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(54) Support plate having a service unit

(57) A desk or table comprises a support plate (1), at least the upper portion of which is made of plastic solid surfacing material (PSSM), such as Corian™ or the like. It has an upper surface, and the desk has a service unit (5) protruding from the surface of the support plate and including a built-in supply unit (6, 7, 8). The service unit (5) is also made of PSSM, the surface on at least an edge (9) of the service unit being preferably flush with the surface of the support plate (1). This leads to a visually unitary structure, and prevents leakage from the surface to the service unit.

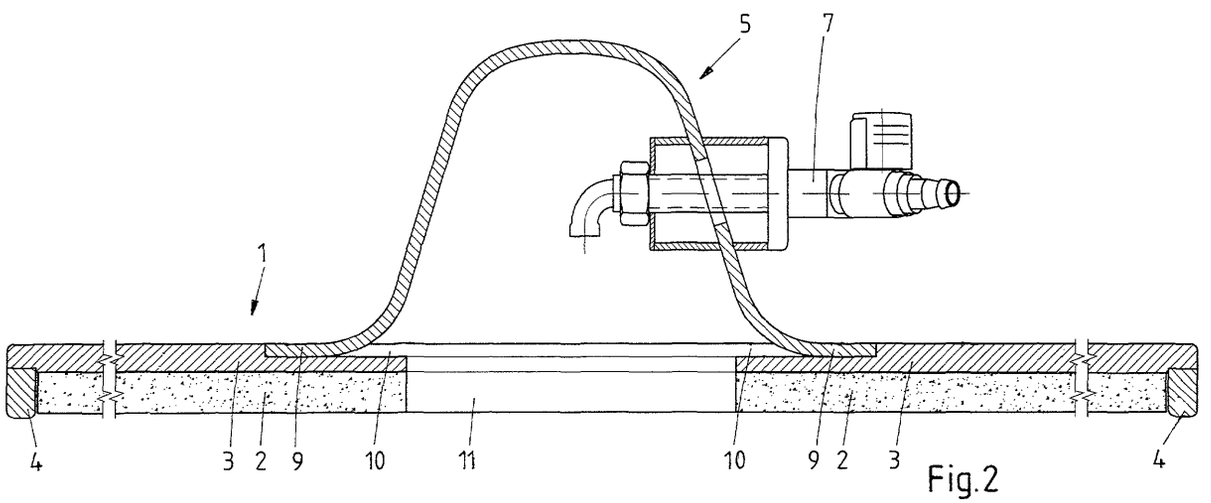

Fig.2

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Description

[0001] The invention relates to a support according to the preamble of claim 1.

[0002] Such support is known from practice, for example in the embodiment of working tables in classrooms used for teaching chemistry, biology, physics and the like. The service units are built from several pieces of material and include water, gas and/or electric supplies.

[0003] The object of the present invention is to provide a new support of the type mentioned in the preamble of claim 1.

[0004] For this purpose, the support according to the invention is characterised by the features of the characterising portion of claim 1.

[0005] By also making the service unit of PSSM, there is created a (visually) unitary structure of support plate and service unit. The support plate and the service unit can be made in one piece of material, or can be joined very easily in a water impervious manner, which will prevent leakage through the joint. This is especially important if the supply unit includes electrical or electronic supply units. In case the surface of the service unit is flush with the surface of the support plate, there can be created a virtually imperceptible joint which is visually attractive and which also prevents dust and dirt to collect in the joint.

[0006] Particularly if the service unit is positioned at a distance from all edges of the support plate, it is preferred to make the surface of the service unit flush with the upper surface of the support plate at substantially the complete circumference of the service unit.

[0007] In the main embodiments of the invention the support will be a table, desk or the like, but also other kinds of supports are conceivable.

[0008] The supply unit of the service unit can be an electr(on)ic supply unit, such as a mains connection, a data connection, a display or the like, but it may also be a fluid supply unit, such as a water of gas supply unit, depending on the application of the support.

