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(54) Bed for cosmetic/therapeutic steam treatments

(57) The invention produces a bed for cosmetic/therapeutic steam treatments (1) comprising a frame (2) provided with a cavity (8) delimited overhead by a perforated surface (3) where the patient (4) lies, a hood (5) suited to at least partly covering said patient (4) and means of channelling steam (6) towards the inside of said frame (2). The cavity (8) has a series of vertical walls (9) creating separate chambers (10a, 10b, 10c), each suited to receiving the steam (7) fed by said means of channelling steam (6).

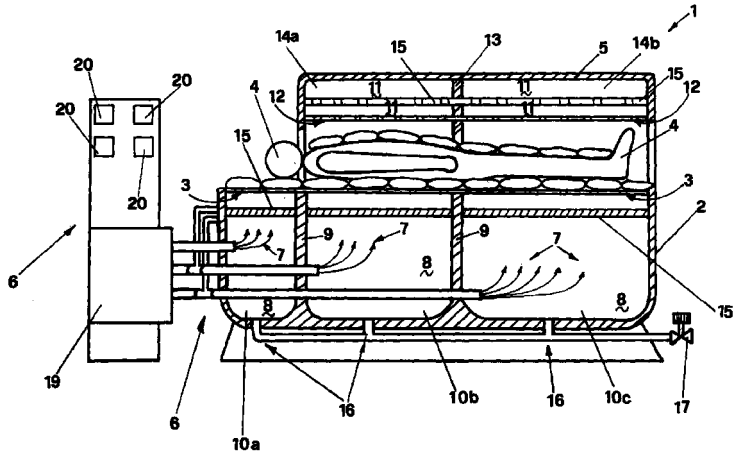

FIG.1

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Description

[0001] The invention concerns a bed for cosmetic/therapeutic steam treatments in zones, especially suited to being used for administering patients with hay baths, steam or aromatherapy, algae poultices.

[0002] It is common knowledge that some patients affected by pathologies such as arthrosis and rheumatism are recommended therapy by cutaneous absorption based on hay baths.

[0003] These cures take advantage of certain intrinsic therapeutic properties in hay, which it releases and are absorbed by the organism when hay is heated and disposed against the patient's body.

[0004] For this purpose the therapist prepares the hay, that has been preheated, on a bed so that it forms a first layer of hay where the patient lies, who is then covered by a second layer of hay.

[0005] Steam beds are known that, by releasing hot steam into special chambers containing the hay, where it is heated to the temperature required for the treatment.

[0006] The main inconvenience of this kind of bed for cosmetic/therapeutic treatments is that the hay has to be heated separately and before carrying out the treatment.

[0007] Another inconvenience is that this device does not allow an adequate control over the temperature of the hay during treatment, and as mentioned earlier, this temperature is fundamental to the good and effective outcome of the therapy.

[0008] To avoid this steam beds have been produced, which basically comprise a tub fitted with a series of nozzles that release the hot steam suited to heating the hay.

[0009] In this case, a first layer of hay is spread over the bottom of the tub where the patient then lies.

[0010] The main inconvenience of the known products described above is that the steam is applied to the whole tub, in other words there is no possibility of confining a specific area for treatment.

[0011] This does not allow this type of treatment to be administered to patients who suffer from pathologies such as varicose veins and any such problem.

[0012] Another inconvenience is that the hay eventually spread over the patient is not heated and must therefore be brought to an adequate temperature before application.

[0013] The scope of this invention is to overcome said inconveniences.

[0014] In particular, a first scope of this invention is to produce a bed for cosmetic/therapeutic steam treatments that allows the localising of the actual treatment.

[0015] Another scope is that the steam bed invention allows to adequately control the temperature of the hay disposed against the patient's body.

[0016] An additional scope is to produce a steam bed that does not need preheating of the hay used for the treatment.

[0017] The scopes are achieved by a bed for cosmetic/therapeutic steam treatments that in accordance with the main claim comprises:

- a frame provided with a cavity having an essentially longitudinal construction delimited overhead by a first perforated surface set basically horizontal, where the patient lies;
- a hood suited to at least partly covering said patient;
- means of channelling steam at least towards the inside of said frame;

that is characterised in that said cavity has a series of vertical walls creating two or more separate chambers, each suited to independently receiving the steam fed by said means of channelling.

[0018] An advantage of the invention is that it allows a differentiated control of both temperature and point of application of the treatment being administered to the patient.

