials such as dirt or sand may be deposited in the box, as well as aggregate, rocks, bricks, or even sandbags.

The claims of the invention are now presented, and the terms in such claims may be further understood by reference to the language of the preceding specification and the views of the drawings.

What is claimed is:

1. In a barricade having a warning panel supported by opposite spaced pairs of aligned legs pivotally mounted at opposite sides of said panel,

a demountable elongated box extending to spaced aligned legs on each face side of the panel, said box having means to receive weighted material to anchor the barricade in erected position,

each of said spaced aligned legs being identically molded,

a leg interlock means on each of said spaced aligned legs,

integrally formed box interlock means at each of the opposite ends of said box engageable with said leg interlock means, and

position means on each of the legs to fix each box along the length of the spaced aligned legs.

2. A barricade which includes the features of claim **1** wherein one of said leg and box interlock means being a groove and the other of said leg and box interlock means being a closely fitting rib and the position means include formed supports to intercept opposite bottom portions of each box.

3. A barricade which includes the features of claim **1** wherein the upper part of each leg has a wing extension, a mounting bore in the wing extension, said warning panel having front and rear faces, and opposite sides, a bearing wall at each of the lower opposite sides of the panel, a mounting bore in each of the bearing walls, the wing extensions of a pair of legs at each of the panel sides overlapping so that the wing extension bores and the bearing wall bore form a common passageway, and a pivot member mounted in said common passageway.

4. A barricade with includes the features of claim **3** wherein each bearing wall is inset relative to the panel side, and the top of each leg above the wing extension having a tapered face for abutting the front and rear faces of the warning panel when the barricade is erected.

5. A barricade which includes the features of claim **4** wherein each identically formed leg has an elongated body with a cruciform cross-sectional configuration, said cruciform formed with a front arm, a back arm, an outside arm, and an inside arm, all of said arms oriented relative to the faces of said warning panel, the inside arm of each mounted leg being an interlocking rib of the leg interlock means, and wherein the box interlock means is a closely fitting end groove for said interlocking rib.

6. A barricade which includes the features of claim **5** wherein said box has an open top, a bottom wall and at least one drain hole along said bottom wall to allow drainage of liquid collecting within said box.

7. A barricade which includes the features of claim **6** wherein the position means on each leg is a support formed from support portions normal to the planes of adjoining arms of the leg, said support having a substantially square configuration and being positioned to intercept bottom wall portions of the box adjacent each end of the box.

8. A barricade which includes the feature of claim **7** wherein each end of a box includes a slot, a mounting bore extending through the outside and inside arms of

the legs, and a fastener mounted through the mounting bore and the slot to secure the box between the spaced aligned legs.

9. A barricade which includes the features of claim **5** wherein at least each leg is integrally formed as molded plastic.

10. A barricade which includes the features of claim **9** wherein the box is an open top container having an opposite pair of end walls, an opposite pair of side walls and a bottom wall, a divider in the box extending between the opposite pair of side walls, drain holes at the bottom of the box, and said box being integrally formed as molded plastic.

11. A barricade which includes the features of claim **10** wherein the opposite faces of said warning panel have a plurality of reflective traffic direction indicators, and mounting means for affixing a barricade light, said panel being integrally formed as molded plastic.

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