[0009] The invention will hereafter be elucidated with reference to the drawing, showing an embodiment of the invention by way of example.

[0010] Fig. 1 is a perspective view of an embodiment of a support comprising a service unit according to the invention.

[0011] Fig. 2 is an enlarged sectional view according to the line II-II in fig. 1.

[0012] The drawing shows an embodiment of a support which, in this case, is constructed as a table for (biology/chemistry /physics) classrooms in schools and the like. This table comprises a support plate 1. This support plate 1 is laminated including a lower, water-resistant MDF board 2 and an upper plate 3 made of the so-called plastic solid surfacing material (PSSM) such as Corian™, Formica or the like. These are acrylic or polyester based products, of which Corian™ consists of Aluminiumhydroxide bonded with methylmetacrylate. Board 2 and plate 3 are bonded by means of silicone adhesive. An edge 4 of the support plate 1 is also made of PSSM and is bonded to the upper plate 3.

[0013] In the region of the centre of the support plate 1 (at a distance from the circumference of the support plate 1) there is mounted a service unit 5 which projects upwardly from the upper surface of the support plate 1. The service unit 5 includes one or more supply units, in this case gas supplies 6 and 7 and an electric supply 8. Other supplies, such as data connections, telephone connections, a water tap and the like could also be provided.

[0014] The service unit 5 is made of PSSM, and in this embodiment it is pressed from one piece of material and is curved in three dimensions. It is oval-shaped in its horizontal section and a dome-shaped in its vertical section. Of course, all kinds of shapes are conceivable. The lower circumferential edge 9 of the service unit 5 extends horizontally and the upper surface thereof is flush with the upper surface of the support plate 1. Both parts 3 and 5 are made of PSSM and are adhesively joined to provide a water impervious, virtually imperceptible joint, so that the support plate 1 and the service unit 5 visually form a unit.

[0015] To obtain the flush joint, there is formed a depression 10 in the upper surface of the upper plate 3, the circumference of which is slightly larger then the circumference of the edge 9 of the service unit 5. The small spacing between the upper plate 3 and the service unit 5 is filled with adhesive material. Below the service unit 5, a hole 11 is formed in the support plate 1 to obtain access to the interior of the service unit 5. The supply units 6-8 are clamped, screwed or mounted in another way to the wall of the service unit 5.

[0016] The wall of the service unit 5 is made by pressing PSSM material in a mould, but also other ways of producing the service unit 5 are conceivable, for example injection moulding. It is also possible to produce the upper plate 3 and the service unit 5 in one piece, especially if the support is relatively small.

[0017] The invention is not restricted to the embodiment described above and shown in the drawing and can be varied in several ways without departing from the scope of the appended claims. For example, the service unit may be formed as an upright (back) edge of a (computer) table including electrical and electronic (data) connections. The service unit may also comprise a display unit, for example an LCD display used in service desks. It is also conceivable that the service unit projects downwardly from the support plate.

Claims

1. A support, comprising a support plate (1), at least the upper portion of which is made of plastic solid surfacing material (PSSM), such as Corian™ or the

like, and having an upper surface, said support having a service unit (5) protruding from the surface of the support plate and including a built-in supply unit (6, 7, 8), **characterized in that** the service unit (5) is also made of PSSM, the surface on at least an edge (9) of the service unit being preferably flush with the surface of the support plate (1).

2. A support as claimed in claim 1, wherein the service unit (5) is protruding upwardly from the surface of the support plate (1), and is preferably curved in at least two directions.

3. A support as claimed in claim 1 or 2, wherein the service unit (5) is made from at least a, preferably one, piece of PSSM, which is separate from the support plate (1) and which is bonded to the support plate by adhesive.

4. A support as claimed in one of the preceding claims, wherein the surface of the service unit (5) is flush with the upper surface of the support plate (1) at substantially the complete circumference (9) of the service unit (5).

