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ORIGINAL: English

DATE: June 2001



CARL DUISBERG  
GESELLSCHAFT e.V.



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and  
the European Patent Office (EPO)

**Munich, Nuremberg, Aachen (Germany), June 12 to 22, 2001**



PATENT DOCUMENTS AS A SOURCE OF TECHNICAL INFORMATION

*Document prepared by Mr. Christoph Bruhn, Principal Administrator,  
Publications Manager, European Patent Office (EPO), Munich*




# Patent Documentation and Media Facilities of the EPO


Christoph Bruhn  
EPIDOS

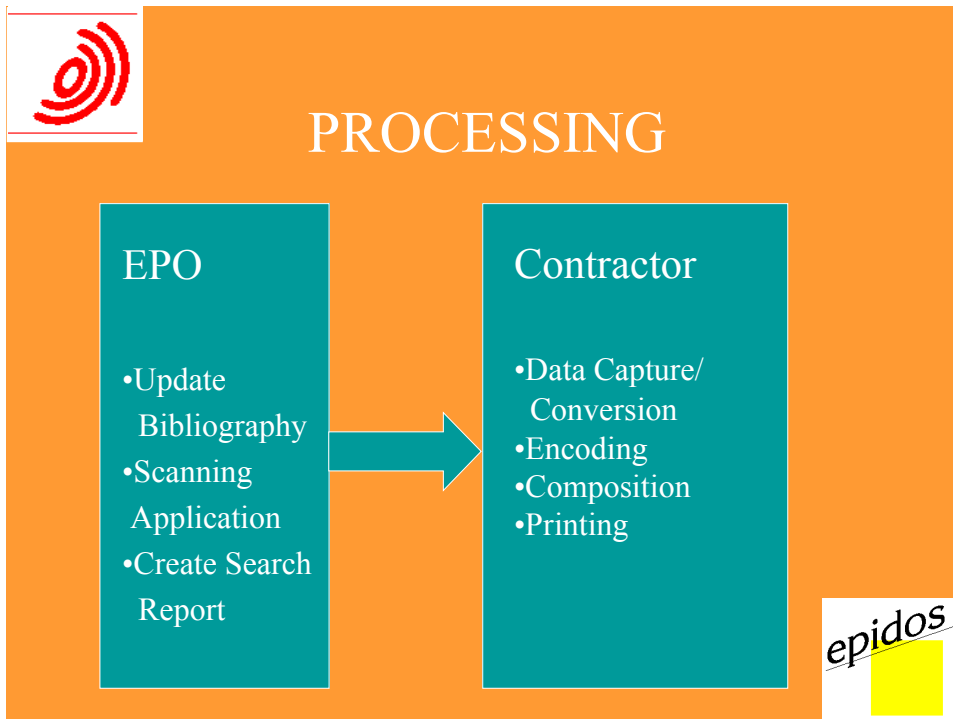
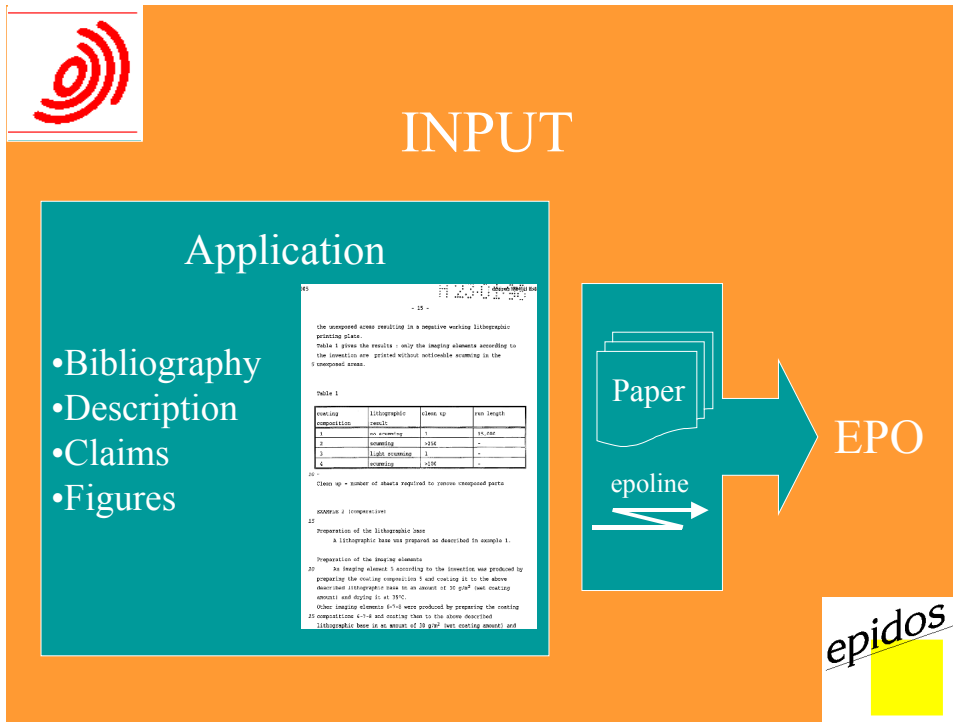


