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(54) **VACUUM SEALER WITH ADJUSTABLE HEAD**

(57) A vacuum sealer (10) including a base (12) defining a support surface (16) and a body (20) extending from the base (12). A suction head (40) is supported by the body (20) and is moveable along the body (20) toward and away from the support surface (16). The suction head (40) supports a suction assembly (60) including a suction inlet (66) with a sealing member (64) thereabout. A suction pump (40) is configured to selectively provide a suction force to the suction inlet (66).

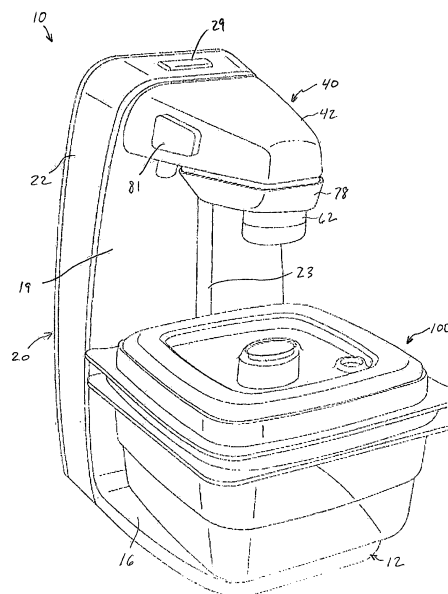


Fig. 1

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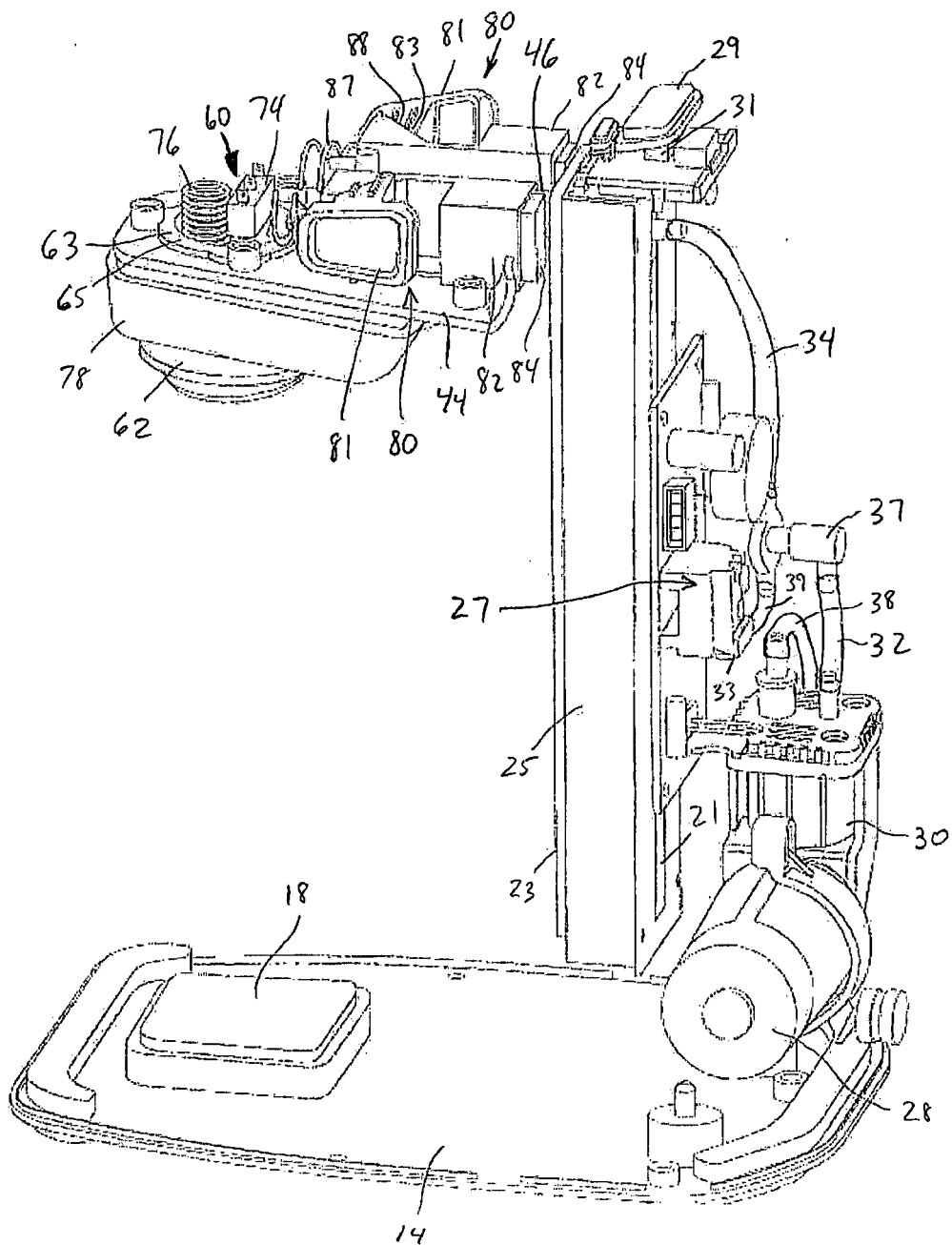


