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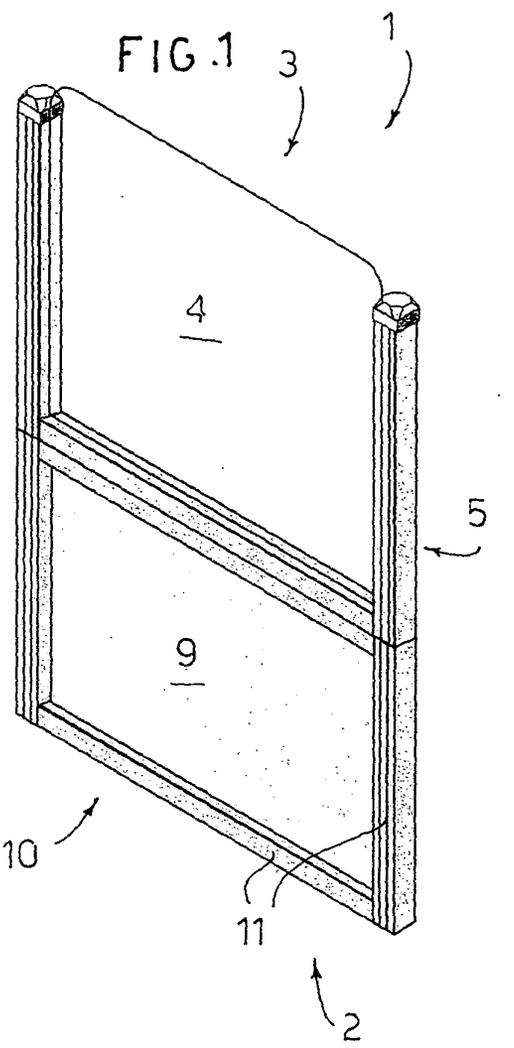
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(54) Screen element

(57) Screen element (1) for a modular system for defining outdoor areas provided with a base element (2) designed to maintain the screen element (1) in an erect position and at least one first (3) and one second (3') upper element, differing in form and structure and interchangeable according to climatic variations and/or the appearance required.



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Description

[0001] The present invention concerns the screen panels used in modular systems for defining outdoor areas. In particular, the present invention concerns screen panels used, for example, for defining and enclosing public areas outside bars, restaurants, terraces, etc.

[0002] The known screen panels are normally made of one single element consisting of a transparent sheet and/or laminate.

[0003] The screen panels of this type, in order to be effective and offer real protection against the wind, must be sized according to the windy season. For this reason, during the dry season the panels are oversized causing excessive heating of the enclosed area due both to the greenhouse effect, produced by the transparent sheet, and to the poor circulation of air, caused by the panel which acts as a mechanical obstacle. During this season, therefore, the entire screen system has to be removed.

[0004] The aim of this invention is to solve the above problem, providing a screen element that can be transformed and adapted according to wind and weather conditions.

[0005] A further aim of this invention is to provide a screen element that is easy and inexpensive to produce and use and which at the same time has a pleasant and decorative appearance.

[0006] These and further aims are achieved by this invention which has the characteristics described in the attached independent claim.

[0007] Basically, a screen element for a modular system defining outdoor areas according to this invention is characterised in that it comprises a basic element designed to maintain the screen element in an erect position and at least one first and one second upper element, different in shape and structure and interchangeable according to weather conditions.

[0008] The first upper element, which is larger, can be replaced with the second one according to the wind conditions. In this way during the windy season the screen element consisting of the upper larger element offers a protection comparable to that of the known screens used for said purpose while in the dry season, by replacing the upper element with a smaller one, the air circulates without requiring complete removal of the screen system.

[0009] According to a preferential aspect of this invention, the basic element comprises fastening devices to lock one of the upper elements in a removable position.

[0010] According to another preferential aspect of the present invention, each upper element comprises engagement devices that can be coupled with the fastening devices to lock the position of said upper element with respect to the base element.

