This invention relates to a stadium bench cover and, more particularly, to a unitary device adapted to be installed over the usual wooden plant-like benches found in stadiums.

Uniformly, stadium seats or benches have been constructed of wood. Wood is known to be subject to atmospheric and climatic deterioration. The rate and degree of deterioration depend on a number of factors: location of the seat relative to prevailing winds and sunlight, age of wood, character of wood, location of securing screws or bolts, etc. Thus, adjacent seats may differ substantially in the degree of deterioration. This makes any replacement program difficult to implement. Further, the deterioration may not only result in splinters which could be uncomfortable and injurious, but the extent of weakening may be such that an entire seat could collapse with major injury to the audience.

All of these problems are avoided by the instant invention and in a manner consistent with economical and efficient installation. The instant invention makes use of a unique cover adapted to be installed in substantially covering relation to existing wooden benches and with a minimum of labor involved. The provision of such a cover constitutes an important feature of the invention.

The invention includes a unitary body having a depending perimetric flange, the body and flange being sized to substantially envelop the existing wooden bench or seat. Further, the invention includes flexible straps, optimally of metal, which are adapted to be cinched and clamped to provide a sturdy, substantially rigid cover. In the course of installation, the cover which is advantageously constructed of resilient plastic material, flexes to achieve a unique and advantageous tensioning of the straps which results in a firm grip on the supportive bench to prevent further deterioration. The provision of this advantageous operation is a stadium bench cover constitutes an additional object of the invention.

Other objects and advantages of the invention may be seen in the details of construction and operation set down in this specification. The invention is explained in conjunction with an illustrative accompanying drawing, in which—

FIG. 1 is a front elevation view (in fragmentary form) of a stadium bench with the inventive cover positioned thereon—in the condition preceding installation;

FIG. 2 is a fragmentary front elevation view of a cover-equipped stadium bench and utilizing teachings of this invention;

FIG. 3 is an enlarged sectional view such as would be seen along the sight line 3—3 applied to FIG. 2;

FIG. 4 is an enlarged fragmentary sectional view of the cover-equipped bench prior to the time the straps are clamped together, i.e., in an intermediate stage of installation; and

FIG. 5 is a fragmentary sectional view taken along the sight line 5—5 applied to FIG. 4.

The numeral 10 designates a stadium bench which is an elongated plank-like wooden member equipped with depending angle clips 11 for securing to a supporting frame or structure (not shown). In the case of a concrete stadium, bolts are installed through the apertures 11a in the clips 11 to provide the securement. The actual arrangement of mounting of the bench does not constitute an important feature of the invention and, thus, is not described in detail.

The numeral 12 in FIGS. 1 and 2 designates generally the inventive cover which as can be seen from FIG. 3 includes a generally flat top or body portion 13 and which further is equipped with a depending integral perimetric skirt or flange 14. At spaced distances along the length of the cover 12, transverse strap 15 are provided which, prior to having the ends 15a thereof clamped by means of a clamp or fastener 16, depend in the fashion seen in FIG. 4.

As will be brought out in greater detail hereinafter, the straps 15 are embedded within the body 13, but additional reinforcement for the mounting of the straps may be provided by a woven glass mesh as at 17 (see, particularly, FIGS. 4 and 5). Further identified in the drawing as a supplemental outer layer (as contrasted to the inner layer of woven glass fabric 17) is the layer 18 which is a pigmented layer and which serves in conjunction with the clip or clamp 16 to magnetically or chemically protect the cover 12 against solar deterioration.

It is believed that the invention will be better understood by a consideration of the following specific examples:

Example

In the manufacture of the cover 12, a mold is provided with a release surface and into the mold cavity which is constituted essentially with the outer, upper dimensions of the cover 12, a layer of polyester resin was sprayed. For this purpose, Pittsburgh No. 5180 polyester resin was employed which had incorporated therein a minor quantity of opaque pigment, i.e., paint. A small amount of methyl methacrylate was added as a catalyst after which additional layers of polyester resin (unpigmented) were sprayed onto the original layer. The original layer was laid down to a thickness of about 0.015 inch and the supplemental layers each included in minor proportion of glass fibers of Owens-Corning manufacture. Excellent results are obtained with one part fibers to three parts resin. In FIG. 4, for example, the layer 18 contains no fibers, while the relatively thicker portion 19 contained the above-mentioned one part fibers to three parts resin, along with the methyl methacrylate catalyst.

During the course of applying the fiber-equipped resin, the straps 15 were embedded between adjacent resin layers and overlaid with the woven cloth 17. Finally, additional layers as at 19a were added (see FIG. 4). Thereafter, the layers were allowed to solidify under pressure to the form seen in the drawing.

In operation, the covers normally were provided of a width of 115/8”, a depth of 23/4” and a length of 12”. The over-all thickness of the body 13 was about ½” and strapping suitably sized but of a gauge of about 22 gauge was employed for the straps 15. When the inventive cover 12 was installed over a stadium seat, the strap ends 15a were brought together under tension in a conventional bale clamping device and the clip or clamp 16 installed. This operation resulted in a slight flexure of the body 13 causing it to bow when the straps were tensioned. Thereafter, removal of the clamping machine permitted the cover 12 to relax somewhat causing the straps 15 to tightly grip the bench 10. Thus, the cover was advantageously immobilized against shifting in use and the depending slightly flared skirt or flange 14, which is advantageously tapered as at 14a resulted in substantial elimination of moisture getting under the cover and into contact with the bench 10 to deteriorate the same. The skirt 14, being in contact with the base 18 of the cover itself against solar deterioration and the polyester resin was effective against atmospheric deterioration so that the top and outer surfaces of the cover 12 re-
mained smooth throughout operation. The underside of the cover 12 was relatively rough (in comparison with the top pigmented side) because of the presence of the glass fibers and this was further advantageous in immobilizing the bench cover in place.

While in the foregoing specification, a detailed description of an embodiment of the invention has been set down for the purpose of explanation, many variations in the details herein given may be made by those skilled in the art without departing from the spirit and scope of the invention.

1. A stadium bench cover comprising a generally rectangular body constructed of plastic relatively resilient when compared to a wooden stadium bench, said body having an integral depending perimetric flange, a plurality of flexible straps mounted on the underside of said body and extending transversely the length thereof, said straps being equipped with free ends, and clamp means operably associated with said strap ends for coupling the same in clamping engagement with a stadium bench said body being constructed of a polyester resin having glass fibers embedded therein, said body having as an upper surface a layer of plastic substantially impervious to solar deterioration.

2. The structure of claim 1 in which said straps are embedded in said polyester resin body, and a woven cloth overlying and confining intermediate portions of said straps.

3. The structure of claim 1 in which said body is covered by an additional layer of polyester resin having a pigment incorporated therein and free of glass fibers.

4. In combination, generally rectangular wooden stadium bench, a cover for said bench comprising a generally rectangular body constructed of plastic relatively resilient compared to a wooden stadium bench, said body having an integral depending perimetric flange, a plurality of flexible sheet metal straps mounted on the underside of said body and extending transversely the length thereof, said straps being equipped with free ends, and being intermittently embedded in said plastic body, said plastic body having incorporated therein glass fibers in the areas thereof embedding said straps, said straps being capable of flexing said body during tensioning of said straps incident to securing the same, clamp means operably associated with said strap ends for coupling the same in clamping engagement with the stadium bench, whereby said body engages said bench in substantially immobile relation.

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