

FRFULL (French Patents Full-Text)

Subject Coverage	<ul style="list-style-type: none"> All patent-relevant areas of science and technology, i.e., all classes of the International Patent Classification. 			
File Type	Full-Text			
Features	Thesauri	International Patent Classification (/IPC)), Cooperative Patent Classification (/CPC), European Patent Classification (/EPC, /ICO)		
	Alerts (SDIs)	Weekly or monthly (weekly is the default)		
	CAS Registry Number® Identifiers	<input type="checkbox"/>	Page Images	<input type="checkbox"/>
	Keep & Share	<input checked="" type="checkbox"/>	SLART	<input checked="" type="checkbox"/>
	Learning Database	<input type="checkbox"/>	Structures	<input type="checkbox"/>
Record Content	<ul style="list-style-type: none"> FRFULL (French Patents Full-Text Database) covers the full-text of patent applications, granted patents, and utility models published in France from 1902 onwards with the first document from 1855. Patent applications are assigned with kind code FRA (up to 1968) and FRA1 (since 1969), granted patents (patents of invention) with kind codes FRA5 (up to 1975) and FRB1 (since 1973), unexamined utility models with kind code FRA3, and utility model specifications with kind code FRB3. Database records comprise all documents published for one application. Records of the database contain bibliographic data, including patent applicant and inventor information, patent, application and priority application data, IPC, CPC (including CPC combination sets), and EPC classification codes, plus the searchable text of the complete documents, comprising titles, abstracts, description and claims in English and French Abstract, description, and claims in English are machine translations. Numeric values of 59 physical and chemical properties are searchable in about 5000 unit variants within in all full-text fields. Clipped images (mostly front-page images) from 1902 onwards are also included, if available. Legal status data, family and citation display formats from the INPADODB database are available. Text has been created by Optical Character Recognition (OCR) software. Therefore, characters may be misinterpreted, or portions of the text may be incomplete. A small percentage of records are absent because they failed to scan. 			
File Size	<ul style="list-style-type: none"> More than 2.45 million family records with more than 3.16 million publications (08/2020) More than 2.09 million front page images from 1902 to present (08/2020) 			
Coverage	Comprehensive 1902 to present, first document from 1855			
Updates	Weekly			
Language	English, French			

Database Producer LexisNexis Univentio BV
Galileiweg 8
2333 BD Leiden
The Netherlands
Phone: (+31) 88-6390000
Email: customersupport@univentio.com
Copyright Holder

Database Supplier FIZ Karlsruhe
STN Europe
P.O. Box 2465
76012 Karlsruhe
Germany
Phone:+49 7247 808-555
Fax: +49 7247 808-259
Email: helpdesk@fiz-karlsruhe.de

Sources

- French Patents Full-Text Documents

User Aids

- Online Helps (HELP DIRECTORY lists all help messages available)
- STNGUIDE

Cluster

- AEROTECH
- ALLBIB
- AUTHORS
- CORPSOURCE
- ENGINEERING
- FULLTEXT
- HPATENTS
- NPS
- PATENTS
- PNTTEXT

STN Database Cluster information:
<http://www.stn-international.com/en/customersupport/customer-support#cluster+%7C+subjects+%7C+features>

Search and Display Field Codes

If multiple search terms are linked with and AND-operator, all terms are searched in the complete database record, i.e. in all publications referring to one application. For a search in a specific publication of the record, connect the search term and the patent kind code with the (L)-proximity operator, e.g. S FILTRER DES SIGNAUX/AB, TI, CLM (L) FRA1/PK limits the search to French applications FRA1.

Fields that allow left truncation are indicated by an asterisk (*).

