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(54) Title: MODULAR CAGE FOR PETS, IN PARTICULAR RABBITS

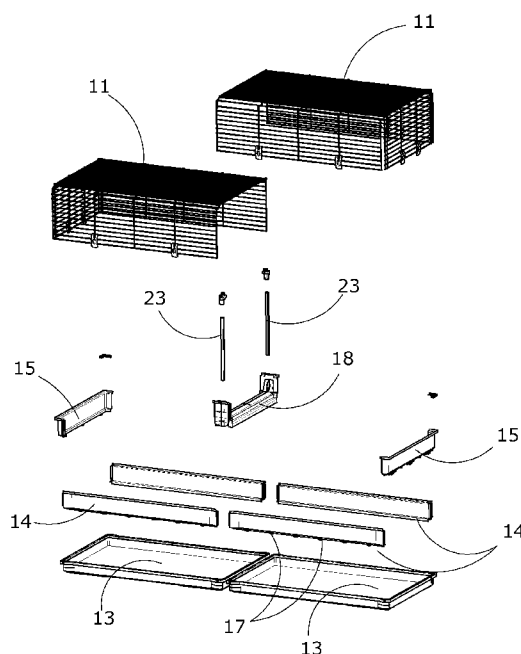


Fig. 12

(57) Abstract: A cage (10) for rabbits or similar pets comprising a grill element (11) generally having a rectangular shape and which can be curved or shaped at the top as required, and where the grill element is applied to the top edge of a basin-shaped tray with modular walls and where this base comprises a bottom surface (13) and side walls (14, 15) which respectively form the long sides and the short sides of the tray, where the cage can be joined to at least one further cage alongside, where the cages are joined by removing from each of the cages their respective vertical wall (15) on the joining side, preferably the short side but also the long side, and where the two trays are held together by a specially shaped horizontal profile (18) with an up-turned "U" shape comprising the two vertical sides (19) which overlap on the joined edges of the tray bottoms positioned side by side.

"MODULAR CAGE FOR PETS, IN PARTICULAR RABBITS"

TECHNICAL FIELD

The present invention relates to a cage for pet
5 animals, in particular rabbits or similar pets, whose
principal characteristic is that it is modular and can be
attached to other similar cages to form a single
compartment of twice or three times the size thereby
providing a larger living space for the pet.

10 In particular, the present invention relates to a
cage designed to increase the space available by joining
together two or more cages for pets, in particular
rabbits or similar, thereby providing a larger living
space for the pet.

15 In practice, the cage according to present invention
is made using a modular bottom where one of the walls,
which can be one of the short sides or one of the long
sides, can be opened so that a second cage made in the
same way can be attached to it with suitable connecting
20 means. This feature makes it possible to join two cages
together thus providing a single space of twice the size.

The present invention can be applied in the sector
for components and accessories for pet animals, and in
particular can be applied in the sector for cages for
25 rabbits and similar pets.

BACKGROUND ART

Various types of cage for pet animals, in particular
for rabbits and other animals of a similar size, are well
30 known.

Usually, the cages for pet rabbits or other pets
comprise a grill cage, usually rectangular and sometimes
with a curved or shaped top. The grill cage sits on top

of a basin-shaped base or tray.

The basin-shaped base positioned under the grill cage acts as a tray for the litter, a sandy or granular material which absorbs urine and faeces and also provides
5 a warm, comfortable environment for the pet.

A common problem with rabbit cages of the known type is that the space provided for the pet is limited or even insufficient. Restricted, insufficient living space is harmful to the pet's health and welfare.

10 The only solution in these cases is to use much larger cages. However, this does not solve the problem completely because many homes do not have the sufficient extra space needed to accommodate a large, fixed cage.

15 **DESCRIPTION OF THE INVENTION**

The present invention provides a cage for pet animals, in particular for rabbits and similar pets, which makes it possible to eliminate or at least reduce the drawbacks described above.

20 The invention provides a cage for rabbits or similar pets which has a simple design and uses a modular system to solve the shortcomings described above.

This purpose is achieved by a cage for rabbits or similar pets with the characteristics described in the
25 main claim.

The dependent claims describe advantageous embodiments of the invention.

The principal advantages of this solution, in addition to all those which derive from its simple, easy
30 to manufacture design, primarily concern the fact that the space provided for the pet can be doubled by using a system for joining the cages which renders the system modular.

