Oct. 9, 1962 DE ROY SIMPSON 3,057,601

PORTABLE HIGHWAY BARRICADE

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FIG_1

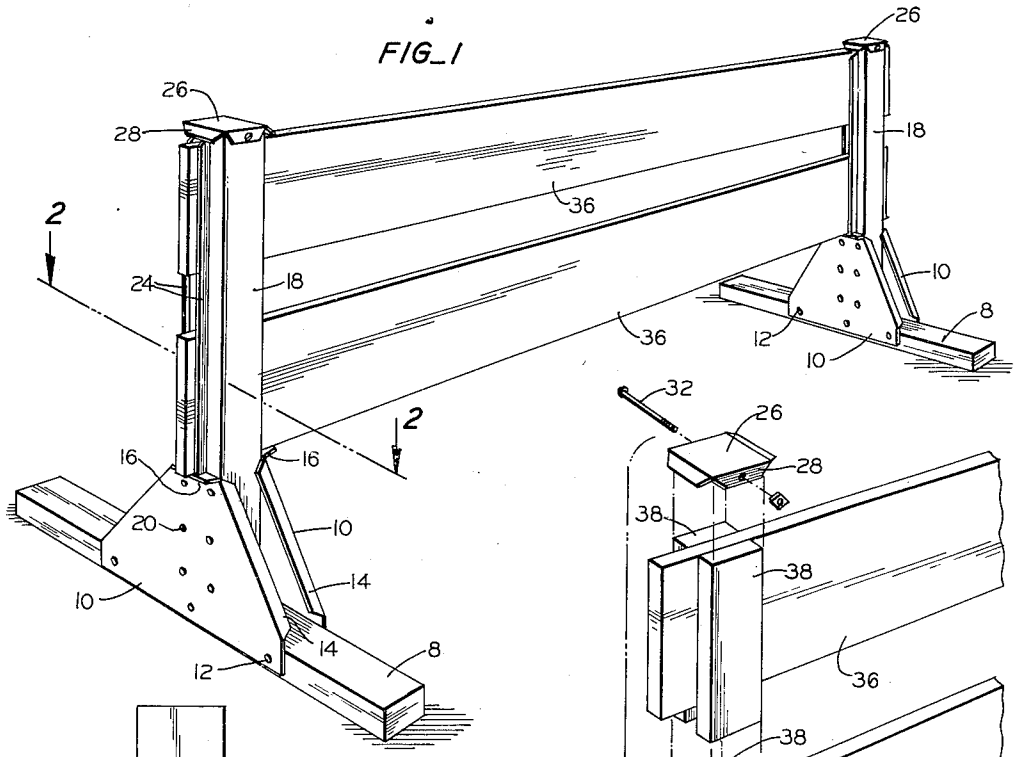

FIG_2

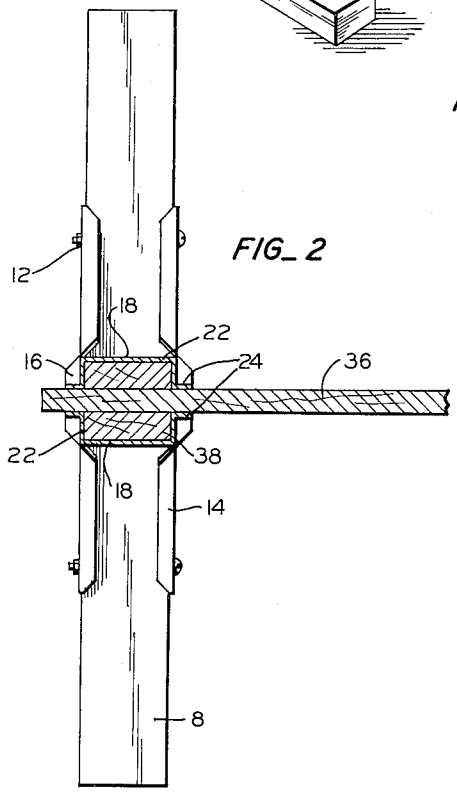