General Search Fields

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index* (contains single words from the titles (TIEN, TIFR), abstracts (ABEN, ABFR), detailed description (DETDEN, DETDFR), claims (CLM), and main claims (MCLM) fields)	None or /BI	S TRANSISTOR AND ELECTRODE S SENSOR FOR DETERMINER S TRAITEMENT? ULTERIEUR S ?TRANSFER	TIEN, TIFR, ABEN, ABFR, DETDEN, DETDFR, CLMEN, CLMFR, MCLMEN, MCLMFR
Abstract* (in English and French) Abstract in English* Abstract in French* Accession Number Application Country (WIPO code and text) Application Date (1) Application Kind Code Application Number (2) Application Number Original Application Year (1) Claims* (in English and French) Claims in English* Claims in French* Cooperative Patent Classification (3) Cooperative Patent Classification, Action Date Cooperative Patent Classification, Keywords Cooperative Patent Classification, Version Data Entry Date (1) Data Update Date (1) Document Type (code and text) Entry Date (1) Entry Date Full-Text (1) European Patent Classification (3) Field Availability Graphic Image Size (1) ICO (in-computer-only) Classification (3) ICO Keyword Terms IdT (Indeling der Techniek)	/AB /ABEN /ABFR /AN /AC /AD /AK /AP (or /APPS) /APO (or /AIO) /AY /CLM /CLMEN /CLMFR /CPC /CPC.ACD /CPC.KW /CPC.VER /DED /DUPD /DT (or /TC) /ED /EDTX /EPC (or /ECLA, EPCLA) /FA /GIS /ICO /ICO.KW /IDT	S FILTRER DES SIGNAUX/AB S PROCEDE SELON/AB S LASER BEAM/ABEN S PROCEDE SELON/ABFR S 2427770/AN S FR/AC S AD=JAN 2003 S FRA/AK S FR2000-10010/AP S 2000FR-0010010/APPS S FR30000633/APO S AY>=2000 S DERIVATION/CLM S SUGAR/CLMEN S SIGNAUX/CLMFR S C12N0009/CPC S 20121113/CPC.ACD S C12N0009/CPC (S) I/CPC.KW S 20130101/CPC.VER S 20181206/DED S 20181207/DUPD S U/DT S UTILITY MODEL/DT S ED=MAR 2015 S 20181218/EDTX S A01B0033-08B2/EPC S ABEN/FA S 200-300/GIS S L29C0065-16A6B/ICO S A4/ICO.KW S B42D15/00C/IDT	AB ABEN ABFR AN AI AI AI AI APO AY CLM CLMEN CLMFR CPC CPC.TAB CPC.TAB CPC.TAB DED DUPD DT ED EDTX EPC FA GIS ICO ICO IDT

General Search Fields (cont'd)

Search Field Name	Search Code	Search Examples	Display Codes
Inventor	/IN (or /AU)	S MANAUT DANIEL/IN S MANCEAUX?/IN	IN
Inventor, Country	/IN.CNY	S FR/IN.CNY	IN
IPC, Action Date (1)	/IPC.ACD	S 20051008/IPC.ACD	IPC.TAB
IPC, Additional	/ICA (or /IPCA)	S A61K0007-00/ICA	ICA
IPC, Index	/ICI (or /IPCI)	S A61K0007:031/ICI	ICI
IPC, Initial	/IPCI	S B21B0001/IPCI	IPCI
IPC, Keyword Terms	/IPC.KW	S INITIAL/IPC.KW	IPC.TAB
IPC, Main	/ICM (or /IPCM)	S A01N001/ICM	ICM
IPC, Reclassified	/IPCR	S B21B0001-34/IPCR	IPCR
IPC, Reform	/IPC.REF	S A01B0001-16/IPC.REF	IPC
IPC, Secondary	/ICS (or /IPCS)	S A01B001-16/ICS	ICS
IPC, Version	/IPC.VER (or /IC.VER)	S 7/IPC.VER	IPC.TAB
Key Terms	/KT	S PROTEIN SYNTHESIS/KT S "BIOAVAILABLE METHIONINE ESTERS OR AMIDE"/KT	KT
Language (ISO code and text)	/LA	S FRENCH/LA	LA
Language, Filing (ISO code and text)	/LAF	S FR/LAF	LAF
Main Claim* (in English and French)	/MCLM	S ?FRACTURE?/MCLM	MCLM,
Main Claim in English*	/MCLMEN	S SWEETENER/MCLMEN	MCLMEN
Main Claim in French*	/MCLMFR	S SUCRANT/MCLMFR	MCLMFR
Number of Claims (1)	/CLMN	S 5-7/CLMN	CLMN
Number of Paragraphs in DETD (Detailed Description) (1)	/DETN	S DETN<10	DETN
Patent Applicant	/PA (or /CS)	S BASF AG/PA	PA
Patent Applicant Country (WIPO code and text)	/PA.CNY	S DE/PA.CNY	PA, PA.CNY
Patent Country (WIPO code and text)	/PC	S FRANCE/PC	PI
Patent Information Publication Type	/PIT	S FRB1 PATENT OF INVENTION (SECOND PUBL.) (FROM NO. 2000000)/PIT	PIT
Patent Kind Code	/PK	S FRA2/PK	PI
Patent Number (2)	/PN (or /PATS)	S FR 2929171/PN	PI, PATS
Patent Number Kind Code	/PNK	S FR2120002 A1/PNK	PI, PNK
Patent Number Original	/PNO	S FR2000006/PNO	PNO
Priority Country (WIPO code and text)	/PRC	S AU/PRC	PRAI
Priority Date (1)	/PRD	S PRD=APRIL, 2 2003	PRAI
Priority Kind Code	/PRK	S DEA/PRK	PRAI
Priority Number (2)	/PRN	S DE2000-10023591/PRN	PRAI
Priority Number Original	/PRNO	S EP12157379/PRNO	PRNO
Priority Year (1)	/PRY	S 1993/PRY	PRAI
Priority Year, First (1)	/PRYF	S 1993-1994/PRYF	PRAI, PRYF
Publication Date (1)	/PD	S PD=JAN-FEB 2003	PI
Publication Year (1)	/PY	S PY>2003 AND L1	PI
Related Application Country (WIPO code and text)	/RLC	S WO/RLC	RLI
Related Application Date (1)	/RLD	S 20170428/RLD	RLI
Related Application Number (2)	/RLN	S WO2017-US32763/RLN	RLI

