



(11) EP 1 925 894 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
28.05.2008 Bulletin 2008/22

(51) Int Cl.:
F25C 1/08 (2006.01) F25C 1/18 (2006.01)

(21) Application number: 06023690.8

(22) Date of filing: 14.11.2006

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI
SK TR
Designated Extension States:
AL BA HR MK RS

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(54) Icemaker

(57) An icemaker includes a main body 1, a water chamber 2, and an evaporator 3. The main body 1 has a reservoir 11 with a water inlet 110, a containing chamber 12, a water tube 13 connected with the water inlet 110 and a pump 14 and possessing a water injecting hole 130 extending through a wall of the containing chamber 12, and a water passageway 15 formed between the containing chamber 12 and the reservoir 11. The water chamber 2 connected in the containing chamber 12 has a pushing board 20 connected at a front side. The evaporator 3 at a top of the water chamber 2 has a plurality of vertical downward icing tubes 30 extending into the water chamber 2. Water is pumped into the water chamber 2, and outer walls of the icing tubes 30 absorb heat from water to make water quickly frozen to ice blocks (A) which can be formed transparently while water is pumped and kept flowing into the water chamber 2 until the ice blocks (A) are made completely.

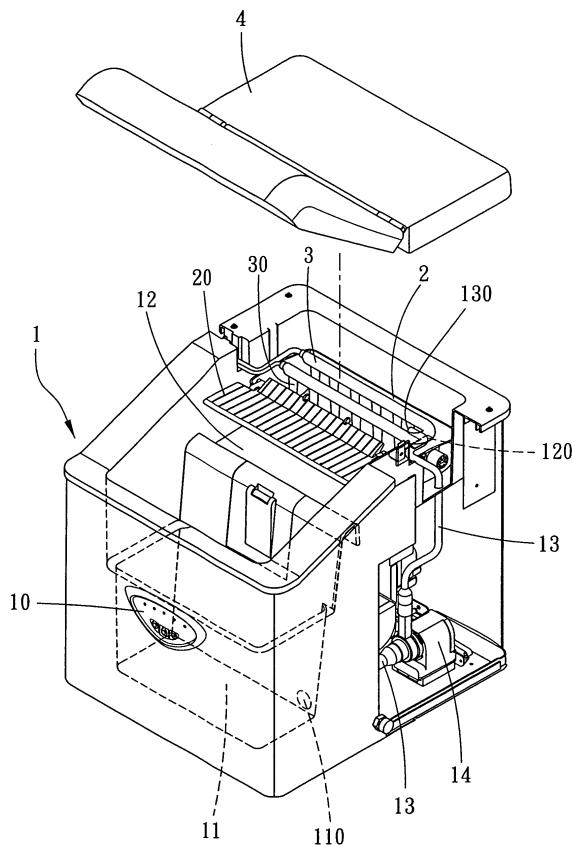


FIG.1

Description

BACKGROUND OF THE INVENTION 1. Field of the Invention

[0001] This invention relates to an icemaker, particularly to one including a main body, a water chamber and an evaporator to produce ice blocks capable of being frozen on outer walls of a plurality of vertical downward icing tubes of the evaporator and formed transparently while water is pumped and kept flowing into the water chamber until the ice blocks are made completely.

2. Description of the Prior Art

[0002] Ice is popularly and indispensably used for drinks, freezing foods, cooling foods temporarily, diminishing a fever, or cooling a sprain or an inflamed part. Ordinarily, ice is made simply by means of containers filled with water and laid in a refrigerator for freezing. But, a refrigerator is mainly used to store foods, apt to let water contaminated with peculiar smells while being frozen, able to spoil taste of drinks or the like. Moreover, a conventional refrigerator can only produce ice in a limited quantity in about one hour each time, unable to satisfy urgent need of a large quantity. Or, if there is no proper container, bigger ice blocks have to be crashed into small pieces by a tool, quite bothering. Therefore, the invention has been devised to overcome the defects mentioned above.

