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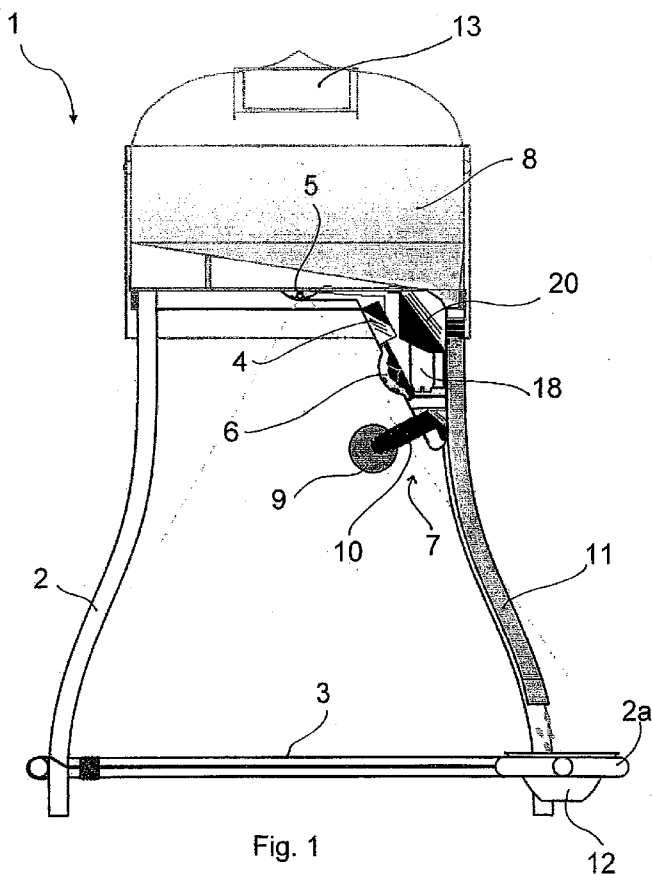
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(54) Title: DEVICE FOR TELECOMMUNICATION AND REMOTE CARE OF DOMESTIC ANIMALS



(57) Abstract: A device for telecommunication with, and remote care of, domestic animals by the master, comprising a call terminal for telecommunication between the domestic animal and the master, and actuator means that can be actuated by the animal for activating said call terminal.



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"Device for telecommunication and remote care of domestic animals"

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TEXT OF THE DESCRIPTION

5 The present invention concerns a device for telecommunication with, and remote care of, domestic animals by the master of the pet. In particular, the present invention concerns a device for telecommunication and remote care that enables the
10 domestic animal to get into telephone contact with the master, feed itself, and feel itself the object of direct attention.

Known to the art are systems that are able to make available, according to a pre-set schedule, the food to
15 the domestic animal, in particular a dog in order to enable it to feed itself.

Also known is a collar with the function of satellite position transmitter, equipped with an interphone that enables a person who finds a stray
20 animal to communicate with the master of the animal and hence enable return of the domestic animal to its own master. This system, known as "pet cell" is, among other things, a system that is invasive on the animal.

There thus remains to be solved the problem of
25 "abandonment" of domestic animals in holiday periods or during absence of the master. It is in fact known that during this period the domestic animal can refuse the food since it finds itself left on its own or with strangers.

30 The object of the present invention is hence the development of a device that will enable telecommunication with, and remote care of, the domestic animal by the master also when he is far away.

Said object is achieved thanks to the solution
35 recalled specifically in the ensuing claims. The claims

form an integral part of the technical teaching provided herein in relation to the invention.

In particular, the device for telecommunication with, and remote care of, domestic animals by the master according to the present invention comprises a call terminal that enables telecommunication between the domestic animal and the master, and actuator means that can be actuated by the pet itself for activating said telecommunication voluntarily.

The invention will now be described in detail purely by way of non-limiting example with reference to the annexed drawings, wherein:

- Figure 1 is a side view of a preferred embodiment of a device for telecommunication with, and remote care of, domestic animals according to the present invention;

- Figure 2 is in exploded perspective view a preferred embodiment of a device for telecommunication with, and remote care of, domestic animals according to the present invention;

- Figures 3A, 3B, and 3C illustrate three different activities that the domestic animal can perform with the aid of the device for telecommunication and remote care according to the present invention; A) call the master and answer the call of the master; B) play; C) feed itself; and

- Figure 4 presents in schematic form the functions of the device for telecommunication and remote care that can be remotely controlled with the aid of a telephone.