General Search Fields (cont'd)

Search Field Name	Search Code	Search Examples	Display Codes
Related Application Year (1)	/RLY	S 2017/RLY	RLI
Related Application Type	/RLT	S PCT APPLICATION/RLT	RLI
Related Patent Number (WIPO code and text)	/RLPN	S WO2001056352/RLPN	RLI
Title* (in English and French)	/TI	S FLUID###/TI	TI
Title in English*	/TIEN	S SUGAR/TIEN	TIEN
Title in French*	/TIFR	S SUCRE/TIFR	TIFR
Update Date (1)	/UP	S UP=APR 2004	UP

(1) Numeric search field that may be searched using numeric operators or ranges.

(2) By default, patent numbers, application and priority numbers are displayed in STN Format. To display them in Derwent format, enter SET PATENT DERWENT at an arrow prompt. To reset display to STN Format, enter SET PATENT STN.

(3) An online thesaurus is available in this field.

Property Fields₁₎

In FRFULL a numeric search for a specific set of physical properties (/PHP) is available within the full-text fields (TI, AB, DETD, CLM, BI). The numeric values are not displayed as single fields, but highlighted within the hit displays.

Use EXPAND/PHP to search for all available physical properties. A search with the respective field codes will be carried out in all database fields with English text. The /PHP index contains a complete list of codes and related text for all physical properties available for numeric search.

Field Code	Property	Unit	Symbol	Search Examples
/AOS	Amount of substance	Mol	mol	S 10 /AOS
/BIR	Bit Rate	Bit/Second	bit/s	S 8000-10000/BIR
/BIT	Stored Information	Bit	Bit	S BIT > 3 MEGABIT
/CAP	Capacitance	Farad	F	S 1-10 MF/CAP
/CDN	Current Density	Ampere/Square Meter	A/m ²	S CDN>10 A/M**2
/CMOL	Molarity, Molar Concentration	Mol/Liter	mol/L	S UREA/BI (S) 8/CMOL
/CON	Conductance	Siemens	S	S 1S-3/CON
/DB	Decibel	Decibel	dB	S DB>50
/DEG	Degree	Degree	°	S CYLINDER/BI (S) 45/DEG
/DEN (/C)	Density (Mass Concentration)	Kilogram/Cubic Meter	kg/m ³	S 5E-3-10E-3/DEN
/DEQ	Dose Equivalent	Sievert	Sv	S 100/DEQ
/DOS (/LD50)	Dosage	Milligram/Kilogram	mg/kg	S DOS>0.8
/DV	Viscosity, dynamic	Pascal * Second	Pa * s	S DV>5000
/ECD	Electric Charge Density	Coulomb/Square Meter	C/m ²	S ECD>10
/ECH (/CHA)	Electric Charge	Coulomb	C	S 0.0001-0.001/ECH
/ECO (/ECND)	Electrical Conductivity	Siemens/Meter	S/m	S ECO>800 S/M (15A) AQUEOUS
/ELC (/ECC)	Electric Current	Ampere	A	S 1-10/ELC
/ELF (/ECF)	Electric Field	Volt/Meter	V/m	S 200/ELF

