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Published:
— *with international search report (Art. 21(3))*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(54) Title: DRIP EMITTER

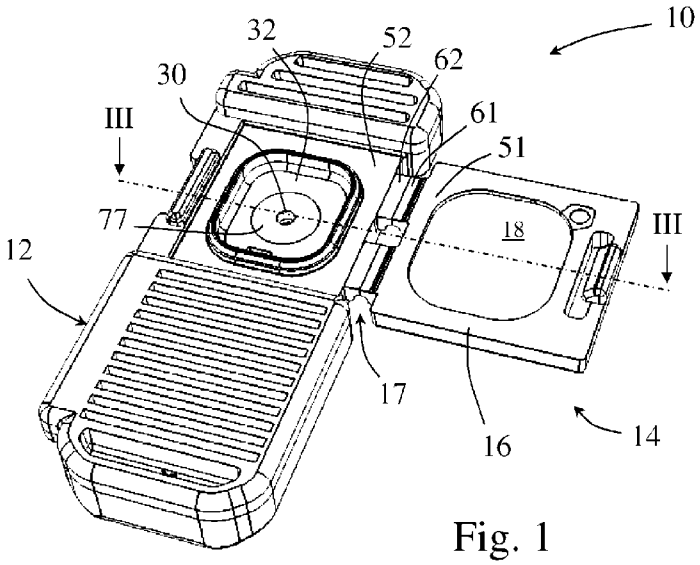


Fig. 1

(57) Abstract: A drip emitter has a flexible membrane for regulating a flow of liquid exiting the emitter, and the membrane in a non-stressed or non-flexed state into a regulating chamber of the emitter includes a non-planar portion.

[Continued on next page]

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
INV. A01G25/02
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)
A01G

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	WO 95/29761 A1 (NAAN SPRINKLERS AND IRRIGATION [US] ET AL.) 9 November 1995 (1995-11-09)	1-10, 25-43
Y	the whole document	11-18

Y	WO 2017/093882 A1 (NETAFIM LTD [IL]) 8 June 2017 (2017-06-08) the whole document	11-18

X	US 2012/097254 A1 (COHEN AMIR [IL]) 26 April 2012 (2012-04-26) the whole document	1

X	US 2015/090815 A1 (AKRITANAKIS KONSTANTINOS [GR]) 2 April 2015 (2015-04-02) the whole document	1

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[X] Further documents are listed in the continuation of Box C.

[X] 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

"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	Date of mailing of the international search report
19 July 2019	29/07/2019

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Trotereau, Damien

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Form PCT/ISA/210 (second sheet) (April 2005)

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International application No
PCT/IB2018/059840

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2017/103926 A1 (RIVULIS PLASTRO LTD [IL]) 22 June 2017 (2017-06-22) abstract figures	19-24
A	US 2016/295816 A1 (KIDACHI MASAHIRO [JP]) 13 October 2016 (2016-10-13) abstract figures paragraph [0034]	1
X	WO 2017/098858 A1 (ENPLAS CORP [JP]) 15 June 2017 (2017-06-15) abstract & US 2018/359962 A1 (NOGUCHI KOJI [JP]) 20 December 2018 (2018-12-20) abstract paragraphs [0039] - [0049] figures 1,2,5,6	44-46

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2018/059840

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.:

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: 1-18, 25-43

Drip emitter comprising a flexible membrane for regulating a flow of liquid exiting the emitter, wherein the membrane in a non-stressed or non-flexed state into a regulating chamber of the emitter comprises a non-planar portion surrounding or overlaying the regulating chamber, or bulges into a recess. Mold segment and molding process.

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2. claims: 19-24

A drip emitter comprising body and flap members connected at a hinge, the body and/or flap members being arranged to be pivoted about the hinge towards each other to form an operative state of the emitter suitable for performing drip irrigation, wherein when first pivoting the body and/or flap members one towards the other to form the operative state, and then leaving the members free to flex back away from each other to reach a relative open state; an included angle formed between the two members in the relative open state is configured to be less than about 35 degrees, and preferably less than about 30 degrees.

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3. claims: 44-46

A drip emitter comprising a recess and a membrane overlaying the recess for defining a regulating chamber of the emitter, the membrane comprising a peripheral wall projecting above an otherwise general flat portion of the membrane and the peripheral wall being located on a side of the membrane configured to face the recess.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/IB2018/059840

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