Fig. 3



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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) |
| X | US 2010/132831 A1 (WAROUX CEDRIC [FR] ET AL) 3 June 2010 (2010-06-03) | 1-3,5,7-9 | INV. B65B31/04 |
| Y | * paragraphs [0043] - [0046], [0052], | 10,11 | |
| A | [0060] - [0078]; figures 1-9, 11-16 * | 4,6,12-14 | |
| X | WO 96/31396 A1 (ENGINEER PHEROZE JAL [IN]; SANKARAN JAYARAMAN [IN]; GROVES MICHAEL HOW) 10 October 1996 (1996-10-10) | 1,3,4,6,12 | |
| Y | * page 3, line 24 - page 4, line 4; | 13,14 | |
| A | figures 1, 10, 14-20 * * page 8, line 18 - page 10, line 35 * | 2,5,7-11 | |
| Y | GB 2 313 557 A (KHALID FASIH UDDIN [HK]) 3 December 1997 (1997-12-03) | 10,11 | TECHNICAL FIELDS SEARCHED (IPC) |
| A | * page 4, line 5 - line 24; figures 1,2 * | 1-9,12-14 | |
| Y | US 2005/039420 A1 (ALBRITTON CHARLES WADE [US] ET AL) 24 February 2005 (2005-02-24) | 13,14 | |
| A | * paragraphs [0004], [0006], [0007], [0011], [0070]; figures 5-8 * | 1-12 | B65B A47J |
| A | US 6 019 034 A (FORD SR CLIFTON K [US]) 1 February 2000 (2000-02-01) | 1-14 | |
| A | * column 2, line 27 - column 4, line 16; figures 1-3 * | | |
| A | US 2 087 963 A (BAXTER DONALD E) 27 July 1937 (1937-07-27) | 1-14 | |
| A | * figures 1, 2 * | | |
| A | US 6 391 629 B1 (JENNY ALOIS [CH]) 21 May 2002 (2002-05-21) | 1-14 | |
| | * figures 1, 2, 3, 5 * | | |
| ----- -/-- | | | |
| The present search report has been drawn up for all claims | | | |
| Place of search | | Date of completion of the search | Examiner |
| Munich | | 11 May 2016 | Vassoille, Philippe |
| 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 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 | | | |

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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) |
| A | DE 83 05 271 U1 (SCHOTT ELEKTROGERAETE [DE]) 13 October 1983 (1983-10-13) * figures 2, 3 * | 1-14 | |
| A | WO 98/22571 A1 (FORD CLIFTON K SR [US]) 28 May 1998 (1998-05-28) * figures 1, 2 * | 1-14 | |
| A | US 2003/136791 A1 (TARLOW KENNETH P [US]) 24 July 2003 (2003-07-24) * figures 1, 4 * | 1-14 | |
| A | EP 0 211 686 A1 (BILBATE LTD [GB]) 25 February 1987 (1987-02-25) * figures 1-3 * | 1-14 | |
| A | US 2013/101442 A1 (ANN JUN-YOUNG [KR]) 25 April 2013 (2013-04-25) * figures 1-9 * | 1-14 | |
| | | | TECHNICAL FIELDS SEARCHED (IPC) |
| | | | |
| The present search report has been drawn up for all claims | | | |
| Place of search | | Date of completion of the search | Examiner |
| Munich | | 11 May 2016 | Vassoille, Philippe |
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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-7

relates to means of aligning a container with the suction
assembly

1.1. claim: 7

relates to means for ensuring quality of a seal between a
container and the suction head

1.2. claims: 3-6

relates to means for controlling the suction

2. claims: 8-11

relates to means for moving the suction head

3. claims: 12-14

relates to means for avoiding contamination of the suction
pump with liquid

Please note that all inventions mentioned under item 1, although not necessarily linked by a common inventive concept, could be searched without effort justifying an additional fee.

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

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|---|--|
| US 2010132831 A1 | 03-06-2010 | AT 519680 T EP 2146901 A2 ES 2368365 T3 FR 2915864 A1 FR 2915865 A1 US 2010132831 A1 WO 2008152235 A2 | 15-08-2011 27-01-2010 16-11-2011 14-11-2008 14-11-2008 03-06-2010 18-12-2008 |
| WO 9631396 A1 | 10-10-1996 | AU 5283396 A ID 15813 A WO 9631396 A1 | 23-10-1996 14-08-1997 10-10-1996 |
| GB 2313557 A | 03-12-1997 | GB 2313557 A US 5836687 A | 03-12-1997 17-11-1998 |
| US 2005039420 A1 | 24-02-2005 | CA 2476900 A1 US 2005039420 A1 | 31-01-2005 24-02-2005 |
| US 6019034 A | 01-02-2000 | NONE | |
| US 2087963 A | 27-07-1937 | NONE | |
| US 6391629 B1 | 21-05-2002 | AT 239071 T DE 50001931 D1 EP 1038949 A1 US 6391629 B1 | 15-05-2003 05-06-2003 27-09-2000 21-05-2002 |
| DE 8305271 U1 | 13-10-1983 | NONE | |
| WO 9822571 A1 | 28-05-1998 | AU 5181098 A US 5778763 A WO 9822571 A1 | 10-06-1998 14-07-1998 28-05-1998 |
| US 2003136791 A1 | 24-07-2003 | US 2003136791 A1 US 2003200874 A1 US 2004226458 A1 | 24-07-2003 30-10-2003 18-11-2004 |
| EP 0211686 A1 | 25-02-1987 | AU 576971 B2 AU 6118086 A EP 0211686 A1 GB 2179334 A US 4699190 A ZA 8606039 A | 08-09-1988 26-02-1987 25-02-1987 04-03-1987 13-10-1987 25-03-1987 |
| US 2013101442 A1 | 25-04-2013 | US 2013101442 A1 WO 2011059269 A2 | 25-04-2013 19-05-2011 |

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|----------------------------|---------------------|
| ----- | | | |

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