SUMMARY OF THE INVENTION

[0003] The objective of this invention is to offer an icemaker able to quickly produce sanitary ice blocks that smell purely and are formed transparently in a proper size.

[0004] The main characteristics of the invention are a main body, a water chamber, and an evaporator. The main body is provided with a reservoir having a water inlet near its bottom, a containing chamber located at an upper portion of the main body and having a supporting plate located at an inner wall of one side, a water tube connected with the water inlet and possessing a water injecting hole located at an upper portion of the water tube, extending through a wall of the containing chamber and placed under the supporting plate, and a pump connected with the water tube. The water chamber is pivotally connected in the containing chamber. The evaporator installed at a top of the water chamber is provided with a plurality of vertical downward icing tubes spaced apart and extending into the water chamber.

BRIEF DESCRIPTION OF DRAWINGS

[0005] This invention is better understood by referring to the accompanying drawings, wherein:

Fig. 1 is a perspective view of an icemaker in the present invention;

Fig. 2 is a partial perspective view of the icemaker in the present invention, showing it being operated;

Fig. 3 is a top view of Fig. 2;

Fig. 4 is a first partial side elevational view of the ice maker in the present invention, showing it being operated;

Fig. 5 is a second partial side elevational view of the icemaker in the present invention, showing it being operated;

Fig. 6 is a third partial side elevational view of the icemaker in the present invention, showing it being operated; and

Fig. 7 is a fourth partial side elevational view of the icemaker in the present invention, showing it being operated.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0006] First, as shown in Figs. 1 and 4, a preferred embodiment of an icemaker in the present invention includes a main body 1, a water chamber 2, an evaporator 3 and a cover 4.

[0007] The main body 1 is provided with a control panel 10 on a front surface, a reservoir 11 in a front lower portion provided with a water inlet 110 near its bottom, a containing chamber 12 at an upper rear portion provided with a supporting plate 120 located at an inner wall of one side, a water tube 13 connected with the water inlet 110 and provided with a water injecting hole 130 located at an upper portion, extending through a wall of the containing chamber 12 and placed under the supporting

plate 120, a pump 14 connected with the water tube 13, and a water passageway 15 formed between the containing chamber 12 and the reservoir 11.

[0008] The water chamber 2 pivotally connected in the containing chamber 12 is provided with a pushing board 20 connected pivotally at a front side.

[0009] The evaporator 3 installed at a top of the water chamber 2 is provided with a plurality of vertical downward icing tubes 30 spaced apart and extending into the water chamber 2.

[0010] The cover 4 is set on a top of the main body 1.

[0011] In using, as shown in Figs. 1 - 5, press a starting button in the control panel 10 of the main body 1 first. Then water is to flow through the water inlet 110 of the reservoir 11 into the water tube 13 and pressurized by the pump 14 to flow up to the water injecting hole 130 and fall into the water chamber 2. The evaporator 3 begins to carry out a freezing process as soon as the water chamber 2 is filled full. Meanwhile, the pump 14 is to keep pumping water into the water chamber 2, letting the overflowing water pass down through the water passageway 15 in front of the containing chamber 12, and back in the reservoir 11. By the time, outer walls of the icing tubes

30 of the evaporator 3 will absorb heat directly from water to make water to quickly frozen to ice blocks (A) which can be formed transparently while water is pumped and kept flowing into the water chamber 2. When the ice blocks (A) are formed completely, the pump 14 is stopped from injecting water. Next, turn and tilt the water chamber 2 to drop down water. Then, carry out a releasing process to make the ice blocks (A) as many as the number of the icing tubes 30 released from the outer walls of the icing tubes 30 to drop into the containing chamber 12. After the water chamber 2 turns back to the normal or horizontal position, the ice blocks (A) are shoveled by the pushing board 20 pivotally connected at the front of the water chamber 2, sliding along the pushing board 20 into an ice container, as shown in Figs. 6 and 7.

[0012] Therefore, the invention can quickly produce and release numbers of sanitary transparent ice blocks for urgent need.

