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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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(54) Title: MULTI POWER SOURCE POWER SUPPLY

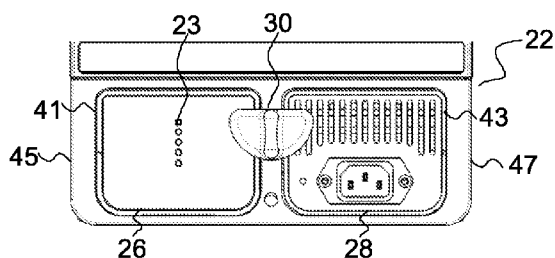


Figure 2A

(57) Abstract: A multiple power-source housing adapted to prevent simultaneous removal of more than a single power source, such as a battery, at a time. In an example embodiment, the power-source housing is used to house batteries for an intra-aortic balloon pump, which use battery power during transport. The power-source housing holds a first and second power source. When the first power source is removed, a mechanism, such as a knob, prevents simultaneous removal of the second power source or removal of the second power source until the first power source is replaced. Similarly, when the second power source is removed the mechanism prevents simultaneous removal of the first power source or removal of the first power source until the second power source is replaced.



WO 2012/145424 A3

INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2012/034116

A. CLASSIFICATION OF SUBJECT MATTER  
INV. H01M2/10 H02J9/06 A61M1/10 A61M1/12  
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)  
H01M A61M H02J

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)  
EPO-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.
X	EP 1 030 240 A2 (NCR INT INC [US]) 23 August 2000 (2000-08-23)	1,2,4-8, 15,20, 26-31, 33-36, 42,43
Y	figures 2A,4A-4C	9,22-24, 39,40
X	----- EP 0 825 520 A1 (CITIZEN WATCH CO LTD [JP]) 25 February 1998 (1998-02-25)	1-8,15, 17-20, 26-31, 33-36, 41-43
Y	abstract figures 6-11,13 -----	9,22-24, 39,40
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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

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"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

26 March 2013

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20/06/2013

Name and mailing address of the ISA/

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## INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2012/034116

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 311 408 A (FUJITSU LTD [JP]) 24 September 1997 (1997-09-24)	1-4,16, 20, 26-31, 33-38, 41-43
Y	figures 2A,19A-19C page 2, line 13 - line 18 page 9, line 7 - line 16	9,21-25, 32,39,40
Y	----- US 5 508 569 A (NISHINO TOORU [JP]) 16 April 1996 (1996-04-16) figures 4A-4C,6	9,22,24, 39,40
Y	----- US 5 011 468 A (LUNDQUIST INGEMAR H [US] ET AL) 30 April 1991 (1991-04-30) figure 1 column 5, line 4 - line 17 -----	21,25,32

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2012/034116

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-9, 15-43

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9, 15-43

A power supply system comprising two power sources and a lock element to prevent simultaneous removal of the two power sources, wherein the lock element comprises a knob movably positioned relative to the first and second housing parts where the first and second power sources are located.

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2. claims: 10-14

A power supply system comprising two power sources, a lock element to prevent simultaneous removal of the two power sources and an ejection mechanism in order to facilitate removal of the power sources from their housing parts.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2012/034116

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1030240	A2	23-08-2000	CA 2296161 A1 17-08-2000
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