Property Fields₁) (cont'd)

Field Code	Property	Unit	Symbol	Search Examples
/ENE	Energy	Joule	J	S DROPLETS (10A) 40 JOULE - 70 JOULE /ENE S ERE>0.1
/ERE (/ERES)	Electrical Resistivity	Ohm * Meter	Ohm * m	
/FOR	Force	Newton	N	S 50 N /FOR
/FRE (/F)	Frequency	Hertz	Hz	S OSCILLAT?/BI (S) 1- 3/FRE
/IU	International Unit	none	IU	S IU>1000 (P) VITAMIN A
/KV	Viscosity, kinematic	Square Meter/Second	m ² /s	S METHYLPOLYSILOXANES/BI (10A) 200-300 CST /KV S 1-4/LEN
/LEN (/SIZ)	Length, Size	Meter	m	
/LUME	Luminous Emittance, Illuminance	Lux	lx	S 10-50/LUME
/LUMF	Luminous Flux	Lumen	Lm	S LUMF>1000
/LUMI	Luminous Intensity	Candela	cd	S LUMI<4
/M	Mass	Kilogram	kg	S ALLOY/BI (30A) 1E-10-1E-5/M
/MCH	Mass to Charge Ratio	none	m/z	S MCH=1
/MFD (/MFS)	Magnetic Flux	Tesla	T	S MFD>102
/MFR (/MFL)	Density			
/MFR (/MFL)	Mass Flow Rate	Kilogram/Second	kg/s	S MFR<0.1
/MM (/MW, /MOM)	Molar Mass	Gram/Mol	g/mol	S 2000-3000 G/MOL/MM
/MOLS	Molality of Substance	Mol/Kilogram	mol/kg	S 01.-10 MOL/KG/MOLS
/MVR	Melt Volume Rate, Melt Flow Rate	none	g/10 min	S 3/MVR
/NUC (/NUTC)	Nutrition Content	none	g/100 kcal	S NUC/PHP
/PER	Percent (Proportionality)	none	%	S POLYMER?/AB (5A) 4/PER
/PERA	Permittivity, Absolute	Farad/Meter	F/m	S 1-10/PERA
/PERR	Permittivity, Relative	none		S 1500-2000/PERR
/PHV (/PH)	pH Value	pH	pH	S 7.4-7.6/PHV
/POW (/PW)	Power	Watt	W	S "HG-XE-?"/BI (S) 100-200 WATT/POW
/PPM	Parts per million	Ppm	ppm	S 100 PPM /PPM (10A) ADDITIVE/BI
/PRES (/P)	Pressure	Pascal	Pa	S (VACUUM (5A) DISTILL?)/BI (S) 1000-1100/PRES
/RAD	Radioactivity	Becquerel	Bq	S RAD/PHP
/RES	Electrical Resistance	Ohm	Ohm	S SENSOR /BI (S) 10- 100/RES
/RI	Refractive Index	none		S 3-4/RI
/RSP	Rotational Speed	Revolution/Minute	rpm	S 2 RPM - 100 RPM /RSP (S) ENGINE/BI
/SAR	Area /Surface Area	Square Meter	m ²	S PLATE/BI (S) 10 M**2 - 100 M**2 /SAR
/SOL (/SLB)	Solubility	Gram/100 gram	g/100 g	S SOL>20 G/100G (5A) WATER
/STSC (/ST)	Surface Tension	Joule /Square Meter	J/m ²	S 60 J/M**2/STSC
/TCO (/TCND)	Thermal Conductivity	Watt/Meter * Kelvin	W/m * K	S 1/TCO (S) HEAT?
/TEMP (/T)	Temperature	Kelvin	K	S 20-25/TEMP
/TIM	Time	Second	s	S ?INCUB?/BI (10A) 50 S - 150 S /TIM

Property Fields¹⁾ (cont'd)

Field Code	Property	Unit	Symbol	Search Examples
/VEL (/V) /VELA /VLR	Velocity Velocity, angular Volumetric Flow Rate	Meter per Second Radian/Second Cubic Meter/Second	m/s rad/s m ³ /s	S REDUC?/BI (S) 1E-3-5E-3/VEL S VELA>10 S 1 M**3/S - 2 M**3/S /VLR (S) ABRASIVE
/VOL /VOLT	Volume Voltage	Cubic Meter Volt	m ³ V	S 1E-8-2E-8/VOL.EX S TENSION/BI (10A) 5E-3 V <VOLT<7E-3 V S WAC/PHP
/WAC	Water Activity	none		

(1) Exponential format is recommended for the search of particularly high or low values, e.g. 1.8E+7 or 1.8E7 (for 18000000) or 9.2E-8 (for 0.000000092).