The solution described in the present invention uses the construction system of a previous invention deposited by the same applicant. This system is based on multiple components which can be assembled and disassembled as required. It comprises a base, two long sides and two shorts sides. When assembled, the base has vertical or nearly vertical side walls. This considerably increases the amount of available space and at the same time solves the problems linked to stocking and compliance with national regulations.

DESCRIPTION OF THE DRAWINGS

Further features and advantages of the invention will become apparent from the description of an embodiment which follows with reference to the annexed drawings, given purely by way of a non-limiting example, in which:

- Figure 1 shows a perspective drawing of the two modular bottoms for modular cages according to the present invention, in the open position;
- Figure 2 shows a perspective drawing of the two modular bottoms for modular cages according to the present invention, in the closed position;
- Figures 3 to 6 show details of various parts of the invention, namely the means for connecting the modular cages;
- Figures 7 to 9 show two cages assembled using the connection system according to the present invention;
- Figures 10 and 11 show respectively the front view and the plan view of the two cages joined to each other;
- Figure 12 shows an exploded view of the modular

cage.

DESCRIPTION OF ONE EMBODIMENT OF THE INVENTION

The annexed figures show a cage for rabbits or
5 similar pets, according to the present invention and
indicated in its entirety by the number 10, where the
cage substantially comprises a grill element 11 generally
having a rectangular shape and which can be curved or
shaped at the top as required, and where the grill cage
10 is applied to the top of the upper perimeter of the
basin-shaped tray 12 with modular walls where the base
comprises a bottom surface 13 and side walls 14 and 15
which respectively form the long sides and the short
sides of the tray.

15 The three parts comprising the tray, that is, the
bottom surface 13, the two long sides 14 and the two
short sides 15, are injection moulded separately, and the
bottom surface 13 has along its perimeter an edge with
slots and/or holes 16 for engaging with the snap tabs 17
20 positioned along the lower edges of the side panels 14
and 15.

According to the present invention the two trays with
the characteristics described above are joined on one
side, that is, the connection side, which is preferably
25 the short side but which can also be the long side, which
is left without the vertical closing side 15 which acts
as an edge.

To hold the two trays together there is a specially
shaped horizontal profile 18 with an upturned "U" shape
30 whose two vertical sides 19 overlap on the edges of the
tray bottom and whose internal teeth 20 enter the seats
16 and remain fixed to these by the shape of the teeth
which snap into place and lock in the seats.

The profile 18 also has further lower side tabs 21 which form a sealing step, and vertical walls 22 located at the two ends, which enable connection to the grill element 11 of the cage.

5 In this case the grill element 11 is made with a system designed to enable removal of the grill walls which must be removable in order to enable joining of the cages. To close the vertical sides of the grills the system uses profiles 23 which connect and lock the
10 respective joining edges to each other.

The two vertical walls 22 are shaped to enable the closing of the space between the two edges 14 located on the same side.

It should be noted that the modular cages comprising
15 the features described can be joined and connected alongside each other as and when required and can if necessary remain totally separate without using the double surface; this demonstrates that the system is perfectly modular and can be adapted as required to user
20 needs.

The invention is described above with reference to a preferred embodiment. It is nevertheless clear that the invention is susceptible to numerous variations which lie within the scope of its disclosure and within the
25 framework of technical equivalents.

CLAIMS

- 1) A cage (10) for rabbits or similar pets comprising a grill element (11) generally having a rectangular shape and which can be curved or shaped at the top as required, and where the grill element is applied to the top edge of a basin-shaped tray (12) with modular walls and where this base comprises a bottom surface (13) and side walls (14, 15) which respectively form the long sides and the short sides of the tray where the cage is characterised in that it can be joined to at least one further cage alongside, where the cages are joined by removing from each of the cages their respective vertical wall (15) on the joining side, preferably the short side but also the long side, and also characterised in that the two trays are held together by a specially shaped horizontal profile (18) with an upturned "U" shape comprising the two vertical sides (19) which overlap on the joined edges of the tray bottoms positioned side by side.
- 2) The cage (10) for rabbits or similar pets according to the preceding claim, characterised in that the profile (18) has further lower side tabs (21) which form a sealing step, and vertical walls (22) located at the two ends, which enable connection to the grill element (11) of the cage.
- 3) The cage (10) for rabbits or similar pets according to one of the preceding claims, characterised in that the three parts which form the tray, comprise the bottom surface (13), the two long sides (14) and the two short sides (15), are injection moulded separately, and where the bottom surface (13) has along its perimeter an edge with slots and/or holes (16) for engaging with the corresponding snap taps (17)

positioned along the lower edges of the side panels (14, 15).

