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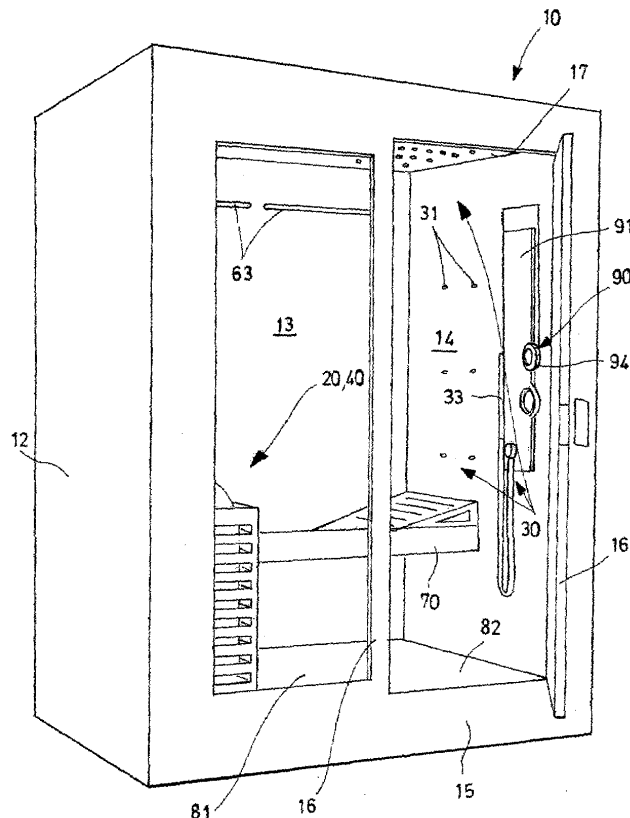
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(54) Multifunction cabin

(57) Multifunction cabin (10) comprising a sauna (20) and a shower (30) associated with each other inside said multifunction cabin (10).

The multifunction cabin (10) can also comprise a Turkish bath (40) associated or advantageously integrated with the sauna (20) and also rapid drying means for avoiding the deterioration of the lining or wooden elements of the multifunction cabin (10).

Fig. 2



Description

[0001] The present invention relates to a multifunction cabin in particular equipped with a sauna.

[0002] The origin of saunas and their therapeutic and aesthetic qualities have been known since ancient times.

[0003] Their practice has become widespread and perfected as a supreme source of well-being above all among Baltic populations, in particular Finland.

[0004] A sauna is simply a very hot and dry air bath which is effected in a closed environment where a specific apparatus heats and dehumidifies the air.

[0005] Permanence can vary from 5 to 15 minutes and can be repeated several times to obtain a better beneficial and purifying effect.

[0006] After the sauna it is extremely pleasant and invigorating to expose oneself for a short while to the outside temperature, or to have a cold shower.

[0007] This also has the purpose of closing the pores of the skin and bringing the body temperature back to normal values.

[0008] In order to do this, however, it is necessary to leave the sauna and enter a shower.

[0009] This is possible in health centres or sports centres having suitable equipment and spaces which are sufficiently large for housing at least a sauna and at least a shower.

[0010] A first drawback is consequently that in order to correctly remain for a certain period or periods in a sauna, each interrupted by a relative shower, it is strictly necessary to have a sufficiently large space for housing at least a sauna and at least a shower.

[0011] This is clearly in contrast with the dimensions and living spaces of normal houses or apartments, which as a result of the ever-increasing purchase costs or rents, have more and more reduced dimensions and volume distributions, and consequently do not have suitable and sufficiently large areas for housing both devices (sauna and shower) .

[0012] This results in the limited diffusion of saunas for household use, except in those countries where, due to the particularly severe climate and clean air, widely use the practice of saunas combined with exposure to the open air, also on a household scale.

[0013] The demand for devices or cabins equipped with a sauna allowing a reduction in the space necessary for their installation, is therefore strongly felt.

[0014] In particular, the necessity is greatly felt, for devices or systems which can enable a correct and complete use of saunas also on a household scale, without necessarily having to reduce or jeopardize other living spaces inside the environment for installing the sauna.

[0015] An objective of the present invention is to produce a multifunction cabin which allows a sauna to be effected with other treatment for the well-being, health and hygiene of persons, and at the same time occupies a reduced space, thus allowing a reduction in the space necessary for its installation.

[0016] A further objective is to produce a multifunction cabin which can be easily installed in a household environment.

[0017] Another objective is to produce a multifunction cabin which allows further useful functions in a household environment.

[0018] Yet another objective is to provide a multifunction cabin equipped with a sauna which is functional and economically advantageous.

[0019] These objectives according to the present invention are achieved by providing a multifunction cabin as illustrated in claim 1.

[0020] Further characteristics of the invention are indicated in the subsequent claims.

[0021] The characteristics and advantages of a multifunction cabin according to the present invention will appear more evident from the following illustrative and non-limiting description, referring to the enclosed schematic drawings, in which:

figure 1 is a raised left-side schematic perspective view from below which illustrates a first preferred embodiment of a multifunction cabin according to the present invention;

figure 2 is a raised left-side schematic perspective view from below which illustrates a second preferred embodiment of a multifunction cabin according to the present invention;

figure 3 is an exploded view of the multifunction cabin of figure 2 in particular equipped with a different control and driving device;

figures 4 and 5 are schematic perspective views which show details of both the embodiments of figure 1 and 2;

figures 6, 7 and 8 show raised left-side perspective details from below;

figure 9 is a partially sectional raised side-left schematic view of a further preferred embodiment of a multifunction cabin according to the present invention.

[0022] With reference to the figures, these show a multifunction cabin 10 for a treatment for the well-being, health and hygiene of a person, and comprising a sauna 20 and a shower 30 associated with each other inside the multifunction

cabin 10 itself.

[0023] A sauna 20 refers to a device capable of generating hot and dry air.

[0024] In other words, said multifunction cabin 10 preferably comprises heating and dehumidifying means suitable for generating a flow of hot, dry air in order to effect a sauna inside the multifunction cabin 10, and in particular inside an internal room 11 defined by the multifunction cabin 10 itself.