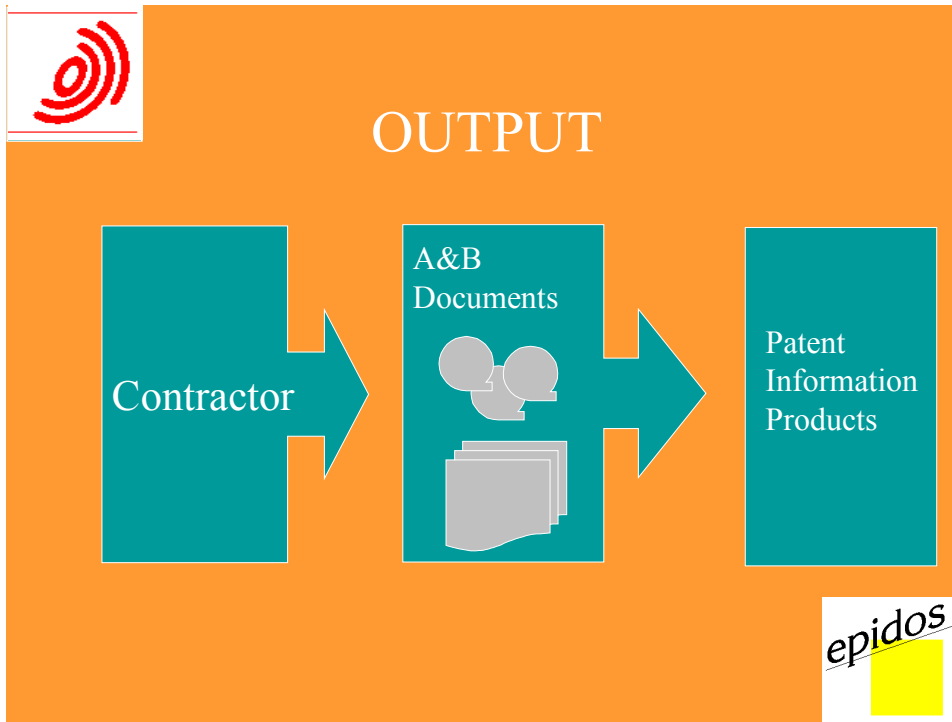
## Source of Patent Information




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graph LR; A[Patent Application] --> B[Publication System]; B --> C[Patent Information]
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- The diagram, titled "Products", lists various document formats. It features a red logo in the top-left corner and the "epidos" logo in the bottom-right corner, both on an orange background. The list of products is as follows:
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  - Full text data (SGML)
  - Full text + image data (mixed mode)



(19)  **Europäisches Patentamt**  
European Patent Office  
Office européen des brevets

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication: 17.03.2000 Bulletin 2000/09


(21) Application number: 99363729.1

(22) Date of filing: 06.11.1999

(84) Designated Contracting States:  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU  
MC NL PT SE  
Designated Extension States:  
AL LT LV MK PG SI

(30) Priority: 12.11.1998 NL 1016938

(71) Applicant:  
Epihermaatschappij De Boer Nijmegen B.V.  
6661 BS Nijmegen (NL)



(31) EP 1 000 000 A1

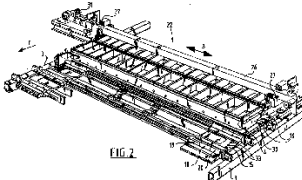
(51) Int. Cl.: B28B 5/02, B28B 7/00,  
B28B 1/29

(72) Inventor:  
Kosman, Wilhelmus Jacobus Maria  
6562 DA Geertrich (NL)

(74) Representative:  
Schumann, Bernard Herman Johan et al  
Ammok & Bredius  
Advocaten en Octrooigemachtigden,  
Sweelinckplein 1  
2617 GK Den Haag (NL)



(54) **Apparatus for manufacturing green bricks for the brick manufacturing industry**

(57) The invention relates to an apparatus (1) for manufacturing green bricks from clay for the brick manufacturing industry, comprising a circulating conveyor (3) carrying mould containers, combined to mould container parts (4), a reservoir (5) for clay arranged above the mould containers, means for carrying clay out of the reservoir (5) into the mould containers, means (9) for pressing and trimming clay in the mould containers, means (11) for supplying and placing take-off plates for the green bricks (13) and means for discharging green bricks released from the mould containers, characterized in that the apparatus further comprises means (29) for moving the mould container parts (4) filled with green bricks such that a protruding edge is turned on at least one side of the green bricks.




EP 1 000 000 A1

Printed by GPO, S.R.L. - 00198 Roma - Italy

## Paper Documents

- 100.000 patent documents per year
- 55.000 application (A) documents
- 45.000 granted patents, B documents
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## ESPACE CD-ROMS

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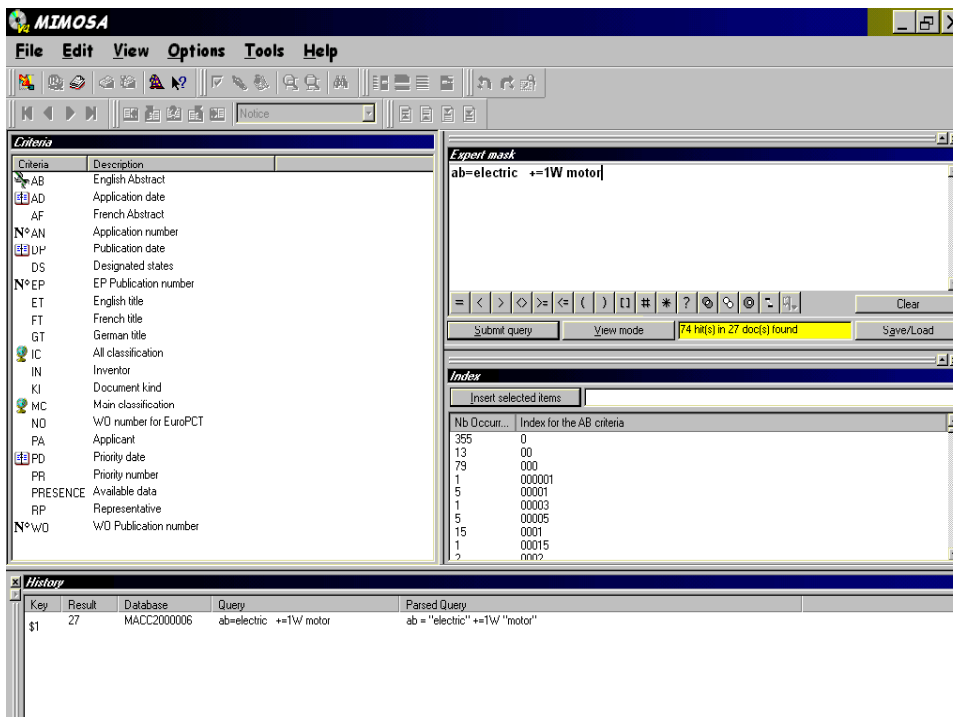
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## Bibliographic information

