INVENTOR

Raymond R. Daniels

BY

ATTORNEYS
The invention relates to portable metal advertising sign structures designed for outdoor use, and has for its objects to provide certain new and useful improvements in devices of the character.

An important object of the invention is to provide a portable sign structure of the character described which is composed entirely of readily obtainable metal parts, which may be assembled as a composite unitary structure with a minimum of brackets, bolts, nuts, screws, pins, nails or other securing devices. Conversely and by the same token, after it has served its purpose the instant advertising sign structure may be dismantled with a minimum of effort for transportation if desired to another outdoor locality for continued use.

A still further object of the invention is to provide a portable outdoor advertising sign structure which after assembly constitutes a rigid interlocked structure capable of resisting the strains of storms and wind pressures to which it may be subjected, without the parts becoming displaced from one another or from the ground structure, this without the use of auxiliary strain resisting supports such as guy wires or the like, which are usually found necessary in devices of this character.

The invention is further designed for the purpose of supporting downward pushing strains, as well as upward pulling strains, while at the same time permitting the structure to be removed from its ground support by a simple twisting movement in respect to the main support frame standards.

The relative convenience incident to assembling as well as dismantling the sign is further economically advantageous, since the amount of labor required for such purposes is quite materially minimized.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

In said drawings:

Fig. 1 is a front view of the sheet metal sign or panel lock bulletin shown in completely assembled relation.

Fig. 2 is a vertical section on an enlarged scale, taken on line 3 3 of Fig. 1.

Fig. 3 is a similarly enlarged but horizontal sectional view taken on line 3 3 of Fig. 1.

Fig. 4 is a horizontal section on line 4 4 of Fig. 1, enlarged to an extent proportionately less than that of Fig. 5.

Fig. 5 is a detail view in side elevation, partially broken away and partially in vertical section, illustrating one of the support units for the entire demountable and readily assembled sign or bulletin structure.

Fig. 6 is a horizontal detail section taken on line 6 6 of Fig. 5.

Referring to the drawings and with particular reference to Figs. 1, 5 and 6, the sign or bulletin structure includes a plurality of vertical supporting standards 10 which are preferably of angular or L-shape configuration in cross section. The lower end of each of said standards or angle iron 10 is secured as by welding to the outer surface of a relatively short tubular pipe section or cylindrical member 11. This connection if desired may be of a permanent nature with the upper end of the tubular member 11 nesting within and welded to the diverging arms of the angle iron 10.

The upper end of a second pipe section or tubular member 13 of less diameter is slidably received within the lower end of each tubular member 11, and is removably and rigidly secured thereto by means of one or more set screws or threaded bolts 12. Adjacent its lower end, each tubular member 13 is provided with a transversely extending and projecting locking pin 15, designed for insertion into a pair of diametrically opposed recesses 16 provided in a generally disc shaped relatively heavy anchoring block 17, preferably constructed of concrete. Said recesses 16 extend laterally of a central vertical aperture or bore 18 in the block.

This constitutes a well known type of detachable bayonet joint, wherein the parts are assembled by inserting the lower end of tubular or sleeve-like member 13 into the block aperture 18, with opposite ends of locking pin 15 passing downwardly through and in registry with diametrically opposed block recesses 16. Thereafter a twisting of the sleeve relative to the block for substantially 90° locks the sleeve 13 to the block.

A second transverse pin 19 rests on the upper surface of the anchoring block 17 and is disposed in spaced parallel relation to the pin 15.

In assembling the sign or panel bulletin at the desired outdoor site, each of the concrete anchoring blocks 17 is detachably connected as described to the lower end of a tubular pipe section 13, and the block is then suitably embedded in the earth well below the ground level, as illustrated, to afford a firm support for the sign structure. This procedure is followed for each anchoring block 17 employed in the assembly, and the number of which of course is dependent upon the size or longitudinal dimension of the panel bulletin being erected.

The lower ends of the sleeve or coupling members 11 having the vertical standards or angle iron 10 welded thereto, are then removably secured as described to the upper ends of the tubular elements 13 by means of the set screws or bolts 12.

As best seen in Fig. 2, a top horizontal framework stringer in the form of an angle iron 20 having horizontally spaced apertures in the vertical legs thereof, is removably secured to the upper apertured ends of the vertical standards 10 by means of bolts 21 extending through said apertures, and having threaded nuts 22 thereon for rigidly connecting said vertical and horizontal angle iron elements 10 and 20. Similarly a pair of stringer members in the form of horizontal angle iron 23, having spaced apertures in the vertical legs thereof, are removably secured to similarly apertured intermediate portions of the vertical standards 10 by means of threaded bolts 24 extending through said apertures, and having nuts 25 for rigidly connecting said angle iron members 10 and 23 to reinforce and rigidly the framework structure.