[0025] The shower 30 of the multifunction cabin 10 preferably comprises at least one water supplier, such as for example, a shower supplier and/or a detachable shower supplier, and/or a mouth and/or a jet mouth, in particular equipped with a hydromassaging device.

[0026] Said heating and dehumidification means preferably comprise a heater and a dehumidifier associated with each other and communicating with an internal environment 11 of the multifunction cabin 10.

[0027] The multifunction cabin 10 preferably comprises a series of perimetric structural walls, in particular a first perimetric structural wall 12, a second perimetric structural wall 13, a third perimetric structural wall 14, a front structural wall 15 having at least an openable door 16, an upper structural wall 17 and a bottom structural wall 18.

[0028] The series of perimetric structural walls are preferably made of natural wood, or alternatively impermeable multilayer wood.

[0029] The shower 30 preferably comprises a series of water supply mouths, indicated with 31 and 32, arranged in particular on said third perimetric structural wall 14 and on said upper perimetric structural wall 17, on which there is preferably also a series of lights 19 and in which audio/video devices, not shown, with which the multifunction cabin 10 is preferably equipped, can be housed.

[0030] In addition, the series of lights 19 are also preferably arranged on said second perimetric structural wall 13.

[0031] The multifunction cabin 10 preferably comprises a detachable shower 33 housed in particular on the third perimetric structural wall 14.

[0032] The multifunction cabin 10 preferably comprises a bed 70 attached to the second perimetric structural wall 13.

[0033] Furthermore, the bottom structural wall 18 preferably comprises a housing for a basin 84, in particular made of thermoformed polymeric material, for collecting the water and sending it into a water discharge basin 88.

[0034] The multifunction cabin 10 preferably comprises a basin 84 for the collection and discharge of the water.

[0035] The bottom structural wall 18 is preferably also equipped with supporting elements 83 and 85 for supporting two removable drainage footboards, indicated with 81 and 82 respectively, with which the multifunction cabin is preferably equipped, which are made in particular of impermeable multilayer wood and are positioned above the basin 84.

[0036] Alternatively, the supporting elements 83 and 85 can be produced entirely or partially on the basin 84.

[0037] The multifunction cabin 10 preferably comprises electronic control and command means 90 comprising in turn a multifunction control panel 91 or 92, preferably with rear lighting, for the selection, activation and stoppage of the functions of the multifunction cabin 10.

[0038] The control and command means 90 are preferably connected to the sauna 20, in particular to its heater and dehumidifier, and optionally to the shower 30.

[0039] According to a further aspect of the present invention, said multifunction cabin preferably comprises a Turkish bath 40 preferably associated or integrated with the sauna 20.

[0040] A Turkish bath 40 refers to a device suitable for generating hot and humid vapour at a high concentration.

[0041] The Turkish bath 40 is preferably integrated with the sauna 20, and in particular with the heating means of the sauna 20 itself and the Turkish bath 40 also preferably comprises a water source for generating hot, damp vapour.

[0042] In this preferred embodiment, the multifunction cabin 10 therefore comprises a sauna 20, a Turkish bath 40 and a shower 30 associated with each other inside a single cabin 10 for effecting treatment for the well-being, health and hygiene of the person, thus making it possible to use the multifunction cabin 10 itself as a sauna, shower and Turkish bath.

[0043] From the tests carried out, it was discovered that upon using the Turkish bath 40 of the multifunction cabin 10, the internal wooden lining of the multifunction cabin degraded rapidly, due to the hot, damp vapour generated by the Turkish bath 40.

[0044] It was also discovered that by substituting the natural wooden elements with other types of more resistant wood, such as impermeable multilayer wood, commonly called "marine" type wood, the same drawback occurred.

[0045] This new problem was solved by means of a multifunction cabin 10 comprising rapid drying means to prevent the degradation of the lining or wooden elements of the multifunction cabin 10, in particular directly in contact or communicating with the internal room 11 of the multifunction cabin 10 itself.

[0046] The rapid drying means preferably comprise a series of ducts or cavities and forced ventilation means, such as for example at least one ventilator 58, to prevent the degradation of the wooden parts of the multifunction cabin 10.

[0047] The series of ducts (52, 53, 54, 57) preferably is situated inside a series of perimetric structural walls of the multifunction cabin 10, which also have a series of hollow spaces or fissures for forcing an air flow inside the room 11 capable of rapidly drying the same perimetric structural walls 12, 13, 14, 15, 16 and 17 and also the two footboards 81 and 82 of the multifunction cabin 10.

[0048] In particular, the first perimetric structural wall 12 have an internal duct or cavity 52 and corresponding hollow spaces or fissures 62; the second perimetric structural wall 13 has an internal duct or cavity 53 and corresponding hollow spaces or fissures 63; the third perimetric structural wall 14 has an internal duct or cavity and corresponding hollow spaces or fissures not shown; the upper structural wall 17 has an internal duct or cavity 57 and corresponding hollow spaces or fissures 67.

[0049] The control and command means 90 are preferably also connected to the Turkish bath 40, in particular to the high concentration hot, damp vapour source, and also comprise a humidity sensor, not shown, for the automatic activation of the rapid drying means.

[0050] The rapid drying means can also be activated manually preferably by means of a knob 94 with which the control and command means 90 are preferably equipped.

[0051] The rapid drying means advantageously confer to any of the preferred embodiments of the multifunction cabin, further functions which are useful in a household environment such as laundry drying or the drying of clothes and/or washed or wet garments.

[0052] It can thus be seen that a multifunction cabin according to the present invention achieves the objectives specified above.

[0053] The multifunction cabin of the present invention thus conceived can undergo numerous modifications and variants, all included in the same inventive concept.

[0054] Furthermore, in practice, the materials used, as also the dimensions and components, can vary according to technical demands.