- 4) The cage (10) for rabbits or similar pets according to one of the preceding claims, characterised in that the profile (18) also has further lower side tabs (21) which form a sealing step, and vertical walls (22) located at the two ends, which enable connection to the grill element (11) of the cage.
- 5) The cage (10) for rabbits or similar pets according to one of the preceding claims, characterised in that grill element (11) is made with a system designed to enable removal of the grill walls which must be removable in order to enable joining of the cages and with a system to close the vertical sides of the grills using profiles (23) to connect and lock the respective joining edges to each other.
- 6) The cage (10) for rabbits or similar pets according to one of the preceding claims, characterised in that the two vertical walls (22) of the profile (18) are shaped to enable the closing of the space between the two edges (14) located on the same side.
- 7) The cage (10) for rabbits or similar pets according to one of the preceding claims, characterised in that the specially shaped horizontal profile (18) with an upturned "U" shape, comprises two vertical sides (19) which overlap on the edges of the tray bottom and have internal teeth (20) which enter the seats (16) and remain fixed to these by the shape of the teeth which snap into place and lock in the seats.
- 8) The cage (10) for rabbits or similar pets according to one of the preceding claims, characterised in that the specially shaped horizontal profile (18) with an upturned "U" shape, comprises two vertical sides (19)

which overlap on the edges of the tray bottom and have holding means on the inside and/or the outside of the profile.