International Patent Classification (/IPC) Thesaurus

The classifications, validity and catchwords for the main headings and subheadings from the current (8th) edition of the WIPO International Patent Classification (IPC) manual are available. The classifications from the previous editions (1-7) are also available as separate thesauri. To EXPAND and SEARCH in the thesauri for editions 1-7, use the field code followed by the edition number, e.g., /IPC2, for the 2nd edition. Catchwords are included only in the thesauri for the 8th, 7th, 6th, and 5th editions.

Code	Content	Examples
ADVANCED (ADV) ALL BRO (MAN) BT CORE (COR) ED HIE	Advanced Codes for the Core Level IPC Code All Associated Terms (BT, SELF, NT, RT) Complete Class Broader Term (BT, SELF) Core Codes for the Advanced Level IPC Code Complete title of the SELF term and IPC manual edition Hierarchy Term (Broader and Narrower Term) (BT, SELF, NT)	E A61K0006-02+ADVANCED/IPC E C01C003-00+ALL/IPC E C01C+BRO/IPC E C01F001-00+BT/IPC E G08C0019-22+CORE/IPC E C01F001-00+ED/IPC E C01B003-00+HIE/IPC
INDEX KT NEXT NT PREV RT (SIB) TI	Complete title of the SELF term Keyword Term (catchwords) (SELF, KT) Next Classification Narrower Terms (SELF, NT) Previous Classification Related Terms (SELF, RT) Complete Title of the SELF Term and Broader Terms (BT, SELF)	E C01F001-00+INDEX/IPC E CYANOGEN+KT/IPC E C01C001-00+NEXT5/IPC E C01C+NT/IPC E C01C001-12+PREV10/IPC E C01C003-20+RT/IPC E C01F001-00+TI/IPC

ECLA (/EPC) and ICO Thesauri

These thesauri are available in the /EPC search field (for ECLA codes) and /ICO search field (for 'in-computer-only' codes). All relationship codes can be used with both the EXPAND and SEARCH commands.

Relationship Code	Content	Search Examples
ALL AUTO (1) BT CODE	All usually required terms (BT, SELF, CODE, DEF) Automatic relationship (BT, SELF, CODE, DEF) Broader terms (BT, SELF) Classification Code (SELF, CODE)	E C12M0001-34H2+ALL/EPC E G01J003-443+AUTO/EPC E G01J0003-443+BT/EPC E SCRAPER BIASING MEANS+CODE/EPC
DEF HIE	Definition (SELF, DEF) Hierarchy terms (all broader and narrower terms) (BT, SELF, DEF, NT)	E B65G0045-16+DEF/EPC E A01B0001+HIE/EPC
KT MAX NEXT NEXT(n) NT PREV PREV(n) TI	Keyword terms (SELF, KT) All associated terms Next classification within the same class (SELF, NEXT) Next n classification within the same class Narrower terms Previous Code within the same class (SELF, PREV) Previous n classifications within the same class Complete Title of the SELF Term and Broader Terms (BT, SELF)	E LASER+KT/EPC E G01J0003-44B+MAX/EPC E A01B0001-24+NEXT/EPC E A01B0001-24+NEXT3/EPC E G05B0001-04+NT/EPC E G05B0019-418N1+PREV/EPC E G05B0019-418N1+PREV2/EPC E G05B0001-03+TI/EPC

(1) Automatic Relationship is SET OFF. In case of SET REL ON the result of EXPAND or SEARCH without any relationship code is the same as described for AUTO.

CPC Thesaurus

This thesaurus is available in the /CPC search field. All relationship codes can be used with both the EXPAND and SEARCH commands.

