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a part interest

[56]

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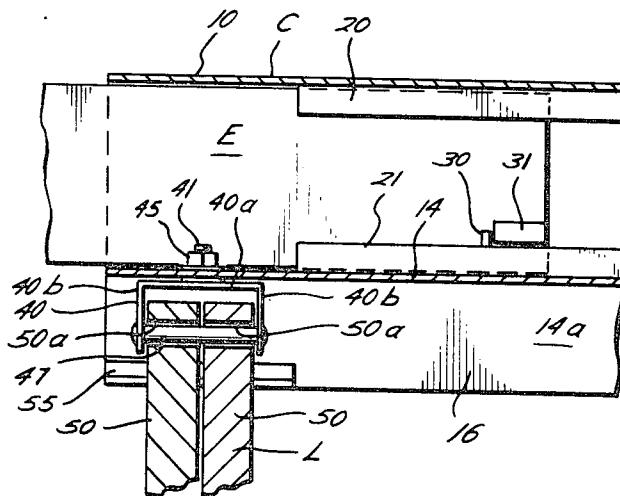
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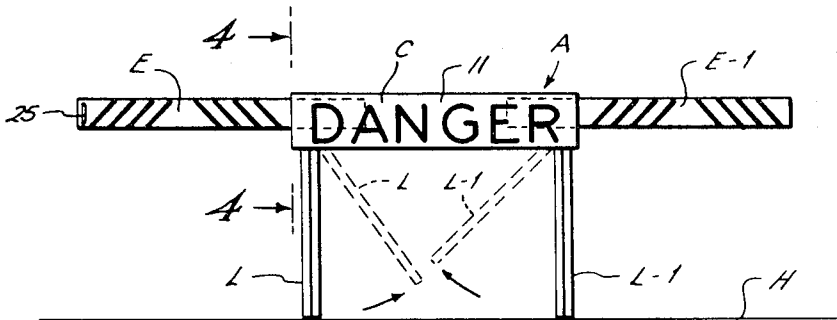
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[54] **PORTABLE COLLAPSIBLE AND FOLDABLE BARRICADE**  
2 Claims, 6 Drawing Figs.

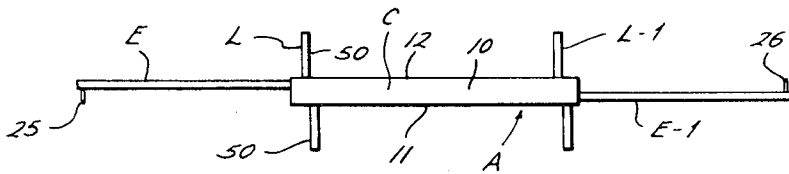
[52] U.S. Cl. .... **256/64,**  
248/439  
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**ABSTRACT:** A portable collapsible and foldable barricade capable of being extended and unfolded to a length for substantially fully blocking off a conventional lane of a highway or road while being collapsible and foldable to a size to fit within the trunk of an ordinary automobile.