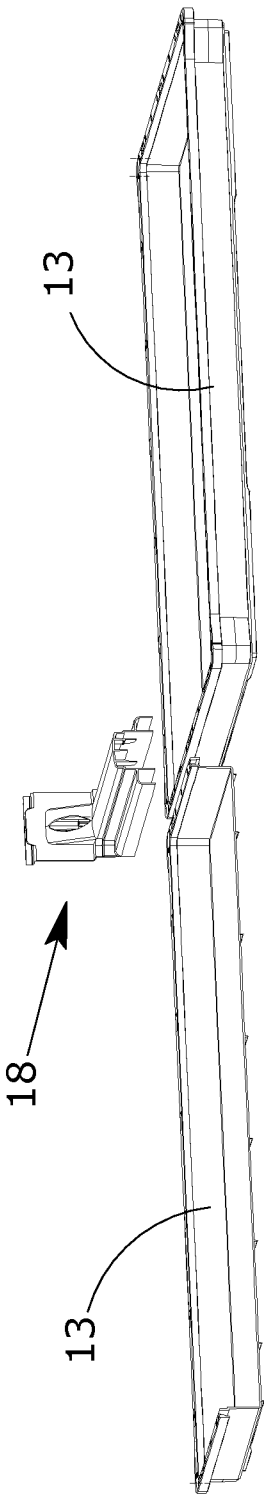


Fig. 1

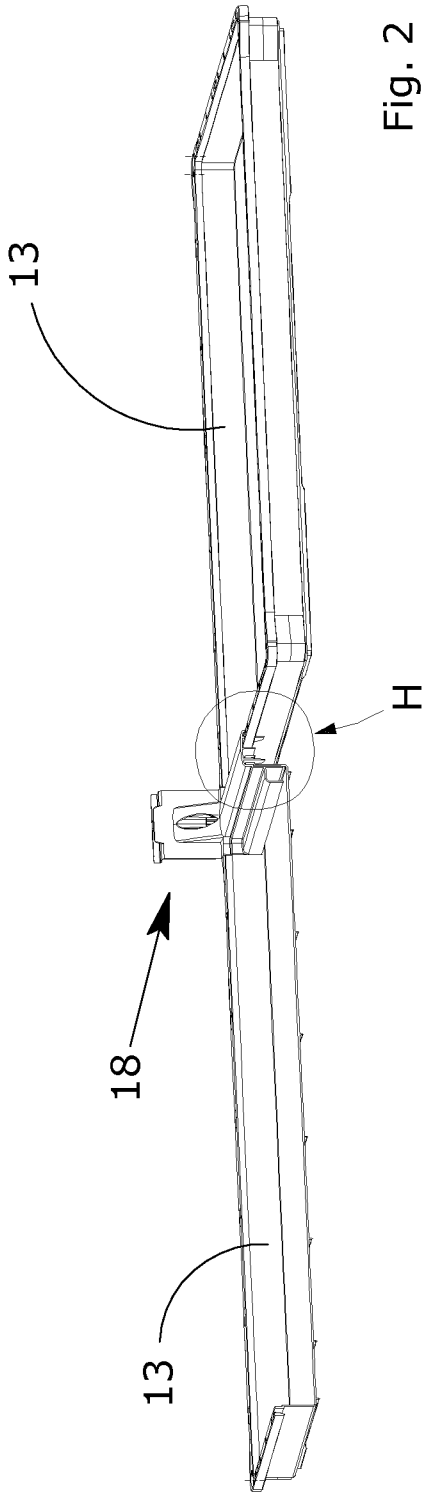
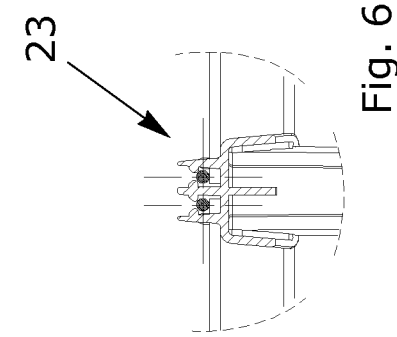
