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(51) INT CL<sup>5</sup>

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A6D D39X

(56) Documents cited

US 4399954 A

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UK CL (Edition L) A6D D37X1 D39X

INT CL<sup>5</sup> A63C

(54) Event complex

(57) The invention relates to an event complex (1) such as a sports field (2) and a stand (3) for spectators and is adaptable such that it can be rapidly converted from a sports field stadium for football, rugby, baseball and/or American football into an event complex which can be used for a sport with another surface or for another event. To this end the event complex (1) according to the invention has the characteristic that the sports field (2) is displaceable relative to the stand (3) between a spectating position (2a) and a stowed position (2b).

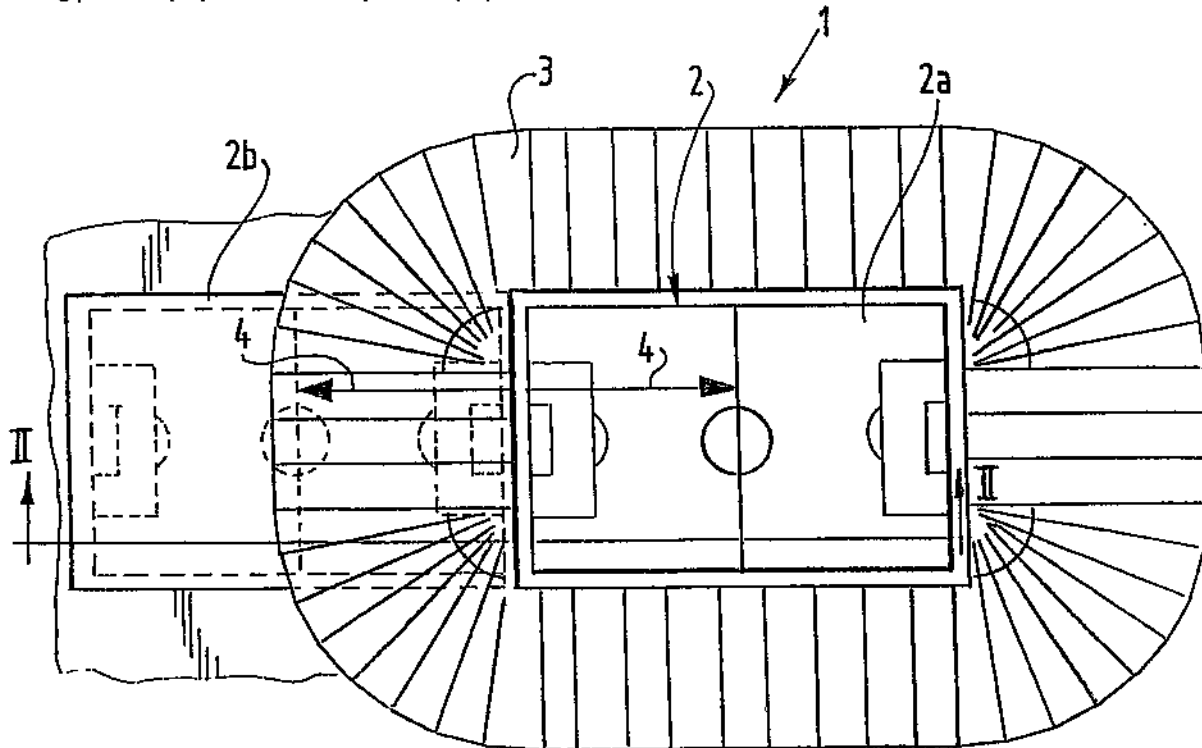


FIG. 1

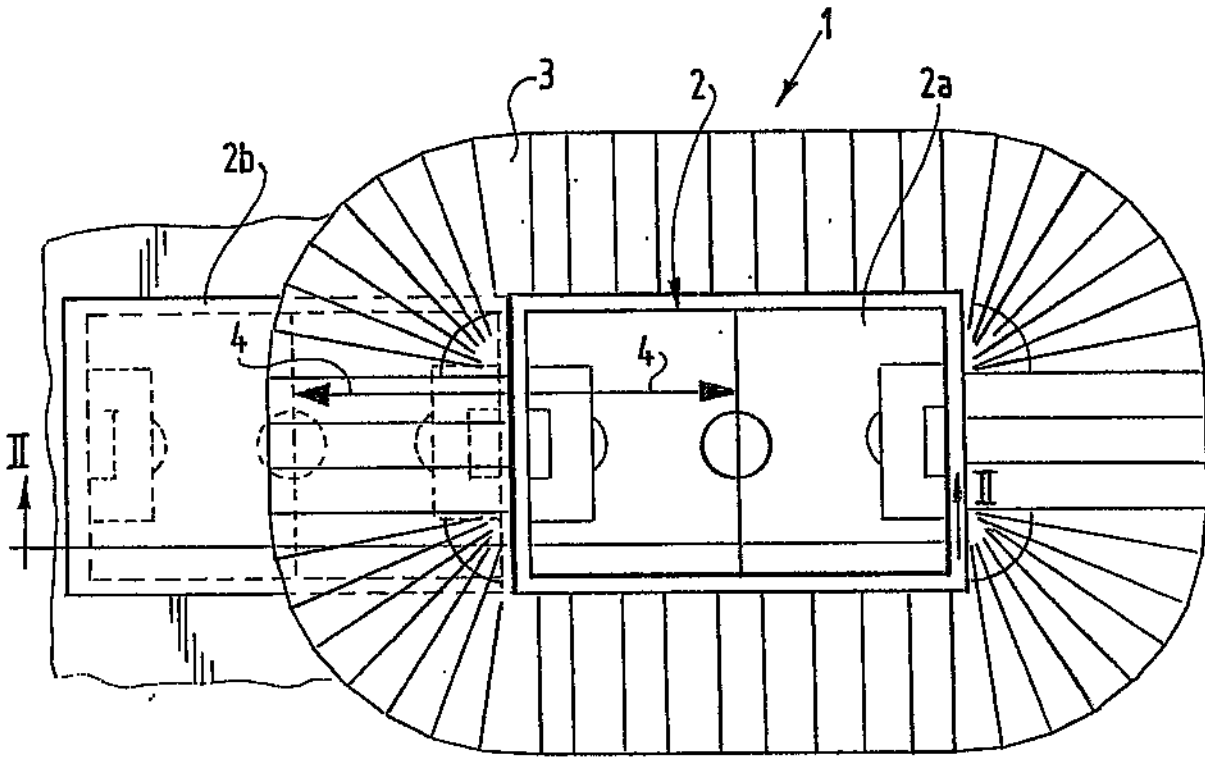


FIG. 1

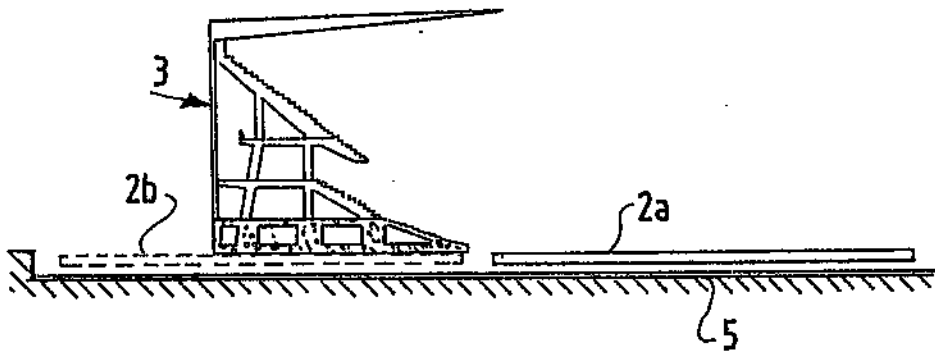


FIG. 2

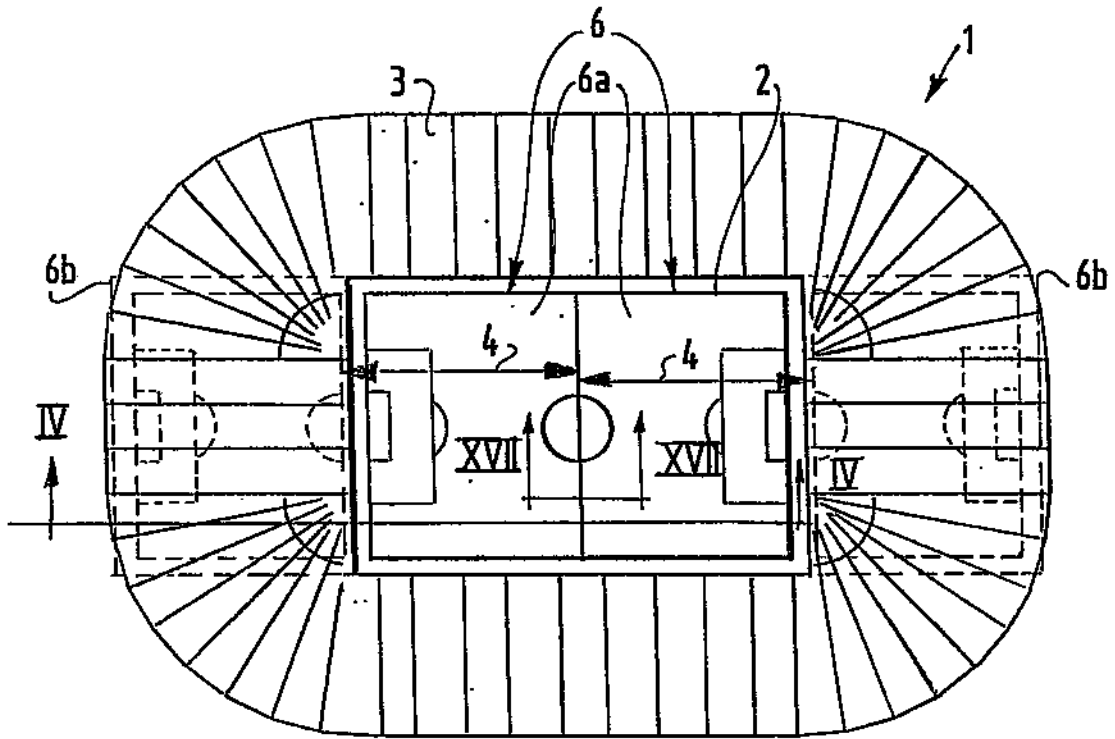


FIG. 3

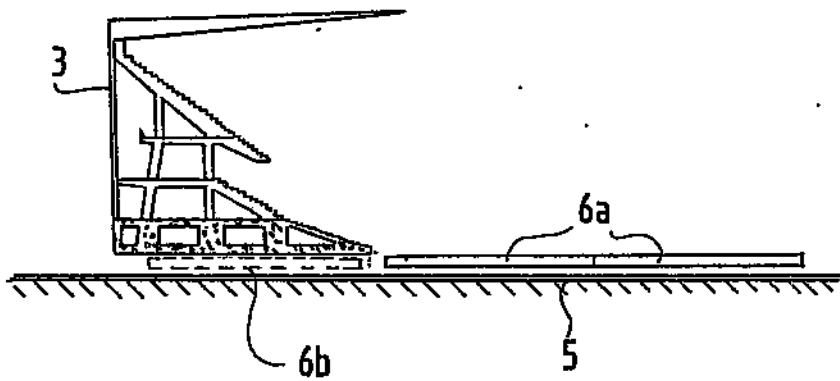


FIG. 4

