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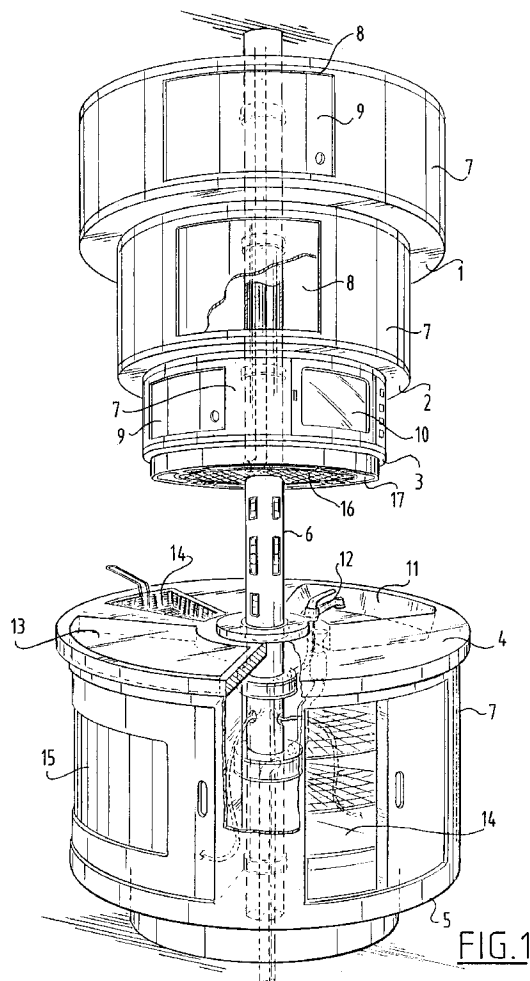
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(54) **Installation for storing and/or preparing food and the facilities required therefor**

(57) An installation for storing and/or preparing food and the facilities required for that purpose, comprising two or more bearing surfaces which are placed at a distance above each other for the facilities and stocks of food and which are supported by a single column, wherein the column is adapted for passage of public service utilities and/or the discharge of waste products, whereby it becomes possible to order the work areas and appliances round the column in random manner on the bearing surfaces so that the user can utilize the kitchen optimally.



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Description

The invention relates to an installation for storing and/or preparing food and the facilities required for that purpose, comprising two or more bearing surfaces which are placed at a distance above each other for the facilities and stocks of food and which are supported by a single column.

An installation of the type described in the preamble is much used in domestic and also professional kitchens, wherein the diverse appliances, inter alia for keeping hot, such as an oven, for refrigerating, such as a refrigerator, for washing, such as sink units, for extraction etc., are used in a predetermined sequence. This requires rather a lot of space. It has already been proposed for this purpose to arrange the bearing surfaces for the appliances and the storage round a column and at a distance above each other.

The invention has for its object to apply such an arrangement for a compact kitchen by using the bearing surfaces as support for the work areas and appliances required for preparing the food and the storage of the food itself, kitchen utensils, household articles and containers for remnants. The installation according to the invention is distinguished in that the column is adapted for passage of the public service utilities and discharge of waste products. It has hereby become possible to order the work areas and appliances round the column in random manner on the bearing surfaces so that the user can utilize the kitchen optimally.

According to a further development at least one of the bearing surfaces is mounted rotatably on the central axis of the column. The desired work areas and appliances can thereby be presented to the user by rotation.

In order to improve the aesthetic appearance of the installation it is recommended to provide the or each bearing surface along the periphery with a standing wall part of random material which extends no further than the higher placed bearing surface. The desired work areas and appliances can be built in behind this wall part.

According to a further development at least one bearing surface is embodied as work surface for the user and provided if necessary with recessed parts for accommodating the desired appliances such as a sink and/or heating zones such as a cooking surface, induction plate and the like.

According to a further development the or each bearing surface, in particular the work surface, is height-adjustable along the column by means of manual operation and/or controlled motor.