The device according to the present invention enables the domestic animal, such as for example a dog, to get into telephone contact with its own master, interface with him, feed itself, and feel itself the object of direct attention.

The project stems from objects for remote care and aims at solving the problem of abandonment of domestic animals in holiday periods and periods of absence of the master. Specifically, the device according to the
5 present invention is aimed at combating the problem of a domestic animal, which finds itself on its own or with strangers, refusing food.

The device functions on the concept of the typical routine of life of a domestic animal in so far as it is
10 designed to recall the typical moments in the day of a pet, such as for example the administration of food by the master at a given time of day, to which the utterance of routine expressions directed to the pet is associated.

15 The device according to the present invention basically consists of a removable structure that sets up with the dog a relationship of affection similar to that afforded by the familiar environment of its own kennel.

20 With reference to Figure 1, the reference number 1 designates as a whole the device for telecommunication with, and remote care of, domestic animals.

The device 1 is provided with a supporting structure 2 that is able to support at the bottom end
25 thereof a resting device 3, on which the domestic animal can sit or lie down, and at the top end thereof one or more containers 8 that can contain food and water for nutriment of the animal.

Set in a raised position on the supporting
30 structure 2 is a call terminal 7 for telecommunication between the domestic animal and the master, and actuator means that can be actuated by the animal for activating the call terminal and hence activating communication with its own master. Said actuator means
35 include a switch that is controlled via a mobile member

10 that can be operated voluntarily by the animal for activation of a telephone switch. In the embodiment illustrated in Figure 1, the mobile member 10 is constituted by an oscillating lever, to which there can
5 be associated a body 9 that can be gripped between the teeth of the pet, said body being in the form, for example, of a ball.

Present in a likewise raised position and immediately underneath the container 8 for food and
10 water is a remotely activatable electronic control unit 4, which is able to control all the functions of the device 1. The electronic control unit is connected to the telephone switch.

In particular, the electronic control unit 4 is
15 able to control an acoustic system 6 (preferably a loudspeaker), designed to enable the animal to hear the voice of the master, as well as a display device 5 (preferably a webcam), designed to enable viewing of the domestic animal by the master.

20 The electronic control unit 4 is able to control a system for dosage of food 20 appropriately radio-controlled and to control supply of a scent contained in a container for scent 18 through a scent dispenser 21, so that the animal may be able to perceive the
25 scent of its own master when it is in communication with him.

Associated to the supporting structure 2 are means
11 for dispensing food and/or water in communication with the container for food 8, which are designed to
30 dispense the food and water in appropriate bowls 12, preferably fixed to the supporting structure 2 in a position corresponding to the resting device 3.

With reference to Figure 2, which reproduces an exploded perspective view of the device 1 according to
35 the present invention, proceeding from top down, we may

note that the container for food 8 can be equipped with one or more compartments designed to contain food and/or water and is provided with one or more hatches 13 for introduction of the food and of the water in the
5 respective compartments. Associated to the container for food 8 is a device for conveying food 16 in communication with the means for dispensing food 11.

Provided underneath the container 8 is a resting structure 17, designed to close the container 8 for
10 food.

A component-holding structure 25, located underneath the resting structure 17 and connected thereto, houses inside it the electronic control unit 4, the container for scent 18 and the system for dosage
15 of food 20. Positioned on the outside of the component-holding structure 25 is the device for dispensing scent 21, the acoustic system 6, and the call terminal 7.

The device 1 is moreover provided with a closing device 15, preferably made of plastic material, which
20 by sliding along the walls of the container for food 8 enables protection of the electronic control unit as well as all the display devices, the acoustic devices, and the call terminal when the device 1 is not in use.

The supporting structure 2 is constituted by a
25 series of uprights 2 and by a base structure 2a, to which the resting device 3 is fixed. The supporting structure 2, 2a is preferably made of steel. The element 2a of the supporting structure is moreover provided with seats 2b for receiving the bowls 12 for
30 containing food and water.

The resting device 3 is advantageously constituted by a mat that can be heated, taken apart, and washed.

