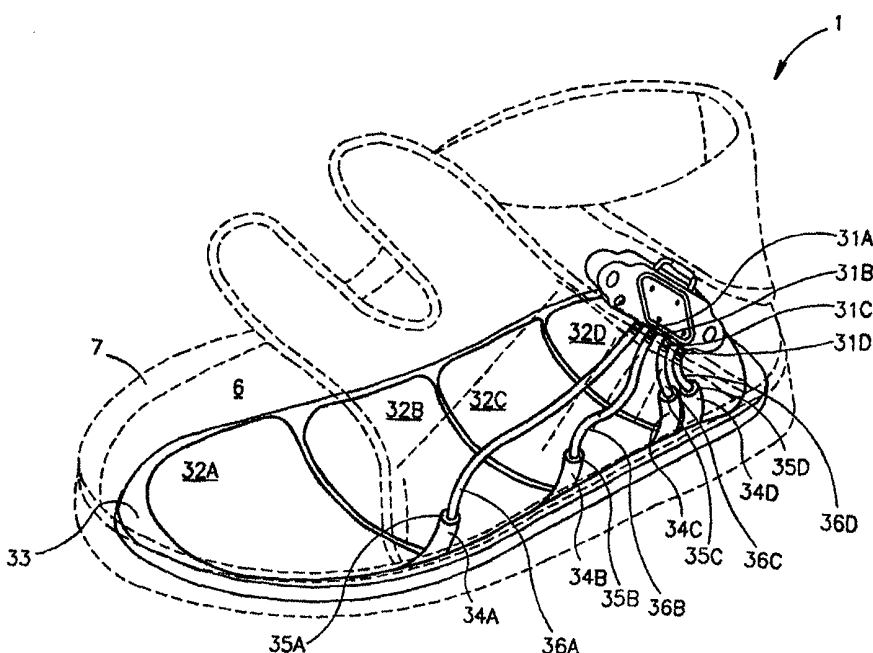


## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                                                                                                                                          |                         |    |        |                           |    |        |                            |    |        |                        |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----|--------|---------------------------|----|--------|----------------------------|----|--------|------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(51) International Patent Classification <sup>7</sup> :<br/><b>A61H 23/04, 1/02</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>A3</b>                  | <p>(11) International Publication Number: <b>WO 00/06077</b></p> <p>(43) International Publication Date: 10 February 2000 (10.02.00)</p> |                         |    |        |                           |    |        |                            |    |        |                        |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>(21) International Application Number: PCT/IL99/00419</p> <p>(22) International Filing Date: 30 July 1999 (30.07.99)</p> <p>(30) Priority Data:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">PCT/IL98/00352</td> <td style="width: 30%;">30 July 1998 (30.07.98)</td> <td style="width: 40%;">IL</td> </tr> <tr> <td>126462</td> <td>4 October 1998 (04.10.98)</td> <td>IL</td> </tr> <tr> <td>128328</td> <td>2 February 1999 (02.02.99)</td> <td>IL</td> </tr> <tr> <td>130000</td> <td>18 May 1999 (18.05.99)</td> <td>IL</td> </tr> </table> <p>(71) Applicant (for all designated States except US): MEDICAL DYNAMICS (ISRAEL) 1998 LTD. [IL/IL]; Matam Building 30, 31905 Haifa (IL).</p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (for US only): MANOR, Dan [IL/IL]; Remez Street, P.O. Box 264, 60920 Kadima (IL). BIBI, Roni [IL/IL]; 18 Hachalutz Street, 46795 Herzelia (IL). LEVY, Eli [IL/IL]; 8 Akiva Street, 43262 Raanana (IL). SHMULEWITZ, Ascher [IL/IL]; 20 Yoav Street, 69081 Tel Aviv (IL).</p> <p>(74) Agent: REINHOLD COHN AND PARTNERS; P.O. Box 4060, 61040 Tel Aviv (IL).</p> |                            | PCT/IL98/00352                                                                                                                           | 30 July 1998 (30.07.98) | IL | 126462 | 4 October 1998 (04.10.98) | IL | 128328 | 2 February 1999 (02.02.99) | IL | 130000 | 18 May 1999 (18.05.99) | IL | <p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b><br/><i>With international search report.</i></p> <p>(88) Date of publication of the international search report:<br/>18 May 2000 (18.05.00)</p> |
| PCT/IL98/00352                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 30 July 1998 (30.07.98)    | IL                                                                                                                                       |                         |    |        |                           |    |        |                            |    |        |                        |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 126462                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 4 October 1998 (04.10.98)  | IL                                                                                                                                       |                         |    |        |                           |    |        |                            |    |        |                        |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 128328                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2 February 1999 (02.02.99) | IL                                                                                                                                       |                         |    |        |                           |    |        |                            |    |        |                        |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 130000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 18 May 1999 (18.05.99)     | IL                                                                                                                                       |                         |    |        |                           |    |        |                            |    |        |                        |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>(54) Title: MEDICAL DEVICE FOR APPLYING A CYCLIC THERAPEUTIC ACTION TO A PERSON'S FOOT</p> <div style="text-align: center; margin-top: 20px;">  </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                            |                                                                                                                                          |                         |    |        |                           |    |        |                            |    |        |                        |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>(57) Abstract</p> <p>A medical device for applying a cyclic therapeutic action to a subject's foot, the device including a platform with at least one independently actuatable inflatable bladder to solely underlie the subject's foot, an inflatable bladder converging towards a laterally extending neck portion with an aperture raised with respect to said platform on accommodation of a subject's foot inside the medical device.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                            |                                                                                                                                          |                         |    |        |                           |    |        |                            |    |        |                        |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