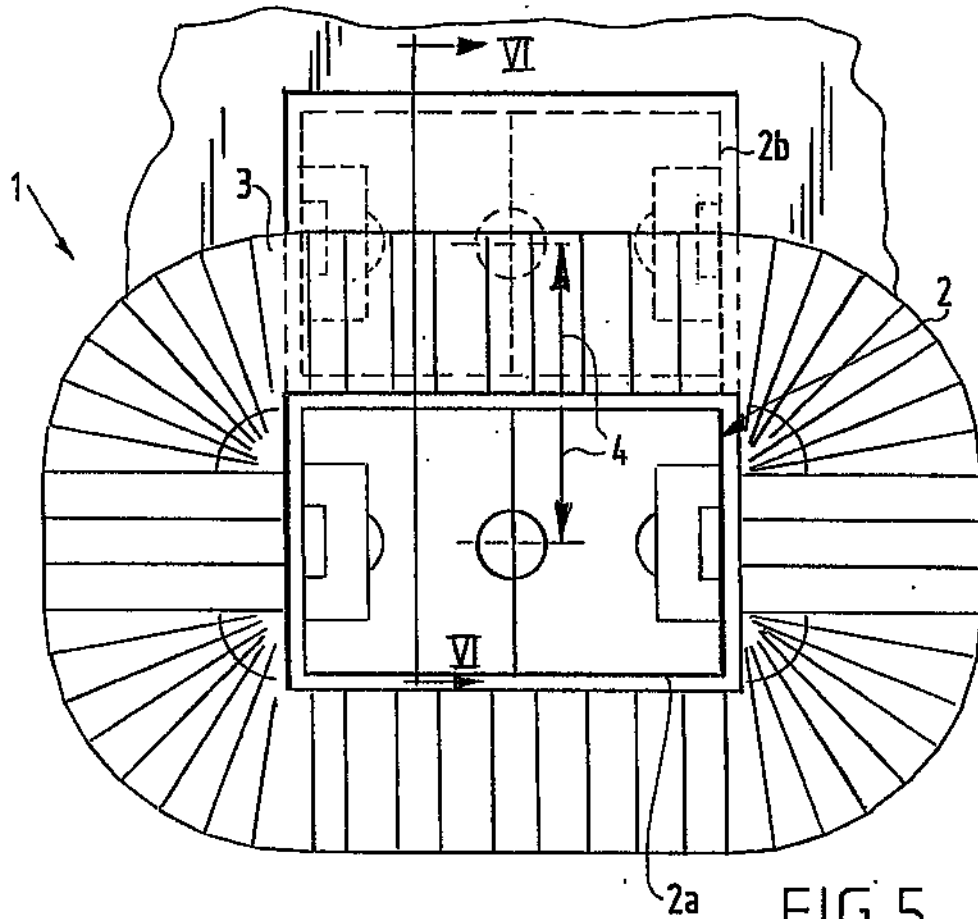


FIG. 5

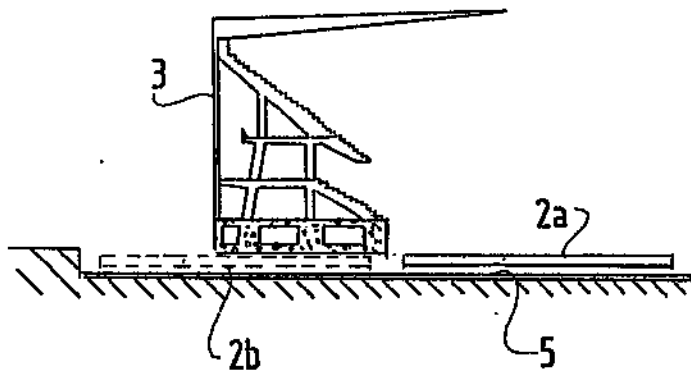


FIG. 6

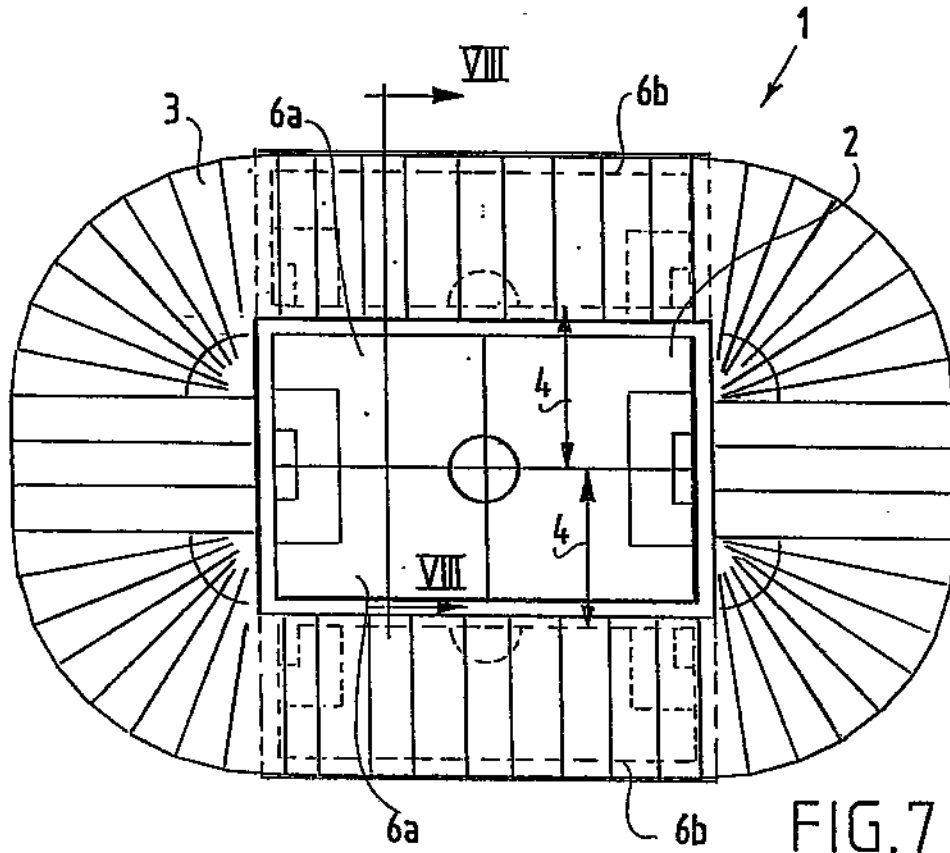


FIG. 7

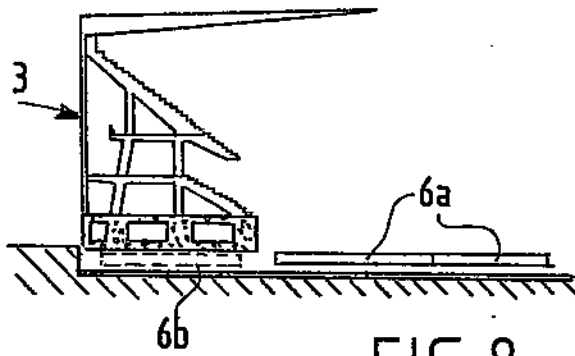


FIG. 8

FIG.10

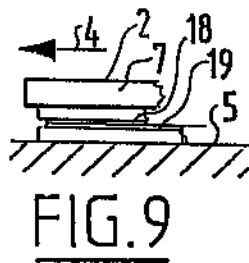
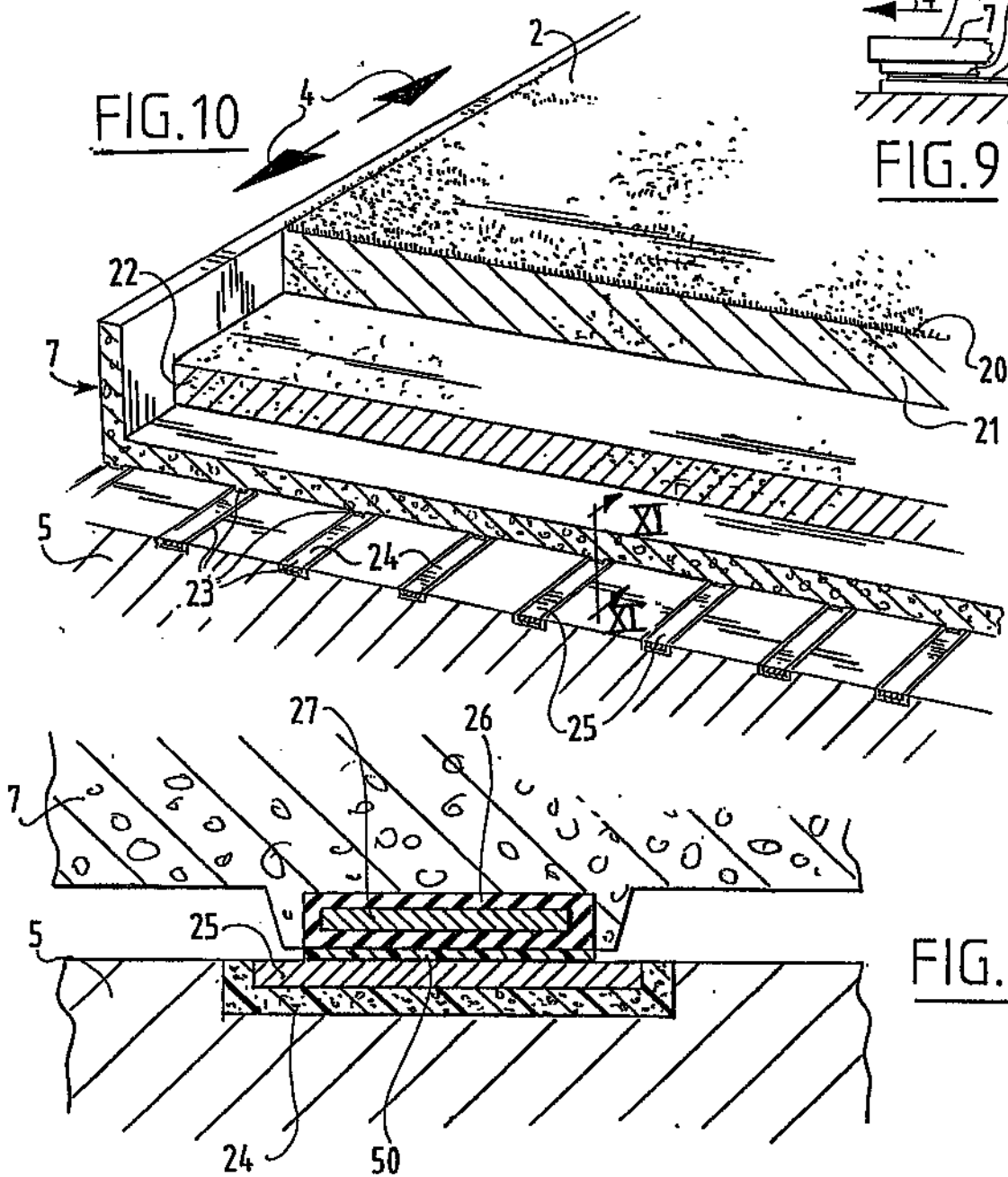