[0013] While the preferred embodiment of the invention has been described above, it will be recognized and understood that various modifications may be made therein and the appended claims are intended to cover all such modifications that may fall within the spirit and scope of the invention.

2. An icemaker as claimed in Claim 1, wherein said main body is provided with a control panel on a front surface.
- 5 3. An icemaker as claimed in Claim 1, wherein said main body is provided with a cover on a top.
4. An icemaker as claimed in Claim 1, wherein said main body is provided with a water passageway formed between said containing chamber and said reservoir.
- 10 5. An icemaker as claimed in Claim 1, wherein said water chamber is provided with a pushing board connected pivotally at a front side.

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Claims

1. An icemaker comprising:

a main body provided with a reservoir having a water inlet near its bottom, a containing chamber located at an upper portion of said main body and having a supporting plate located at an inner wall of one side, a water tube connected with said water inlet and possessing a water injecting hole located at an upper portion of said water tube, extending through a wall of said containing chamber and placed under said supporting plate, and a pump connected with said water tube;

a water chamber pivotally connected in said containing chamber;

an evaporator installed at a top of said water chamber and provided with a plurality of vertical downward icing tubes spaced apart and extending into said water chamber; and

said pump operated to pump pressurized water into said water chamber, said evaporator beginning to freeze water in said water chamber when said water chamber is filled with water, outer walls of said icing tubes of said evaporator capable of absorbing heat from water to make water quickly frozen to ice blocks which can be formed transparently while water is pumped and kept flowing into said water chamber until said ice blocks are made completely.

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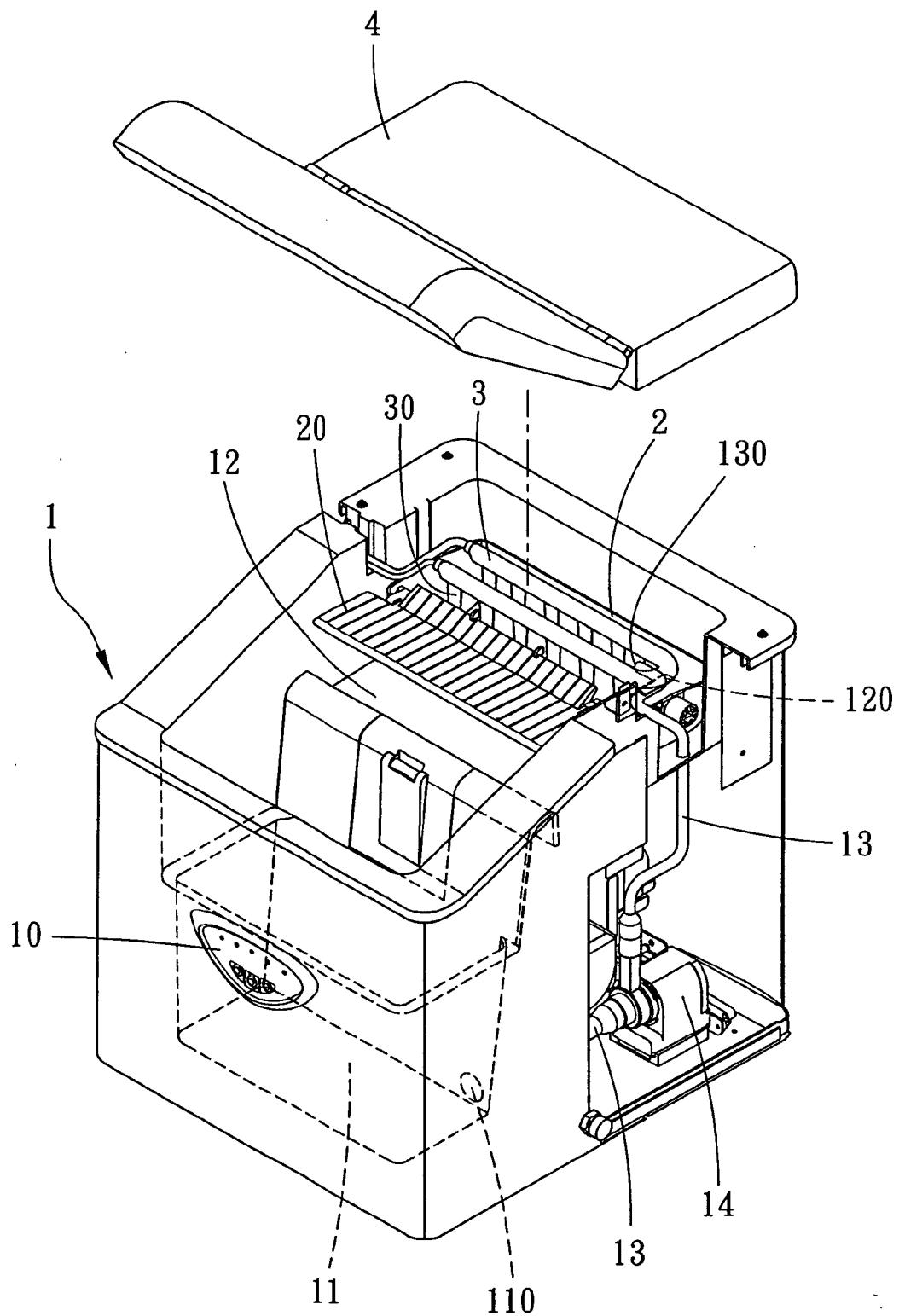


