Aug. 16, 1966 J. W. KRUISSINK 3,266,545

STADIUM BENCH COVER

Filed April 28, 1965

FIG. 1

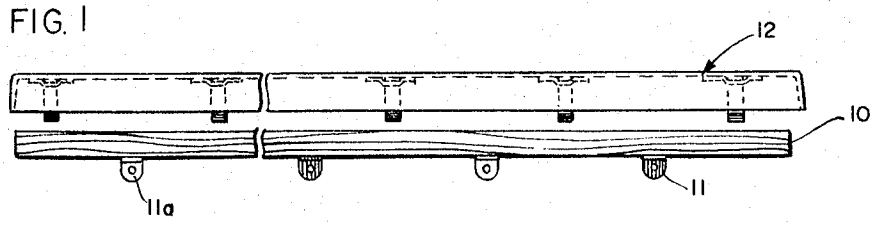


FIG. 2

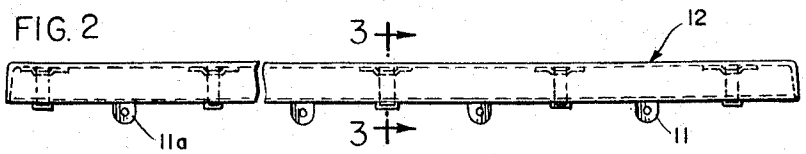


FIG. 3

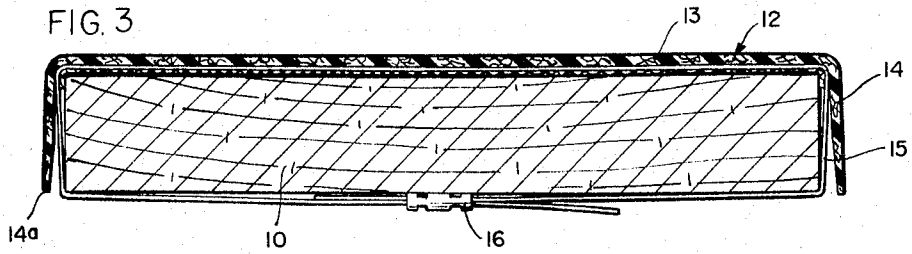


FIG. 4

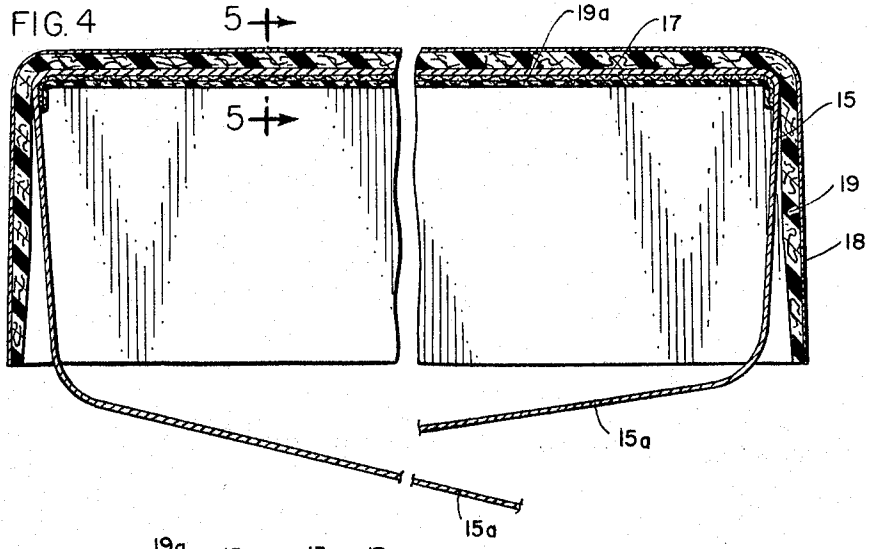
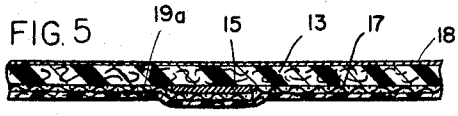


FIG. 5



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STADIUM BENCH COVER

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

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 invented cover 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 elevational view (in fragmentary form) of a stadium bench with the inventive cover positioned thereabove—in the condition preceding installation;

FIG. 2 is a fragmentary front elevational 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.

In the illustration given and with particular reference to FIG. 1, the numeral **10** designates a stadium bench which is an elongated plank-like wooden member equipped with depending angle clips **11** for securement to a supporting frame or structure (not shown). In the case of a concrete stadium, bolts are installed through the apertures **11***a* 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 **15***a* 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 to advantageously 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 conformed 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 methylethylketone 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 methylethylketone 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 **19***a* 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 11⅞", a depth of 2¾" and a length of 12'. The over-all thickness of the body **13** was about ⅛" 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 **15***a* 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 **14***a* resulted in substantial elimination of moisture getting under the cover and into contact with the bench **10** to deteriorate the same. The provision of the relatively thin outer coat **18** protected 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.

I claim:

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 intermediately 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.

5. A stadium bench cover, comprising a generally rectangular body constructed of a polyester resin having glass fibers embedded therein so as to provide a sturdy, substantially rigid cover but one which is 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.

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