- **ESPACE ACCESS A** : (EP & PCT applications): 6 CDs or one DVD + 1 CD, abstracts in EN and FR
- **ESPACE ACCESS B** : (European granted patents): 3 CDs or 1 DVD + 1 CD, claims in DE, EN, FR

**MIMOSA**

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Criteria

Criteria	Description
AB	English Abstract
AD	Application date
AF	French Abstract
N°AN	Application number
DP	Publication date
DS	Designated states
N°EP	EP Publication number
ET	English title
FT	French title
GT	German title
IC	All classification
IN	Inventor
KI	Document kind
MC	Main classification
NO	WO number for EuroPCT
PA	Applicant
PD	Priority date
PR	Priority number
PRESENCE	Available data
RP	Representative
N°WO	WO Publication number

Expert mask

ab=electric \*\*1W motor|

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Nb Occur...	Index for the AB criteria
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1	00003
5	00005
15	0001
1	00015
?	nnn?

History

Key	Result	Database	Query	Parsed Query
\$1	27	MACC2000006	ab=electric **1W motor	ab = "electric" **1W "motor"



**MIMOSA - [WO 0004298 A1 20000127]**

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Notice

(PN) Publication number (Click to look for this document on Esp@ceNet):  
 WO 0004298 A1 20000127

(AN) Application number:  
 EP 9904760 19990707

(PR) Priority number:  
 EP 98202405.1 19980717

(DS) Designated states:  
 CN JP KR SG AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(MC) Main classifier:  
 F16C- 3310

(ET) English title:  
 DYNAMIC GROOVE BEARING COMPRISING A POROUS LUBRICANT RESERVOIR

(FT) French title:  
 PALIER DYNAMIQUE A RAINURES COMPRENANT UN RESERVOIR A LUBRIFIANT POREUX

(PA) Applicant:  
 KONINKLIJKE PHILIPS ELECTRONICS N.V.

(IN) Inventor:  
 BREMER, Fridtjof  
 HENSING, Johannes, M., M.

(ND) Index disc references (Click to open the database with MIMOBatch):  
 WORLD 00014

(AB) English Abstract:  
 The invention relates to a dynamic groove bearing (9) comprising an internal bearing part (23) and an external bearing part (17) which are rotatable relatively to each other about an axis of rotation (7), a bearing surface (31, 35) of one of the bearing parts comprising two grooves for co-operation with a bearing surface (39) of the other bearing part. The groove bearing further comprises a reservoir made from a porous material for a lubricant which is present between the bearing surfaces. According to the invention, the reservoir is mounted between the two groove patterns, viewed in a direction parallel to the axis of rotation. In this manner, a uniform supply of the lubricant from the reservoir to the two groove patterns is obtained, while also the number of parts of the groove bearing is limited. In a preferred embodiment, the reservoir comprises a ring-shaped body (29) which is made from the porous material and mounted in the external bearing part. The ring-shaped body may be confined between two bearing surfaces (31, 35) of the external bearing part and the bearing surface (39) of the internal bearing part. The diameter between the bearing surfaces (31, 35) of the external bearing part and the bearing surface (39) of the internal bearing part is smaller than the diameter of the ring-shaped body (29).