[0019] Said scopes and advantages will be better explained during the description of a preferred form of execution of the invention given as a guideline but not a limitation and illustrated in the attached diagrams, where:

- fig. 1 illustrates a side section of the bed for cosmetic/therapeutic steam treatments under this invention;
- fig. 2 illustrates a front, partly sectioned view of the bed in fig. 1;
- fig. 3 illustrates a front, partly sectioned view of the bed in fig. 1 in one of its possible work set-ups;
- fig. 4 illustrates a variant of the bed for cosmetic/therapeutic treatments in fig. 1;
- fig. 5 illustrates a detail of some elements that make up the bed in fig. 1;
- fig. 6 illustrates an overhead view of the bed for cosmetic/therapeutic treatments in fig. 1.

[0020] The bed for cosmetic/therapeutic steam treatments under this invention is illustrated in fig. 1, where it is generally indicated by **1**.

[0021] It comprises a frame **2** provided with a cavity **8** having an essentially longitudinal construction delimited overhead by a first perforated surface **3** set basically horizontal, where the patient **4** lies.

[0022] A hood **5** is suited to partly cover the patient **4** while means of channelling steam, generally indicated by **6**, allow the delivery of steam **7** inside the frame **2**.

[0023] The invention prescribes that the cavity **8** has a series of vertical walls **9** creating independent chambers **10a**, **10b**, **10c** each suited to independently receiving the steam **7** fed by the means of channelling steam **6**.

[0024] With regards to the hood **5**, this creates a

cavity **11** delimited by a second perforated surface **12** substantially facing the first perforated surface **3**. It swivels on a pin, not illustrated, set lengthways along the side of the frame **2** to allow the bed **1** to be opened, as illustrated in fig. **3**.

[0025] The inside of the cavity **11** is partitioned by a vertical wall **13** creating two separate chambers **14a** and **14b** each suited to independently receiving, as illustrated in fig. 2, the steam **7** fed by the means of channelling steam **6**.

[0026] Inside the separate chambers **10a**, **10b**, **10c**, **14a**, **14b** there are diffuser grilles **15**, illustrated in detail in fig. **5**, suited to uniformly distributing the steam **7** fed by the means of channelling steam **6**.

[0027] Along the bottom, each of the independent chambers **10a**, **10b**, **10c**; **14a 14b** has collector headers **16** for the condensate water, connected to drain piping **17**.

[0028] In particular the means of channelling **6** the steam, illustrated in detail in fig.'s 1 and 6, comprise a series of ducts **18** connected hydraulically to means of controlling the steam flow **19**, suited to channelling the steam distributed into each of the independent chambers **10a**, **10b**, **10c**; **14a**, **14b**.

[0029] The means of controlling the steam flow **19** consist of a series of two-way solenoid valves, not illustrated, electrically wired and operated from a control panel **20**, which enable or prevent the delivery of steam towards the ducts **18** and therefore towards each of the independent chambers **10a**, **10b**, **10c**; **14a**, **14b**.

[0030] By selectively controlling the delivery of steam to each of the independent chambers **10a**, **10b**, **10c**, **14a**, **14b**, this allows to localise the treatment on different areas of the patient's body **4**.

[0031] Variants in execution may prescribe the use of multistage solenoid valves, which thereby allow to not only enable or prevent the delivery of steam but moreover even control its flow.

[0032] To administer a patient **4** with a hay bath, bed **1** is opened, as illustrated in detail in fig. 3, and the hay is placed on the first perforated surface **3** that, in the example illustrated, is contained in bags **16**.

[0033] The patient **4** then lies on the first perforated surface **3** covered with bags **16** and is then covered by additional bags of hay **16**.

[0034] In conclusion, after having closed the bed **1**, as illustrated in detail in fig. 2, the steam supply is opened by actuating the solenoid valves.

[0035] The steam reaches the independent chambers **10a**, **10b**, **10c**; **14a**, **14b** and is diffused by the grilles **15** until it first reaches the two perforated surfaces **3** and **12** and then the hay held in the bags **16**, thereby heating it.

[0036] It is important to note how the means of controlling the distribution allow, through the control panel **20**, to select into which independent chambers **10a**, **10b**, **10c**; **14a**, **14b** the steam will be delivered, thereby allowing to select the areas of application of the treatment.

[0037] Variants in execution may prescribe that the hood **5** is divided lengthways, as illustrated in fig. 6, in several parts or hoods **5a**, **5b**.

[0038] Additional variants in execution may prescribe both a different quantity of independent chambers and differences in their partitioning, suited to localise the areas to treat.