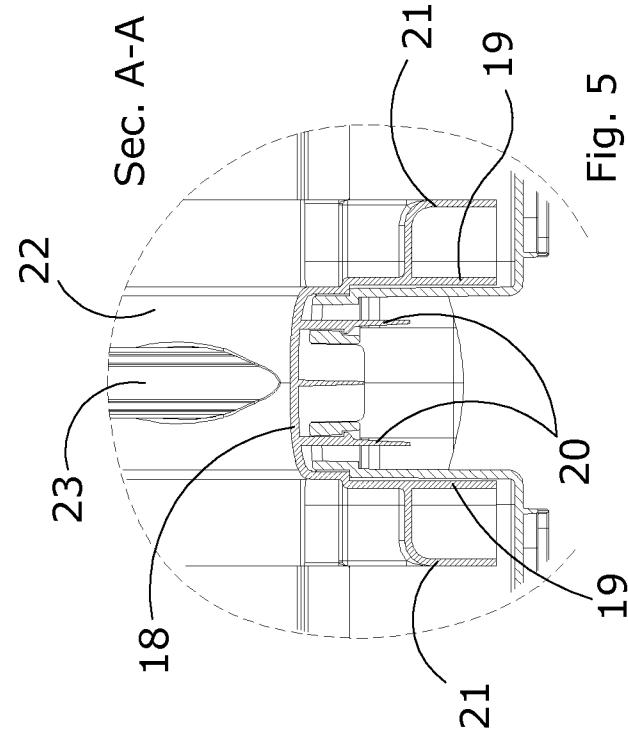
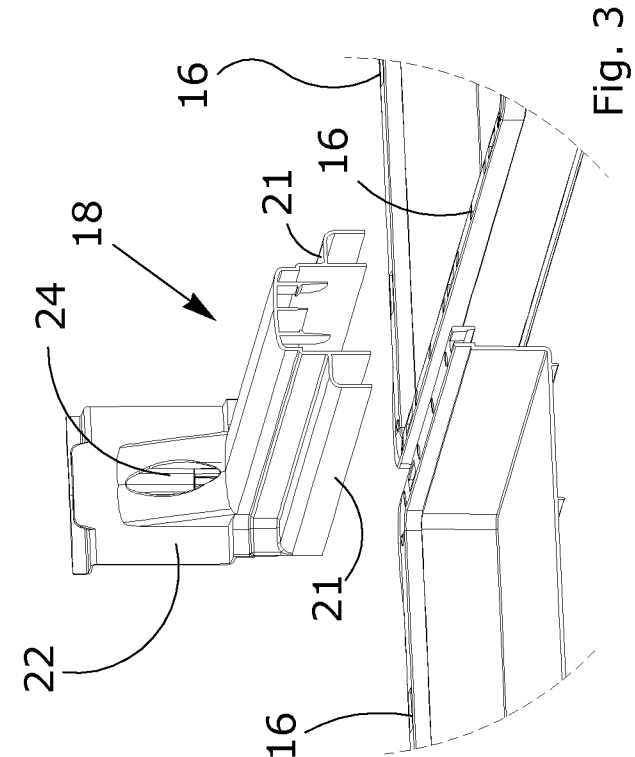
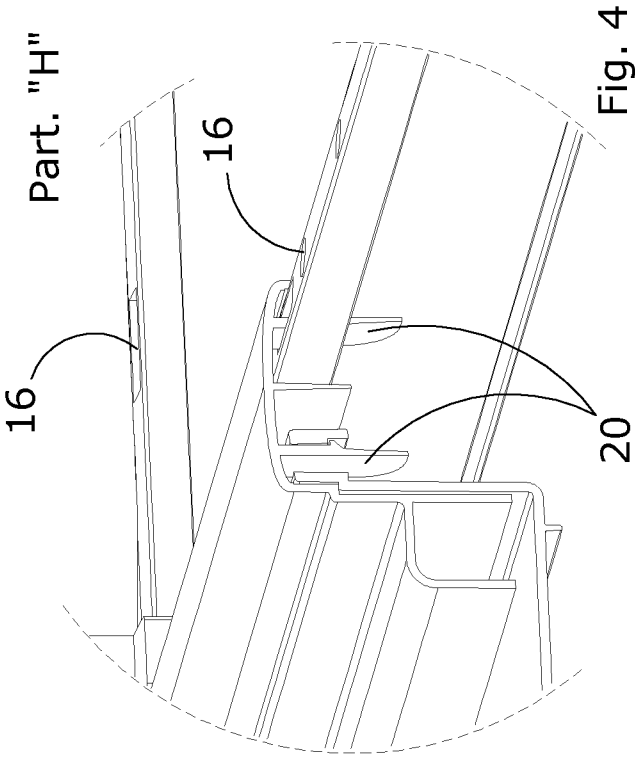