FIG.1

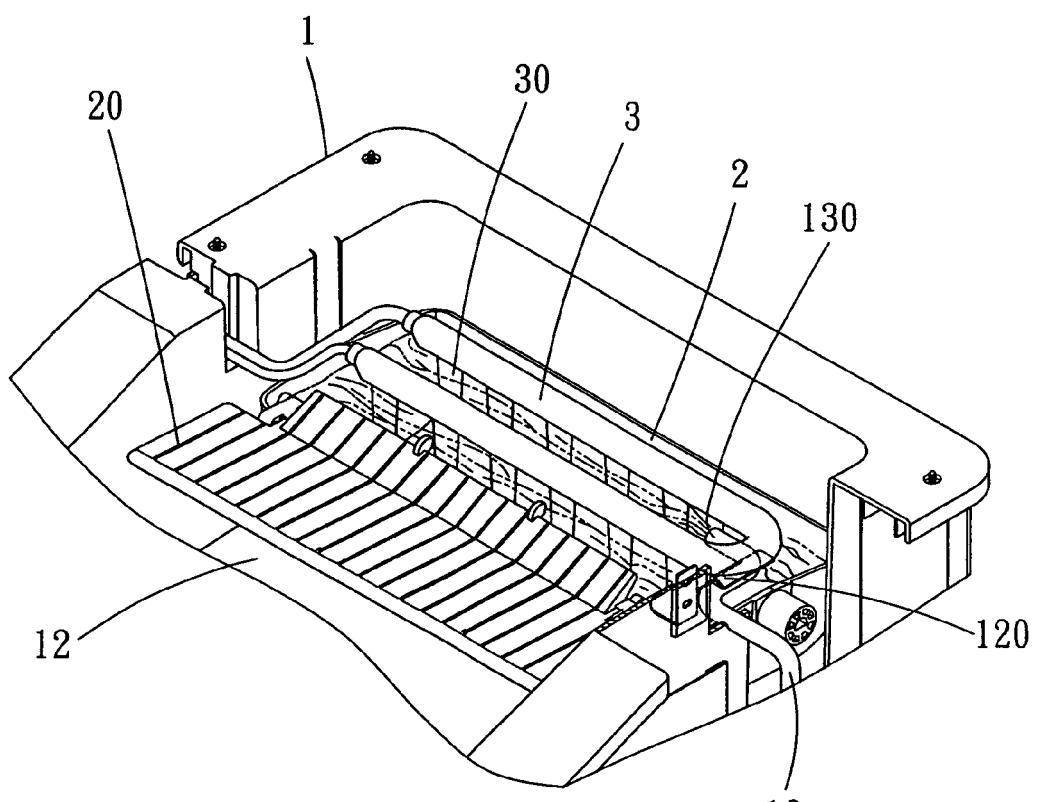


FIG.2

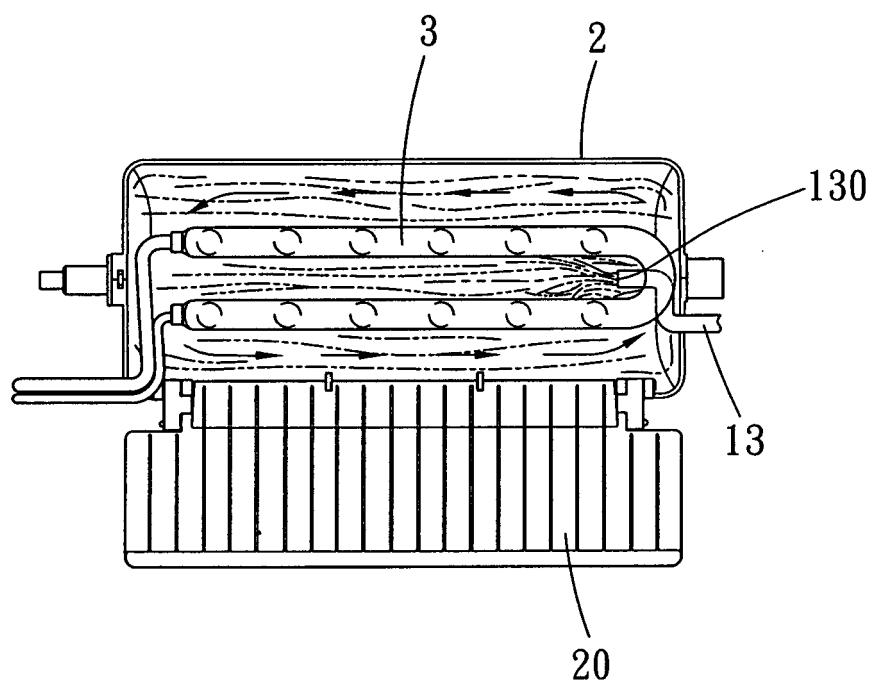


FIG.3

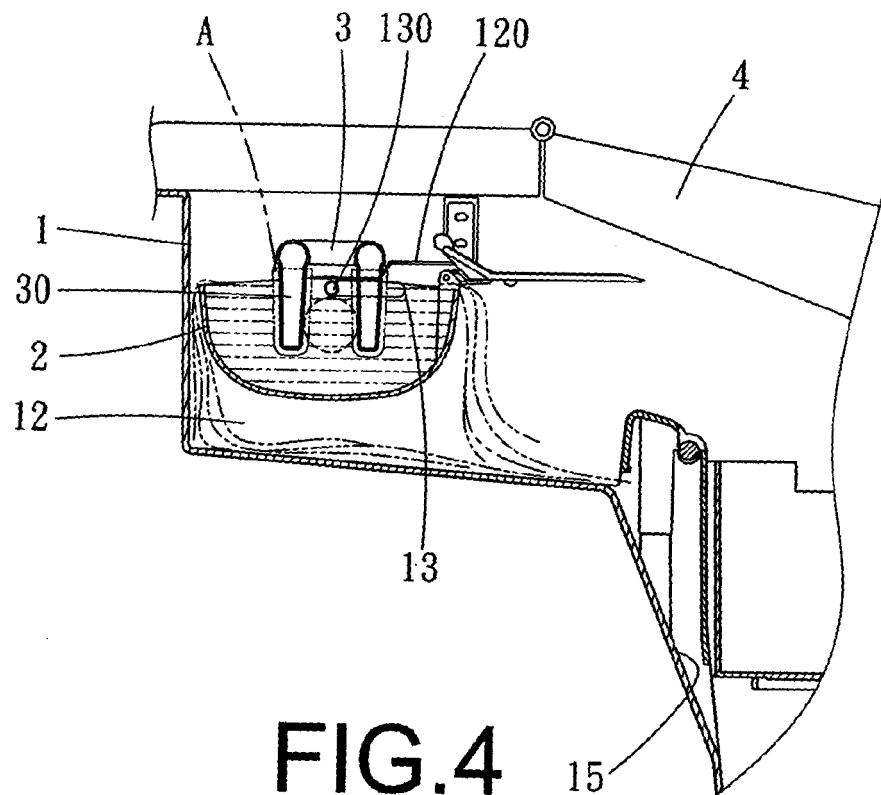


FIG.4

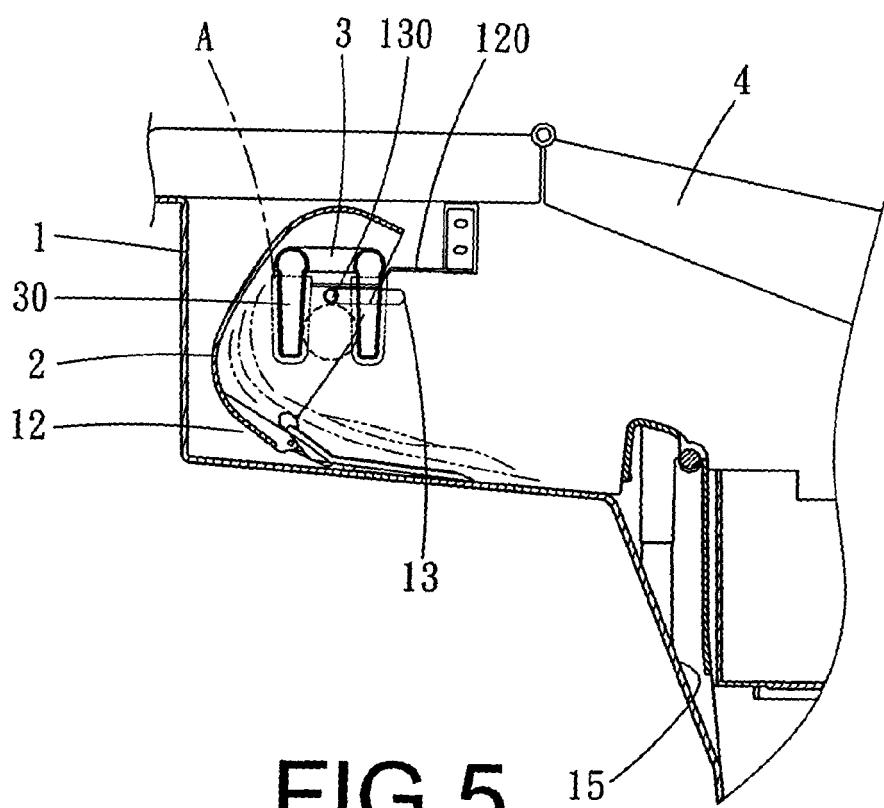


FIG.5

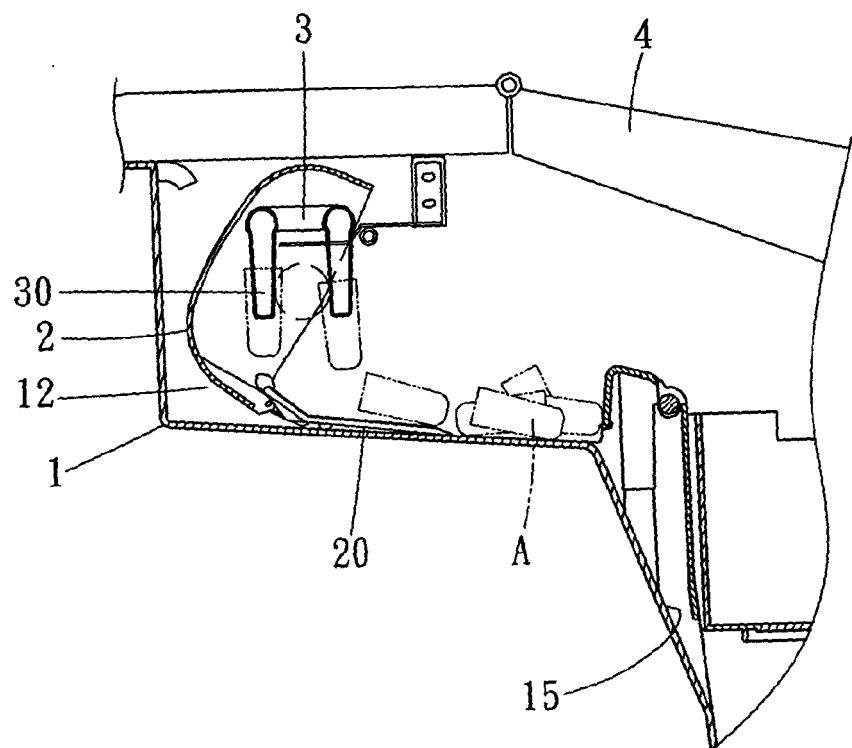


FIG.6

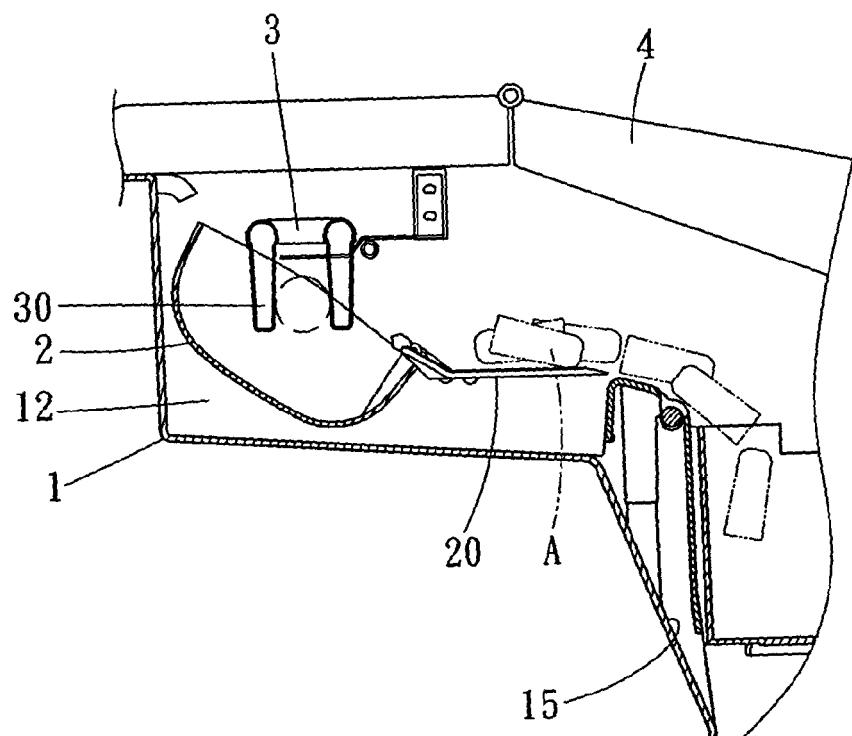


FIG.7



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1 The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		18 April 2007	de Graaf, Jan Douwe
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			
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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim				
A	US 2 726 514 A (CAPEHART THOMAS C ET AL) 13 December 1955 (1955-12-13) -----					
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			TECHNICAL FIELDS SEARCHED (IPC)			
<p>1 The present search report has been drawn up for all claims</p> <table border="1"> <tr> <td>Place of search The Hague</td> <td>Date of completion of the search 18 April 2007</td> <td>Examiner de Graaf, Jan Douwe</td> </tr> </table> <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background C : non-written disclosure P : intermediate document</p> <p>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</p>				Place of search The Hague	Date of completion of the search 18 April 2007	Examiner de Graaf, Jan Douwe
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 06 02 3690

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. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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