[0039] In a similar manner the perforated surface where the patient **4** lies may, as illustrated in detail in fig. 4, have a curved cross section **21** while the perforated surface **12** may be flat.

[0040] However the finding has been described with reference to the attached diagrams, it may undergo changes in construction falling under the claims and therefore protected by this patent.

Claims

1. Bed for cosmetic/therapeutic steam treatments (**1**) comprising:
   - a frame (**2**) provided with a cavity (**8**) having an essentially longitudinal construction delimited overhead by a perforated surface (**3**) set basically horizontal, where the patient (**4**) lies;
   - a hood (**5**) suited to at least partly covering said patient (**4**);
   - means of channelling steam (**6**) at least towards the inside of said frame (**2**);

   characterised in that said cavity (**8**) has a series of vertical walls (**9**) creating two or more separate chambers (**10a**, **10b**, **10c**), each suited to independently receiving the steam (**7**) fed by said means of channelling steam (**6**).

2. Steam bed (**1**) according to claim 1) **characterised in that** said hood (**5**) creates a cavity (**11**) delimited by a second perforated surface (**12**) substantially facing said first perforated surface (**3**), suited to independently receiving the steam (**7**) fed by said means of channelling steam (**6**).

3. Steam bed (**1**) according to claim 2) **characterised in that** in said cavity (**11**) has one or more vertical walls (**13**) creating two or more separate chambers (**14a**, **14b**), each suited to independently receiving the steam (**7**) fed by said means of channelling steam (**6**).

4. Steam Bed (**1**) according to claim 1) or 2) **characterised in that** said means of channelling steam (**6**) comprise a series of ducts (**18**) connected hydraulically to means of controlling the steam flow (**19**) towards said chambers (**10a**, **10b**, **10c**, **14a**, **14b**).

5. Steam bed (**1**) according to claim 4) **characterised in that** said means of controlling the steam flow

(**19**) comprise a series of solenoid valves electrically wired to a control panel (**20**) suited to actuate them.

6. Steam bed (**1**) according to claim 4) **characterised in that** said solenoid valves are of a multistage type.

7. Steam bed (**1**) according to claim 5) **characterised in that** said solenoid valves are of a two-way type.

8. Steam bed (**1**) according to claim 1) or 6) **characterised in that** each of said independent chambers (**10a**, **10b**, **10c**; **14a**, **14b**) has collector headers (**13**) for the condensate water, connected to at least one drain pipe (**17**).

9. Steam bed (**1**) according to claim 1) **characterised in that** said hood (**5**) is partitioned lengthways in two or more sections (**5a**, **5b**) that are independent from one another.

10. Steam bed (**1**) according to claim 1) or 9) **characterised in that** said hood (**5**) swivels on a pin set lengthways along the side of said frame (**2**) to allow said bed (**1**) to be opened

11. Steam bed (**1**) according to claim 1) **characterised in that** each of said independent chambers (**10a**, **10b**, **10c**; **14a**, **14b**) has at least one diffuser grille (**15**) for said steam (**7**).

12. Steam bed (**1**) according to claim 1) **characterised in that** said first perforated surface (**3**) has a curved cross-section (**21**).