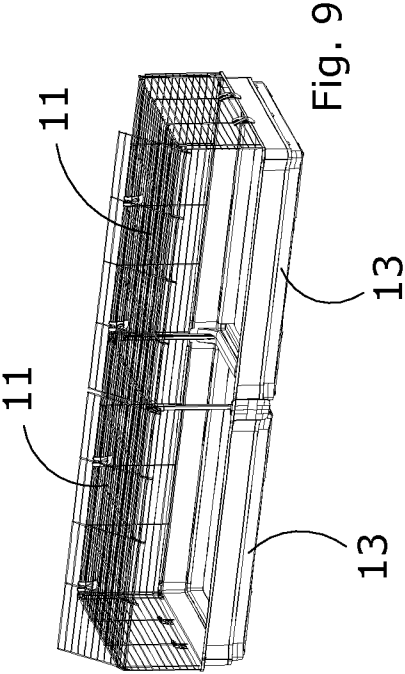
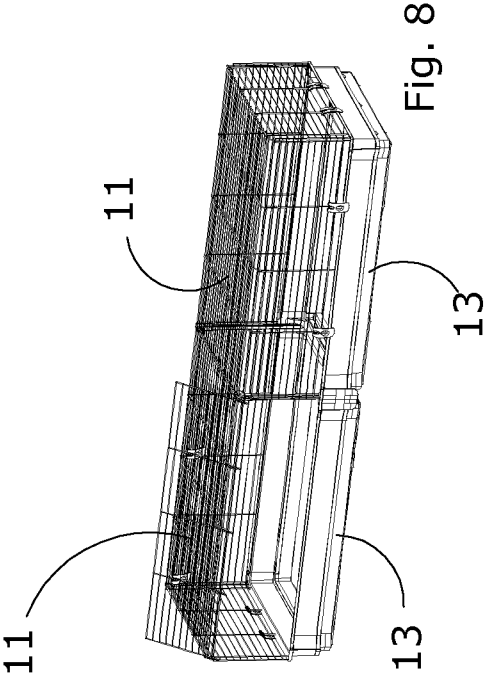
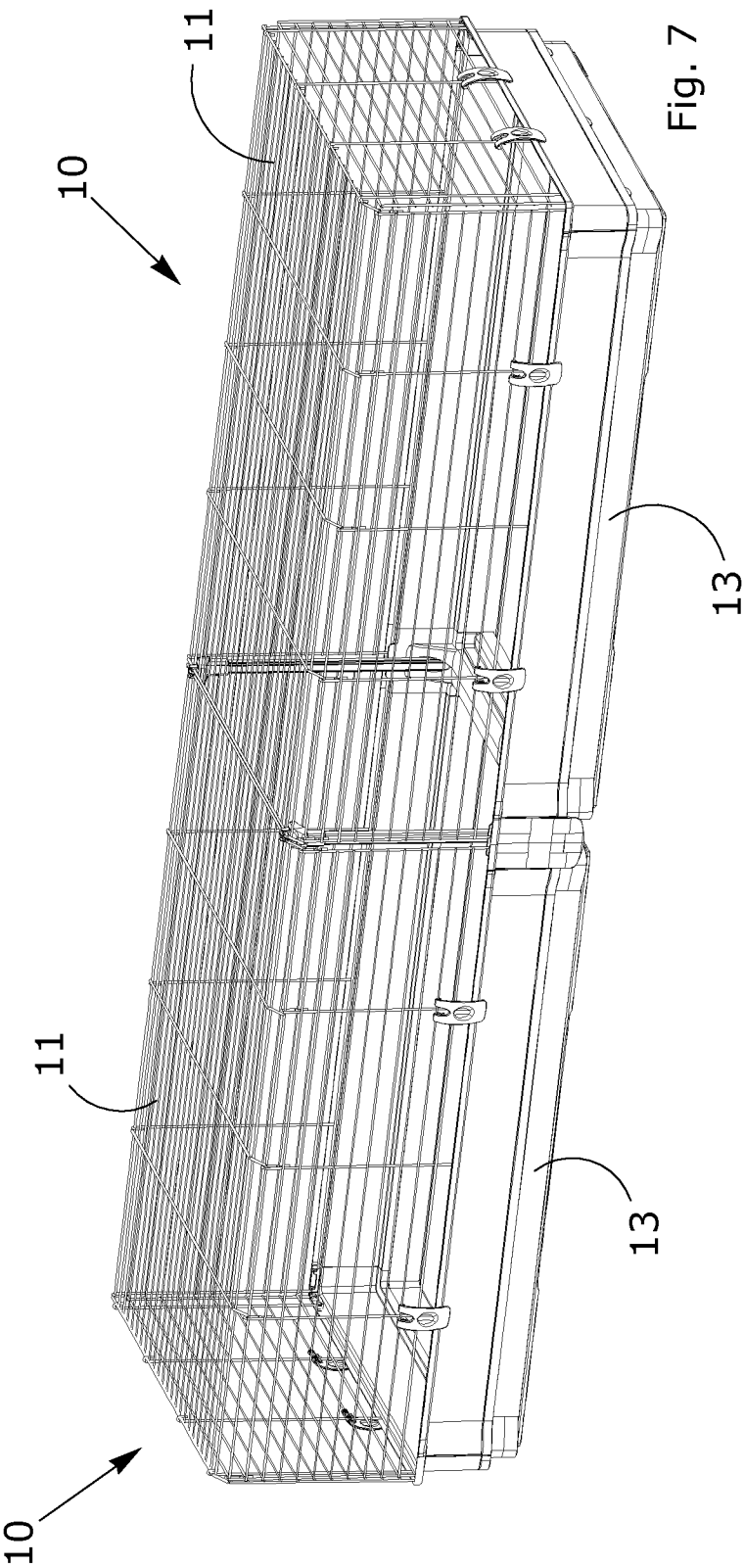