FIG_3

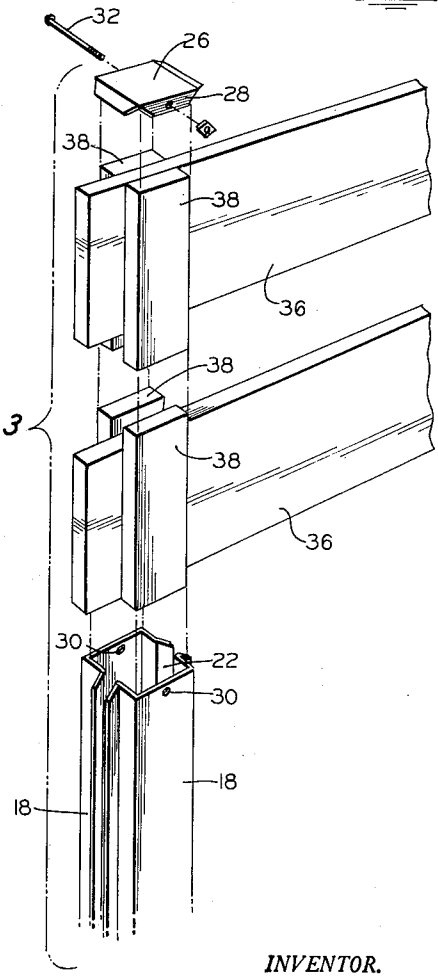

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FIG_4

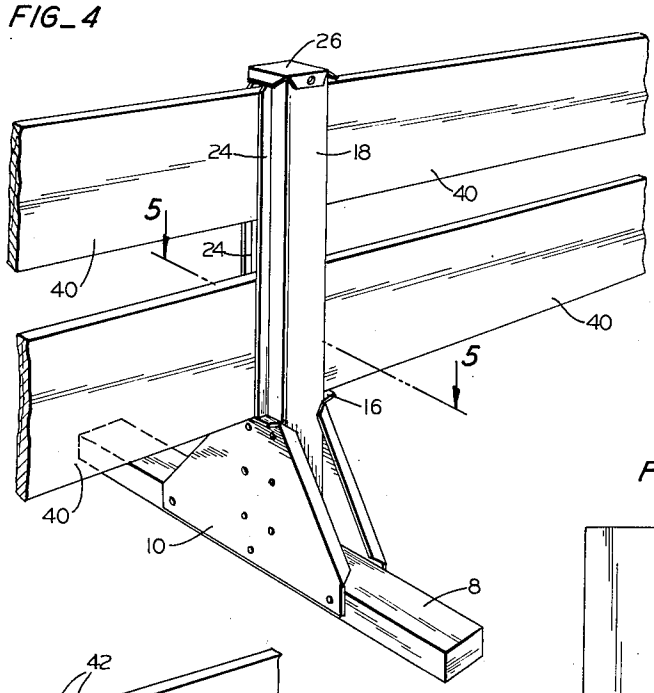
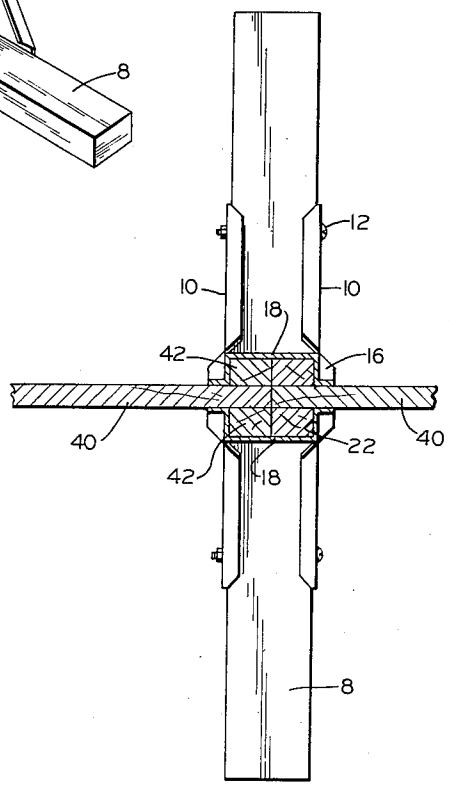