**MIMOSA - [WO 0004298 A1 20000127]**

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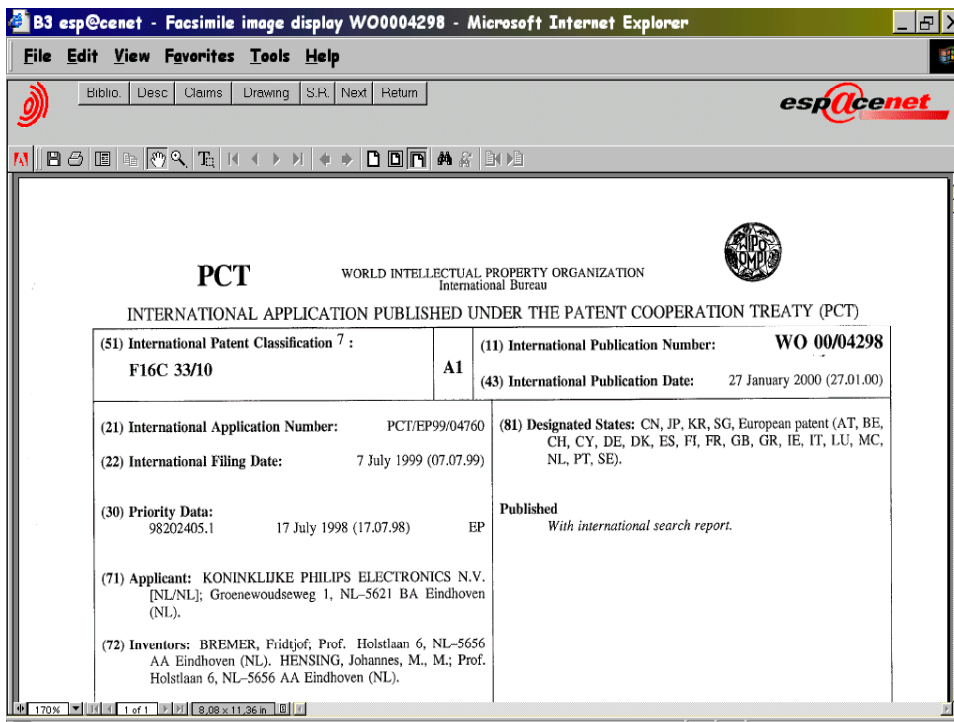
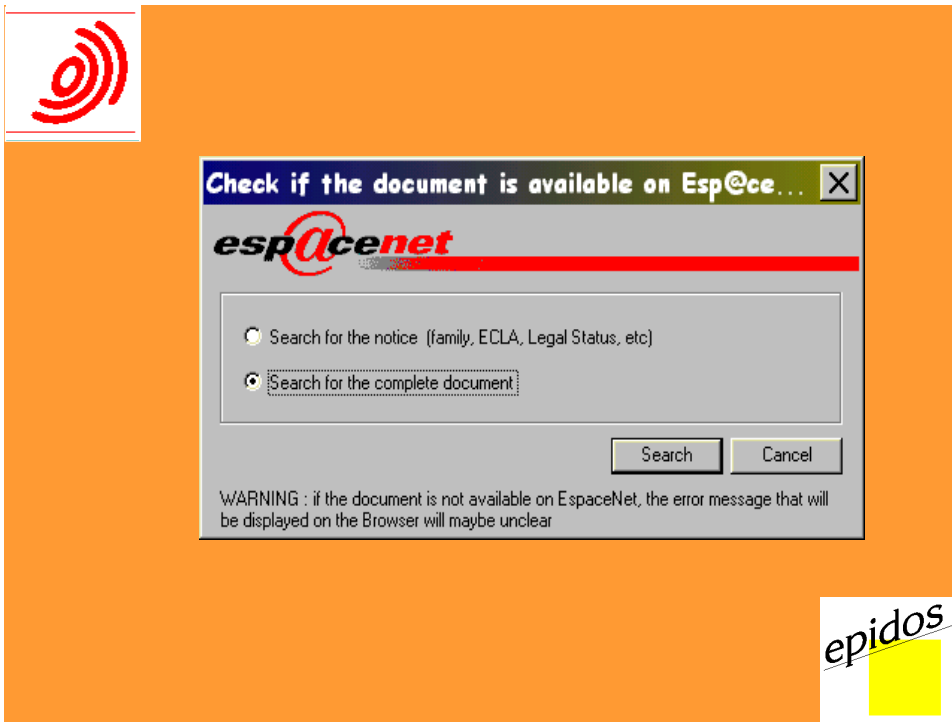
Document

**PCT** WORLD INTELLECTUAL PROPERTY ORGANIZATION  
 International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification: F16C 33/10	A1	(11) International Publication Number: WO 00/04298	(43) International Publication Date: 27 January 2000 (27.01.2000)
(21) International Application Number: PCT/EP99/04760		(81) Designated States: CN, JP, KR, SG, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE.	Patent published on CD-ROM: WORLD 00014 WLD00014
(22) International Filing Date: 07 July 1999 (07.07.1999)			
(30) Priority Data: 98202405.1 17 July 1998 (17.07.1998) EP			
(71) Applicant(s): KONINKLIJKE PHILIPS ELECTRONICS N.V.;			
(72) Inventor(s): BREMER, Fridtjof, HENSING, Johannes, M., M.;			
(54) Title: DYNAMIC GROOVE BEARING COMPRISING A POROUS LUBRICANT RESERVOIR (54) Titre: PALIER DYNAMIQUE A RAINURES COMPRENANT UN RESERVOIR A LUBRIFIANT POREUX			
(57) Abstract The invention relates to a dynamic groove bearing (9) comprising an internal bearing part (23) and an external bearing part (17) which are rotatable relatively to each other about an axis of rotation (7), a bearing surface (31, 35) of one of the bearing parts comprising two grooves for co-operation with a bearing surface (39) of the other bearing part. The groove bearing further comprises a reservoir made from a porous material for a lubricant which is present between the bearing surfaces. According to the invention, the reservoir is mounted between the two groove patterns, viewed in a direction parallel to the axis of rotation. In this manner, a uniform supply of the lubricant from the reservoir to the two groove patterns is obtained, while also the number of parts of the groove bearing is limited. In a preferred embodiment, the reservoir comprises a ring-shaped body (29) which is made from the porous material and			

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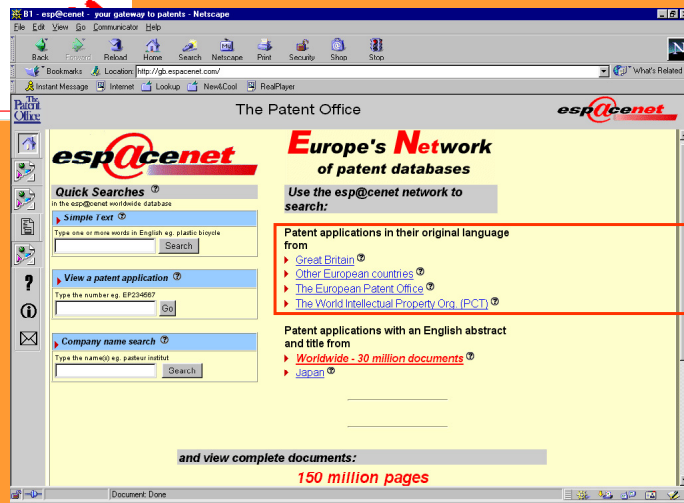
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Application Number: eg. GB19960008247

