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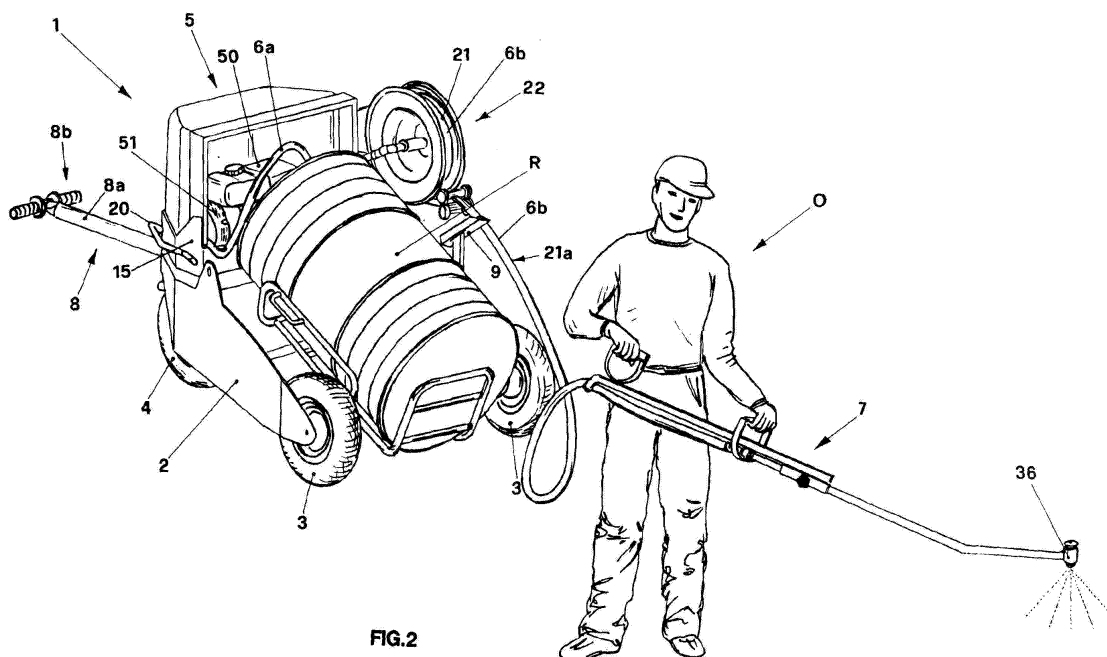
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(54) **Sprayer particularly suitable for spraying bitumen emulsions.**

(57) The invention is a sprayer (1) for bitumen emulsions, comprising: a frame (2) resting on wheels (3, 4); guide means (8) that are combined with the frame (2) and can be manoeuvred by the operator (O); supporting means (10) for a tank (R) containing the bitumen emulsion to be sprayed and associated with the frame (2);

means (7) for spraying the bitumen emulsion that can be grasped by the operator (O); a pumping unit (5) comprising a pipe (6a) for drawing the bitumen emulsion from the tank (R) and a delivery pipe (6b) connected to the spraying means (7). The pumping unit (5) belongs to a removable support structure (15) associated with the frame (2) via coupling means (16).



**FIG.2**



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# EUROPEAN SEARCH REPORT

Application Number  
EP 05 10 9494

| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CH 364 183 A (GERBER, WERNER)<br>31 August 1962 (1962-08-31)                                                  | 1, 12                            | INV.<br>E01C19/17                       |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | * the whole document *                                                                                        | 7, 8, 13                         |                                         |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DE 31 25 206 A1 (GEKO-APPARATEBAU GMBH;<br>HENDEL, WERNER, 7750 KONSTANZ, DE)<br>13 January 1983 (1983-01-13) | 1, 12                            |                                         |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | * the whole document *                                                                                        |                                  |                                         |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FR 802 482 A (AMMANN)<br>5 September 1936 (1936-09-05)                                                        | 7                                |                                         |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | * page 1, lines 39-45; figures 1, 2 *                                                                         |                                  |                                         |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | GB 425 444 A (FRANK COLEMAN)<br>14 March 1935 (1935-03-14)                                                    | 8                                |                                         |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | * page 1, lines 73-81 *                                                                                       |                                  |                                         |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | GB 106 125 A (HENRY BALLANS DEWHURST;<br>JAMES MOLYNEUX; DAVID HARRIS)<br>8 May 1917 (1917-05-08)             | 13                               |                                         |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | * page 3, lines 42-44; figures 1-3 *                                                                          |                                  |                                         |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | GB 989 355 A (AUTOGEN ENDRESS A.G.)<br>14 April 1965 (1965-04-14)                                             | 1                                |                                         |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | * page 2, lines 28-40 *                                                                                       |                                  |                                         |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | * page 3, lines 72-90; figures 5-7 *                                                                          |                                  |                                         |
| <del>The present search report has been drawn up for all claims</del>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                               |                                  |                                         |
| Place of search                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                               | Date of completion of the search | Examiner                                |
| Munich                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                               | 2 February 2006                  | Flores Hokkanen, P                      |
| 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<br>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 |                                                                                                               |                                  |                                         |

3  
EPO FORM 1503 03.82 (P04C01)

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims 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 the first ten claims.

**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:

1-5, 6, 7, 8, 12, 13



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: 1-5

Sprayer with a pumping unit support structure coupled to its frame by pins and holes

1.1. claim: 6

Sprayer with a pumping unit support structure with handles

1.2. claim: 7

Sprayer with supporting means allowing rotation of its tank

1.3. claim: 8

Sprayer with rod and handle guide means

1.4. claims: 12,13

Sprayer with a pumping unit including suction pipe with filter

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2. claims: 9-11

Sprayer with spraying means including holding means and telescopic connections

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3. claims: 14-18

Sprayer with unwinder-winder unit of the delivery pipe

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4. claims: 19,20

Sprayer with solvent liquid container in its suction pipe

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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.**

EP 05 10 9494

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  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-02-2006

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82