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PORTABLE COLLAPSIBLE AND CHANGEABLE
SIGN

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2 Claims. (Cl. 40—125)

This invention relates to a novel collapsible and changeable portable safety sign which is devised for use on streets, highways, parking lots, navigable waters, and elsewhere where temporary postings of warnings, traffic diversions, and changes of route are necessary or desirable in the interest of passenger and vehicle traffic.

The primary object of the invention is the provision of devices of the kind indicated which are made of lightweight, preferably non-metallic materials, to the end that collisions therewith by vehicles are deprived of injurious effects to vehicles and passengers, in contrast to the highly injurious character of heavy metal devices of this kind.

Another object of the invention is the provision of simple, efficient, and relatively inexpensive devices of the character indicated above, which, because of their lightweight and collapsibility, are readily and conveniently portable to and are easily and quickly set up, at the sites of their use.

A further object of the invention is the provision of devices of the character indicated above, which are composed of hollow bases which are adapted to be temporarily weighted, for stability on a surface, with fluids, such as water or sand, and standards which are removably engaged in the bases, and which are composed of separable sections which can be used in desired numbers for desired heights.

A still further object of the invention is the provision of devices of the character indicated above, wherein the standards are apertured for the passage of air there-through, so that the standards offer minimal wind-resistance, and are thereby capable of standing in winds which would topple conventional signs.

Yet another object of the invention is the provision of devices of the character indicated above, wherein the standard sections are provided with openings in which are adapted to be removably engaged prongs or hooks on the upper ends of interchangeable sign-forming letter or symbol plates, the plates being overbalanced in pendant positions, against the standard sections so as to resist displacement, relative to the sections, by such as the impact of wind thereon.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein, for purposes of illustration only, a specific form of the invention is set forth in detail.

In the drawings:

FIGURE 1 is a perspective view of a sign of the present invention;

FIGURE 2 is an enlarged fragmentary vertical transverse section taken on the line 2—2 of FIGURE 1, showing a symbol plate in place and a symbol plate removed from the sign standard;

FIGURE 3 is an enlarged vertical transverse section taken on the line 3—3 of FIGURE 1;

FIGURE 4 is a transverse vertical section taken on the line 4—4 of FIGURE 3;

FIGURE 5 is an enlarged vertical transverse section taken on the line 5—5 of FIGURE 1;

FIGURE 6 is a fragmentary exploded perspective view showing two separated sections of the standard; and,

FIGURE 7 is a side elevation of another form of sign of the invention wherein the base is a buoy to float in water.

Referring in detail to the drawings, wherein like and

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related numerals designate like and related parts throughout the several views, and first to FIGURES 1 to 6, the sign shown therein and generally designated 10, comprises a base 12, a sectional standard 14, and removable symbol plates 16, mounted on the standard.

The base 12 comprises an elongated rectangular hollow non-metallic body 18, of wedge cross sections, having a narrow top wall 20, a wide bottom wall 22, and upwardly convergent side walls 24, and end walls 26. At spaced intervals therealong the top wall 20 is formed with preferably circular holes or openings 28 in which are plug-fitted, removable filling and emptying plugs 30, through which is adapted to be introduced and removed suitable weighting and stabilizing fluid, such as water or sand, which serves to hold the base 12 in place on a surface, such as a highway or street pavement. The bottom wall 22 is formed, on its underside, with non-skid ribs 32.

At its middle, the base 12 is formed, as indicated in FIGURES 3 and 4, with a standard receiving seat, or socket which comprises a rectangular opening 34, in the top wall 20, which at opposite sides thereof includes longitudinal notches 36 in the side walls 24. In line with the opening 34, the base 12 is provided with interior reinforcing blocks 38 which extend inwardly from the side walls 24 and downwardly to the bottom wall 22, from the bottoms 40 of the notches 36. The blocks 38 have perpendicular inward sides 42 which are spaced from each other crosswise of the base 12 and are formed with longitudinal horizontal grooves 44, on whose bottoms 46 are affixed, as indicated at 48, upstanding spring latch fingers 50. The latch fingers 50 have laterally inwardly bowed portions 52 on their upper ends. An inverted hollow, semi-cylindrical horizontal conduit 54 is formed on and extends between the lower parts of the blocks 38 and extends longitudinally of the base 12, and serves to provide uninterrupted fluid communication between the portions of the interior of the base 12, at opposite sides of the blocks 38.

The sectional standard 14 is composed of a tubular lower section 56, and any desired number of tubular upper sections 58. The lower section 56 has an upper end wall 60 which is formed with a pair of laterally spaced parallel rectangular slots 62, which open to the upper ends of rectangular sockets 64 which are formed in a block 66 which is fixed to and extends inwardly from the end wall 60, for the reception of parallel rectangular connector tongues 68 which extend downwardly from the lower end of any upper standard section 58.