FIG_5



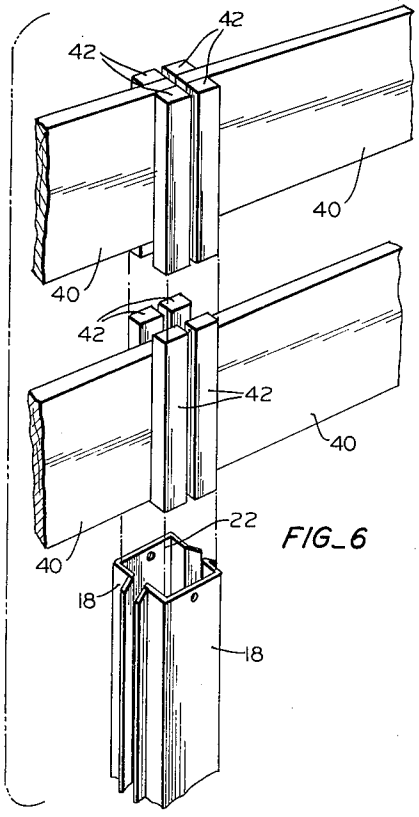


FIG_6

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PORTABLE HIGHWAY BARRICADE

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4 Claims. (Cl. 256—64)

This invention relates in general to improvements in fences, and more particularly, to a highway barricade adapted for quick and easy assembly and disassembly.

It is an object of this invention to provide a self-supporting barricade or fence incorporating provisions for quick and easy assembly and disassembly which give the barricade a high degree of portability while nevertheless assuring it adequate strength and structural rigidity.

It is another object of this invention to provide a barricade of the character described, which is particularly well adapted for use as a highway barricade in the marking of road hazards such as detours, excavations and the like, and which has wide general application where portable barricades or fences are required.

It is yet another object of this invention to provide a barricade of the character described, which is adapted for make-up either as a single unit or as one of a plurality of similar units interlocked to provide a barricade of extended length.

A further object of this invention is to provide a barricade of the character described, which is simple in design and cheap to manufacture as a result of incorporating a number of duplicate parts fabricated from commonly available materials.

Other objects and advantages of this invention will become apparent from the following description when taken in conjunction with the drawings, in which:

FIGURE 1 is a view in perspective illustrating the barricade assembled for use as a single unit;

FIGURE 2 is a view in section taken on the line 2—2 of FIGURE 1;

FIGURE 3 is a view in perspective exploded to illustrate the post assembly details of the barricade unit of FIGURE 1;

FIGURE 4 is a view in perspective of a portion of a typical post assembly of a continuous barricade made up from a plurality of interlocking units;

FIGURE 5 is a view in section taken on the line 5—5 of FIGURE 4;

FIGURE 6 is a view in perspective exploded to illustrate the post assembly details of the barricade unit of FIGURE 4.

Referring now to the drawings, the assembled barricade unit is shown in FIGURE 1 as comprising a pair of parallel spaced apart feet 8 which extend laterally outward in supporting either end of said barricade against side tilting or upset. The feet 8 may be of any suitable material; however, in the interests of economy and ease of installation, wood is preferred. Pairs of triangularly shaped complemental gusset plates 10 are releasably secured by means of nut and bolt assemblies 12 to straddle the respective feet 8 and extend vertically upwardly therefrom. Gusset plates 10 may be conveniently fabricated from relatively light gauge steel and are stiffened by the provision of the inclined inturned flanges 14. At the upper end of each of the gusset plates 10 is provided a horizontally extending outturned flange or lip 16. As thus arranged, the complemental gusset plates 10 form a rigid base structure for the barricade end post assembly. Further, each of the gusset plates 10 is of identical construction which may be economically fabricated as similar stampings.

Pairs of complemental channel members 18 are received at their lower ends in the bases formed by the respective pairs of complemental gusset plates 10. Each of the

channel members 18 is releasably secured at either side by a plurality of similar nut and bolt assemblies 20 which fix the channel member flanges to the adjacent gusset plates 10. In FIGURE 2, channel members 18 are shown disposed in parallel relationship and spaced apart, the channels opening toward each other to form an unbroken rectangular recess 22. At either side of each of the channel members 18 is provided a longitudinally extending outwardly directed flange 24 which is bevelled at its upper end and extends downwardly therefrom to a point immediately above the adjacent gusset plate flange 16. As in the case of the gusset plate 10, each of the channel members 18 is identical and may be fabricated as a single stamping from a suitable light gauge metal such as steel.

Completing each of the barricade post assemblies is a rectangular cap member 26 provided at either side and at front and back with downturned ears 28. The front and back ears are suitably apertured to mate with apertures 30 provided in the upper ends of channel members 18 for receipt of the nut and bolt assembly 32, as illustrated in FIGURE 3, to releasably secure cap member 26 atop said channel members. Cap member 26 serves both as a tie for the complemental pairs of channel members 18 and as spacer means for maintaining such members in parallel spaced apart relationship.