Rotating of the or each bearing surface can take place manually. The invention finally proposes herein to have each bearing surface or group of bearing surfaces rotate round the column by means of a controlled motor.

Above mentioned and other features of the invention will be further elucidated in the figure description of an embodiment hereinbelow. In the drawing:

fig. 1 shows a standing perspective view of an installation according to the invention,

fig. 2 shows a detail in perspective view of a part of the column with rotating passage as applicable in the embodiment of the installation of fig. 1,

fig. 3 shows a number of schematic views of possible configurations of rotatable bearing surfaces round a column.

In fig. 1 is shown a plurality of bearing surfaces 1, 2, 3, 4 and 5 which are all arranged round an upright column 6. The upright column can be self-supporting by means of a base (not shown) on the floor but can also be anchored in the floor as well as in for instance the ceiling, as shown in fig. 1.

The bearing surfaces are embodied along the periphery with a standing wall part 7, which here has a cylindrical shape because of the circular form of the bearing surfaces but which may also have a different shape, see below.

Arranged in the standing wall parts are recesses 8 which can be closed if desired by means of a sliding door or swing door 9. Appliances, for instance in the form of a microwave oven 10, can also be placed on the bearing surfaces, for instance bearing surface 3.

The bearing surface 4 is embodied as work-top and provided with a sink 11 with associated tap 12, a cutting surface 13, a deep-fryer 14 and the like.

In the space located beneath work surface 4 various appliances requiring more space can be arranged on bearing surface 5, such as a refrigerator function or a keeping warm/heating function.

In the part between bearing surfaces 4 and 3 the column is embodied with wall sockets for the supply of electricity. An extractor function 16 in addition to lighting 17 can be arranged under bearing surface 3.

According to the invention it is possible to allow each bearing surface 1-5 to rotate separately or collectively round column 6. If desired however, the work surface 4 can be arranged fixedly relative to column 6.

Rotation of the surfaces can be carried out manually or by one or more motors which are controllable by a fixed switch panel on for instance the intermediate column part 6 or by a remote control.

Height adjustment of one or more bearing surfaces can also be performed manually or by means of optionally remote controlled motors.

According to the main characteristic of the invention the column 6 is adapted as a hollow column which serves as supporting element and for inlet and outlet of public service utilities such as electricity, water and gas, respectively the draining of waste products such as waste water from the sink 11 and exhaust gases resulting from the extractor function 16. In order to enable rotating arrangement of the diverse elements a possible embodiment is shown in fig. 2 for draining for instance waste water from the pipe 20, the free end of which (not shown) is connected to the outlet of the sink 11. Ar-

ranged round column 6 is a rotating ring 21, onto a stump 22 of which the pipe 20 is connected by means of a clamping strip 23. The ring 21 has a sealing ring 24 respectively 25 which form an annular chamber 26 located round the column 6. This chamber communicates via the elbow 27 with an outlet pipe 28. It will be apparent that when the outlet pipe 20 is rotated round column 6 the waste water can enter the pipe 28 via the chamber 26.

The column further shows an electrical cable 29 and water feed 30. The pipe 31 can optionally serve to supply gas.

By limiting the rotation movement optional use can of course be made of flexible hoses between the appliances and the feed pipes 29-31 or outlet pipe 20-28.

Fig. 3a-3f each show a variant of an embodiment of the kitchen, i.e. the peripheral shape and size of the bearing surfaces round the column. The periphery can thus be circular as well as angled. The dimensions of the bearing surfaces can herein increase or decrease toward the top or form other combinations.

The invention is not limited to the above described embodiments.

7. Installation as claimed in claim 5, **characterized in that** an appliance for preparing or storing food is arranged fitting into the opening.

5 8. Installation as claimed in any of the foregoing claims, **characterized in that** a bearing surface is embodied as work surface for the user and provided if necessary with recessed parts for accommodating desired appliances such as a sink and/or heating zones such as a cooking surface, induction plate and the like.

10 9. Installation as claimed in any of the foregoing claims, **characterized in that** the or each bearing surface is height-adjustable along the column.