A plurality of spaced vertically disposed sign panel supporting and securing members, in the form of angle iron 26 are each provided at its upper end and also intermediate its ends with a fixed rearwardly extending hook member or dog 27 permanently attached to said angle iron as by a welded connection 28, as best seen in Fig. 3. The depending leg extension 27a of each dog 27 is spaced from its associated vertical angle iron support 26, a distance substantially equal to the width of the horizontal angle iron 23 (Fig. 2), so that the vertically disposed angle iron 26 may be hooked over and freely...
depend from horizontal angle irons 23 in any desired horizontally spaced relation along the longitudinal extent of the latter.

Referring again to Figs. 1 and 2, a hollow sheet metal molding 30, which may be formed in separate or detachable telescoping sections if desired, is designed to extend completely around the described top and opposite ends of the sign or panel bulletin. Said molding terminates at its top edge in a depending flange 31 designed to be removably clamped between adjacent legs of the vertical angle irons 10 and horizontal angle iron stringer 20, by the aforesaid nuts 22 and bolts 21 when said angle irons are removably secured together as above described. The opposite freely depending lower portion of the substantially hollow sheet metal molding 30 terminates in an upwardly and rearwardly extending inclined flange 32 for a purpose to be described.

A lower or bottom substantially box-like molding or apron member 40 is provided, and as in the instance of the top and side molding member 30, is also preferably constructed of sheet metal. As best illustrated in Figs. 1 and 2, the apron member 40 includes a front vertical panel section 41 which may be integrally inwardly and horizontally recessed as at 42 intermediate its vertical extent. At its upper end the apron includes a rearwardly extending horizontal portion 43 terminating in a vertical flange extension 44. The lower end of the apron terminates in a rearwardly projecting horizontal flange 45 also extending substantially throughout the longitudinal extent of the apron.

In the illustrated embodiment of the invention as shown in Fig. 2, certain or all of the vertical angle iron frame standards 10 are designed to have secured to each thereof as at 46, a forwardly projecting U-shaped bracket member which may be of rod-like construction and including a substantially straight vertically extending front portion 47. One or more tension springs 49 are provided, each of which is detachably attached at 48 to vertically spaced portions of said standards 10. The opposite ends of said springs are removably attached as at 50 to vertically spaced portions of the sheet metal apron member 41, to the end that tension of said springs pulls the apron 40 rearwardly into abutting engagement with space locations on the forward bracket member portions 47. In this manner the apron is removably secured against displacement to the remaining structure of the sign as hereinabove described.

When so assembled the rear flange 44 of apron 40 bears against the vertical flange of a lower horizontally extending angle iron 23a which is removably secured as by bolts 27b to the apron 40. The lower ends of the angle irons 26 are each provided with a rearwardly extending dog 27c, the depending tail portion 27d of which is removably hooked over the horizontal angle iron 23a as best seen in Fig. 2.

The panel sign bulletin proper comprises a series or plurality of substantially similar members 33, preferably constructed of sheet metal, which are shaped to movably lock with one another and with the heretofore described supporting framework in closely juxtaposed position, as illustrated in Figs. 1 and 2. To this end each panel member 33 includes a central or intermediate flat front wall portion extending from top to bottom of the sign. Said front wall portion of each panel member 33, at opposite sides thereof throughout its vertical extent, extends rearwardly extending vertical flange portions 34 terminating in angularly and outwardly bent flange extensions 35, in turn also extending throughout the vertical extent of each sheet metal panel member 33.

By virtue of the above described construction, it will be seen that the said sign panel members 33 may be assembled in position on the supporting framework by slidably telescoping the opposite angularly bent ends thereof over the respective legs of the vertically disposed freely depending angle iron support members 26 (Fig. 3). This may be readily accomplished due to the relative mobility of the respective parts to provide a substantially continuous flat sign panel bulletin assembly, wherein the side edges of the panel members 33 are disposed in substantially abutting relation at the spaced localities indicated at 36 in Figs. 1 and 3 of the drawings.

Also when assembled as described and as best viewed in Fig. 2, a frontally and downwardly inclined top horizontal terminal flange 33 extending throughout the length of each panel member 33, is removably interlocked with and lies flatly against the upwardly and rearwardly inclined horizontal terminal flange 32 of the top horizontal portion of the aforesaid molding member 30. When so assembled the lower end of the sheet metal composite bulletin members 33 rest upon the horizontal portion 43 of the apron 40 and frictionally abut against the rearwardly disposed terminal flange 44 thereof.

Apart from this frictional and yieldable connection which may be displaced when desired due to the inherent flexibility of the sheet metal parts, there is no secure connection between the panel members 33 and molding 30 at this locality. Nevertheless it will be observed that a positive frictional connection is thus afforded which is locked against other than intentional displacement.