Priority Number: eg. GB19950021635

Publication Date: eg. 19970526

Applicant: eg. ICI

Inventor: eg. Smith

IPC Classification: eg. F62J11/17

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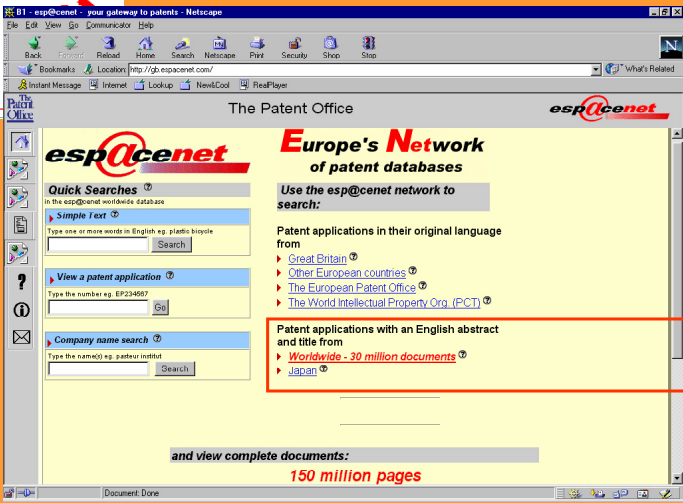
ES2151823

OFICINA ESPAÑOLA DE PATENTES Y MARCAS  
ESPAÑA

① Número de publicación: 2 151 823  
② Número de solicitud: 009801239  
③ Int. Cl. 7: B60T 1/10  
B60K 6/04

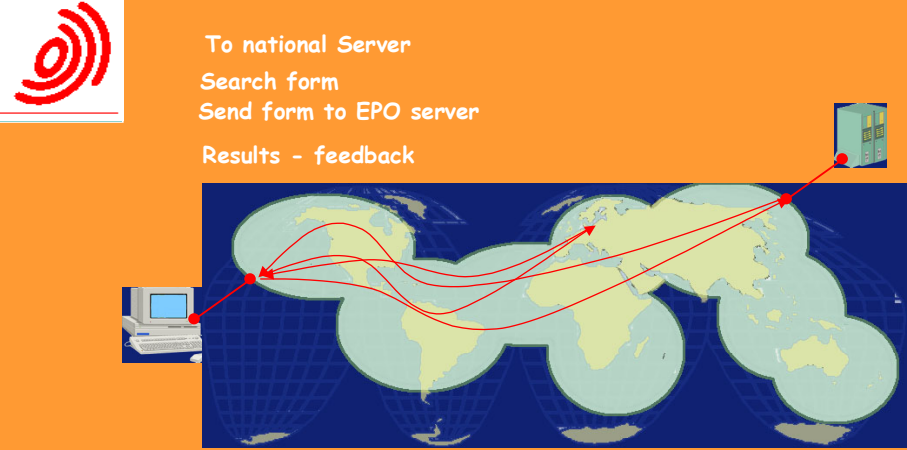

⑫ SOLICITUD DE PATENTE A1

⑫ Fecha de presentación: 12.06.1998	⑦ Solicitante/s: Carles Pujal Ametller Tarafa, 4 08400 Granollers, Barcelona, ES
⑬ Fecha de publicación de la solicitud: 01.01.2001	⑧ Inventor/es: Pujal Ametller, Carles
⑭ Fecha de publicación del folleto de la solicitud: 01.01.2001	⑨ Agente: Civanto Villar, Alicia




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- Publication Number:  eg. WO9905428
- Application Number:  eg. DE19971031696
- Priority Number:  eg. WO1995US15925
- Publication Date:  eg. 19970121
- Applicant:  eg. Motorola
- Inventor:  eg. Smith
- EC Classification:  eg. C07H15:04D
- IPC Classification:  eg. H03M1/12

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Click on any of the Patent Numbers below to see the details of the patent

Patent Number	Title
<input type="checkbox"/> US6223743	Solar power generation and energy storage system
<input type="checkbox"/> GB1060788	Solar energy collector
<input type="checkbox"/> US6170281	Weather shield solar heat collector per reflector
<input type="checkbox"/> GB1043783	Solar energy collector
<input type="checkbox"/> DE19909900	Mobile solar heated shower comprises water tank on which solar collector is mounted
<input type="checkbox"/> WO0075576	NON-IMAGING OPTICAL ILLUMINATION SYSTEM
<input type="checkbox"/> WO0070274	SOLAR POWER GENERATION AND ENERGY STORAGE SYSTEM
<input type="checkbox"/> WO0063625	SOLAR COLLECTOR AND TRACKER ARRANGEMENT
<input type="checkbox"/> US6131565	Solar energy collector system
<input type="checkbox"/> WO0055549	DECENTRALISED SOLAR ENERGY INSTALLATION
<input type="checkbox"/> DE19904249	Solar energy collector for installation on or in vertical building facades has outside for collection purposes and several horizontally run
<input type="checkbox"/> WO0028264	SOLAR ENERGY CONCENTRATOR AND CONVERTER
<input type="checkbox"/> WO0022356	SOLAR COLLECTOR WITH TEMPERATURE LIMITER
<input type="checkbox"/> WO0012944	A SOLAR ENERGY COLLECTOR
<input type="checkbox"/> EP1008820	Solar collector element
<input type="checkbox"/> DE19908014	Accumulator collector for concentration and accumulation of solar energy has only one accumulator container acting as primary unit connects
<input type="checkbox"/> US6058930	Solar collector and tracker arrangement
<input type="checkbox"/> US6047696	Modulating solar-power regulator
<input type="checkbox"/> DE19840181	Parabolic trough collector for solar energy power plant, has reflector in form of parabolic trough with absorber tube running along reflect
<input type="checkbox"/> US6024086	Solar energy collector having oval absorption tubes