15 20 10. Installation as claimed in any of the foregoing claims, **characterized in that** the or each bearing surface is driven adjustably around or along the column by means of a controlled motor.

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Claims

1. Installation for storing and/or preparing food and the facilities required for that purpose, comprising two or more bearing surfaces which are placed at a distance above each other for the facilities and stocks of food and which are supported by a single column, **characterized in that** the column is adapted for passage of public service utilities and/or the discharge of waste products.

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2. Installation as claimed in claim 1, **characterized in that** at least one bearing surface is mounted rotatably on the central axis of the column.

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3. Installation as claimed in claim 1, **characterized in that** the or each bearing surface is mounted for rotation round the column independently of each other.

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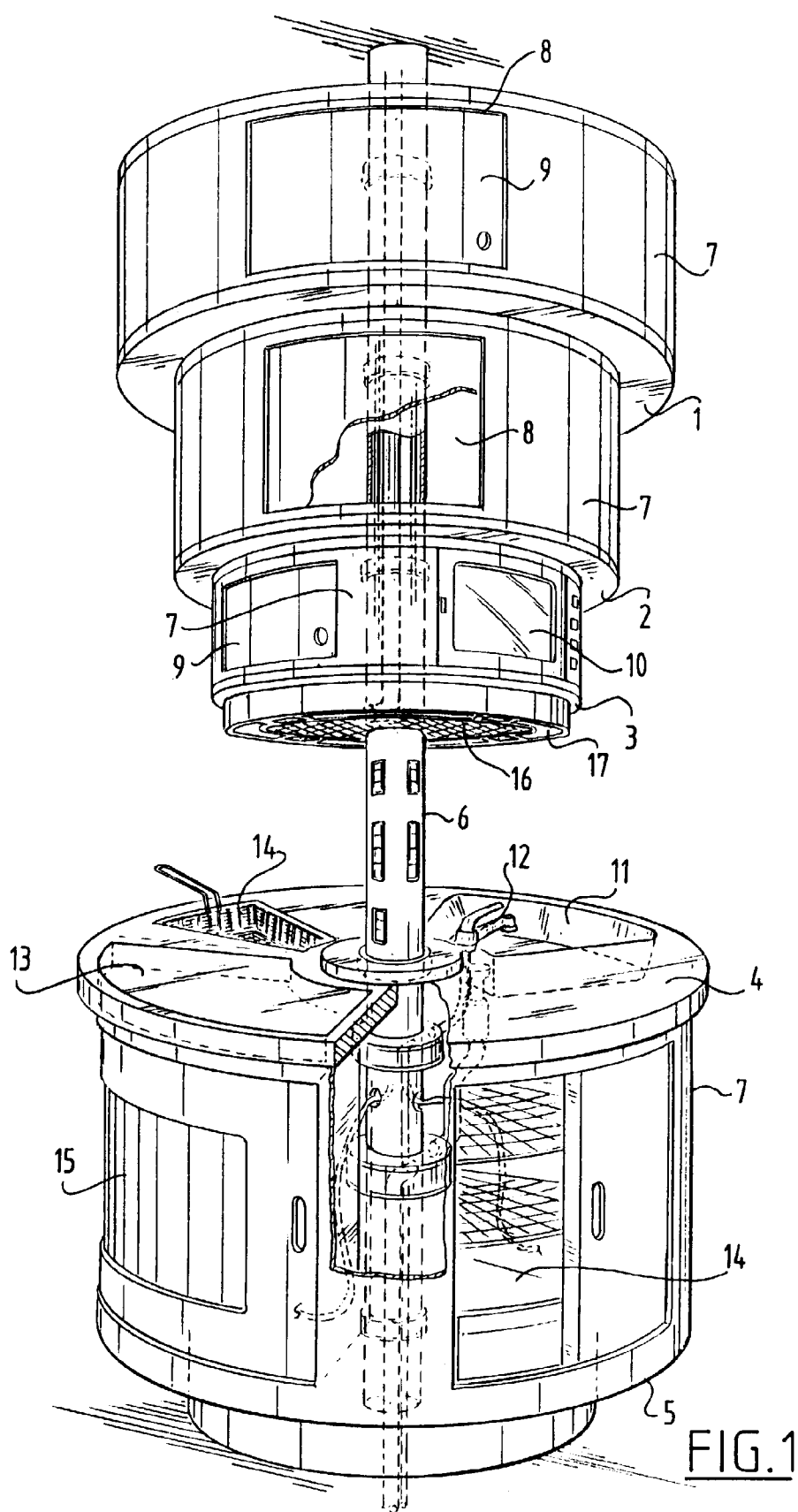
4. Installation as claimed in any of the foregoing claims, **characterized in that** one or more bearing surfaces is provided along the periphery with a standing wall part which extends no further than the higher placed bearing surface.