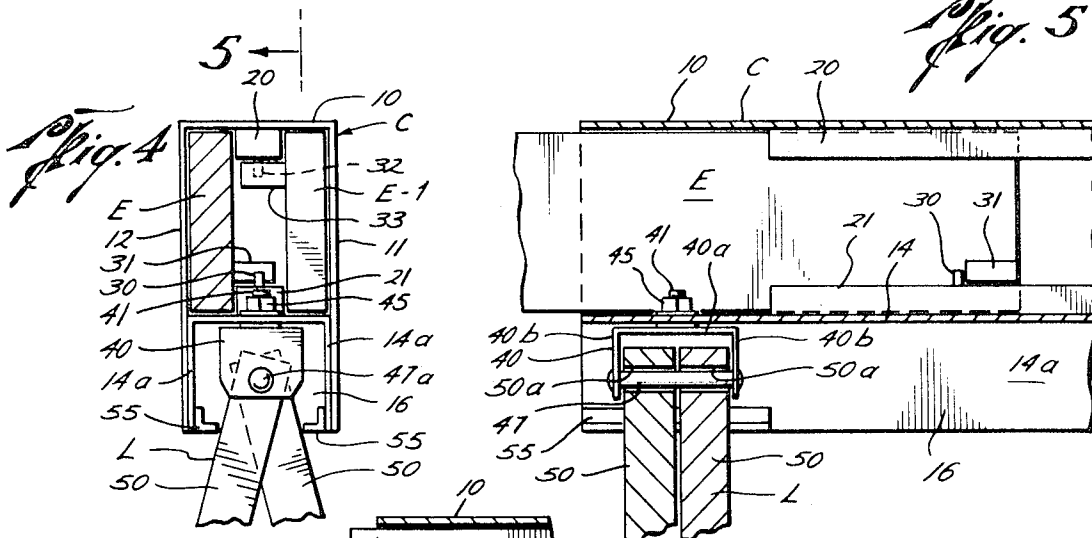
*Fig. 1*



*Fig. 2*

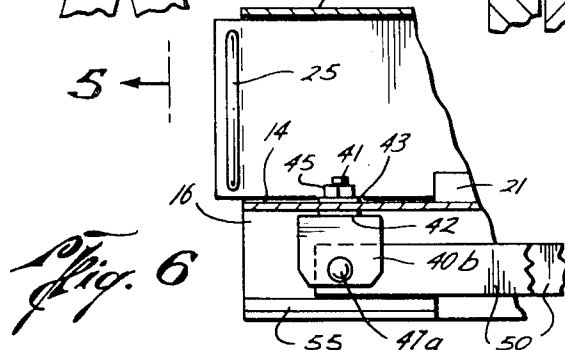


*Fig. 3*



*Fig. 4*

*Fig. 5*



*Fig. 6*

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## PORTABLE COLLAPSIBLE AND FOLDABLE BARRICADE

### BACKGROUND OF THE INVENTION

The field of this invention is portable barricades which are adapted to telescope and/or fold.

Telescoping or folding barricades of different types are known, examples of which are shown in U.S. Pat. Nos. 1,298,867; 1,583,652; 1,633,000; and 2,930,589. The prior art devices have been made with two telescoping pieces and with legs at the extremities of the pieces so that as the legs are extended, the strength is reduced and the legs are spaced so far apart that the central portion is weakened. Further, the prior art has failed to provide a satisfactory folding leg construction which conceals the legs when in the folded condition and provides for a spreading of the legs to an angle in the unfolded position.

### SUMMARY OF THE INVENTION

The present invention relates to a portable collapsible and foldable barricade which has a central section and two side extensions therefrom which are adapted to slide into the central section, and two pairs of swivel mounted legs which are foldable from a concealed position in the central section to an unfolded position for supporting the central section and the extensions therefrom.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an elevation of the portable barricade of this invention in the normal position for the use of same as a barricade on a highway, road or the like;

FIG. 2 is a plan view of the barricade of this invention;

FIG. 3 is an elevation illustrating the portable barricade of this invention in the collapsed and folded position;

FIG. 4 is a sectional view taken on line 4—4 of FIG. 1;

FIG. 5 is a sectional view taken on line 5—5 of FIG. 4; and

FIG. 6 is a partial sectional view taken at the left end of the barricade shown in FIG. 3, with the side extensions in the collapsed position, and with the legs in the folded position.

### DESCRIPTION OF THE PREFERRED EMBODIMENTS

In the drawings the letter A designates generally the barricade of this invention. As will be explained in detail, the barricade A is adapted to be collapsed and folded so that it can be carried conveniently in the trunk or back seat of an automobile or other vehicle. When the barricade A is to be used as a barricade on a lane of a highway, road or the like, the barricade may be extended and unfolded (FIG. 1) so that it is capable of blocking substantially a full lane of such highway or road.

Considering the invention more in detail, the barricade A includes a central body section C which is preferably made of sheet metal formed into a substantially rectangular cross-sectional shape by a top plate 10, a front plate 11, and a rear plate 12. The front plate 11 and the rear plate 12 are preferably joined together by an intermediate lower plate 14 which is welded or is otherwise secured to such plates 11 and 12. The intermediate plate 14 is spaced above the open lower end of the central body section C and preferably is a part of a substantially U-shaped member having side portions 14a extending downwardly from the intermediate plate 14 and terminating at the lower ends of the plates 11 and 12 (FIG. 4). The space between the depending portions 14, and thus between the lower portions of the plate 11 and 12, below the intermediate plate 14, is a recess 16, the purpose of which will be more evident hereinafter.

A pair of side extensions E and E-1 are slidably mounted within the central body section C above the intermediate plate 14. An upper longitudinally extending divider strip 20, and a lower longitudinally extending divider strip 21 are welded or are otherwise suitably affixed to the top plate 10, and the intermediate plate 14, respectively, at substantially the midverti-

cal portion of the longitudinal opening within the body section C to define a slot for each of the extension members E and E-1 within the body section C.