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**US6223743** Biblio Desc Claims

**Solar power generation and energy storage system**

Patent Number: US6223743  
 Publication date: 2001-05-01  
 Inventor(s): PRUEITT MELVIN L (US)  
 Applicant(s):  
 Requested Patent:  US6223743  
 Application Number: US19960396653 19990915  
 Priority Number(s): US19960396653 19990915, US19990134642P 19990510  
 IPC Classification: F24L2/44, F24L2/06  
 EC Classification: F03G5/06, F24D20/00, F24D23/46, F24D23/6, F24D26/08  
 Equivalents: AU4454900,  WO00020274

**Abstract**

A solar energy collection system harvests solar energy from large open areas. A length of flexible solar collector is provided for unrolling along a supporting surface. A first layer of the solar collector is an uninsulated base panel for directly contacting the ground or other supporting structure. A plurality of parallel conduits are sealed along the length of the flexible base panel and have a high light absorption and a low infrared emission for containing a flowing liquid to be heated by solar energy from the sun. A length of a covering material is placed parallel to the base panel and between the parallel conduits and the sun and sealed to the base panel for containing a low pressure fluid to reduce heat loss from the flowing liquid and to inflate the structure formed by the ground cover and covering material. Heated fluid from the parallel conduits is collected in a header for delivery to a power generating system. The heated liquid is passed through a boiler for boiling a fluid with a low boiling point, such as a refrigerant, and the vapor can then be used in a conventional power plant for generating output energy. In one embodiment, the power plant condenser is cooled by the evaporation of water sprayed into cooling air adjacent the condenser.

Data supplied from the esp@cenet database - 12

**US006223743B1**

**(12) United States Patent**  
**Prucitt**

**(10) Patent No.: US 6,223,743 B1**  
**(45) Date of Patent: May 1, 2001**

**(54) SOLAR POWER GENERATION AND ENERGY STORAGE SYSTEM**  
 2504660 \* 10/1982 (FR) ..... 126/620  
 79,00225 \* 5/1979 (WO) ..... 126/624

**(76) Inventor: Melvin L. Prucitt, 161 Cascabel, Los Alamos, NM (US) 87544**

**(\*) Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

**(21) Appl. No.: 09/396,653**  
**(22) Filed: Sep. 15, 1999**

**Related U.S. Application Data**  
**(60) Provisional application No. 60/134,642, filed on May 18, 1999.**

**(51) Int. Cl.<sup>7</sup> ..... F24J 2/34; F24J 2/36**  
**(52) U.S. Cl. .... 126/620, 126/626**  
**(58) Field of Search ..... 126/620, 624, 126/626, 565, 566, 569, 651, 655, 908**

**OTHER PUBLICATIONS**  
 Wilhelm et al., "The Development of Polymer Film Solar Collectors: A Status Report," BNL 51582 Aug. 1992.  
 \* cited by examiner

**Primary Examiner—**Ira S. Lazarus  
**Assistant Examiner—**Sara Clarke

**(57) ABSTRACT**  
 A solar energy collection system harvests solar energy from large open areas. A length of flexible solar collector is provided for unrolling along a supporting surface. A first layer of the solar collector is an uninsulated base panel for directly contacting the ground or other supporting structure. A plurality of parallel conduits are sealed along the length of the flexible base panel and have a high light absorption and a low infrared emission for containing a flowing liquid to be



**US6223743** Biblio Desc Claims

**Description**

**FIELD OF THE INVENTION**

The present invention relates generally to production of thermal energy from solar energy, and, more particularly, to a system for collecting, storing, and using thermal energy generated from incident solar energy.

**BACKGROUND OF THE INVENTION**

The amount of energy striking the earth from the sun in just one day is enough to provide electric power for the human race for 175 years at the present rate of consumption. One way to gather some of this energy is through photovoltaic panels, but they turn off when the sun goes down. Furthermore, available photovoltaic panels are expensive compared to the cost of electric power produced by fossil fuels.

Another way to harvest solar energy is to concentrate sunlight with parabolic mirrors to produce steam in a Rankine cycle that generates electric power. But, again, this technique is expensive and labor intensive and is useful only during relatively dear daylight hours. Projects that propose the use of flat panel collectors for the conversion of solar energy to thermal energy for the production of output power have proven uneconomical due to the cost of reconstructing large areas of collector surfaces. Both of the methods also require some external form of energy storage in order to continue to produce power at night.

Flat solar panels normally are formed in rectangular boxes with one or two layers of glazing above the absorbing surface, and the sidewalls that support the glazing cast shadows on the absorbing surface in early morning and late afternoon. Furthermore, the frames of the boxes provide heat paths, which lose energy from the solar collectors to the ambient air.

What is needed is a system that inexpensively harvests solar energy over large areas, using part of the energy to produce power during the daytime and storing the rest of the energy for nighttime power generation. For example, Brookhaven National Laboratory Report BNL-51462, UC-28c, "The Development of Polymer Film Solar Collectors: A Status Report," W. C. Wilhelm et al., August 1992, describes a solar collector consisting of plastic films that are sealed together at appropriate places by a roller system in a factory. The rolls of plastic film are then cut into sections and mounted into rigid frames. Bottom insulation is applied to reduce heat loss.