***FOR THE PURPOSES OF INFORMATION ONLY***

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

|    |                          |    |                     |    |                       |    |                          |
|----|--------------------------|----|---------------------|----|-----------------------|----|--------------------------|
| AL | Albania                  | ES | Spain               | LS | Lesotho               | SI | Slovenia                 |
| AM | Armenia                  | FI | Finland             | LT | Lithuania             | SK | Slovakia                 |
| AT | Austria                  | FR | France              | LU | Luxembourg            | SN | Senegal                  |
| AU | Australia                | GA | Gabon               | LV | Latvia                | SZ | Swaziland                |
| AZ | Azerbaijan               | GB | United Kingdom      | MC | Monaco                | TD | Chad                     |
| BA | Bosnia and Herzegovina   | GE | Georgia             | MD | Republic of Moldova   | TG | Togo                     |
| BB | Barbados                 | GH | Ghana               | MG | Madagascar            | TJ | Tajikistan               |
| BE | Belgium                  | GN | Guinea              | MK | The former Yugoslav   | TM | Turkmenistan             |
| BF | Burkina Faso             | GR | Greece              |    | Republic of Macedonia | TR | Turkey                   |
| BG | Bulgaria                 | HU | Hungary             | ML | Mali                  | TT | Trinidad and Tobago      |
| BJ | Benin                    | IE | Ireland             | MN | Mongolia              | UA | Ukraine                  |
| BR | Brazil                   | IL | Israel              | MR | Mauritania            | UG | Uganda                   |
| BY | Belarus                  | IS | Iceland             | MW | Malawi                | US | United States of America |
| CA | Canada                   | IT | Italy               | MX | Mexico                | UZ | Uzbekistan               |
| CF | Central African Republic | JP | Japan               | NE | Niger                 | VN | Viet Nam                 |
| CG | Congo                    | KE | Kenya               | NL | Netherlands           | YU | Yugoslavia               |
| CH | Switzerland              | KG | Kyrgyzstan          | NO | Norway                | ZW | Zimbabwe                 |
| CI | Côte d'Ivoire            | KP | Democratic People's | NZ | New Zealand           |    |                          |
| CM | Cameroon                 |    | Republic of Korea   | PL | Poland                |    |                          |
| CN | China                    | KR | Republic of Korea   | PT | Portugal              |    |                          |
| CU | Cuba                     | KZ | Kazakstan           | RO | Romania               |    |                          |
| CZ | Czech Republic           | LC | Saint Lucia         | RU | Russian Federation    |    |                          |
| DE | Germany                  | LI | Liechtenstein       | SD | Sudan                 |    |                          |
| DK | Denmark                  | LK | Sri Lanka           | SE | Sweden                |    |                          |
| EE | Estonia                  | LR | Liberia             | SG | Singapore             |    |                          |

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/L 99/00419

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 A61H23/04 A61H1/02

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)

IPC 7 A61H

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)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages                                                             | Relevant to claim No. |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Y          | GB 2 313 784 A (MEDICAL DYNAMICS LIMITED)<br>10 December 1997 (1997-12-10)<br>cited in the application<br>abstract; claims 1,3; figures<br>--- | 1-3,7,9               |
| Y          | US 5 443 440 A (TUMEY ET AL.)<br>22 August 1995 (1995-08-22)<br>cited in the application<br>abstract; figures 1-5<br>---                       | 1-3,7,9               |
| A          | US 2 880 721 A (CORCORAN)<br>7 April 1959 (1959-04-07)<br>column 5, line 61 -column 6, line 25;<br>figures 13,14<br>-----                      | 1-3                   |



Further documents are listed in the continuation of box C.



Patent family members are listed in 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 document 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

24 November 1999

Date of mailing of the international search report

03. 03. 2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer

Mark Jones

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL 99/ 00419

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 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.: 28, 48  
because they relate to subject matter not required to be searched by this Authority, namely:  
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy
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 II Observations where unity of invention is lacking (Continuation of item 2 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 fee, this Authority did not invite payment of any additional fee.
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.:

1-14

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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

1. Claims: 1-14

Cyclic therapeutic device comprising bladders, each bladder having a neck portion with raised aperture.

2. Claims: 15-27

Boot-like cyclic therapeutic device comprising externally accessible connector.

3. Claims: 29-34

Foot dorsiflexion device with inflatable bladder having two compartments.

4. Claims: 35-40

Foot dorsiflexion device with wedge-shaped support.

5. Claims: 41-47

Cyclic therapeutic device comprising arched plantar arch support.

6. Claims: 49-51

Foot support kit for installation on a wheelchair.

7. Claim : 52

Plantar flexion device.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT,IL 99/00419

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s)                                                                   | Publication<br>date                                                              |
|-------------------------------------------|---------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| GB 2313784 A                              | 10-12-1997          | NONE                                                                                         |                                                                                  |
| US 5443440 A                              | 22-08-1995          | CA 2127329 A<br>EP 0698387 A<br>JP 8038563 A<br>ZA 9404824 A<br>US 5769801 A<br>US 5931797 A | 05-01-1996<br>28-02-1996<br>13-02-1996<br>12-06-1995<br>23-06-1998<br>03-08-1995 |
| US 2880721 A                              | 07-04-1959          | NONE                                                                                         |                                                                                  |