Claims

1. A multifunction cabin (10) **characterized in that** it comprises a sauna (20) and a shower (30) associated with each other inside said multifunction cabin (10).
2. The multifunction cabin (10) according to claim 1, **characterized in that** it comprises heating and dehumidifying means suitable for generating a hot, dry air flow inside said multifunction cabin (10).
3. The multifunction cabin (10) according to claim 2, **characterized in that** said heating and dehumidifying means comprise a heater and a dehumidifier associated with each other and communicating with an internal environment (11) of said multifunction cabin (10).
4. The multifunction cabin (10) according to any of the claims from 1 to 3, **characterized in that** said shower (30) of said multifunction cabin (10) comprises at least one water supplier.
5. The multifunction cabin (10) according to claim 4, **characterized in that** said at least one water supplier comprises a shower supplier and/or a detachable shower, and/or a mouth and/or a jet mouth, in particular equipped with a hydromassaging device.
6. The multifunction cabin (10) according to any of the claims from 1 to 5, **characterized in that** it comprises a series of perimetric structural walls made of natural wood, or impermeable multilayer wood.
7. The multifunction cabin (10) according to claim 6, **characterized in that** said series of perimetric structural walls comprises a first perimetric structural wall (12), a second perimetric structural wall (13), a third perimetric structural wall (14), a front structural wall (15) having at least an openable door (16), an upper structural wall (17) and a bottom structural wall (18).
8. The multifunction cabin (10) according to any of the claims from 1 to 7, **characterized in that** said shower (30) comprises a series of water supply mouths (31, 32), situated on said third perimetric structural wall (14) and/or on said upper structural wall (17).
9. The multifunction cabin (10) according to any of the claims from 1 to 8, **characterized in that** it comprises a series of lights (19) arranged on said second perimetric structural wall (13) and/or on said upper structural wall (17).
10. The multifunction cabin (10) according to any of the claims from 1 to 9, **characterized in that** it comprises audio/video devices housed in said upper structural wall (17).

11. The multifunction cabin (10) according to any of the claims from 1 to 10, **characterized in that** it comprises a detachable shower (33).
- 5 12. The multifunction cabin (10) according to claim 11, **characterized in that** said detachable shower (33) is housed on said third perimetric structural wall (14).
13. The multifunction cabin (10) according to any of claims 1 to 12, **characterized in that** it comprises a bed (70).
- 10 14. The multifunction cabin (10) according to claim 13, **characterized in that** said bed (70) is attached to said second perimetric structural wall (13).
- 15 15. The multifunction cabin (10) according to any of the claims from 7 to 14, **characterized in that** bottom structural wall (18) comprises a housing for a basin (84) .
- 16 16. The multifunction cabin (10) according to any of the claims from 1 to 15, **characterized in that** it comprises a basin (84), in particular made of a thermoformed polymeric material, for collecting the water and sending it to a water discharge basin (88).
- 20 17. The multifunction cabin (10) according to any of the claims from 1 to 16, **characterized in that** it comprises two removable drainage footboards (81, 82) made in particular of impermeable multilayer wood.
- 25 18. The multifunction cabin (10) according to any of the claims from 1 to 17, **characterized in that** it comprises electronic control and command means (90) comprising a multifunction control panel (91, 92) for the selection, activation and stoppage of the functions of said multifunction cabin (10).
- 30 19. The multifunction cabin (10) according to claim 18, **characterized in that** said control and command means (90) are connected to said sauna (20), in particular to said heater and said dehumidifier thereof.
- 35 20. The multifunction cabin (10) according to any of the claims from 1 to 19, **characterized in that** it comprises a Turkish bath (40) associated with said sauna (20) and **in that** it comprises rapid drying means for preventing the degradation of the lining or wooden elements of said multifunction cabin (10).
- 40 21. The multifunction cabin (10) according to claim 20, **characterized in that** said Turkish bath (40) is integrated with said sauna (20), and in particular with said heating means of the sauna (20) itself.
- 45 22. The multifunction cabin (10) according to claim 20 or 21, **characterized in that** said rapid drying means comprise a series of ducts or cavities and forced ventilation means (58) for forcing a flow of air into the room (11), capable of rapidly drying the perimetric structural walls of said multifunction cabin (10).
- 50 23. The multifunction cabin (10) according to claim 22, **characterized in that** said series of ducts is arranged inside a series of perimetric structural walls of said multifunction cabin (10).
- 55 24. The multifunction cabin (10) according to any of the claims from 7 to 23, **characterized in that** said first perimetric structural wall (12) has a duct or internal cavity (52) and corresponding hollow spaces or fissures (62), said second perimetric structural wall (13) has an internal duct or cavity (53) and corresponding hollow spaces or fissures (63); said third perimetric structural wall (14) has an internal duct or cavity and corresponding hollow spaces or fissures, said upper structural wall (17) has an internal duct or cavity (57) and corresponding hollow spaces or fissures (67).
25. The multifunction cabin (10) according to any of the claims from 20 to 24, **characterized in that** said control and command means (90) are connected to said Turkish bath (40).
26. The multifunction cabin (10) according to any of the claims from 20 to 25, **characterized in that** said control and command means (90) comprise a humidity sensor for the automatic activation of the rapid drying means.
27. The multifunction cabin (10) according to any of the claims from 20 to 26, **characterized in that** said control and command means (90) comprise a knob (94) for manually activating said rapid drying means.
28. Use of a multifunction cabin (10) equipped with rapid drying means for the drying of clothes.