[0011] According to an advantageous aspect of the present invention, the first upper element comprises a panel and a supporting frame.

[0012] Advantageously according to the present invention, the second upper element comprises a supporting frame and a bracket portion which offers the possibility of using this element as a supporting base for flower pots, planters, baskets or other decorative elements.

[0013] Further aims and advantages of the present invention will become clearer following this description provided as a non-restrictive illustration with reference to the attached drawings in which:

figure 1 is a perspective view of an embodiment of the screen element according to the present invention;

figure 2 is a perspective view of the screen element according to the present invention, in an alternative configuration;

figures 3a, 3b show two subsequent assembly/removal phases of the screen element, illustrating the switch from the configuration of figure 1 to the configuration of figure 2; and

figure 4 is a perspective view of a modular system of screen elements consisting of the screen elements according to the present invention.

[0014] Figure 1 shows the screen element according to the present invention in its first configuration.

[0015] The screen element 1, shown in figure 1, comprises a base element 2 and a first upper element 3 coupled to the base element 2 and consisting of a panel 4 fitted on a supporting frame 5.

[0016] The supporting frame 5 consists of three channel sections 6, metal or plastic, designed to support a panel 4. The panel 4 is made of laminate or other transparent or opaque material. The panel 4 is made preferably of glass or plastic.

[0017] In order to couple the base element 2 and the first upper element 3 simply and quickly, fastening devices 8 are provided, on the base element 2, and engagement devices 7, on the first upper element 3.

[0018] In particular, as can be seen better in figure 3a, two pins protruding from the bottom of the supporting frame 5 of the first upper element 3 are provided as engagement devices 7, designed to engage in two seats constituting the fastening means 8, provided at the top of the base element 2.

[0019] The base element 2 in its turn consists of a panel 9 fixed in a supporting frame 10, consisting of metal section bars 11.

[0020] The first upper element 3 is sized so that the screen element 1 as a whole has the dimension of the screens normally available on the market and used for said purpose.

[0021] Figure 2 shows the screen element 1 according to the present invention in a different configuration and in particular in a configuration consisting of the same base element 2, shown in figure 1, and a different upper element 3'.

[0022] In detail, the second upper element 3' consists, as can be seen better in figure 3b, of a bracket portion 13 supported by a supporting frame 5'.

[0023] Also in this case, the supporting frame 5' provides the same pins protruding from the first upper element as engagement devices 7.

[0024] In this way, it is possible to switch from the configuration of the screen element 1, shown in figure 1, to the configuration of the screen element 1 shown in figure 2.

[0025] For said purpose, simply raise the first upper element vertically in the direction of the arrow F indicated in figure 3a to slide out the suitable pins 7 from the seats 8 and permit removal of the first upper element 3 with respect to the base element 2.

[0026] At this stage, once the first upper element 3 has been removed, it is possible to couple the second upper element 3' to the base element 2, by simply inserting from top to bottom, as shown in figure 3b, the pins 7 of the second upper element 3' in the respective seats 8 of the base element 2.

[0027] This invention permits perfect interchangeability of the upper element 3, 3' according to requirements. In fact it is possible to use a screen consisting of the first upper element 3 in windy conditions and replace it with the second upper element 3' in conditions of slight or no wind in order to permit air circulation.

[0028] As can be seen in figure 2, the bracket portion 13 can be used as a supporting base for flower pots, thus transforming the screen into a flower box.

[0029] The screen element 1 according to the present invention can be combined with other elements of the same type to create a modular system 20 for defining outdoor areas such as the one shown in figure 4. The modular systems 20 of screen elements 1 can differ due to the number of screen elements and/or the arrangement of the same and can consist of identical screen elements 1, i.e. all formed of the same upper element, or any combination of screen elements 1, as shown in figure 4. In the modular systems 20 the screen elements can be combined by simply placing them side by side or by means of connecting devices (not shown).

[0030] Many modifications and variations can be made to the screen element according to the present invention while remaining within the protective scope of the same.