Through a telephone, preferably a mobile telephone, the master can communicate at a distance with his own
35 domestic animal, setting up a pleasant and durable

relationship by activating the electronic control unit 4.

The electronic control unit 4 is in fact able to manage the essential functions of the device for telecommunication and remote care 1, i.e., checking, entertaining, feeding, and watering his own domestic animal through the actuation of the acoustic and display systems, supplying scent, water and food, and activating the heating system associated to the device for supporting the domestic animal.

Through the telephone, the master can activate the electronic control unit, which in turn will recognize the number entered on the keypad of the telephone and activate the devices assigned to that number. By way of example, the reader is referred to Figure 4, which illustrates the different functions that can be activated with the first, second, third, and fourth numbers that can be typed in by the master on the telephone.

The device for telecommunication and remote care according to the present invention comprises:

- a system for supply of scent substantially constituted by the container for scent 18, into which the master can pour his own scent; associated to the container for scent 18 is a thermal system for release of the scent through the scent dispenser 21, which can be activated by means of a connection with the electronic control unit. The container for scent 18 can be taken out of the component-holding structure 25 to enable topping-up of said container;

- a loudspeaker 6, which is also connected to the electronic control unit 4 to enable the dog to hear the master's voice; and

- a call terminal 7, i.e., the heart of the device of the present invention, substantially constituted by

a small electrical circuit that activates the call when an action is exerted on the member or ball 9 that can be gripped between the teeth, connected to the mobile member or oscillating lever 10.

5 In the case where the call is made by the animal to the master, the animal will have to grip the member 9 between its teeth and move it so as to activate the call to the master. In the reverse case (i.e., a call made by the master to the animal), the domestic animal
10 will answer the call of the master by gripping and moving the member 9 between its teeth.

Set inside the call terminal 7 is a small vibrating system that will enable the master to keep the possibility to play with his own pet active, i.e., to
15 get the mobile member 10 to oscillate/vibrate: in fact, if the call terminal 7 were to stop reacting after acceptance of the call, the animal would find itself in a situation where the game is over and could go away from the telecommunication device without having
20 satisfied its own needs.

The device according to the present invention also comprises a system 20 for dosage of the food that is able to control - with the aid of the conveyor for food
16 -supply to the bowls 12 of both liquids and solid
25 food through the dispensing means 11. Also said mechanism is activated by the electronic control unit 4 through setting of a given command by the master on his own telephone. The space inside the containers for food 8 is such as to enable an amount of food and water to
30 be provided therein for at least one week.

The device is provided with a display system 5 in the form of a webcam that enables display by the master not only of his own pet, but also of the bowls to check the amount of food and water still contained therein.

35 The resting device 3 on which the animal can sit or

lie down is substantially constituted by a mat or a thermal camp-bed that is able to warm up when it receives the appropriate command. Activation thereof and the achievement of the purpose of getting the domestic animal to feel a temperature of 37°C (which is a substitute for the presence of the master) is obtained after a longer time lapse and is activated only at the moment when the functions of entertainment and feed are active.

10 The entire device is easy to take apart and wash, and the part in strict contact with the animal can be easily disinfected.

 The device 1 can be attached to the electric power supply by means of an electric-power cable 14 appropriately coated so that it cannot be damaged by the domestic animal.

 The device 1 can be converted from a condition of use to a condition of non-use (OFF) by means of a variation in the appearance of the product itself. It is, in fact, possible - thanks to spring-action buttons - to enable sliding of the closing device 15 that hides the technological devices from view when they do not have to be used.

 The device moreover enables the master to install pre-recorded replies to get the animal to hear automatically at the moment when its telephone cannot be reached or the master refuses to answer the call made by the animal in such a way as not to disappoint the expectations of the animal. Saving of the pre-recorded replies is performed via a USB connection located at the back of the electronic control unit 4.

 The device 1 may be produced in different configurations so as to be more adaptable to the dimensions of the domestic animal. For example, for dogs of large size, the device 1 may be equipped with

systems for anchorage to the ground.

The device according to the present invention can be used both in the domestic context and in the public context and in structures such as homes for domestic
5 animals since all the materials used can be easily washed and disinfected.