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5. Installation as claimed in claim 4, **characterized in that** one or more openings are recessed into the standing wall part.

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6. Installation as claimed in claim 5, **characterized in that** at least one opening is closable by means of a door.



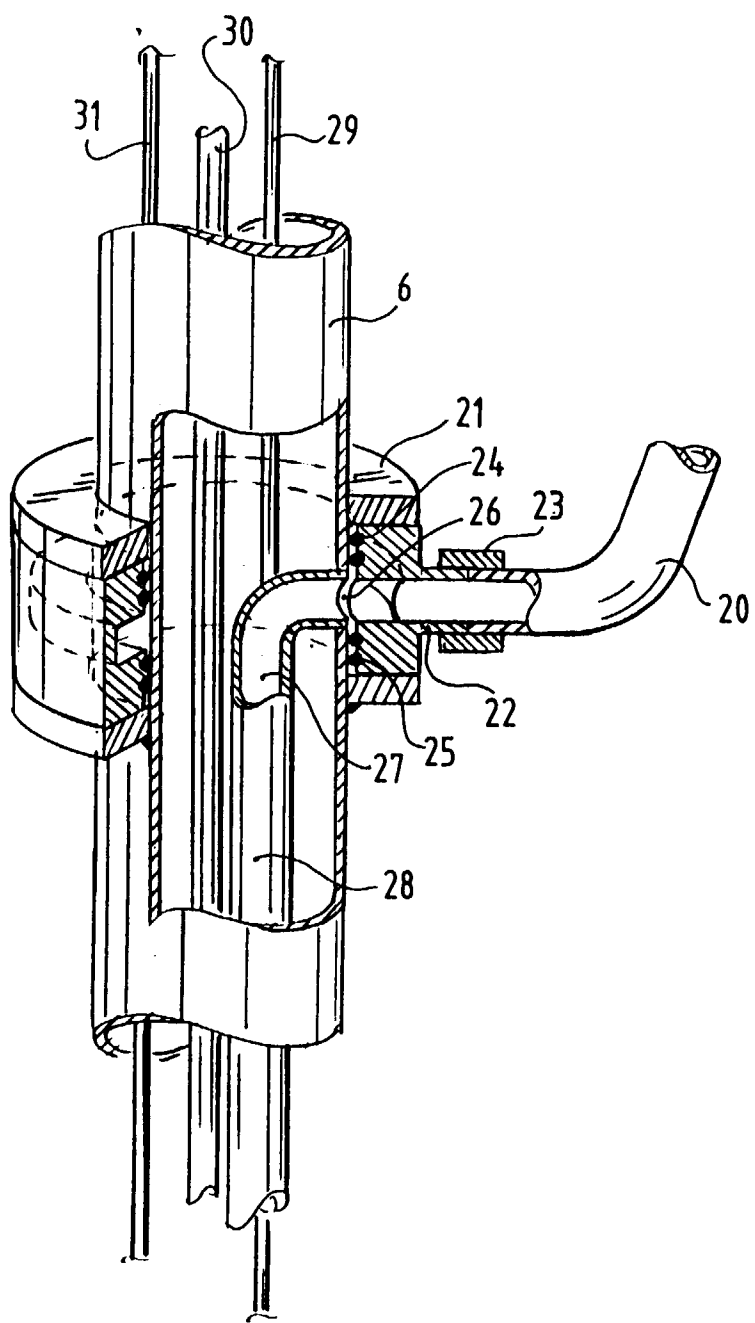


FIG. 2

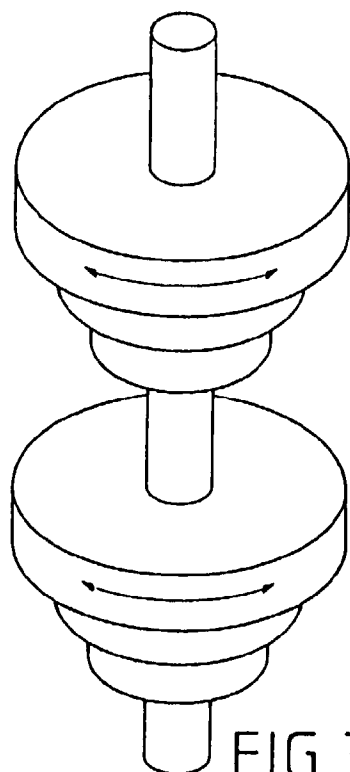


FIG. 3a

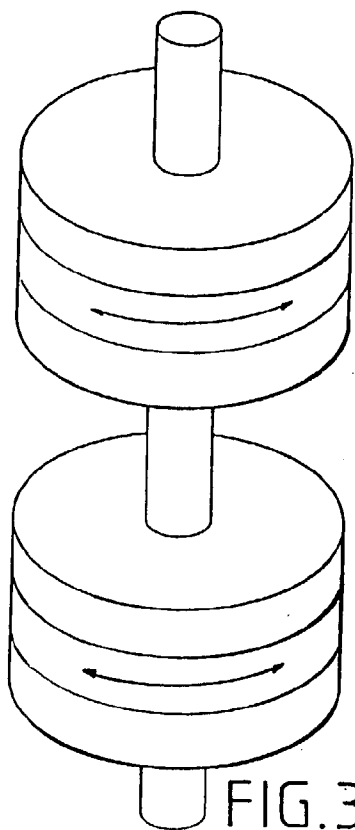


FIG. 3b

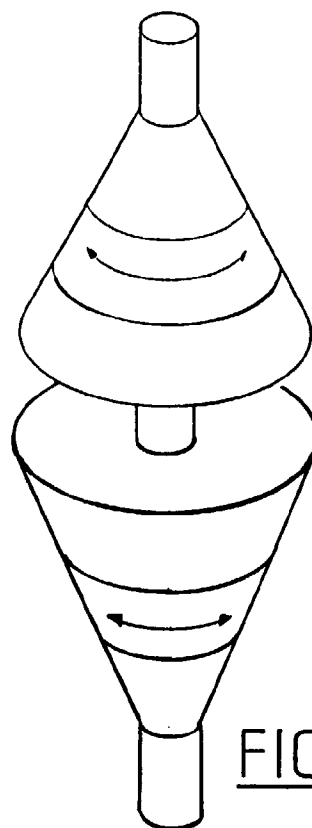


FIG. 3c