Relationship Code	Content	Search Examples
ALL AUTO (1) BT CODE	All usually required terms (BT, SELF, CODE, DEF) Automatic relationship (BT, SELF, CODE, DEF) Broader terms (BT, SELF) Classification Code (SELF, CODE)	E C12M0001-005+ALL/CPC E G01J003-443+AUTO/CPC E G01J0003-443+BT/CPC E CARTRIDGES+CODE/CPC
DEF HIE	Definition (SELF, DEF) Hierarchy terms (all broader and narrower terms) (BT, SELF, DEF, NT)	E B65G0045-16+DEF/CPC E A01B0001+HIE/CPC
KT MAX NEXT NEXT(n) NT PREV PREV(n) TI	Keyword terms (SELF, KT) All associated terms Next classification within the same class (SELF, NEXT) Next n classification within the same class Narrower terms Previous Code within the same class (SELF, PREV) Previous n classifications within the same class Complete Title of SELF Term and Broader Terms (BT, SELF)	E LASER+KT/CPC E G01J0003-44+MAX/CPC E A01B0001-24+NEXT/CPC E A01B0001-24+NEXT3/CPC E G05B0001-04+NT/CPC E G05B0019-00+PREV/CPC E G05B0019-00+PREV2/CPC E G05B0001-03+TI/CPC

(1) Automatic Relationship is SET OFF. In case of SET REL ON the result of EXPAND or SEARCH without any relationship code is the same as described for AUTO.

DISPLAY and PRINT Formats

Any combination of formats may be used to display or print answers. Multiple codes must be separated by spaces or commas, e.g., D L1 1-5 TI PI. The fields are displayed or printed in the order requested.

The information of the latest publication is displayed by default. To display the content for all levels of the record you can combine all display fields and formats with the qualifier .M except FA, FAM, CFAM, LS, LS2, SCAN, and TRIAL.

For displaying a particular publication of a database record, you can simply add for certain display field the kind code to the appropriate display format, e.g. ALL.A1. Fields that allow this are indicated by a number (2).

Hit-term highlighting is available for most searchable fields. Highlighting must be ON during SEARCH to use the HIT, KWIC, and OCC formats.

Format	Content	Examples
ABEN	Abstract in English	D ABEN
ABFR	Abstract in French	D ABFR
AI (AP) (1)	Application Information	D AI
AN	Accession Number	D AN
APO (3)	Application Information Original	D APO
CLM (2)	Claims (CLMFR, CLMEN)	D CLM
CLMEN (2)	Claims in English	D CLMEN
CLMFR (2)	Claims in French	D CLMFR
CLMN (3)	Number of Claims	D CLMN
CPC	Cooperative Patent Classification	D CPC
CPC.TAB	CPC, Tabular	D CPC.TAB
DED	Data Entry Date	D DED
DETD (2)	Detailed Descriptions (DETDFR, DETEN)	D DETD
DETDEN (2)	Detailed Description in English	D DETDEN
DETDFR (2)	Detailed Description in French	D DETDFR
DETN (3)	Number of Paragraphs in DETD	D DETN
DT (TC)	Document Type	D DT
DUPD	Data Update Date	D DUPD
ED	Entry Date	D ED
EDTX	Entry Date Full-Text	D EDTX
EPC	European Patent Classification	D EPC
FA	Field Availability	D FA
GI	Graphic Image	D GI
GIS (3)	Graphic Image	D GIS
GIT (3)	Graphic Image Type	D GIT
IC	IPC (format contains ICM, ICS)	D IC
ICA (IPCA)	IPC, Additional	D ICA
ICI	IPC, Index	D ICI
ICM	IPC, Main	D ICM
ICO (3)	ICO Classification	D ICO
ICS (IPCS)	IPC, Secondary	D ICS
IDT (3)	IDT Classification	D IDT
IN (AU)	Inventor	D IN
IN.CNY	Inventor, Country	D IN.CN
IPC.REF	IPC, Reform	D IPC.REF
IPCI	IPC, Initial	D IPCI
IPCR	IPC, Reclassified	D IPCR
KT	Key Terms	D KT
LA	Language	D LA
LAF	Language of Filing	D LAF
MCLM	Main Claims (MCLMFR, MCLMEN)	D MCLM
MCLMEN	Main Claim in English	D MCLMEN
MCLMFR (2)	Main Claim in French	D MCLMFR

DISPLAY and PRINT Formats (cont'd)