In FIGURES 1 and 3 a pair of spaced apart similarly constructed rail members 36 are shown extending horizontally between the end post assemblies of the barricade. These rails, which may conveniently be made up from wood planks, have fixedly secured to their front and rear faces rectangular stiffener blocks 38 which are horizontally aligned to extend at right angles to the rails and to project slightly beyond an edge margin thereof. As illustrated in FIGURE 2, the rails 36 are typically carried by the end post assemblies with their ends extending between the adjacent post forming channel members 18 for face abutment with longitudinally extending flanges 24. Members 38 are received in tight fitting relation within the recesses 22, being at threee sides contiguous with said channel members and thereby serving to structurally stiffen the barricade. As is apparent from FIGURE 3, members 38 through their projecting ends serve the further function of spacers, maintaining the rails 36 in spaced apart relation.

In FIGURES 4, 5 and 6 is shown a modified embodiment of the invention which incorporates the previously described post assembly and a modified form of rails adapted for the formation of a continuous barricade with said rails serving as structural interlocks. The rails 40, disposed to extend horizontally in spaced relationship, are arranged in end abutting pairs received between complemental channel members 18. The adjacent ends of each of the rail members 40 have fixedly secured to their front and back faces rectangular stiffener members 42, which project beyond a margin thereof. As in the case of members 38 of the FIGURE 1 embodiment, stiffeners 42 function both as spacers for the rails 40 and as structural stiffeners. In FIGURE 5 is shown a typical joint detail with the rail members 40 and their respective pairs of stiffener members 42 in end abutment with the latter members being in relatively tight fitting relation within the recess 22 formed intermediate complemental channel members 18. The rail members 40 may be provided at their opposite ends (not shown) with members arranged in the fashion of members 42 where the rail members are to form an intermediate portion of a continuing barricade, or with the member 38 of the FIGURE 1 embodiment where the barricade is to terminate with such rail members.

As heretofore indicated, a prime advantage, in addition to the adaptability of the post assembly to an intermediate

or end location in a particular barricade, is the portability offered by the invention by its provisions for quick and easy assembly and disassembly. The barricade will generally be transported in knocked-down condition with the rails **36** and/or **40** dissociated from the post assemblies. The post assemblies, however, may be conveniently transported assembled, as shown in FIGURE 1, with the cap member **26** secured in place atop the complemental channel members **18**. Assembly at the desired site of barricade erection is then easily effected by removing the cap member **26** and slidably inserting from the top of the post assembly into the recesses provided therefor, the rail members of the particular configuration desired. After insertion of the rail members, the cap member **26** is positioned atop channel members **18** and secured thereto by the bolt and nut assembly **32**. When thus assembled, it may be noted that the barricade has considerable structural rigidity, gusset plates **10** and stiffener members **38** and/or **40** respectively offering lateral and longitudinal support.

From the above it may be appreciated that the barricade of this invention is suitable for a wide variety of installations where portable barricading or fencing is a requirement. One post assembly is enabled to serve both as an intermediate and a corner support. Thus a minimum of separate shapes is required; three separate stampings, i.e., for the gusset plates **10**, the channel members **18** and the cap member **26**, are all that are required, in addition to the wood footing members **8** and rail members **36** and **40**.

It will, of course, be appreciated that the embodiments of this invention as herein described may be altered, changed or modified without departing from the spirit or scope of the invention as herein claimed.

What is claimed is:

1. A barricade comprising a plurality of rigid rail support structures each of said structures comprising an elongated base, a pair of complemental gusset members secured to said base, a pair of post forming members extending between said gusset members at generally right angles thereto and extending upwardly from said gusset members, said post forming members being spaced apart for reception therebetween of barricade rails and being provided with generally vertical inwardly facing channels, and a plurality of rails extending between said rail support structures each of said rails having opposed faces embraced by said post forming members and stiffener members secured to said faces of said rails and received within said channels.

2. The barricade of claim 1 in which one of said rails extends through one of said rail support structures and the stiffener members on said rail have a width substantially equal to the width of said channels.

3. The barricade of claim 1 in which one of said rails ends within one of said rail support structures and the stiffener members on said rail lie closely adjacent the end of said rail and have a width about one-half of the width of said channels.

4. The barricade of claim 1 in which two of said rails are butted together end to end within one of said rail support structures and stiffener members are provided on the adjacent ends of said rails with the width of each stiffener member being about one-half of the width of said channels.

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