5. A support as claimed in one of the preceding claims, wherein the support is a table, desk or the like.

6. A support as claimed in claim 5, wherein the supply unit of the service unit (5) is an electr(on)ic supply unit (8), such as at least one of a mains connection, a data connection, a (LCD) display and the like.

7. A support as claimed in claim 5 or 6, wherein the supply unit is a fluid supply unit, such as a water or gas supply unit (6, 7).

8. A support as claimed in one of the preceding claims, wherein the service unit (5) is positioned at a distance from all edges of the support plate (1).

9. A support as claimed in claim 6, wherein the service unit is an upright edge of a (computer) table top, acting as support plate.

10. A support as claimed in one of the preceding claims, wherein the support plate (1) has a depression (10) made in its upper surface, in which the adjacent side of the service unit (5) is received, and wherein at least at the flush joint, the depth of the depression is substantially equal to the local thickness of the wall of the service unit (5) .

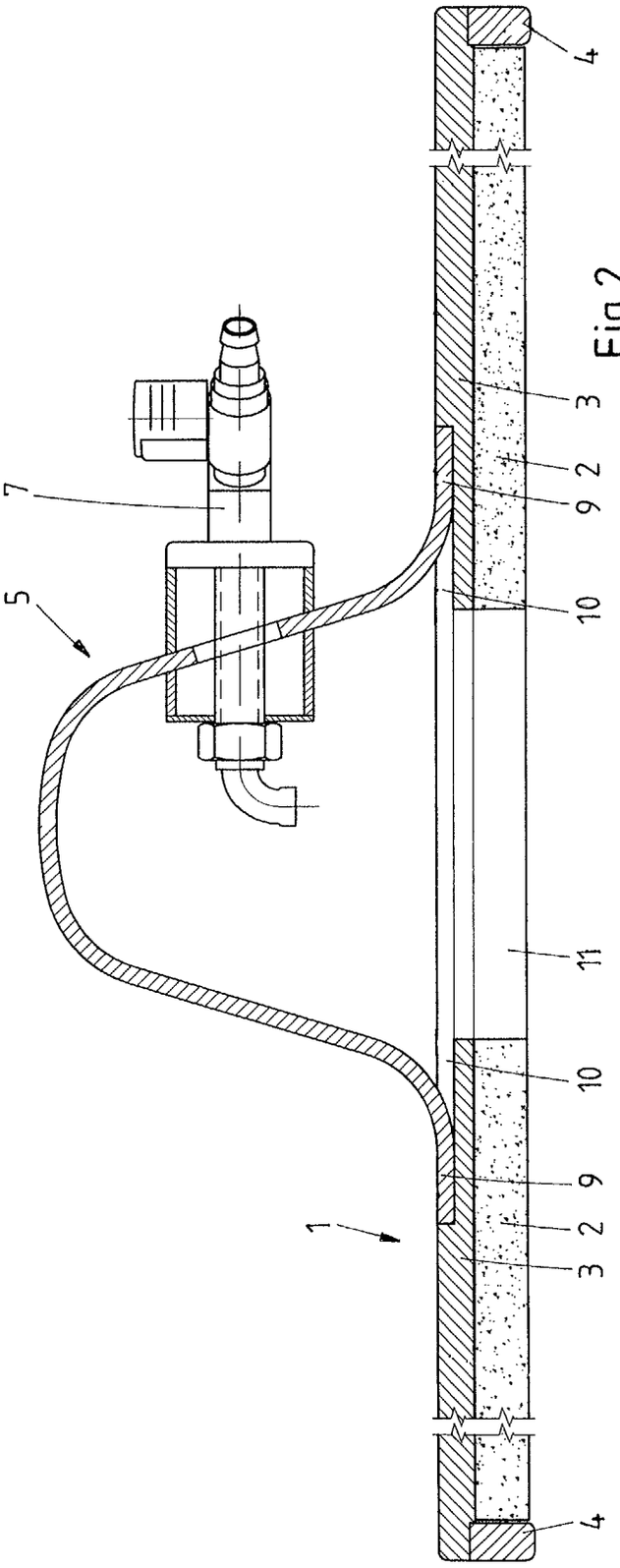

Fig.2

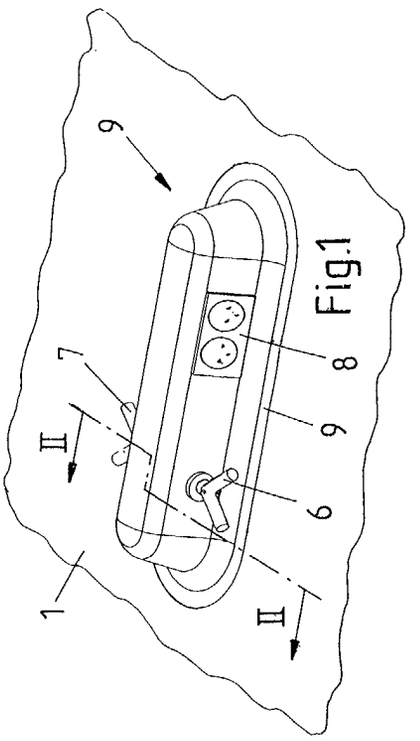

Fig.1

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 02 07 9184

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)
X	DE 31 03 007 A (KALTENBACH & VOIGT) 2 September 1982 (1982-09-02) * page 7, line 6 - page 8, line 29 *	1-10	B01L9/02
X	DE 30 03 003 A (UNIPLANUNG GMBH & CO KG) 30 July 1981 (1981-07-30) * page 6, line 6 - page 9, line 6 * * figures 1-5 *	1-10	
X	EP 0 486 789 A (ARREDI TECNICI VILLA SPA) 27 May 1992 (1992-05-27) * column 5, line 45 - column 6, line 49 * * claims 1-16 *	1-10	
