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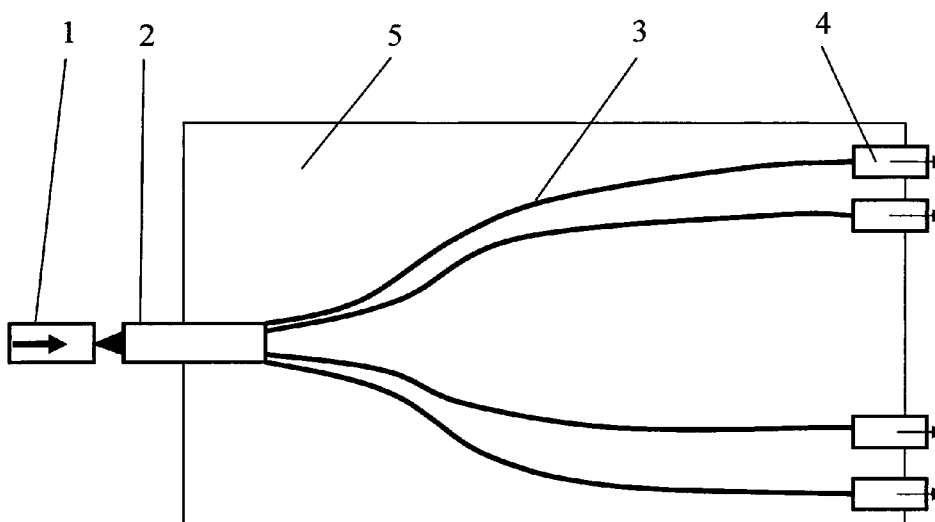
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(54) Title: CAPILLARY DISTRIBUTOR AND SPREADING KNIFE FOR RAIL LUBRICATION WHILE USING SPECIAL
DEPOSITING MATERIALS



(57) Abstract: The subject of this invention is capillary distributor and spreading knife for rail lubrication while using special depositing materials. As successful solution for providing of constantly even quantity of the matter at the exits from the lubricating device is distribution of the material through so called capillary distributor. Capillary distributor is comprised in particular of an inlet tube, capillary distribution device, capillaries, and housing. The distributor is comprised of arbitrary number of thin capillaries - tubes of desired length. It is important that the inlet holes are separated with as thin wall as possible. Depending on size of granulates (solid particles) which comprise material for distribution one can determine optimum diameter of holes and length of capillaries - tubes. Said tubes can be inserted into holes in the rail head or into the grooves inside the spreading knife whereas the spreading knife can have arbitrary number of grooves.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B61K

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)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2 518 786 A (HUCK WILLIAM F) 15 August 1950 (1950-08-15) column 3, paragraph 3 -----	1
A	US 5 687 814 A (CRAIG JEFFREY P [US] ET AL) 18 November 1997 (1997-11-18) the whole document -----	1
A	DE 921 946 C (WAESCHE WILHELM) 7 January 1955 (1955-01-07) the whole document -----	1
A	WO 98/29523 A (SHAPOVALOV VLADIMIR V [RU]; MAIBA IGOR ALBERTOVICH [RU]; DOROFEEV IGOR) 9 July 1998 (1998-07-09) the whole document ----- -/--	1



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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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A	FR 607 969 A (MOLLET) 12 July 1926 (1926-07-12) the whole document -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2518786	A	15-08-1950	NONE	
US 5687814	A	18-11-1997	NONE	
DE 921946	C	07-01-1955	NONE	
WO 9829523	A	09-07-1998	AU 2183397 A	31-07-1998
FR 607969	A	12-07-1926	NONE	