Fig. 1

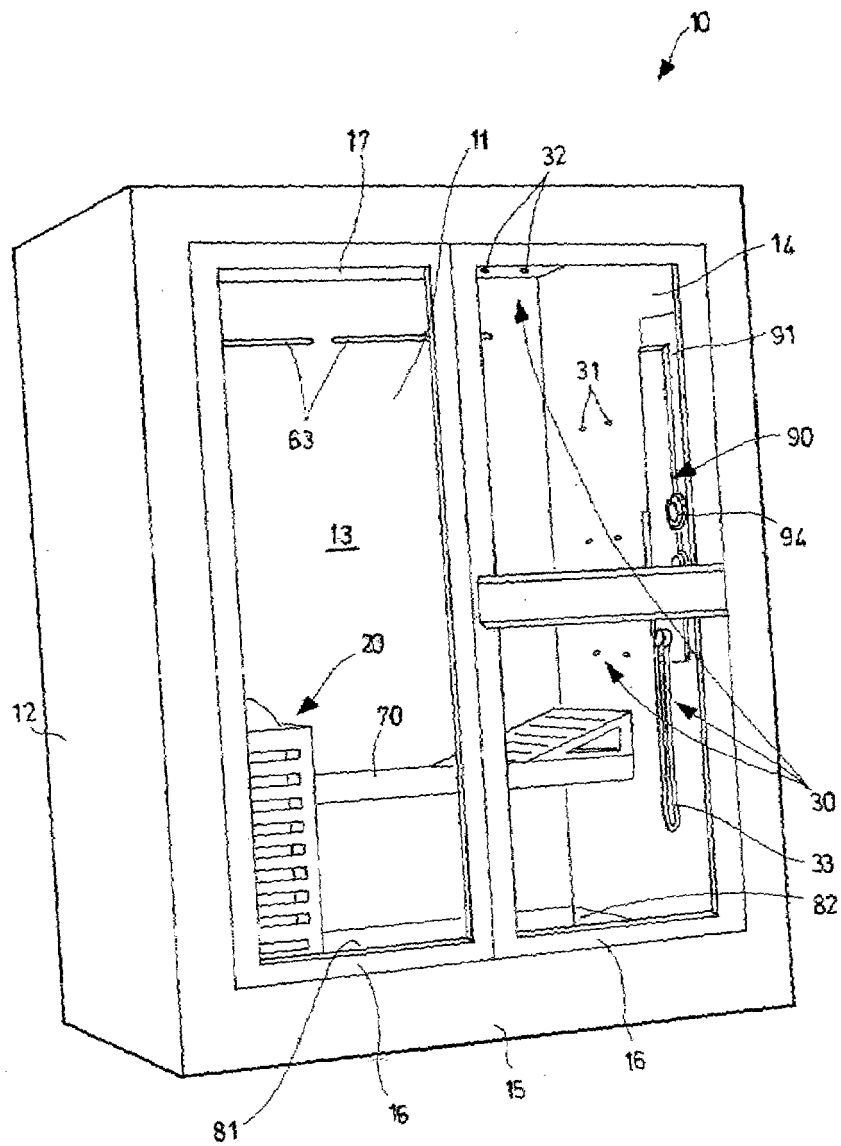
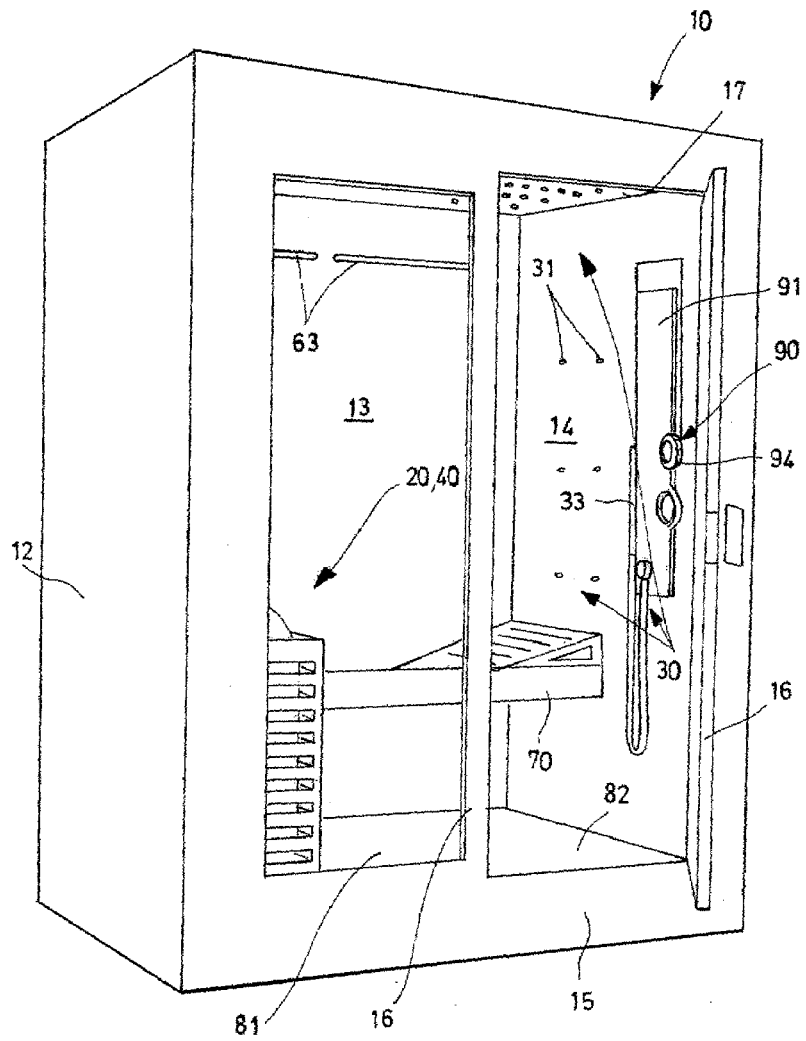


