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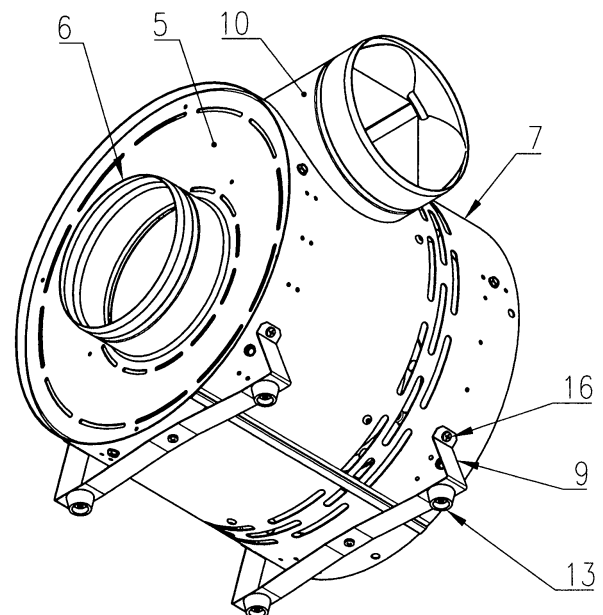
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(54) **Radial fan**

(57) A radial fan consisting of a housing (7) provided with front wall (5), rear wall (3) and inner partition (4) insulated from inside with thermal insulation and an electric motor (1) mounted in said housing (7) and connected detachably with radial turbine (2) located in helical part (12) of said housing, provided with two ports and resting on legs (13) characterised with that outer surface of the fan's housing, specifically cylindrical (7), is provided with mounting holes located along its circumference and specifically in the vicinity of its end faces in which detachably and adjustably, according to needs, resilient supports (9) are mounted provided with legs (13), and at the outlet of helical part (12) of said housing, a sleeve-shaped port is attached. Each of resilient supports (9) is preferably made of spring steel flat in the form resembling a shortened letter "U" with ends of its arms bent outside.



**Fig.6**



## EUROPEAN SEARCH REPORT

 Application Number  
 EP 11 46 0017

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| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                    |                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                              |                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Category                                                                                                                                                                                                                                               | Citation of document with indication, where appropriate, of relevant passages                                                                                                                                                               | Relevant to claim                                                                                                                                                                                                                                                            | CLASSIFICATION OF THE APPLICATION (IPC) |
| Y                                                                                                                                                                                                                                                      | US 3 486 688 A (HOFVENDAHL HERBERT E)<br>30 December 1969 (1969-12-30)<br>* column 3, line 33 - line 51; figures 1,2<br>*<br>* column 3, line 57 - line 69; examples 3-5 *<br>* column 4, line 17 - line 56; figures 4-5<br>*               | 1-3                                                                                                                                                                                                                                                                          | INV.<br>F04D29/60<br>F04D29/66          |
| Y                                                                                                                                                                                                                                                      | US 2 380 891 A (WHEELER HERBERT P)<br>31 July 1945 (1945-07-31)<br>* page 1, left-hand column, line 49 - right-hand column, line 2; figures 1,2 *<br>* page 1, right-hand column, line 52 - page 2, left-hand column, line 2; figure 3<br>* | 1-3                                                                                                                                                                                                                                                                          |                                         |
| Y                                                                                                                                                                                                                                                      | US 2005/158185 A1 (HERRICK TODD W [US] ET AL)<br>21 July 2005 (2005-07-21)<br>* paragraph [0022]; figure 2 *<br>* paragraph [0023]; figures 4,5 *                                                                                           | 1-3                                                                                                                                                                                                                                                                          |                                         |
| A                                                                                                                                                                                                                                                      | WO 2008/019038 A1 (HEWLETT PACKARD DEVELOPMENT CO [US]; FRANZ JOHN P [US]; DELLA FIORA TR)<br>14 February 2008 (2008-02-14)<br>* paragraph [0030]; figure 3 *                                                                               | 1-3                                                                                                                                                                                                                                                                          |                                         |
| The present search report has been drawn up for all claims                                                                                                                                                                                             |                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                              |                                         |
| Place of search<br><b>Munich</b>                                                                                                                                                                                                                       |                                                                                                                                                                                                                                             | Date of completion of the search<br><b>1 February 2018</b>                                                                                                                                                                                                                   | Examiner<br><b>Di Giorgio, F</b>        |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |                                                                                                                                                                                                                                             | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                         |

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 11 46 0017

5 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  
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01-02-2018

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s)                                                                                                       | Publication<br>date                                                                            |
|-------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| US 3486688 A                              | 30-12-1969          | NONE                                                                                                                             |                                                                                                |
| US 2380891 A                              | 31-07-1945          | NONE                                                                                                                             |                                                                                                |
| US 2005158185 A1                          | 21-07-2005          | CA 2492406 A1<br>US 2005158185 A1                                                                                                | 20-07-2005<br>21-07-2005                                                                       |
| WO 2008019038 A1                          | 14-02-2008          | CN 101501605 A<br>EP 2069879 A1<br>HK 1129471 A1<br>KR 20090046818 A<br>US 2008239665 A1<br>US 2009231804 A1<br>WO 2008019038 A1 | 05-08-2009<br>17-06-2009<br>08-06-2012<br>11-05-2009<br>02-10-2008<br>17-09-2009<br>14-02-2008 |