The side extension E has a handle 25 which may be engaged by a person's fingers to facilitate the sliding or the pulling of the extension E outwardly so as to pull the extension E from the collapsed position of FIGS. 3 and 6 to the extended position of FIGS. 1, 2, 4 and 5. The extension E-1 has a similar handle 26 (FIG. 2) to the handle 25 and it likewise serves to facilitate pulling the extension E-1 outwardly to the extended position of FIGS. 1 and 2 from the collapsed position of FIG. 3.

To limit the extent of outward movement of the extension E, so as to prevent it from being pulled completely outwardly away from the central body section C, it is desirable to have a stop means, such as a stop pin 30, which is welded or otherwise secured to the bottom divider 21 (FIGS. 4 and 5), which stop pin 30 is engaged by a stop block 31 which is secured to the extension E and which slides along the upper surface of the divider 21 until it engages the pin 30. A similar stop means is provided for the extension E-1 (FIG. 4), and it preferably includes a stop pin 32 which extends downwardly from the upper divider 20 and which is adapted to be engaged by a stop block 33 which is on the inside of the extension E-1. The block 33 engages the pin 32 after the side extension E-1 has been pulled to the extended position shown in FIGS. 1 and 2. It will be appreciated that other suitable stop means may be employed than the specific ones illustrated in the drawings.

The barricade A is supported on two pairs of foldable legs L and L-1. Since the mounting of both pairs of legs L and L-1 is preferably identical, only the details of the pair of legs L have been illustrated, but the same details apply equally well to the set of legs L-1. Thus, the bracket 40 which is substantially U-shaped and is inverted is mounted for rotation or turning for at least 90°. The mounting of the bracket 40 is illustrated in detail in FIGS. 4-6, and it includes a threaded stud 41 which is welded or otherwise connected at its lower end to the midportion 40a of the bracket 40 so as to move together. The stud 41 extends upwardly through a hole not shown in the intermediate plate 14 and is of a slightly larger diameter than the external diameter of the stud 41 so that the stud 41 may rotate freely within such hole. Washers 42 and 43 are disposed on the stud 41 on each side of the plate 14 to facilitate the turning or rotational movement of the bracket 40 with respect to the plate 14, as will be more evident hereinafter. The stud 41 is preferably threaded only at its outer end to receive a nut 45 which holds the bracket 40 in the desired position during the turning or rotational movements.

The bracket 40 has a pivot pin 47 extending through its two sides 40b, and such pin 47 has a head 47a at each end thereof to prevent the pin 47 from becoming detached from the bracket 40.

The set or pair of legs L includes two legs 50, each of which is preferably of a square cross section made from solid bar stock or square tubular material. However, it is to be understood that the invention is not limited to such shape.

Each leg 50 has a pivot hole 50a near its upper end through which the pivot pin 47 extends so as to permit pivotal movement of the legs relative to each other about the pin 47.

When the bracket 40 is turned so that its side portions 40b are substantially parallel to the longitudinal axis or length of the central body section C (FIG. 6), the legs 50 may then be pivoted upwardly to a position within the recess 16 so that such legs 50 are then completely concealed by the plates 11 and 12. Of course, the legs 50 are visible through the open lower end of the recess 16, but they do not project beyond the dimensions of the central body section C. If the exposure of the legs 50 is desired for some reason when the legs 50 are in the folded position, the plates 11 and 12 do not have to extend downwardly below the intermediate plate 14.

However, it is desirable to have the plates 11 and 12 extend downwardly below the intermediate plate 14 or to otherwise provide means for supporting angle members 55 which serve

as stops to limit the extent of the outward pivoting of the legs 50 with respect to each other (FIG. 4). The stops 55 may be welded or riveted or otherwise secured to the side portions 14a and also to the lower portion of the plates 11 and 12, if desired.

Thus, when it is desired to move the legs 50 from the folded position (FIG. 6) to the unfolded upright position (FIGS. 1, 2, 4, and 5), the bracket 40 is rotated or turned approximately 90° so as to move from the position shown in FIG. 6 to that shown in FIGS. 4 and 5. The legs 50 are then pulled apart at their lower ends so as to pivot on the pivot pin 47 and so as to spread out and form a triangle with the highway H (FIG. 1) or any other base upon which the barricade A is positioned. The outward pivoting of the legs 50 is preferably limited by the stops 55, as previously noted. However, the stops 55 are not essential since the legs 50 may dig into the road surface sufficiently to prevent them from slipping outwardly. Any other suitable strap or connector between the legs 50 may be utilized for limiting the extent of outward movement of the legs 50. The stops 55, however, provide an efficient and permanent way for limiting such outward pivoting of the legs 50.