On the lower end of the lower section 56 is formed a flat rectangular plate 70, of the dimensions of the opening 34 in the base top wall 20, including the side wall notches 36, and adapted to seat therein, as shown in FIGURES 3 and 4. Extending downwardly from the plate 70 is a pair of longitudinally extending pendant parallel spaced tongues 72 which are engaged downwardly between recesses formed by opposite sides of the conduit 54 with the inward sides 42 of the reinforcing blocks 38, to positions wherein the bowed portions 52 of the latch fingers 50 frictionally and retainably engage the outer sides of the tongues 72. As shown in FIGURE 4, upstanding walls 74, on the ends of the conduit 54, reach to the base top wall 20 and extend across the interior of the base 12, at opposite ends of the top wall opening 34, and are engaged by related ends of the standard plate 70. The base top wall 20 is provided, at opposite ends of the opening 34, with upstanding longitudinal loop handles 76, for carrying and positioning the base 12.

Each of the upper standard sections 58 is provided at one end, with connecting tongues 68, and at its other end, with slots 62 and sockets 64, so that any of the upper sections can be assembled to the lower section 56,

and so that additional upper sections 58 can be assembled to an upper section.

The standard sections have similar cylindrical side walls 78 which are similarly formed with longitudinally and circumferentially spaced air-passing holes 80, which substantially reduce the toppling effect of strong winds by enabling air striking the sections to pass onto and through the sections, without imposing their full force upon the sections.

The section side walls are further formed, at vertically spaced intervals, and preferably in vertical alignment, with pairs of vertically spaced horizontal slots 82, for receiving pairs of vertically spaced downwardly curved hooks 84 of symbol plates 16.

The symbol plates 16 are vertically elongated and preferably rectangular, and one of substantial cross section, to endow the same with substantial stabilizing weight, and preferably have luminous or light reflecting outer surfaces 17. The hooks 84 are located at and extend laterally inwardly from the plates 16, at the upper ends of the plates, so that when the hooks 84 are engaged through the slots 82, the weight and the centers of gravity of the plates, keeps the plates close to or against the outer sides of the section sidewalls 78, despite impingement of wind thereon.

As shown in FIGURE 1, the symbol plates 16 are preferably formed in the shapes of letters to form words, reading downwardly from the upper end of the standard 14, which convey the desired safety warning or information.

In use and operation, the base 12 is first filled with weighting and stabilizing fluid, and then placed lengthwise, as on a traffic dividing line or strip 88 of a roadway. The lower standard section 56 is then put in place in the base opening 34, and one or more upper standard sections 58 mounted on the lower standard 56. Symbol plates 16 are then mounted on the standard sections, whereat the device is ready for service. When the device is to be transferred to another site or to storage, the symbol plates 16 are removed from the standard 14, the standard sections separated, the lower standard section 56 removed from the base 12, and the base emptied of weighting fluid, through the top wall openings 28, and the plugs 30 replaced in the openings. The components of the device can then be compactly packaged and easily and conveniently carried by a workman.

In the event the device is to be used for safety marking of a body of water W, as shown in FIGURE 7, the base 12 is replaced by a suitable float 12^a, such as an anchored buoy, and the standard 14^a mounted on the buoy, in the manner described hereinabove.

Although there have been shown and described herein preferred forms of the invention, it is to be understood that the invention is not necessarily confined thereto, and that any change or changes in the structure of and in the relative arrangements of components thereof are contemplated as being within the scope of the invention as defined by the claims appended hereto.

What is claimed is:

1. In a portable sign, an elongated closed hollow base

having a top wall, the space of said base forming a closed chamber, a socket in the mid-portion of said base and opening out of said top wall, said socket being out of communication with said closed chamber, there being a plurality of holes arranged in spaced relation in said top wall and located on each side of said socket and each in communication with said chamber, a removable filling and emptying plug closing each hole, a weighting material disposed in said chamber and insertable through and withdrawable from each of said holes when the adjacent plug is removed therefrom, a sign-supporting standard, and a flat plate conformably shaped to engage in said socket and surrounding and fixedly carried by the lower end of said standard, said standard being disposed so that it extends in a perpendicular direction with respect to said base with said plate engaging said socket.

2. In a portable sign, an elongated closed hollow base having a top wall, the space of said base forming a closed chamber, a socket in the mid-portion of said base and opening out of said top wall, said socket being out of communication with said chamber and including an opening formed in said top wall and notches formed in said base on opposite sides of said opening, and spaced recesses formed in said base below and in registry with said notches and out of communication with said chamber, there being a plurality of holes arranged in spaced relation in said top wall and located on each side of said socket and each in communication with said chamber, a removable filling and emptying plug closing each hole, a weighting material disposed in said chamber and insertable through and withdrawable from each of said holes when the adjacent plug is removed therefrom, a sign-supporting standard, a flat plate conformably shaped to engage in said top wall opening and surrounding and fixedly carried by the lower end of said standard, and spaced tongues depending from said plate, said standard being disposed so that it extends in a perpendicular direction with respect to said base with said plate engaging the top wall opening and said tongues releasably engaging said notches and recesses.

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