A number of patents show the construction of solar panels that consist of plastic films for glazing and for channels containing a heat collecting fluid. U.S. Pat. Nos. 4,038,967, 4,569,924, and 4,597,378 show plastic films sealed together for the transport of heat collecting fluids and plastic films for glazing. In these cases, rigid frameworks are required to support the films and insulation is provided to prevent heat loss below the panels.








U.S. Pat. No. 4,036,209 shows a water channel with walls of plastic and a plastic glazing supported by air pressure. It is attached to a rigid structure and is not designed to cover large areas over the ground. U.S. Pat. No. 3,174,915 is a solar still that uses an air-inflated cover for glazing and for condensate collection. It is attached to a rigid framework. U.S. Pat. No. 3,991,742 describes a water-heater solar panel consisting of two plastic films between which water flows. This system is designed to be attached to a pitched roof to provide the necessary gravity fluid flow.


The present invention, Solar Power and Energy Storage System (SPAESS), provides a solar energy harvest system that can be applied over large ground areas to economically produce electric power from the sun during the daytime and store energy in the underlying earth for nighttime power generation. A square mile (640 acres) of solar harvest can output over a hundred megawatts of power during peak demand in the daytime and continue to generate energy at relatively high levels during the night when the demand for electricity has decreased.

Various objects, advantages and novel features of the invention will be set forth in part in the description which follows, and in part will become apparent to those skilled in the art upon examination of the following or may be learned by practice of the invention. The objects and advantages of the invention may be realized and attained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

**SUMMARY OF THE INVENTION**

The present invention is directed to a solar energy collection system for harvesting solar energy from large open areas. A length of solar collectors having a flexible uninsulated base panel is provided for unrolling along a supporting surface. A plurality of parallel conduits are sealed along the length of the flexible base panel and have a high light absorption and a low infrared emission for containing a flowing liquid to be heated by solar energy from the sun. A length of a covering material is placed parallel to the base panel and between the parallel conduits, and the sun and sealed to the base panel for containing a low pressure fluid to reduce heat loss from the flowing liquid and to inflate the structure formed by the ground cover and covering material.

	 National patent offices of the EPO	 European (EPO) + PCT (WIPO)	 Japanese patent information	 Worldwide patent documentation
available	<ul style="list-style-type: none"> <li>•biblio data</li> <li>•1st page image</li> <li>•description</li> <li>•claims</li> <li>•drawing</li> <li>•report</li> </ul>	<ul style="list-style-type: none"> <li>•biblio data</li> <li>•1st page image</li> <li>•description</li> <li>•claims</li> <li>•drawing</li> <li>•report</li> </ul>	<ul style="list-style-type: none"> <li>•biblio data</li> <li>•abstract in English</li> <li>•drawing</li> </ul>	<ul style="list-style-type: none"> <li>•biblio data</li> <li>•first page image</li> <li>•description</li> <li>•claims</li> <li>•drawing</li> </ul>
coverage	The last 24 months	The last 24 months	since 76: biblio data since 80: drawings	Full data since 70 further since 20
datasource	national patent office			





## Some comments:

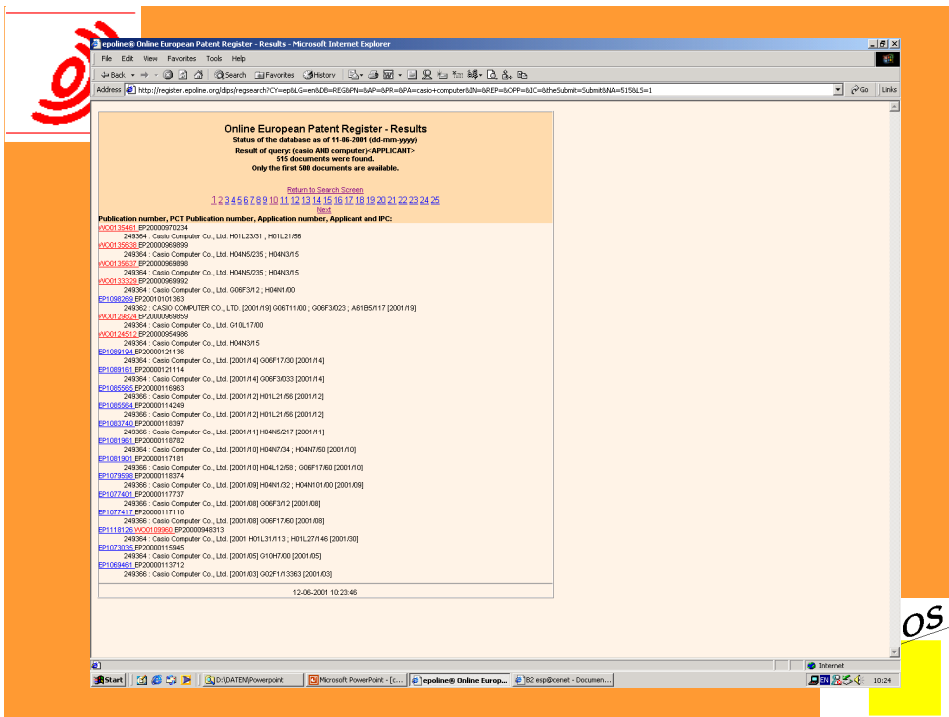
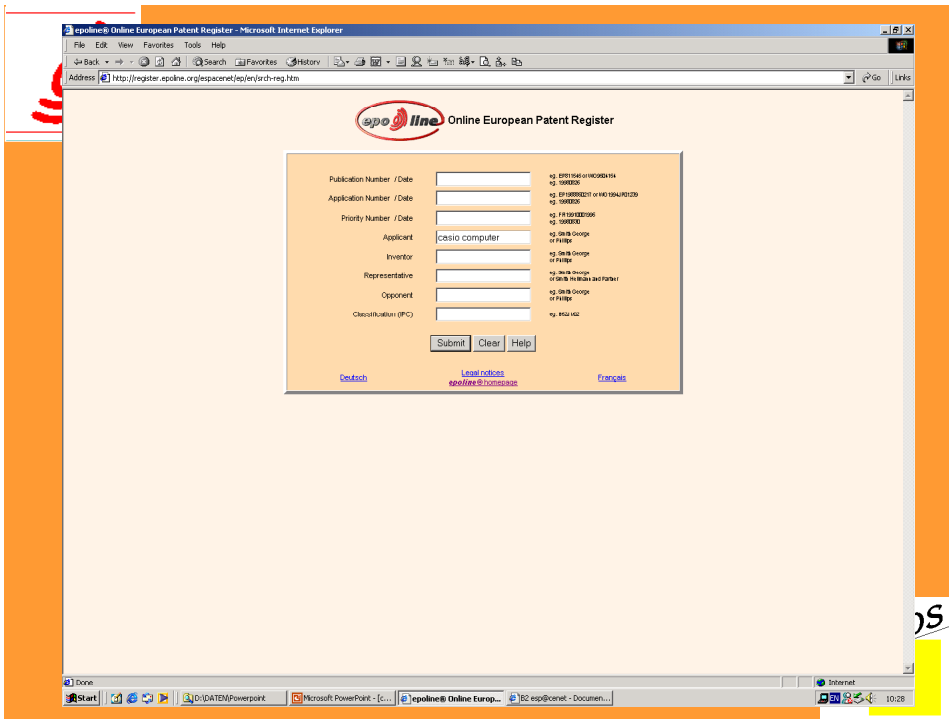
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**Online European Patent Register - Results**  
Status of the database as of 11.06.2001 (dd.mm.yyyy)  
Choose your View: [All data mentioned in Rule 92 and EPDCOS] [Return to Search Screen] [Return to List]