The legs L-1 are mounted and are constructed in the same way as the legs L as previously explained, and therefore the details of the legs L-1 have been partially illustrated only.

In the operation or use of the barricade A of this invention, the barricade A is small enough when in its collapsed and folded position (FIG. 3) to be carried in the trunk of a normal automobile. The legs L and L-1 are folded into the recess 16 (FIG. 6) so that they are essentially out of view (FIG. 3). The side extensions E and E-1 are pushed inwardly to their collapsed position (FIGS. 3 and 6) so that the barricade A is very compact and is of a convenient size for storage or transportation in the trunk of a vehicle such as an automobile.

Because of such compact size, a patrolman, sheriff, or other person may conveniently carry one or more of the barricades A with him at all times so that they can be placed at appropriate locations on the highway or road when it becomes necessary to block off or control traffic. It will be appreciated that flashing lights and other signals may be incorporated with the barricade A, and for illustration purposes, the word "DANGER" has been shown in FIGS. 1 and 3 on the front plate 11 of the central section C. Any other kind of warning or signal device may be included or substituted, such as the diagonal warning lines on the extensions E and E-1.

The barricade A may be readily handled and set up by one man to the position shown in FIGS. 1 and 2. This is readily accomplished by first unfolding the legs L and L-1. The unfolding is accomplished by pivoting the legs 50 of each of the legs L and L-1 downwardly from the recess 16 to a substantially perpendicular position with respect to the body section C. Then, the bracket 40 for each of the sets L and L-1 is rotated approximately 90° to the position shown in FIGS. 4 and 5. Then, the legs of each of the sets L and L-1 are spread apart to form an angle with respect to each other (FIGS. 2 and 4). With the legs L and L-1 positioned on the highway H or other base, the extensions E and E-1 may then be pulled outwardly, using the handles 25 and 26. Each extension E and E-1 has suitable markings such as the diagonal lines illustrated in FIG. 1 to show that the barricade is a signal to a dangerous situation. It will be appreciated that reflective tape, paint or other

suitable markings may be included on the extensions E and E-1 to more effectively serve as notice to drivers that the barricade is there on the highway H. Since the extensions E and E-1 effectively increase the length of the central section C approximately three times when they are extended, a substantially complete lane is capable of being blocked off with the barricade A while still having the relatively short collapsed size of FIG. 3 for transportation purposes. Since the legs L and L-1 support the central body section C at all times, there is no danger of sag at the central portion of the barricade A even though the extension E and E-1 extend outwardly a relatively great distance. The barricade thus has a large number of different uses and is of great value for policemen, patrolmen and other law enforcement officers.

The foregoing disclosure and description of the invention are illustrative and explanatory thereof, and various changes in the size, shape, and materials as well as in the details of the illustrated construction may be made without departing from the spirit of the invention.

I claim:

1. A portable barricade adapted to be collapsed and folded, comprising:

a central body section having a slot in each end;  
a side extension disposed in each slot so as to be substantially confined within the limits of said central body section in a collapsed position;

means mounting each of said side extensions in said central body section so as to be slidable outwardly therefrom in opposite substantially horizontal directions to an extended position for increasing the length of the barricade in such extended position to about three times that of the length thereof in the collapsed position;

a pair of foldable legs at each end of said central body section;

means mounting each pair of legs for movement from a folded position extending lengthwise of said central body section to an upright unfolded position extending laterally and at an angle to each other for supporting said central body section and said side extensions on a highway, road, or the like to serve as a barricade;

said means mounting each pair of legs including:

a bracket for each pair of legs connected to said central body section near each end thereof;

means mounting each of said brackets for rotation relative to said central body section at least about 90° to move said legs to a position for pivoting outwardly to said upright unfolded position; and

pivotal connection means for pivotally attaching each pair of legs to one of said brackets for pivoting the legs in each pair relative to each other to align them lengthwise for pivoting to said folded position and for pivoting them to form a triangle with the highway, road or the like upon which the legs rest when said legs are rotated about 90° from said folded position.

2. The structure set forth in claim 1, including:  
stop means connected to said central body section and engageable by each of said legs when they are extended outwardly to form said triangle in said upright unfolded position for limiting the lateral outward pivoting of said legs about said pivotal connection means.

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