X	FR 2 201 927 A (TECLAB SA) 3 May 1974 (1974-05-03) * the whole document *	1-10	
X	DE 25 10 850 A (SCHAFFIZEL KG SCHULMOEBEL) 4 November 1976 (1976-11-04) * the whole document *	1-10	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
X	EP 0 112 214 A (DOREMIEUX JEAN LOUIS) 27 June 1984 (1984-06-27) * the whole document *	1-10	B01L F17C A47B
A	US 6 009 900 A (ELGERT UWE ET AL) 4 January 2000 (2000-01-04) * column 2, line 33 - column 2, line 35 * * column 4, line 43 - column 4, line 60 *	1	
A	US 6 085 665 A (PARI VINCENT A ET AL) 11 July 2000 (2000-07-11) * the whole document *	6	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	3 March 2003	Tiede, R

CATEGORY OF CITED DOCUMENTS

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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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03-03-2003

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 3103007 A	02-09-1982	DE 3103007 A1	02-09-1982
DE 3003003 A	30-07-1981	DE 3003003 A1	30-07-1981
EP 0486789 A	27-05-1992	IT 1244081 B	05-07-1994
		AT 141471 T	15-09-1996
		DE 69121522 D1	26-09-1996
		DE 69121522 T2	20-03-1997
		DK 486789 T3	16-09-1996
		EP 0486789 A2	27-05-1992
		ES 2090197 T3	16-10-1996
		GR 3020837 T3	30-11-1996
		US RE36226 E	08-06-1999
		US 5212915 A	25-05-1993
FR 2201927 A	03-05-1974	FR 2201927 A1	03-05-1974
DE 2510850 A	04-11-1976	DE 2510850 A1	04-11-1976
EP 0112214 A	27-06-1984	FR 2536276 A1	25-05-1984
		AT 24394 T	15-01-1987
		DE 3368516 D1	05-02-1987
		DE 112214 T1	27-09-1984
		EP 0112214 A1	27-06-1984
US 6009900 A	04-01-2000	DE 19822369 A1	25-11-1999
		EP 0959292 A2	24-11-1999
US 6085665 A	11-07-2000	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82