[0031] As an example, different fastening and engagement means can be provided. In particular, brackets for each base and upper element and bolts can be provided as fastening and engagement means.

Claims

1. Screen element (1) for a modular system (20) defining outdoor areas **characterised in that** it comprises a base element (2) designed to maintain the screen element (1) in an erect position and at least one first (3) and one second (3') upper element, differing in form and structure and interchangeable each other.

2. Screen element (1) according to claim 1, **characterised in that** said base element (2) comprises fastening means (8) to lock in position, in a removable fashion and alternatively, one of said upper elements (3,3').

3. Screen element (1) according to claim 2, **characterised in that** each upper element (3, 3') comprises engagement devices (7) which can be coupled with said fastening devices (8) to lock the position of said upper element (3, 3') with respect to the base element (2).

4. Screen element (1) according to claim 3, **characterised in that** said engagement devices (7) comprise at least one pin protruding from said upper element (3, 3') and that said fastening devices (8) comprise at least one seat provided at the top of the base element for engagement of said pin.

5. Screen element (1) according to any one of the preceding claims, **characterised in that** said first upper element (3) comprises a panel (4) and a supporting frame (5).

6. Screen element (1) according to any one of the preceding claims, **characterised in that** said second upper element (3') comprises a bracket portion (13) and a supporting frame (5').

7. Modular system (20) of screen elements (1) for defining outdoor areas **characterised in that** it comprises one or more screen elements (1) according to any one of the preceding claims.

8. Modular system (20) according to claim 7, **characterised in that** it comprises means for coupling two adjacent screen elements (1).

FIG.1

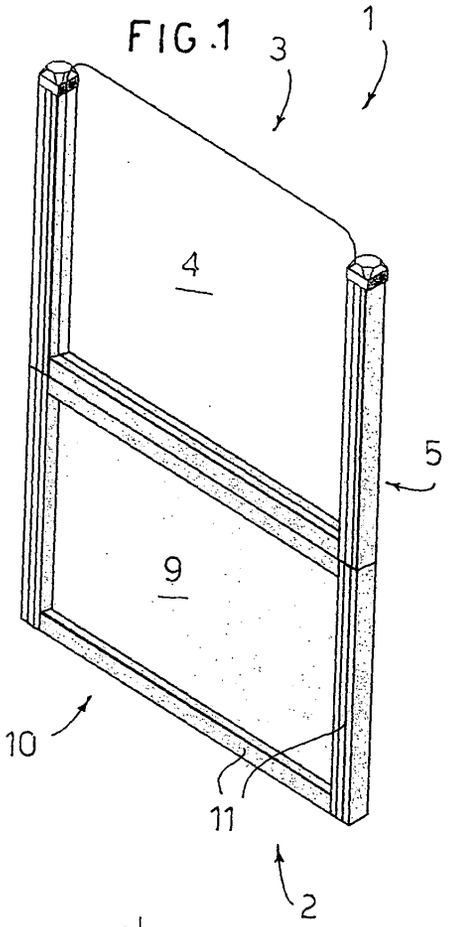
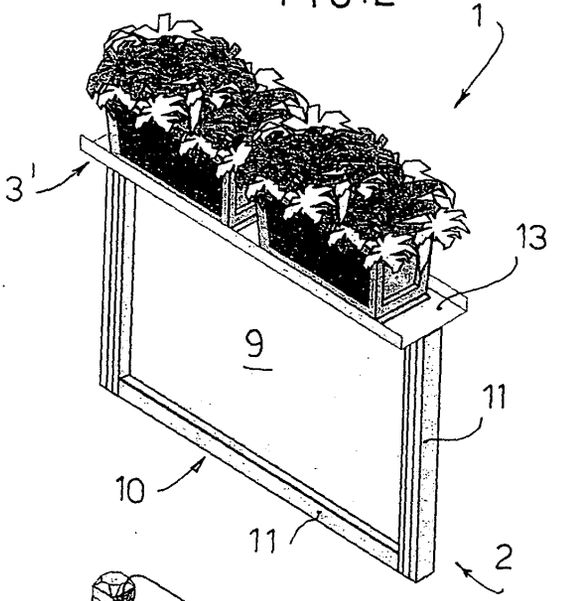