FIG.9

FIG.11

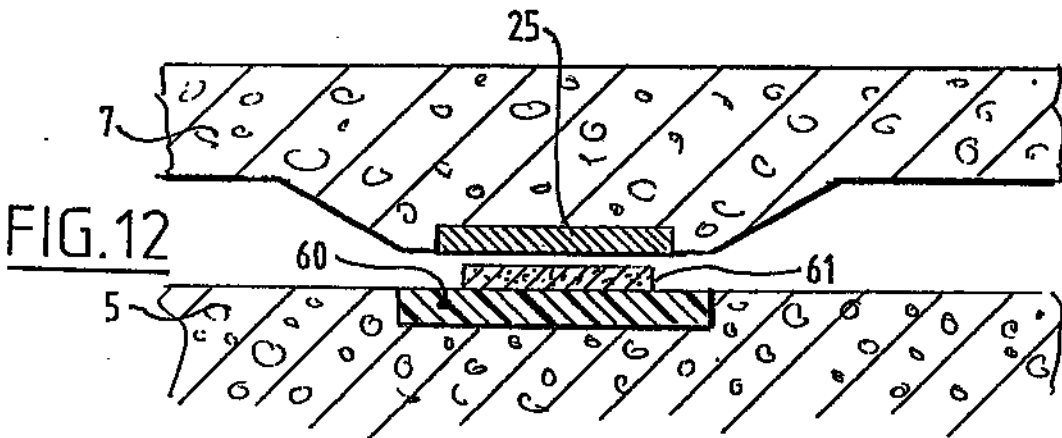
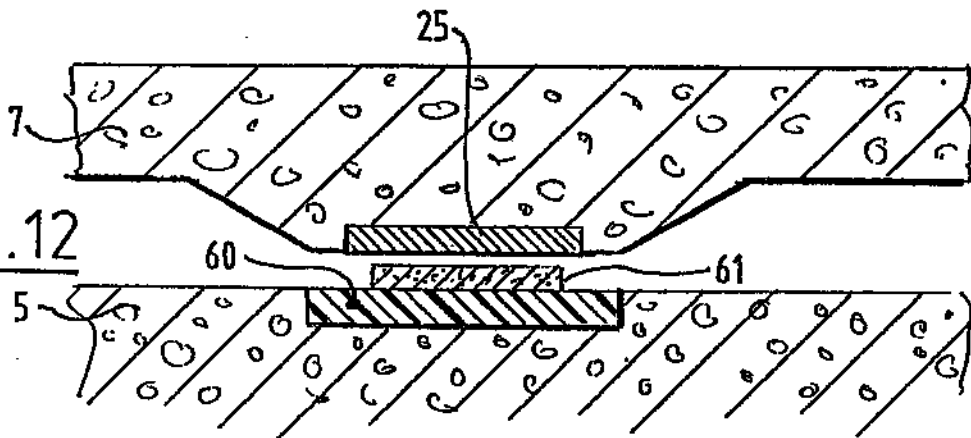