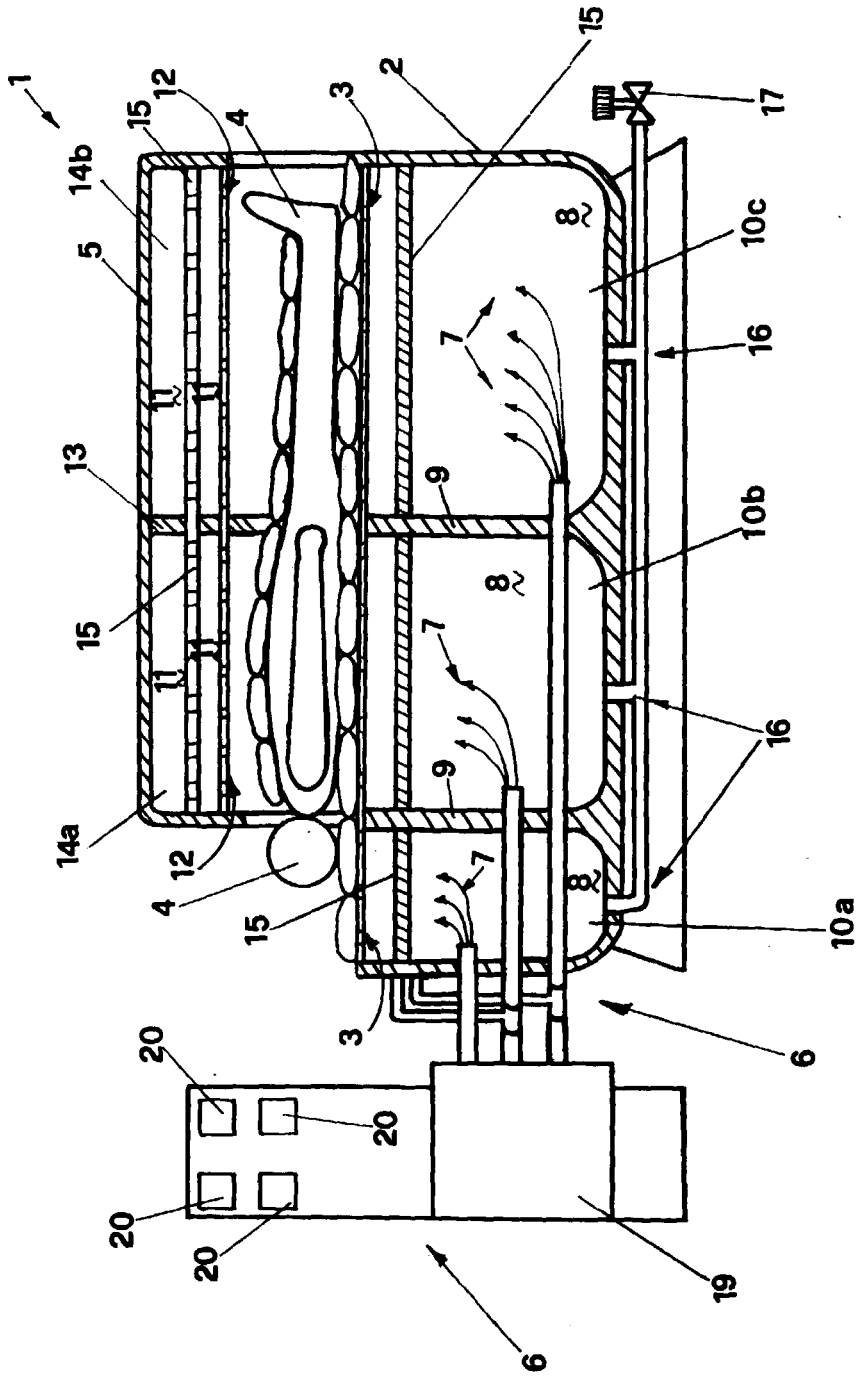

FIG.1

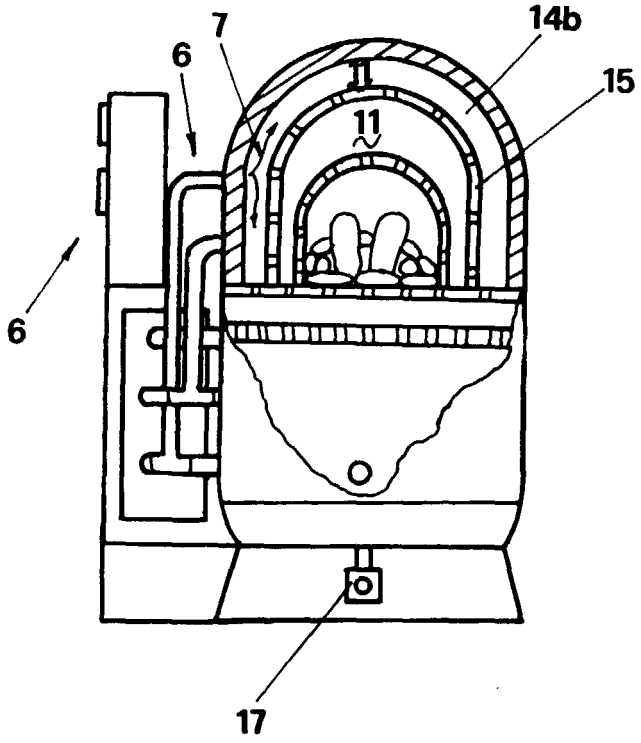

FIG.2

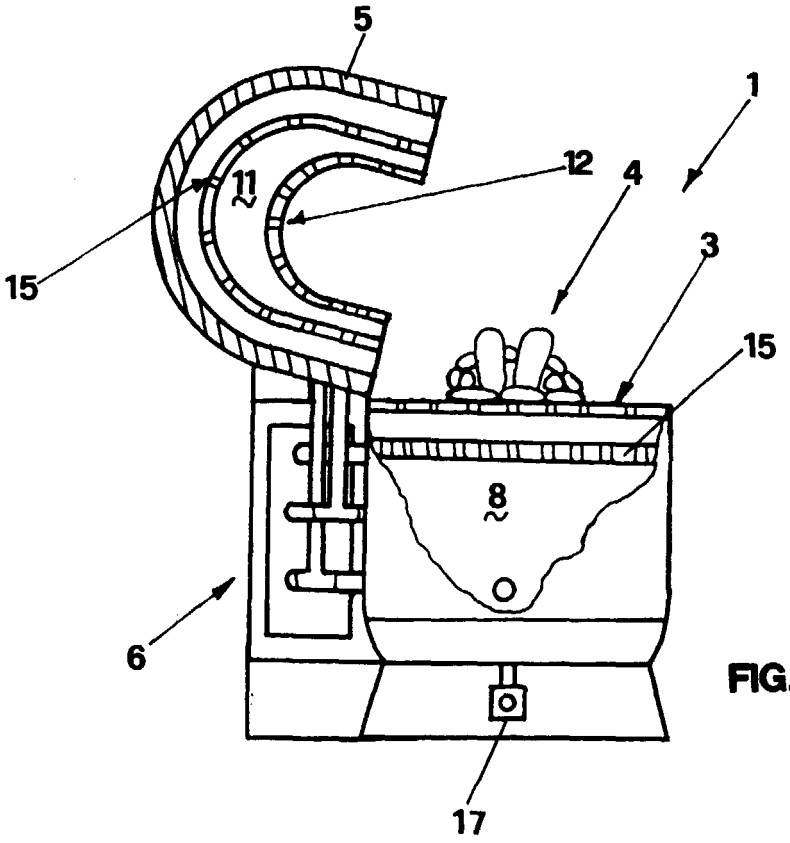

FIG.3

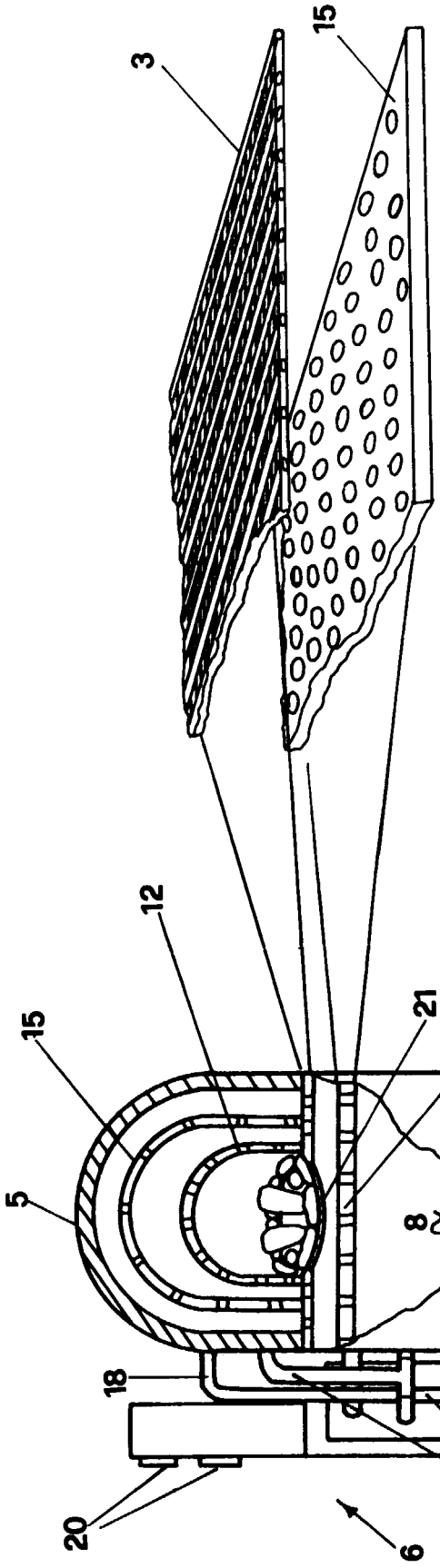

FIG.5

FIG.4

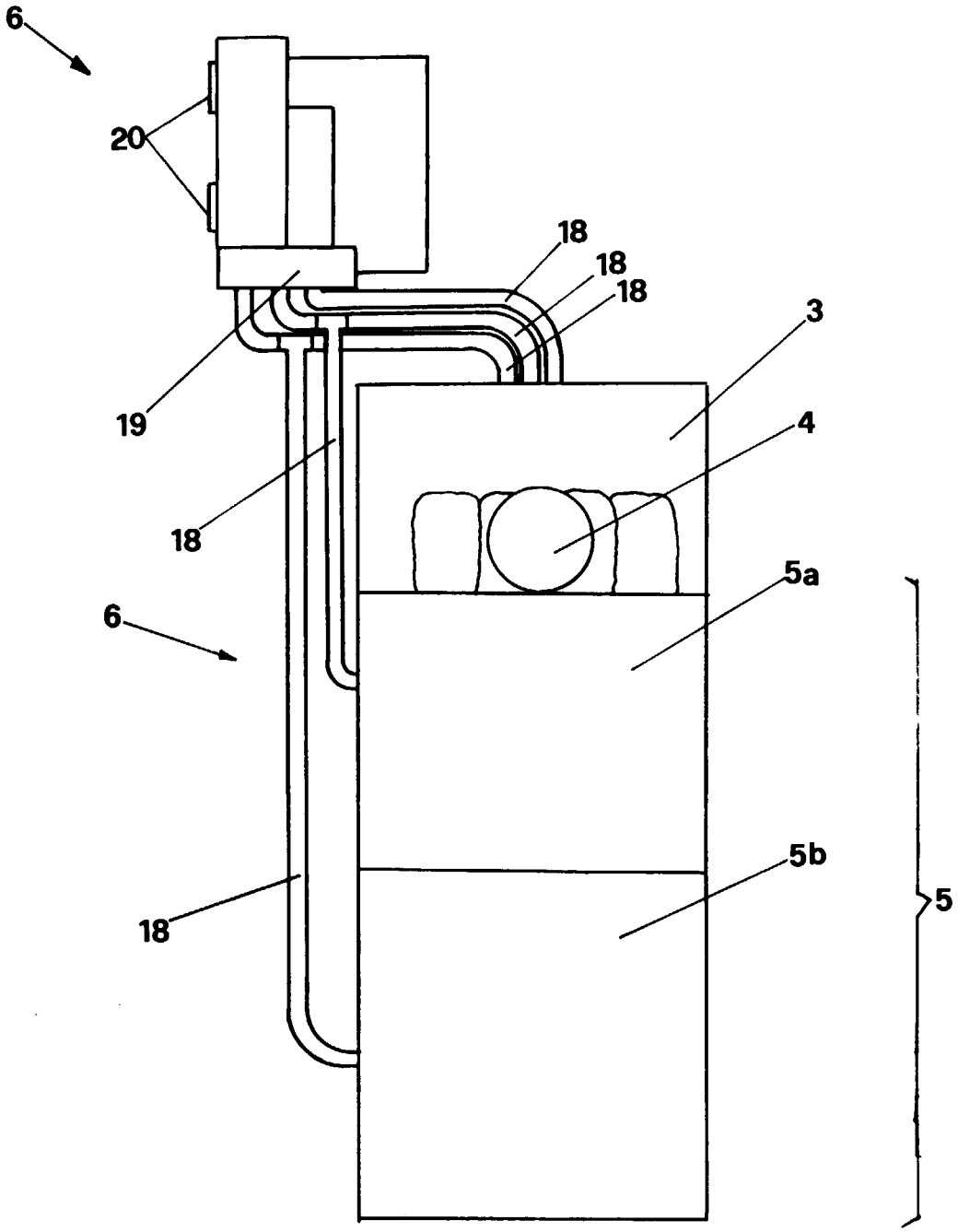

FIG.6

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EUROPEAN SEARCH REPORT

Application Number
EP 00 10 7999

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)
A	US 2 640 201 A (BURWELL) 2 June 1953 (1953-06-02) * column 1, line 51 - line 53; claim; figures 1-5 *	1	A61H33/06
A	US 1 636 401 A (WEBER) 19 July 1927 (1927-07-19) * page 2, line 7 - line 15; figures *	1	
A	US 1 488 404 A (MONFORD) 25 March 1924 (1924-03-25) * figures *	1	
A	DE 37 25 318 A (HASLAUER) 9 February 1989 (1989-02-09)		

TECHNICAL FIELDS SEARCHED (Int.Cl.7)

A61H

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	31 July 2000	Jones, T

CATEGORY OF CITED DOCUMENTS

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31-07-2000

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