Fig. 2



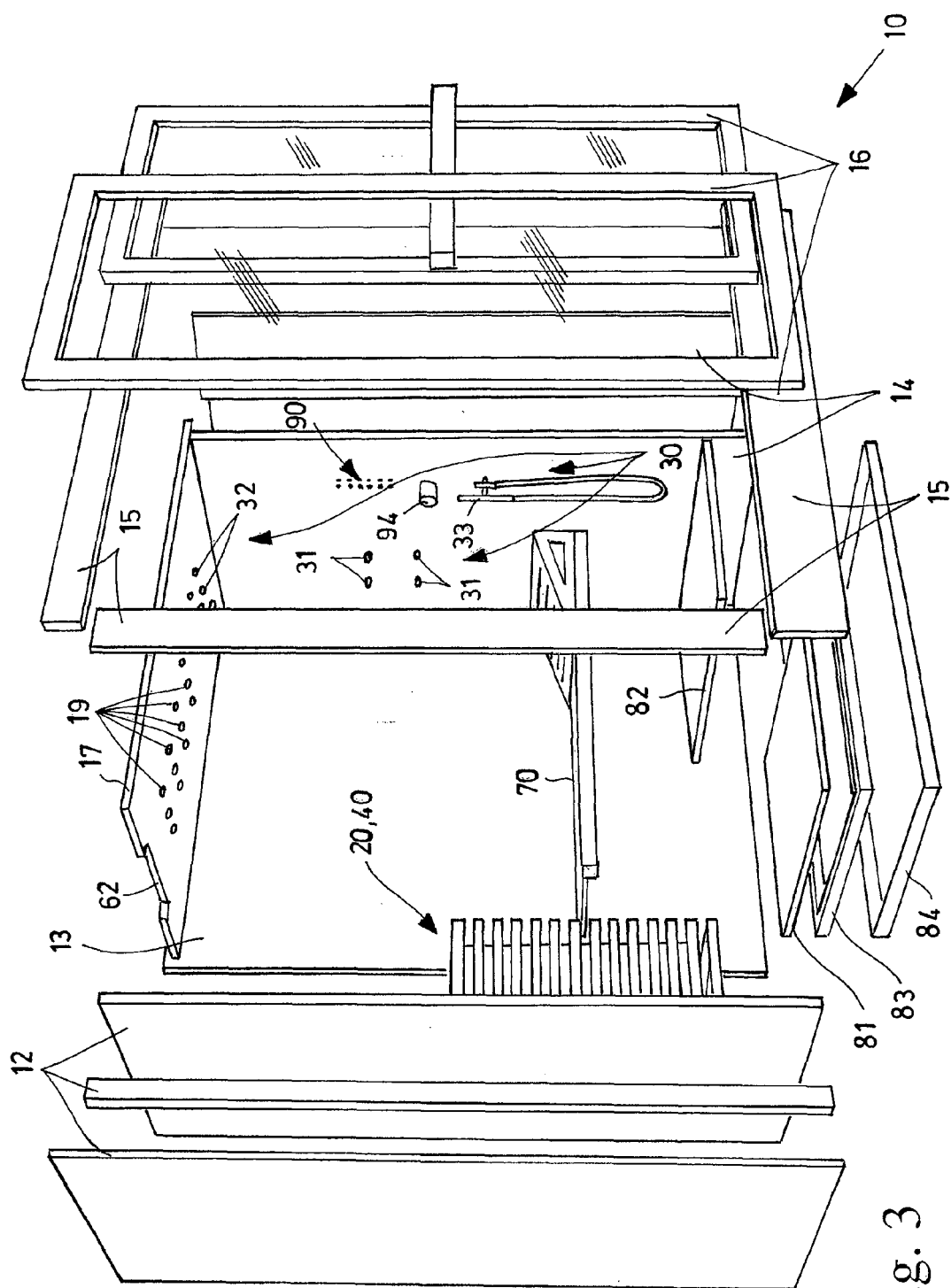


Fig. 3

Fig. 4

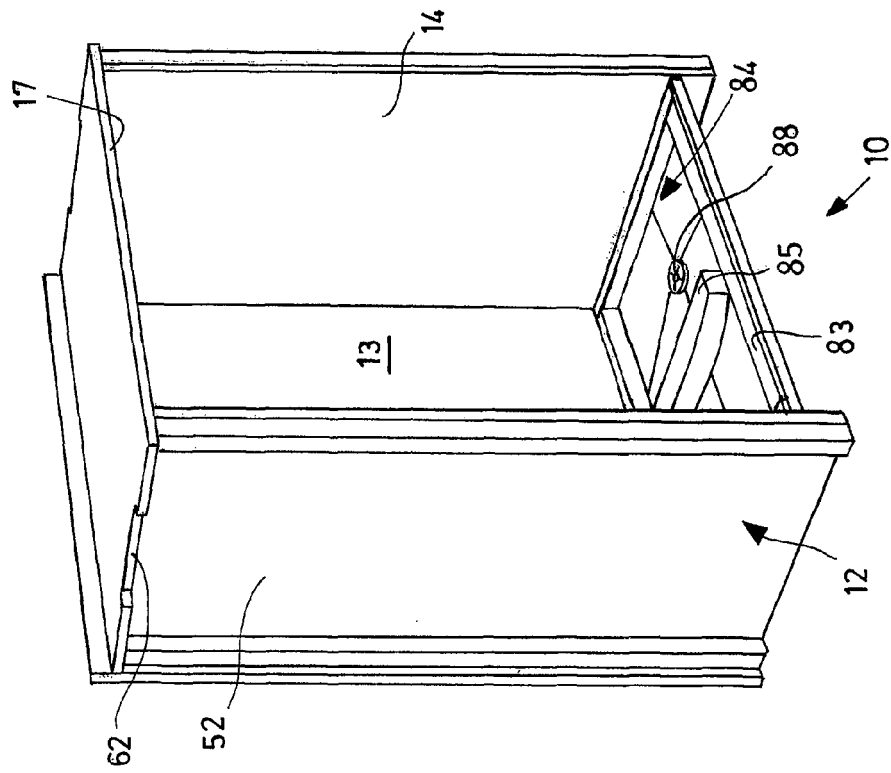
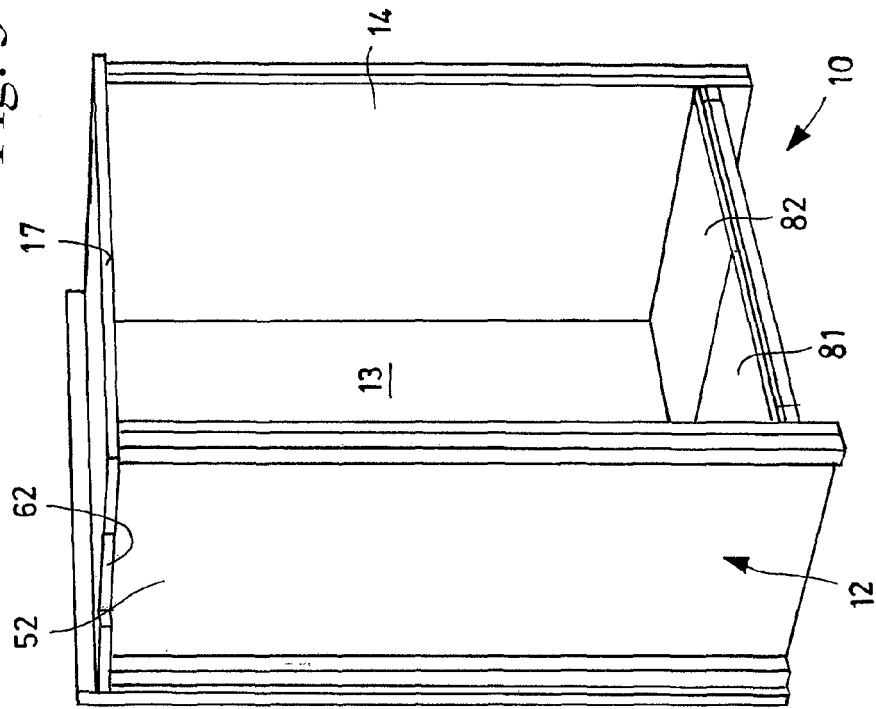