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**Designated states, applicant name, address**  
FOR ALL DESIGNATED STATES  
Casio Computer Co., Ltd.  
6-2, Hon-machi 1-chome  
Shibuya-ku, Tokyo 151-8543JP [1998/02]

**Inventor name, address**  
01 (Mura, Yasushi, c/o Casio Computer Co., Ltd./I. P. C. Hamura R&D Center, 2-1, Saiea-cho 3-chome / Hamura-shi, Tokyo, 205 / JP [1997/15]

**Representative name, address**  
Dipl.-Ing. Karlheinz Stockmeier & Schwankl-Kusser Anwaltskanzlei  
Munich/Leibnizstr. 20  
80538 München, DE [1997/15]

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01-10-1999MAGN11-02-2000

**Communication R.51(4) dispatched**  
12-04-2001

**Renewal fees**  
Renewal fee A.86 (patent year / paid)  
03/12-10-1998  
04/14-10-1999  
05/11-10-2000

**Documents cited in the European Search**  
EP0641963 A D [3]  
EP0638448 A D [3]  
EP0622320 A D [3]

# Online File Inspection

- Electronic file
- All correspondence
- Application documents etc.
- Availability in facsimile format

The image shows two overlapping browser windows. The left window, titled 'Public File Inspection', is a web application for downloading patent documents. It features a search bar for 'Enter Application Number' and a 'Display File' button. Below, a dropdown menu shows 'Current Application: EP9801000'. A table lists various documents with columns for 'Date', 'Document', and 'Pages'. The right window, titled 'File Inspection Viewer', displays the patent document for EP9801000. It includes the EPO logo, applicant information (W.L. Gore & Associates GmbH), a barcode, and a section titled 'Bescheid gemäß Artikel 96(2) EPO' with a 4-month deadline for response.

Date	Document	Pages
2001-04-03	Renewal fee reminder (4th year)	2
2000-10-16	Examination report	1
2000-10-16	Answer to the communication	1
1999-12-29	Document filed during Examination Procedure after EROE1	2
1999-12-29	Claims	4
1999-12-29	Claims	6
1999-12-24	Document filed during Examination Procedure after EROE1	2
1999-12-24	Claims	4
1999-12-24	Claims	6
1999-08-25	Examination report	4
1999-01-07	Info on forthcoming pub. bibli. data	1
1998-12-23	International publication pamphlet	34
1998-12-10	Info on entry into regional phase (pages 1-2)	4
1998-11-05	Payment sheet	1
1998-11-02	Priority document	26
1998-10-27	Request to enter regional phase (EPCT)	5
1998-10-27	Letter relating to the Search and Examination Procedure	1
1998-10-27	General authorisation	1
1998-10-27	Description	11
1998-10-27	Claims	5
1998-10-27	Abstract	1
1998-10-27	Drawings	10
1998-08-27	International publication pamphlet	28
1998-08-27	Copy of the international Search report	6

The image shows the homepage of the European Patent Office (EPO) in a Microsoft Internet Explorer browser. The address bar shows 'http://www.european-patent-office.org/'. The page features the EPO logo, a 'Job openings' link, and a search bar. A navigation menu on the left includes 'General Presentation', 'Official communication', 'Patent information centres', and 'Events and seminars'. A 'Toolbox for applicants' section on the right includes 'Patent information products', 'Search engines and index', and 'News and updates'. At the bottom, there are logos for 'esp@net' and 'vna@line' along with links for 'frangais', 'deutsch', 'patent search', 'filed filing', 'contact EPO', and 'links'.



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