Of course, the details of construction and the embodiments may vary widely with respect to what is described and illustrated herein, without thereby
10 departing from the sphere of protection of the present invention, as defined by the annexed claims.

CLAIMS

1. A device (1) for telecommunication with, and remote care of, domestic animals by the master,
5 comprising:

- a call terminal (7) for telecommunication between the domestic animal and the master; and
- actuator means that can be actuated by the animal for activating said call terminal.

10

2. The device according to Claim 1, wherein the actuator means include a switch controlled via a mobile member (10) that can be operated voluntarily by the animal for activation of a dialler.

15

3. The device according to Claim 2, wherein the mobile member (10) is an oscillating lever.

4. The device according to Claim 2 or Claim 3,
20 wherein the mobile member (10) carries a body (9) that can be gripped between the animal's teeth.

5. The device according to Claim 4, wherein the body (9) that can be gripped between the teeth is a
25 ball.

6. The device according to any one of Claims 2 to 5, moreover comprising a supporting structure (2, 2a) to which the mobile member (10) is associated in a
30 raised position.

7. The device according to Claim 6, wherein the supporting structure (2, 2a) carries at the bottom end thereof a resting device (3) on which the animal can
35 sit or lie down.

8. The device according to Claim 6 or Claim 7,
wherein the supporting structure (2, 2a) carries at the
top end thereof at least one container for food (8)
5 that is able to contain food and/or water.

9. The device according to Claim 8, wherein
connected to said at least one container for food (8)
are means (11) for dispensing food and/or water, which
10 are able to dispense the food and/or the water in at
least one bowl (12).

10. The device according to any one of Claims 1 to
9, moreover comprising a remotely activatable
15 electronic control unit (4), which is able to control a
display device (5) designed to enable the master to see
the domestic animal.

11. The device according to any one of Claims 1 to
20 10, moreover comprising a remotely activatable
electronic control unit (4), which is able to control
an acoustic system (6) designed to enable the animal to
hear the voice of the master.

25 12. The device according to any one of Claims 1 to
11, moreover comprising a remotely activatable
electronic control unit (4), which is able to control a
device for dispensing a scent (21), designed to enable
the perception of the scent by the animal.

30 13. The device according to any one of Claims 1 to
12, wherein the call terminal (7) is remotely
activatable by the master of the animal.

35 14. The device according to any one of Claims 1 to

13, wherein the call terminal (7) comprises a vibrating device that is able to keep the communication between the animal and the master active.