Fig. 5



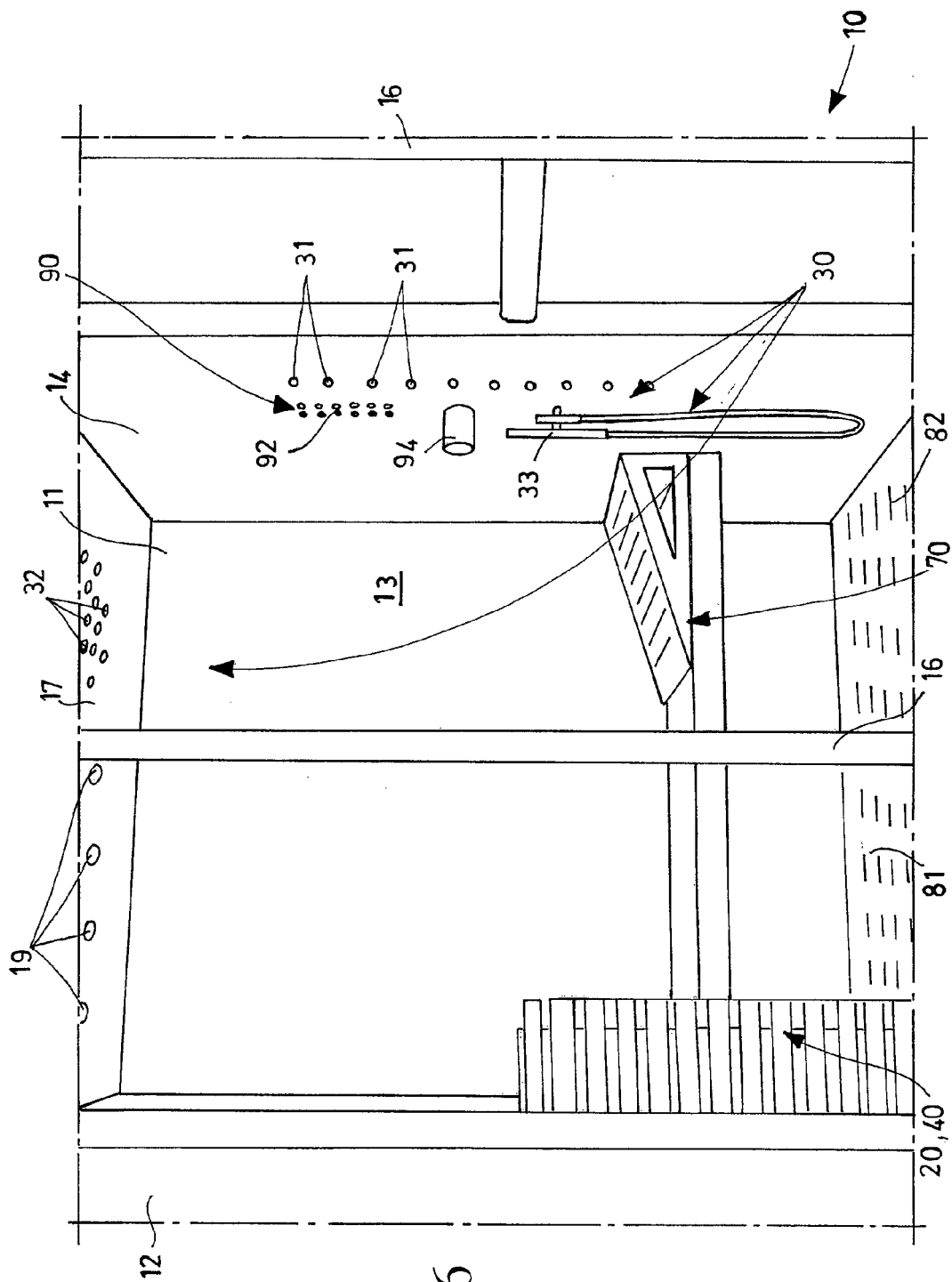


Fig. 6

Fig. 7

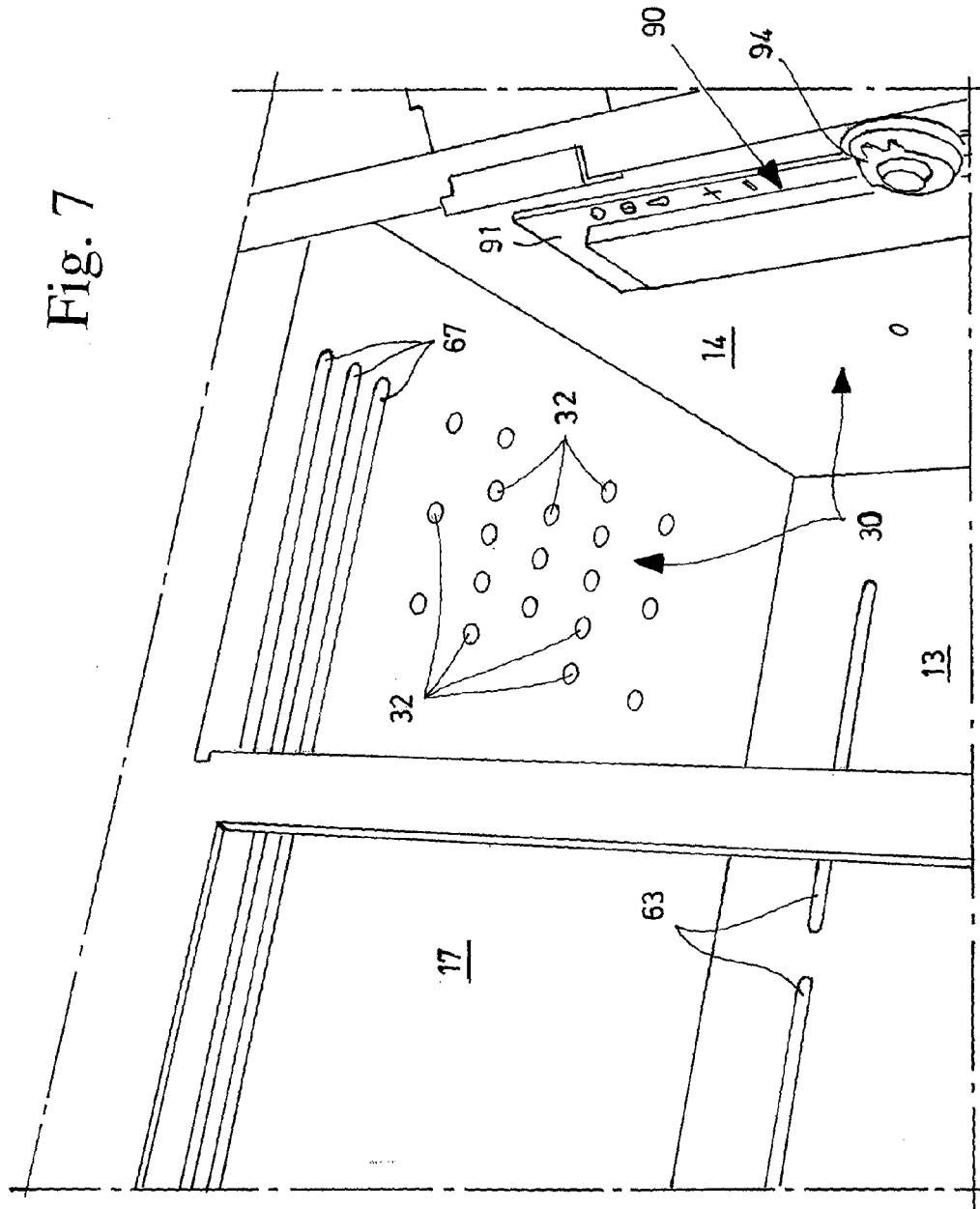


Fig. 8

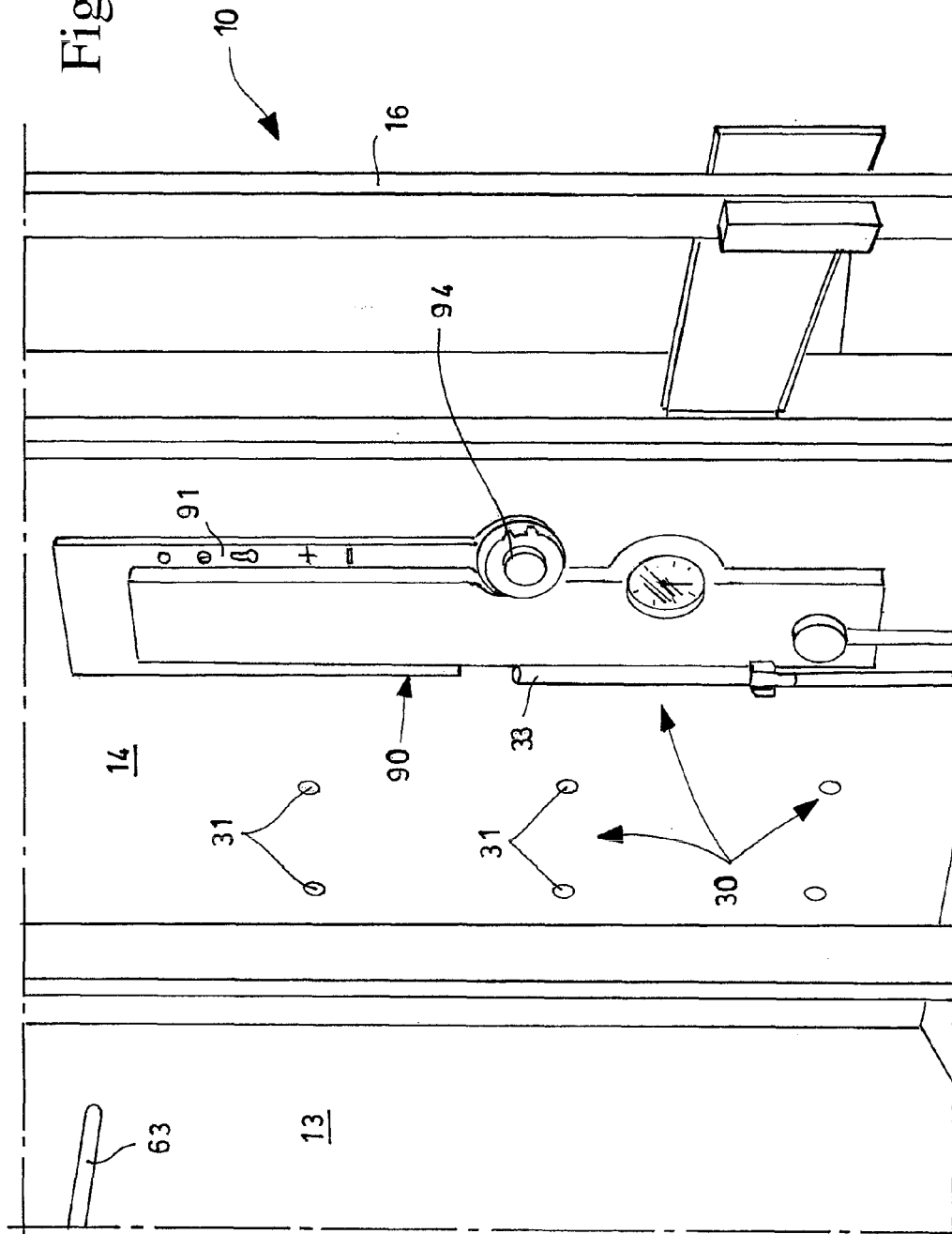
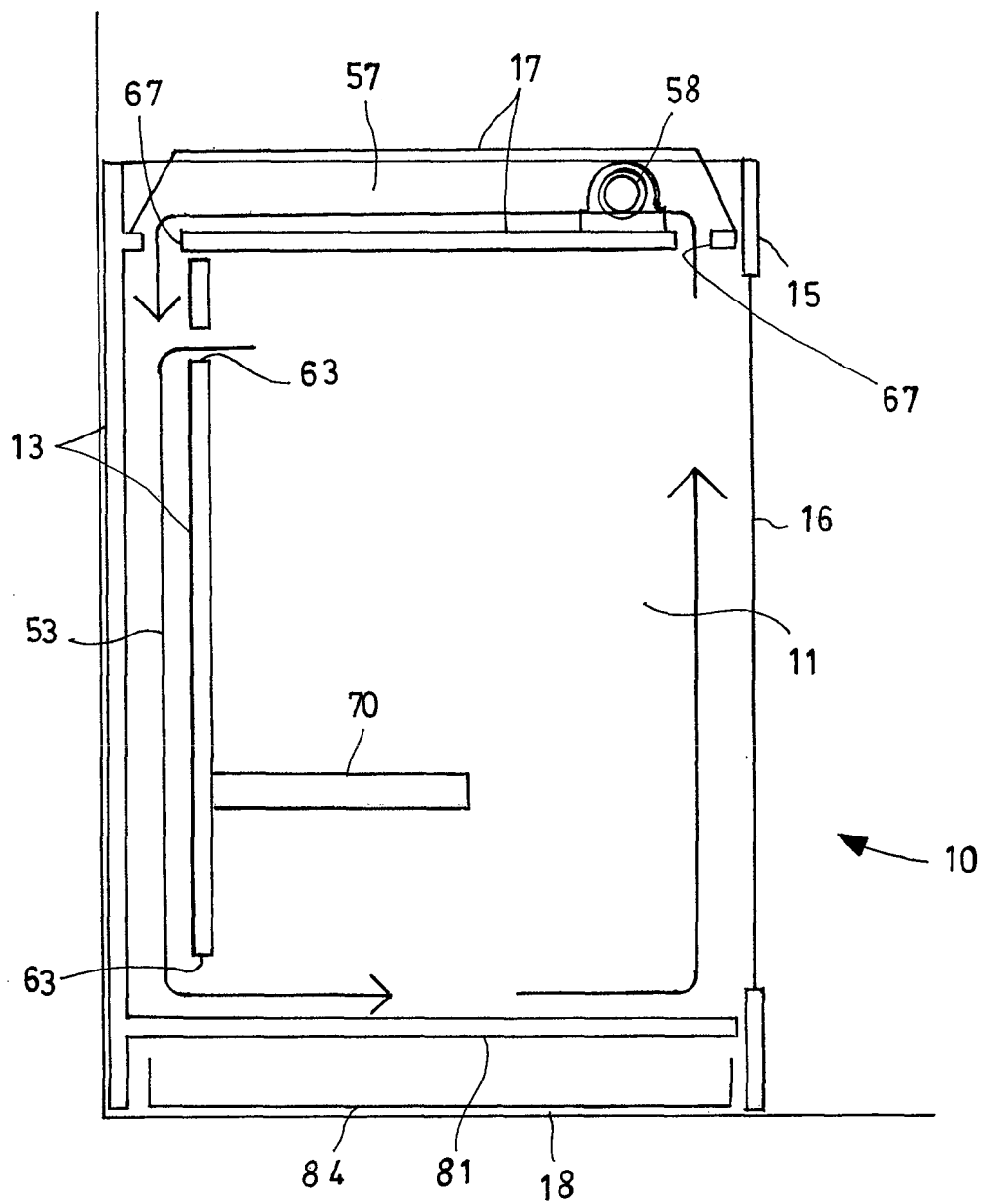


Fig. 9





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 06 11 0740

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 4 130 120 A (KOHLE, JR. ET AL) 19 December 1978 (1978-12-19) * column 1, line 65 - column 10, line 50; figures 1-19 *	1-28	INV. A61H33/06
X	US 4 340 981 A (VANAGS ET AL) 27 July 1982 (1982-07-27) * the whole document *	1-5,8, 11,12, 15,16, 18-21, 25,26	