FIG.12



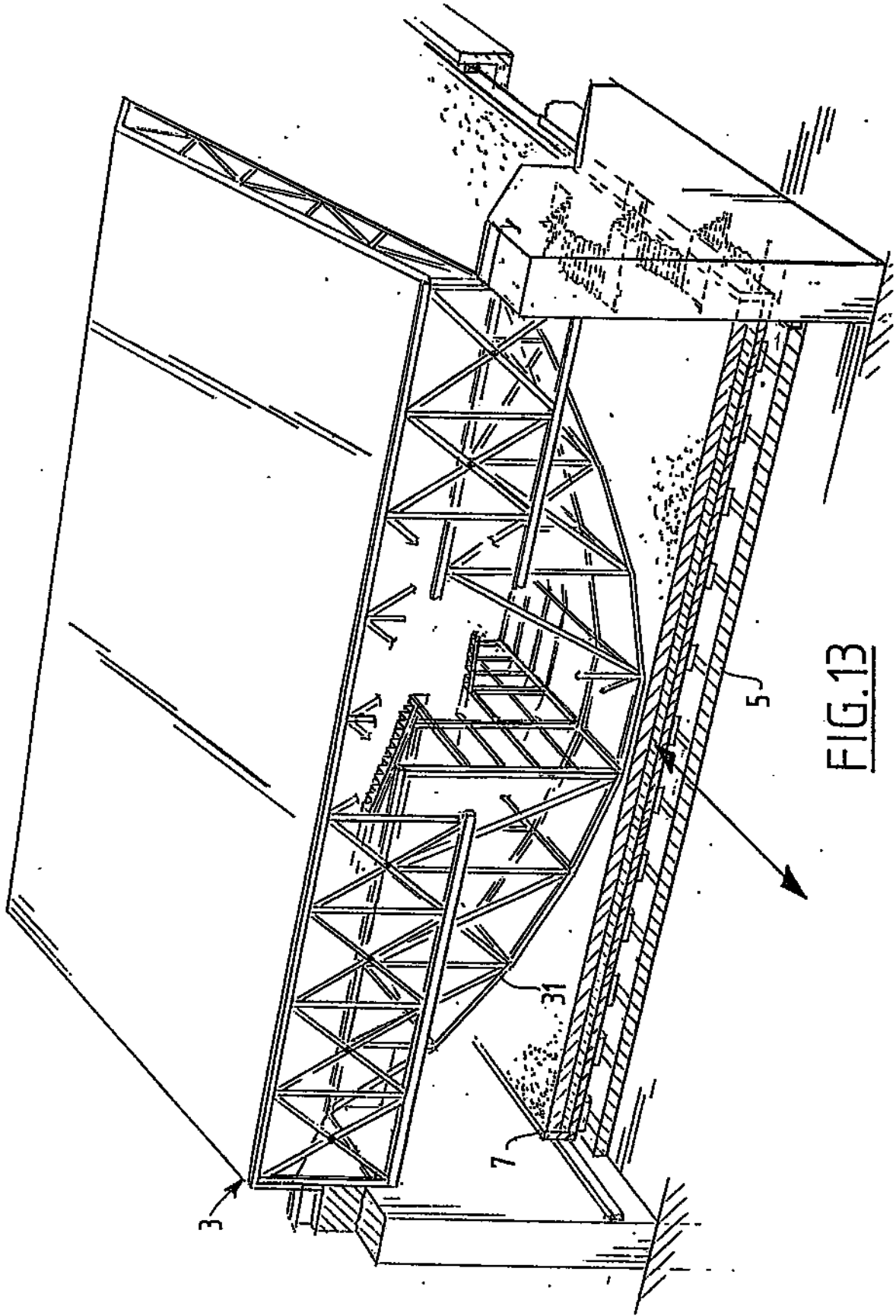


FIG.13

The invention relates to an event complex at least comprising a sports field and a stand. The frequency of use of the sports field of a normal stadium is too low to achieve a good yield on investment from a stadium.

5 It is known to cover the sports fields with a removable floor which is provided on the underside with lamps to keep the grass in condition. Other events are then held on this floor. Arranging an removal of such a floor requires much time and work.

10 The invention has for its object to adapt an event complex such that it can be rapidly converted from a sports field stadium for football, rugby, baseball and/or American football, skating or other sport into an event complex that can be used for a sport with another surface or other event  
15 such as an exhibition. To this end the event complex according to the invention has the feature that the sports field is slidable between a spectating position and a stowed position relative to the stand. The event surface can be covered by a roof which may or may not slide open.

20 Diverse variants and preferred embodiments are designated in the dependent claims.

The invention will be elucidated in the description following hereinafter with reference to a drawing. In the drawing in schematic form:

25 Figures 1, 3, 5, 7 each show a top view, in each case of a different event complex according to the invention;

Figure 2 shows a section along the line II-II in figure 1;

30 Figure 4 shows a section along the line IV-IV in figure 3;

Figure 6 shows a section along the line VI-VI in figure 5;

35 Figure 8 shows a section along the line VIII-VIII in figure 7;

Figure 9 shows a vertical section of the principle of displacing means for the carrier;



figure 10 is a perspective view of a fraction of displacing means of a carrier;

figures 11 and 12 show on a larger scale two variants of a section along the line XI-XI in figure 10; and

5 figure 13 is a perspective view of a fraction of yet another event complex according to the invention.

In figures 1 and 2 the sports field 2 of event complex 1 is displaced according to arrows 4 between the spectating position 2a drawn in full lines and the stowed position 2b 10 designated with dashed lines, wherein it is situated halfway under the stand 3.

The sports field 2 is displaced in its entirety in its lengthwise direction relative to a bottom ground 5. In the stowed situation the bottom ground 5 can be used as floor for 15 other events, for instance other sports events, circus, concerts, happenings and the like.

According to figures 3 and 4 the two halves 6 of sports field 2 are displaced in horizontal lengthwise direction over a bottom ground 5 as according to arrows 4 between 20 the spectating position and the stowed position 6b located under the stands 3.

According to figures 5 and 6 the sports field 2 is displaced in its entirety in its transverse direction as according to arrows 4 between a spectating position 2a and a 25 stowed position 2b.

According to figures 7 and 8 the two halves 6 are displaced in transverse direction as according to arrows 4 between a spectating position 6a and a stowed position 6b, wherein they are located under the stand 3.

30 The sports field 2 is situated in each case on a carrier 7 or two or optionally even more carriers 7 subject to whether or not the sports field 2 is divided. Each carrier is then embodied as upper floor in the form of a tray with soil and grass in order to serve as sports field for foot- 35 ball, hockey, rugby and the like, a tray with a refrigerating system for forming an ice floor for an ice rink or ice hockey rink, or another type of floor, for instance a wooden floor, for other sports or a sand floor for equestrian sports etc. The bottom floor is a flat concrete floor. Each carrier 7 is 40 displaced relative to the bottom ground 5 by means of winches

with traction cables by means of a toothed wheel mechanism on the underside of each carrier 7 or in jerking manner by means of jacks.