Fig. 2





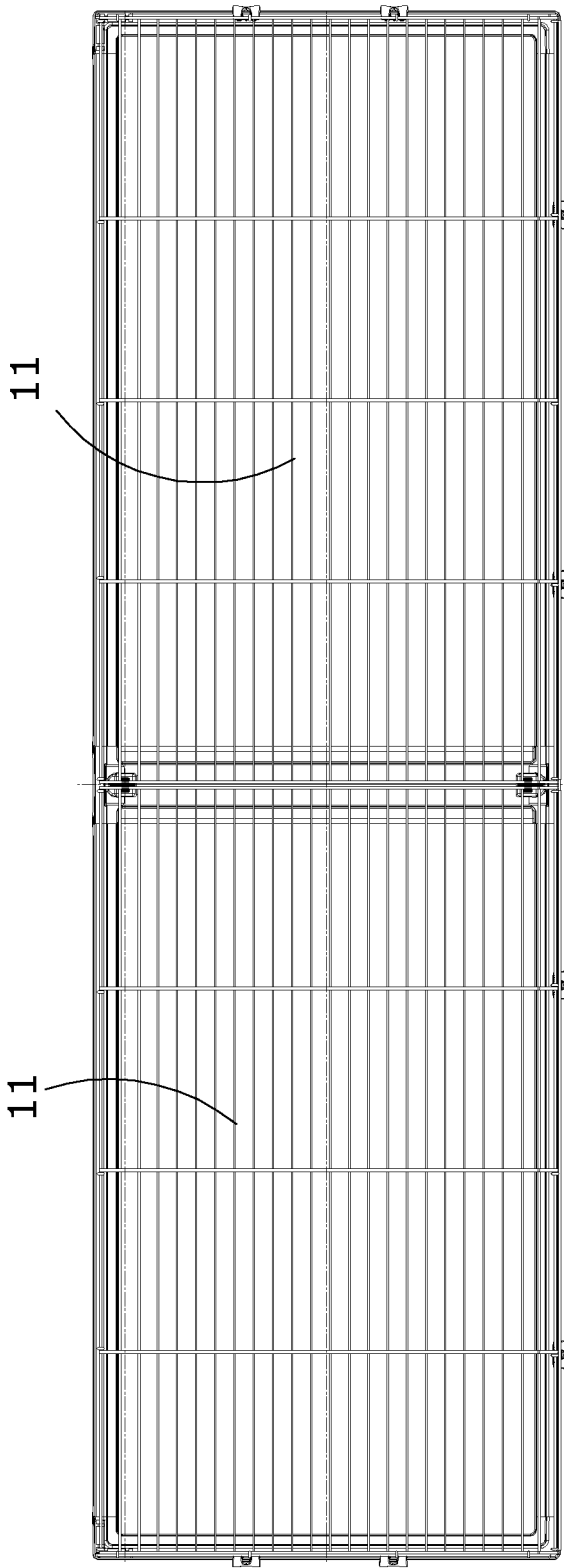
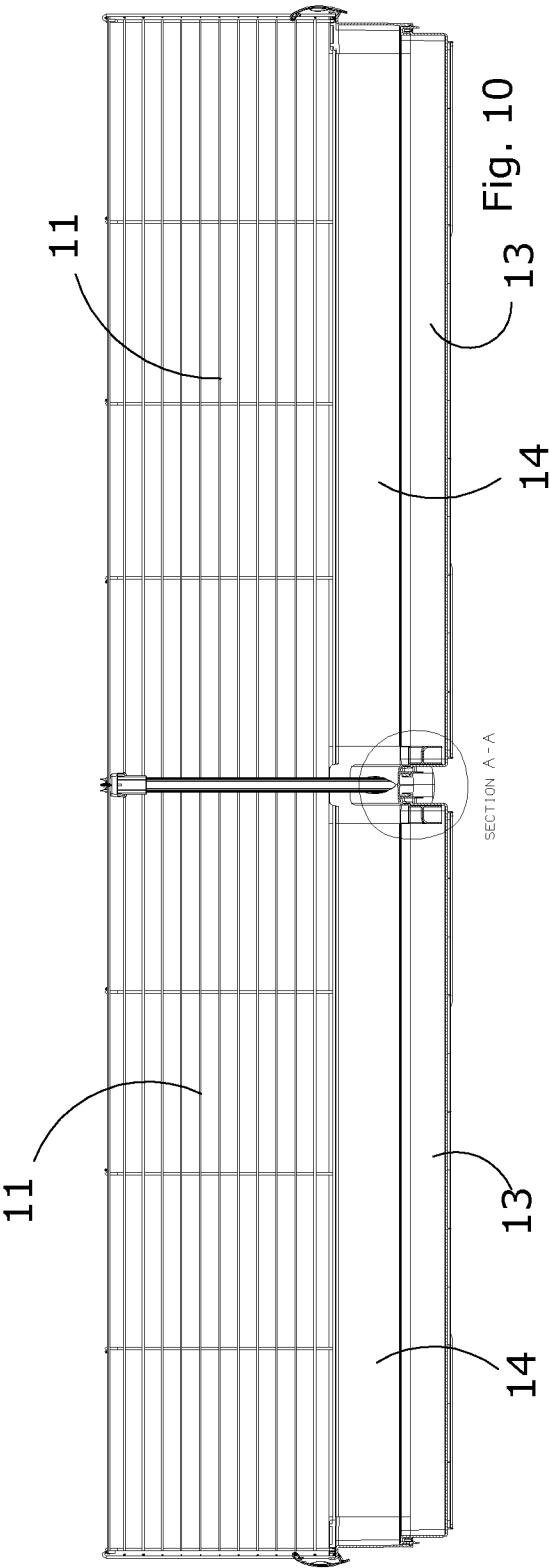