FIG.2



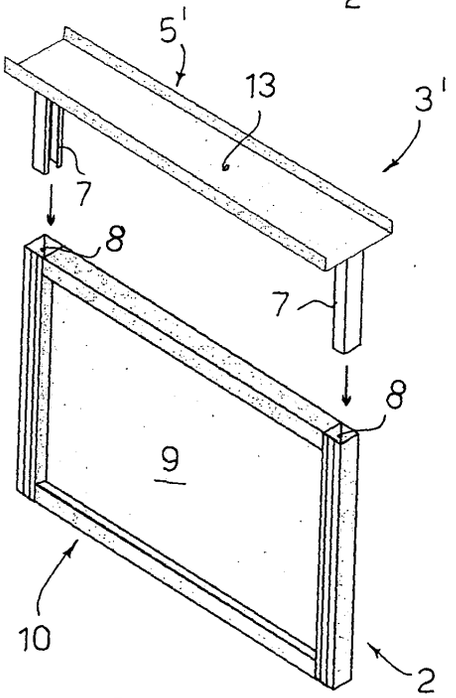


FIG.3b

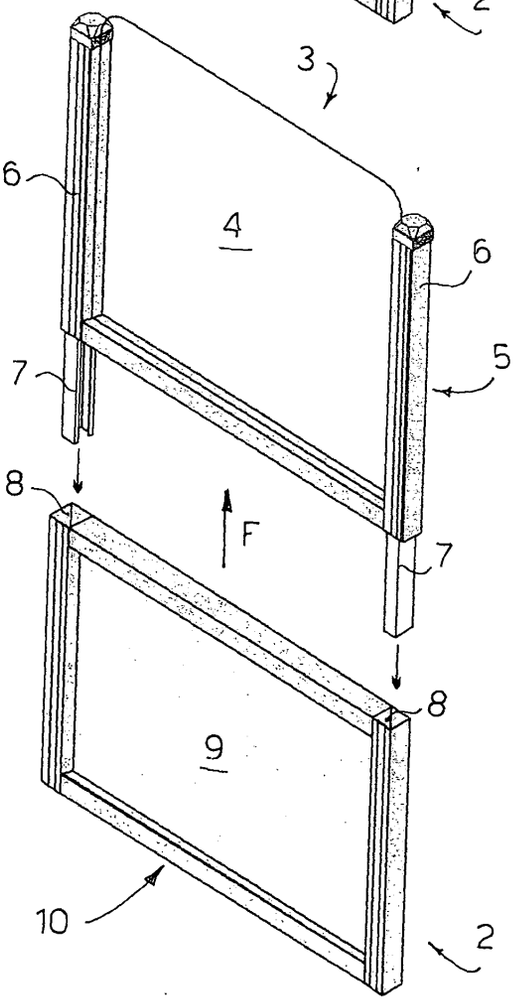


FIG.3a

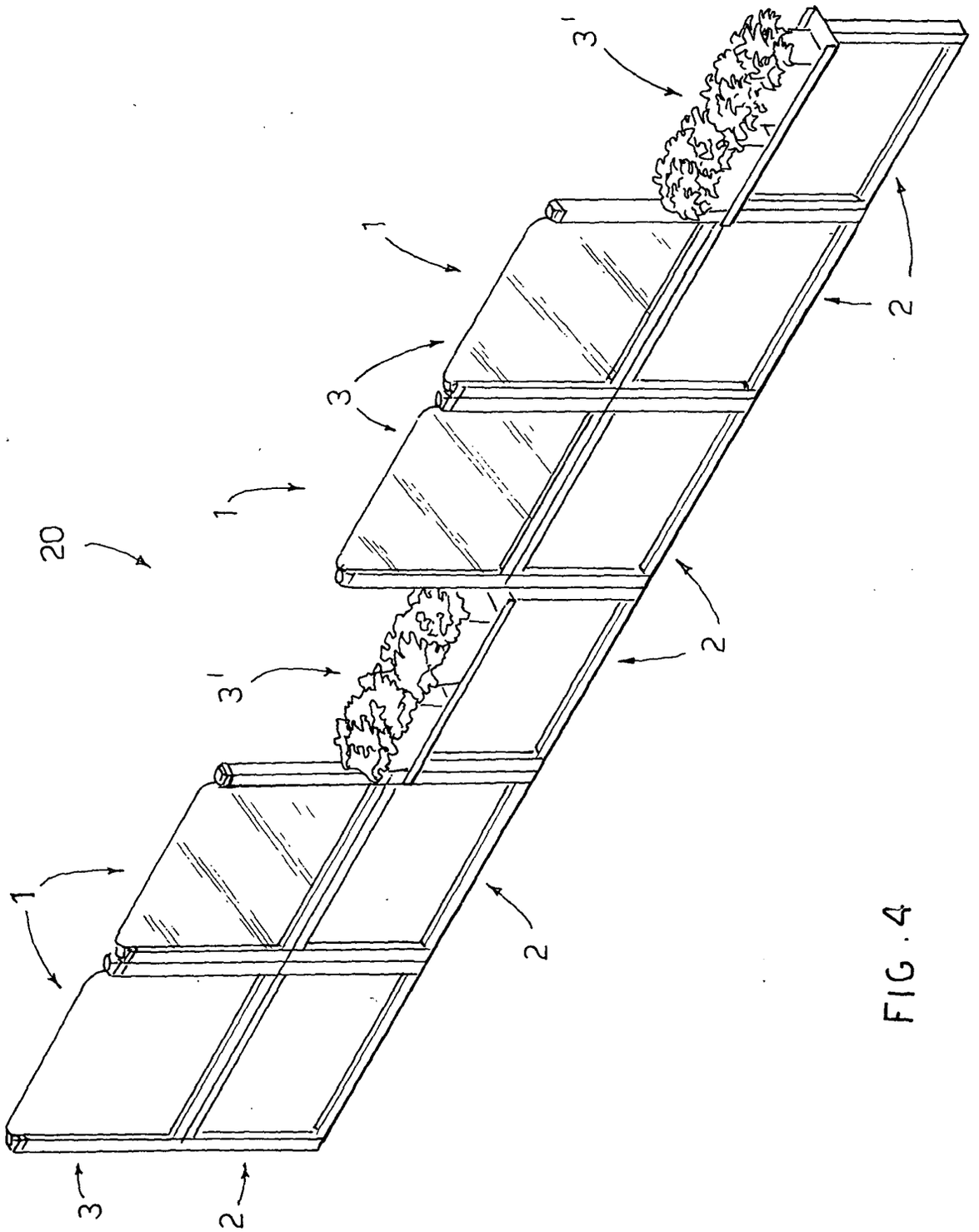


FIG. 4

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EUROPEAN SEARCH REPORT

Application Number
EP 04 00 4341

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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Y		5-8	
A	* column 2, line 62 - column 6, line 75; figures 1-11 *	3	

Y	US 5 628 495 A (GANDARA ENRIQUE P) 13 May 1997 (1997-05-13)	5-8	
A	* column 3, line 44 - column 8, line 6; figures 1-6 *	1-3	

A	US 4 794 744 A (YOUNG GREGORY C ET AL) 3 January 1989 (1989-01-03) * column 2, line 4 - column 4, line 5; figures 1-4,6,7,9 *	1-8	

A	EP 0 952 281 A (EPPING METALLBAU GMBH & CO KG) 27 October 1999 (1999-10-27) * column 4, paragraph 21 - column 5, paragraph 28; figures 1-4 *	1-8	

TECHNICAL FIELDS SEARCHED (Int.Cl.7)
E04H
E04B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
MUNICH	18 June 2004	Stefanescu, R

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82