According to figure 9 the carrier 7 is provided with one or other slide means 18 which slides over a slide means 19 arranged on the bottom ground 5.

According to figure 10 a grass cover 20 of the sports field, for instance football or hockey field, which grows on soil 21 on a soft and well-drained ground 22, is laid in a tray-like carrier 7 of concrete which is slidable over a concrete bottom ground 5 using slide means 23 of figure 11. The slide means 23 consist herein of strips 24 of epoxy cement embedded in the bottom ground 5, into which strips stainless steel strips 25 are in turn embedded. Embedded into the underside of carrier 7 are rubber strips 26 which are provided with flat steel cores 27. Adhered to the underside of these strips 26 are thin strips 50 of polytetrafluoroethylene. By arranging such strip assemblies distributed at regular distances over the width in the displacing direction a good supporting of carrier 7 is obtained, wherein a small frictional resistance against displacement is present. The strips 50 absorb high pressures and do not have to be lubricated. However, strips 50 preferably do have grease cavities.

It is conceivable to reverse the above designated slide means 23. The stainless steel strip 25 is then situated in or on the underside of carrier 7 and there is a flat concrete bottom ground 5 onto which strips 26 are placed separately with strips 50, these being removed after the carrier has passed over these strips, or in which a strip 60 of steel or special grout material is embedded onto which are placed separate plastic plates 61 with slide layer which can be laid and removed as required (figure 12).

The soil of a grass field is preferably reinforced with filaments at the position of a join.

Figure 13 shows how a carrier 7 is pushed under a stand 3. The stand 3 herein consists of a three-dimensional steel frame construction 31.

The sports field 2 can in the first instance be a grass field, but may also be artificial turf, for instance in the case of hockey.

The sports field 2 as grass field is preferably exposed to light under the stands.

In the stowed position the sports field 2 can be situated wholly outside the stand 3 and can then serve again  
5 as playing field, for instance as practice field.

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CLAIMS

1. An event complex comprising a sports area and a spectator stand wherein the sports area is displaceable relative to the stand between a spectating position and a stowed position.
2. An event complex according to Claim 1, wherein the sports area is arranged on at least one displaceable carrier, which is supported by slide means upon the ground.
3. An event complex according to Claim 2, wherein the slide means comprises at least one metal plate attachable to one part of the complex and material having a low coefficient of friction attachable to another part of the complex to enable a relative sliding movement between the carrier and the ground.
4. An event complex according to Claim 3, wherein the or each metal plate is fabricated of a steel such as stainless steel.
5. An event complex according to Claim 3 or 4, wherein the material having a low coefficient of friction is polytetrafluoroethylene.
6. An event complex according to any one of Claims 3

to 5, wherein there are a number of metal plates in the form of strips which are arranged on the underside of the carrier and the material having a low coefficient of friction is arranged on the ground so as to support the carrier by way of the strips.

7. An event complex according to any one of Claims 3 to 6, wherein the material having a low coefficient of friction is arranged on one or more rubber or plastics strips.

8. An event complex according to any one of Claims 3 to 6, wherein the material having a low coefficient of friction is formed on metal strips or grout material embedded in a concrete floor.

9. An event complex substantially as described herein with reference to the accompanying drawings.

Amendments to the claims  
have been filed as follows

1. An event complex comprising a sports area with a field of natural grass and a spectator stand wherein the sports area is displaceable relative to the stand between a spectating position and a stowed position.
2. An event complex according to Claim 1, wherein the sports area is arranged on at least one displaceable carrier, which is supported by slide means upon the ground.
3. An event complex according to Claim 2, wherein the slide means comprises at least one metal plate attachable to one part of the complex and material having a low coefficient of friction attachable to another part of the complex to enable a relative sliding movement between the carrier and the ground.
4. An event complex according to Claim 3, wherein the or each metal plate is fabricated of a steel such as stainless steel.
5. An event complex according to Claim 3 or 4, wherein the material having a low coefficient of friction is polytetrafluoroethylene.
6. An event complex according to any one of Claims 3

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**Patents Act 1977**  
**Examiner's report to the Comptroller under**  
**Section 17 (The Search Report)**

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GB 9301768.9

**Relevant Technical fields**

(i) UK CI (Edition L ) A6D (D39X) (D37X1)

(ii) Int CI (Edition 5 ) A63C

**Databases (see over)**

(i) UK Patent Office

(ii)

**Search Examiner**

D WHITFIELD

**Date of Search**

23 APRIL 1993

Documents considered relevant following a search in respect of claims 1-9

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	US 4399954 (ARRANT) whole document	1

Category	Identity of document and relevant passages	Relevant to claim(s)

**Categories of documents**

**X:** Document indicating lack of novelty or of inventive step.

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