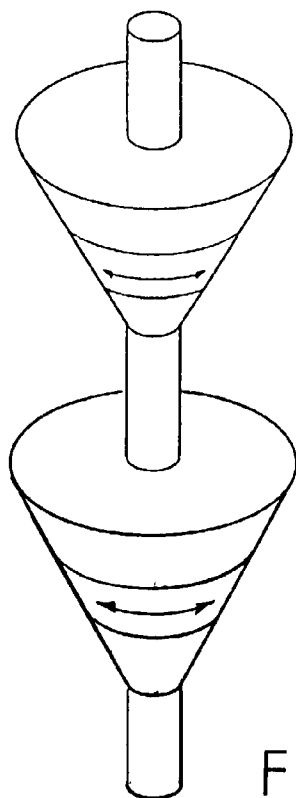


FIG. 3 d

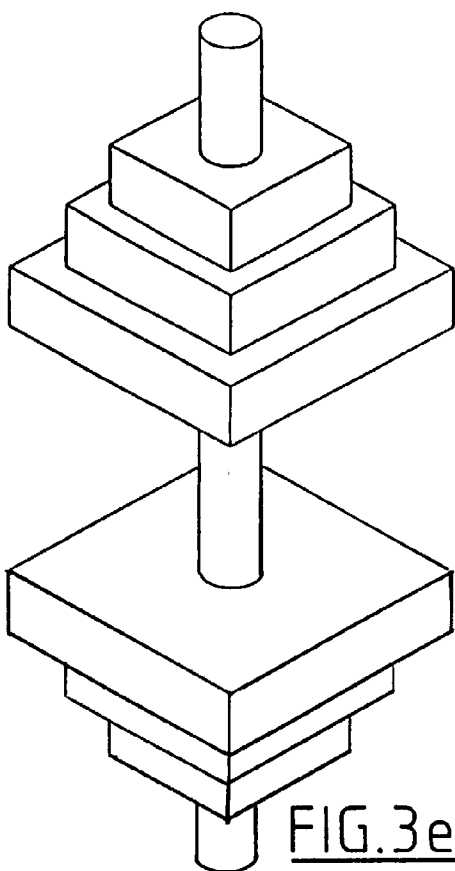


FIG. 3e

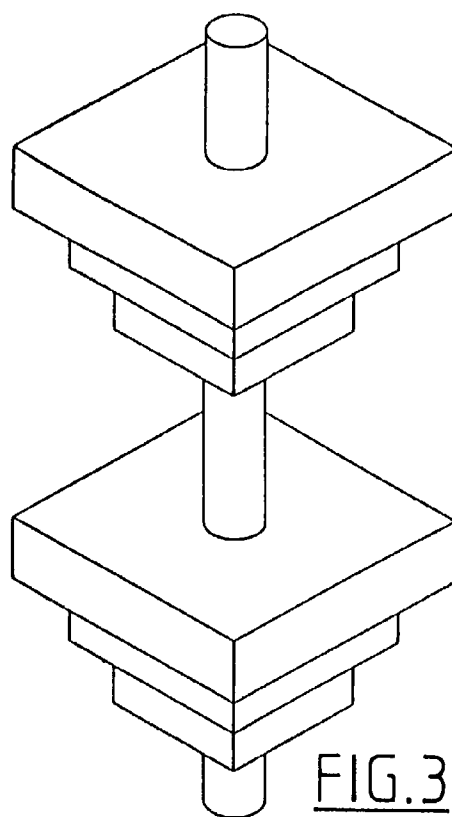


FIG. 3 f



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EUROPEAN SEARCH REPORT

Application Number
EP 95 20 3108

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.6)
Y	AT-A-393 443 (YURIKO TONOMURA) 25 October 1991 * abstract; figures 1,2,7 * * page 1, paragraph 4 - paragraph 5 * * page 2, paragraph 1 - paragraph 3 * * page 2, line 43 - line 44 * ---	1,3-8	A47B77/04
Y	GB-A-1 562 566 (BRITISH STEEL CORPORATION) 12 March 1980 * page 1, paragraph 2; figure 2 * * page 2, column 2, paragraph 2 * ---	1,3-8	
A	DE-U-92 02 702 (AVERBECK) 4 June 1992 * claims 1,9; figure 1 * ---	1,2	
A	US-A-3 933 400 (HELGESON) 20 January 1976 * abstract; figure 2 * * column 3, paragraph 2 * ---	10	
A	US-A-5 213 402 (BERNAL ET AL.) 25 May 1993 -----		
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6) A47B B65F E04F
Place of search THE HAGUE		Date of completion of the search 20 March 1996	Examiner Jones, C
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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