Fig. 11

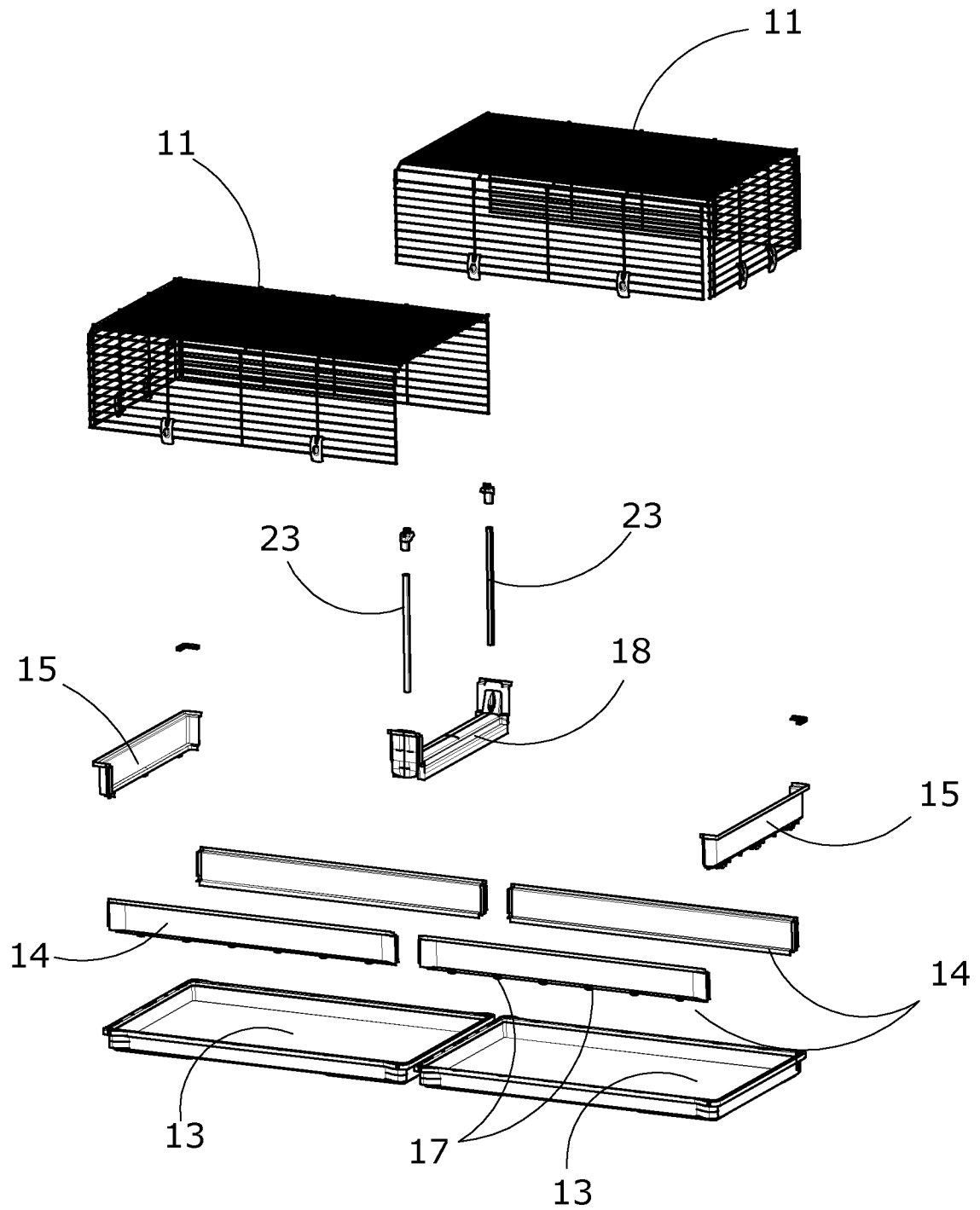


Fig. 12

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2012/052462

A. CLASSIFICATION OF SUBJECT MATTER
INV. A01K1/03
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A01K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EP0-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 763 784 B1 (LIU CHIN-LUNG [TW]) 20 July 2004 (2004-07-20) column 1, lines 1-50 column 3, line 59 - column 4, line 25 figures 8-9	1-8
Y	----- DE 10 2007 018878 A1 (QUILITZSCH STEFFEN [DE]) 23 October 2008 (2008-10-23) paragraphs [0001], [0008], [0018] - [0021], [0035] - [0036], [0039] - [0045] claims 1-7; figures 1-7 -----	1-8



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

21 January 2013

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31/01/2013

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2012/052462

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6763784	B1	20-07-2004	NONE

DE 102007018878 A1		23-10-2008	NONE