X	US 3 781 921 A (DAHEM ROUAT P,FR) 1 January 1974 (1974-01-01) * column 1, line 11 - column 3, line 7; figures 1-7 *	1,2,4-7, 15,16,28	
X	EP 0 676 185 A (SYSTEM-POOL, S.A) 11 October 1995 (1995-10-11) * the whole document *	1,2,4,5, 8-22,25	
X	US 2 070 492 A (ROBERTS STERLING) 9 February 1937 (1937-02-09) * page 1, column 1, line 1 - page 3, column 1, line 20; figures 1-10 *	1-7,9, 15,16, 18,19	TECHNICAL FIELDS SEARCHED (IPC) A61H
X	US 1 985 147 A (CARLSON JOHN S) 18 December 1934 (1934-12-18) * the whole document *	1-5,15, 16,20-22	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 13 June 2006	Examiner Jekabsons, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 06 11 0740

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13-06-2006

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4130120	A	19-12-1978	NONE	

US 4340981	A	27-07-1982	AU 6302780 A	22-04-1982
			CA 1124007 A1	25-05-1982
			EP 0024714 A2	11-03-1981
			GB 2059258 A	23-04-1981
			JP 56034321 A	06-04-1981
			ZA 8005307 A	30-09-1981

US 3781921	A	01-01-1974	FR 2072574 A5	24-09-1971

EP 0676185	A	11-10-1995	ES 2112692 A1	01-04-1998

US 2070492	A	09-02-1937	NONE	

US 1985147	A	18-12-1934	NONE	