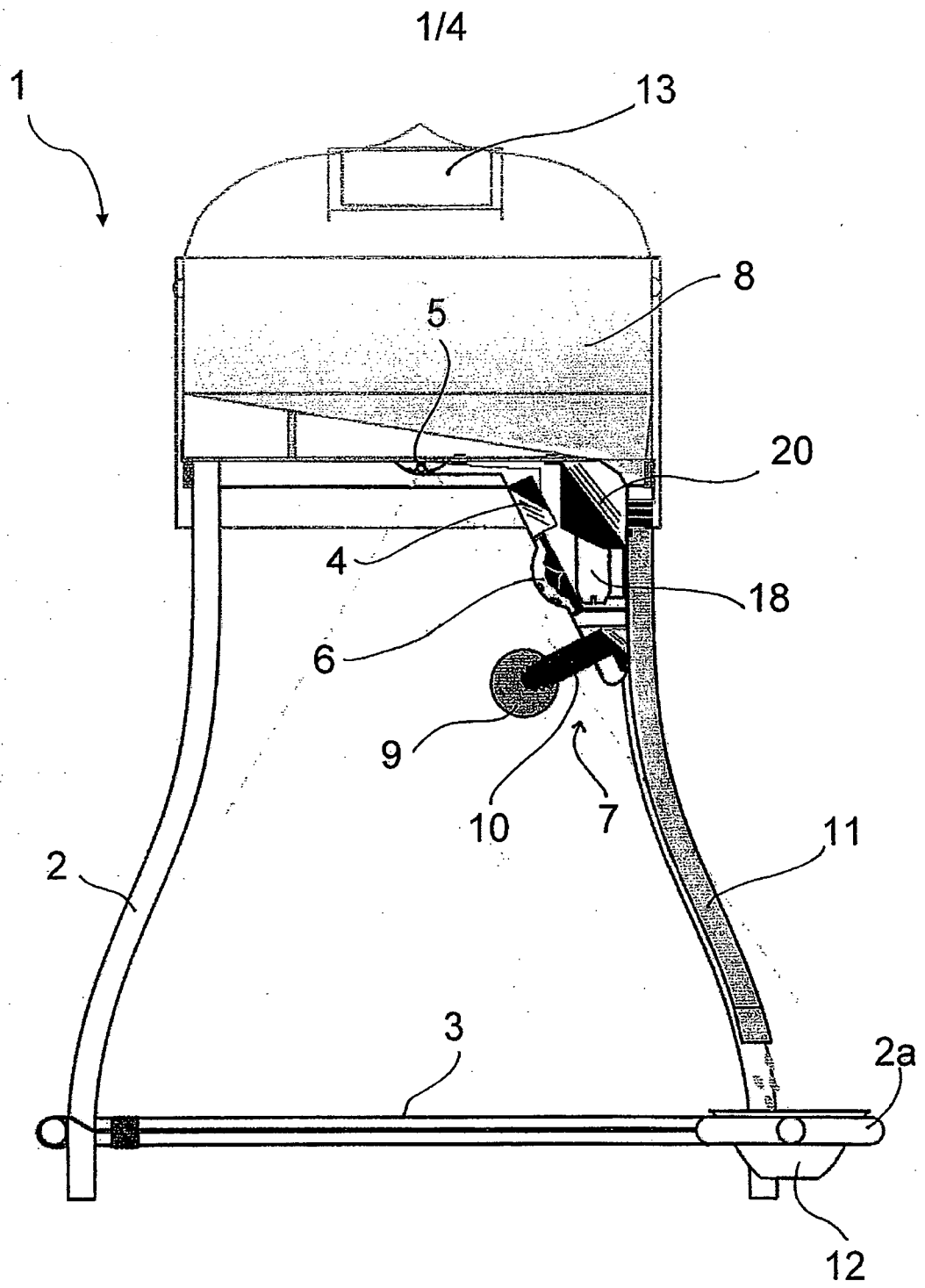


Fig. 1

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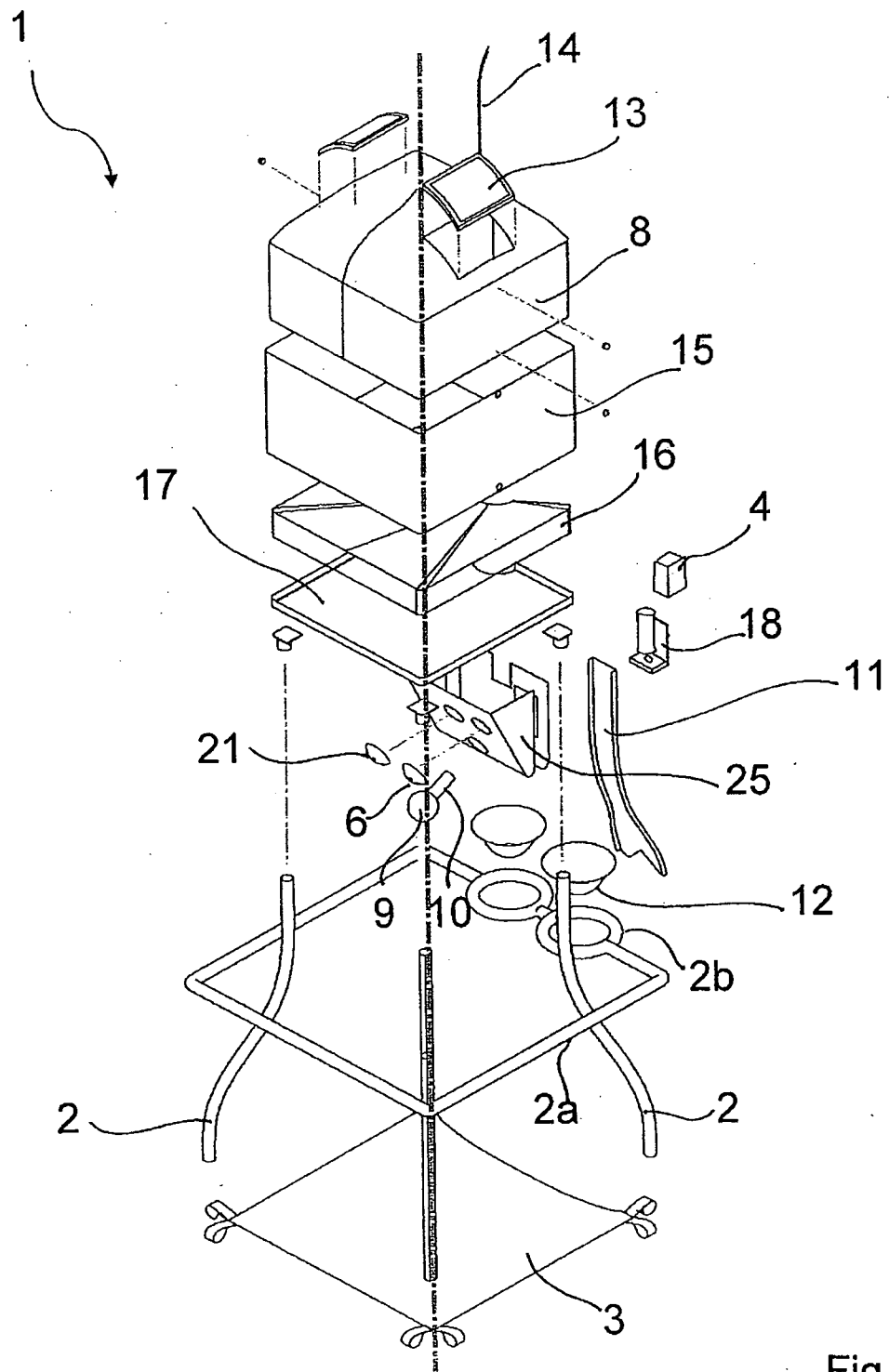
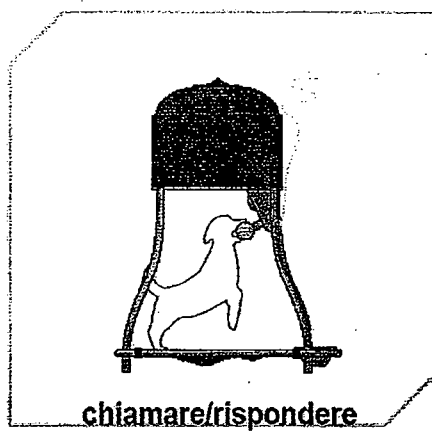


Fig. 2

3/4

A



B



C

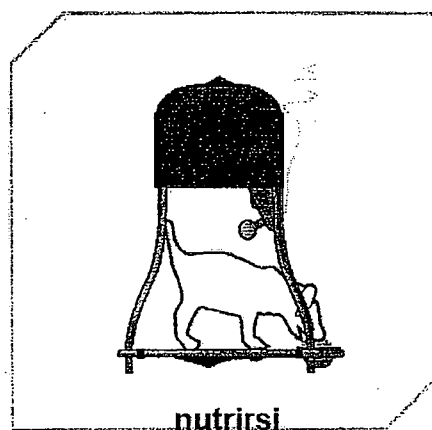


Fig. 3

	webcam	terminale vibrante	suono, voce	profumo	tappeto termico	dispenser cibo	dispenser acqua							
1° num.		C	O	N	T	R	O	L	L	A	R	E		
2° num.												E	R	E
3° num.		M	U	T										
4° num.		B	B											

Fig. 4

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2008/003588

A. CLASSIFICATION OF SUBJECT MATTER

INV. A01K15/02

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 H04M

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 practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	WO 2006/093875 A (TOLNER MARK R [US]) 8 September 2006 (2006-09-08) page 1, line 20 - page 2, line 2 page 2, line 26 - page 3, line 30 claims 1,6-8; figures 1-4A	1-6, 11-14
A	DE 199 36 583 A1 (JACKSON GABY [DE]; JACKSON MATHIAS [DE]) 8 February 2001 (2001-02-08) column 3, lines 6-13 column 4, lines 12-14 claim 2; figure 1	2,4,5,8
-/--		

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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- *A* document defining the general state of the art which is not considered to be of particular relevance
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INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2008/003588

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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Information on patent family members

International application No

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