As best seen in Fig. 4, the opposite vertically disposed portions of the aforesaid angle irons 23b and 23c of the sheet metal molding 30, which latter surrounds three sides of the assembled panel bulletin structure, are each provided with a vertical terminal flange extension 37. Said extension, as in the instance of the terminal flange 35 of the panel bulletin 33, telescopes over the adjacent leg of the associated freely depending angle iron 26 at opposite ends of the assembled sign structure.

When the parts are assembled as described, it will be further apparent that the relatively free and demountable connection therebetween with a minimum of bolts or securing elements results in a substantially rigid composite structure wherein the removably connected parts are held against inadvertent or accidental displacement, resulting from the strains induced by wind pressure.

From the foregoing it will be apparent that the instant readily assembled and quickly demountable sign or panel lock bulletin assembly of substantially rigid metal or sheet metal material, may be economically manufactured due to its relatively inexpensive construction and minimum number of parts. Any desirable informative indicia is affixed to or carried by the panel bulletin members 33, which are firmly interlocked in their proper relation to the vertically disposed horizontally sidewardly secondary angle irons 26, having the hooks or dogs 27 sufficiently affixed to their upper ends.

Also it will be observed that the entire sign structure is proximately or remotely supported by the main vertically disposed standards or angle irons 10, which in turn are removably carried by the coupling sleeve 11 and tubular base member 13.

When it is desired to dismantle the instant improved portable metal sign structure for transportation to another locality, the parts may be separated from one another with a minimum of effort from the upright standards 10. The latter are next removed from the tubular member 13 by loosening the bolts 12. In the event said standards 10 and coupling 11 are of one piece welded construction as herein contemplated, the same may be removed from the tubular members 13 by loosening the aforesaid bolts 12. Each individual members 13 are finally removed from the embedded concrete anchoring blocks 17 by merely twisting said members on their longitudinal axes to disconnect the above described bayonet joint connection 15, 16, 18, 19. The concrete anchoring block 17, being of relatively inexpensive and readily replaceable construction, may if desired be left in the ground.

From the foregoing description it will be further app-
parent that by virtue of the instant improved construction the entire exposed front face of the metal sign structure, including the panels on which the advertising matter appears, is completely free of undesirable projecting bolts, nuts or other securing devices, thereby enhancing the ornamental appearance and attractiveness of the erected structure.

It was thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

What is claimed is:

1. A demountable outdoor advertising sign, comprising a plurality of vertical standards disposed in horizontally spaced relation, a plurality of horizontal stringer members extending between and removably secured to said standards in vertically spaced relation, a plurality of vertically disposed horizontally spaced angle iron supports having rearwardly extending diverging faces thereon slidably mounted on one of said stringer members in freely depending relation, and a plurality of substantially flat sheet metal panel members disposed in side by side abutting relation forwardly of said slidably mounted angle iron supports, each panel member having at its opposite end edges in rearwardly and inwardly inclined vertical flanges respectively interlocked with the rearwardly diverging faces of an adjacent pair of said slidably mounted angle iron supports, the slideable mounting said angle iron supports on said horizontal stringer member facilitating the interlocking and disengagement of said panel members therewith without the use of separate securing devices.

2. A demountable outdoor advertising sign, comprising a plurality of vertical standards disposed in horizontally spaced relation, a plurality of horizontal stringer members extending between and removably secured to said standards, a plurality of vertically disposed horizontally spaced angle iron supports having rearwardly extending diverging faces thereon slidably mounted on one of said stringer members in freely depending relation, the upper end of each angle iron support having a rearwardly extending hook portion engaged over said horizontal stringer member for free lateral sliding movement of said support thereon, and a plurality of substantially flat sheet metal panel members disposed in side by side abutting relation forwardly of said slidably mounted angle iron supports, each panel member terminating at its opposite side edges in rearwardly and inwardly inclined vertical flanges respectively interlocked with adjacent rearwardly diverging faces of said slidably mounted angle iron supports, the slideable mounting of said angle iron supports on said horizontal stringer member facilitating the interlocking and disengagement of said panel members therewith without the use of auxiliary securing devices.

3. A demountable outdoor advertising sign, comprising a plurality of vertical standards disposed in horizontally spaced relation, a plurality of horizontal stringer members extending between and removably secured to said standards, a plurality of vertically disposed horizontally spaced angle iron supports having rearwardly extending diverging faces thereon slidably mounted on one of said stringer members in freely depending relation, a plurality of substantially flat sheet metal panel members disposed in side by side abutting relation forwardly of said slidably mounted angle iron supports, each panel member terminating at its opposite side edges in rearwardly and inwardly inclined vertical flanges respectively interlocked with one of said stringer members, the slideable mounting of said angle iron supports on said horizontal stringer member facilitating the interlocking and disengagement of said panel members therewith without the use of auxiliary securing devices.

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