Format	Content	Examples
PA (CS) PA.CNY PI (PN, PATS) (1) PIT PNK PNO PRAI (PRN) (1, 5) PRAO (PRNO) (3) PRYF RLI TI TIEN TIFR UP	Patent Applicant Patent Applicant Country Patent Information Patent Information Publication Type Patent Number Kind Code Patent Number Original Priority Information Priority Number Original Format Priority Year, First Related Application Information Titles (TIEN, TIFR) Title in English Title in French Update Date	D PA D PA.CNY D PI D PIT D PNK D PNO D PRAI D PRAO D PRYF D RLI D TI D TIEN D TIFR D UP
AB (ABS) ALL (DALL) (1,2) ALLG (1,2) IALL (1,2) IALLG (1) APPS (1) BIB (1,2) IBIB (1,2) BRIEF(1, 2) BRIEFG (1) IBRIEF (1,2) IBRIEFG (1) CPC.TAB FAM (1, 2) CFAM (1, 2) IND IPC IPC.TAB LS (2) LS2 (2) MAX (ALL.M) (1) MAXG (ALLG.M) (1) IMAX (IALL.M) (1) IMAXG (IALLG.M) (1) PATS RE (2) SCAN (4) STD (1,2) STDG (1)	ABEN, ABFR AN, ED, UP, EDTX, DED, DUPD, TIEN, TIFR, IN, PA, PA.CNY, LA, LAF, DT, PIT, PI, AI, RLI, PRAI, IPC, CPC, EPC, ICO, IDT, AB, DETDFR, DETDEN, CLMEN, CLMFR, KT ALL, plus graphic Image ALL, indented with text labels IALL, plus graphic Image AI, PRAI AN, ED, EDTX, DED, DUPD, TI, IN, PA, LA, LAF, DT, PIT, PI, AI, RLI, PRAI BIB, indented with text labels AN, ED, UP, EDTX, DED, DUPD, TIEN, TIFR, IN, PA, LAF, DT, PIT, PI, AI, PRAI, IPC, CPC, EPC, ICO, IDT, ABEN, ABFR, MCLMEN, MCLMFR, KT BRIEF, plus graphic Image BRIEF, indented with text labels BRIEFG, indented with text labels CPC, CPC.KW, CPC.ACD, CPC.VER in tabular format AN, table of patent family information (from INPADOCDB) AN, condensed family format (from INPADOCDB) IPC (ICA, ICI, ICM, ICS, IPCI, IPCR), CPC, EPC, ICO, IDT IPC (ICA, ICI, ICM, ICS, IPCI, IPCR) IPC, IPC.KW, IPC.ACD, IPC.VER, in tabular version Legal Status (from INPADOCDB) Legal Status (from INPADOCDB), detailed version with display headers AN, ED, UP, EDTX, DED, DUPD, TIEN, TIFR, IN, PA, PA.CNY, LA, LAF, DT, PIT, PI, AI, RLI, PRAI, IPC, CPC, EPC, ICO, IDT, AB, DETDFR, DETDEN, CLMEN, CLMFR, KT for all levels of publication MAX, plus graphic Image MAX, indented with text labels IMAX, plus graphic Image PI, RLPN Citations of patent and non-patent literature (from INPADOCDB) TI (random display without answer numbers) AN, ED, UP, EDTX, DED, DUPD, TIEN, TIFR, IN, PA, LA, LAF, DT, PIT, PI, AI, RLI, PRAI, IPC, CPC, EPC, ICO, IDT (STD is default) STD plus graphic Image	D AB D ALL D ALLG D IALL D IALLG D APPS D BIB D IBIB D BRIEF D BRIEFG D IBRIEF D IBRIEFG D CPC.TAB D FAM D CFAM D IND D IPC D IPC.TAB D LS D LS2 D MAX D MAXG D IMAX D IMAXG D PATS D RE D SCAN D STD D STDG

DISPLAY and PRINT Formats (cont'd)

Format	Content	Examples
ISTD (1,2) ISTDG (1) TRIAL (TRI, SAMPLE, SAM, FREE)	STD, indented with text labels ISTD, plus graphic Image TIEN, TIFR, FA, DETN, CLMN, GIS, GIT	D ISTD D ISTDG D TRIAL
HIT KWIC OCC	Hit term(s) and field(s) Up to 50 words before and after hit term(s) (Keyword-In-Context) Number of occurrences of hit term(s) and field(s) in which they occur	D HIT D KWIC D OCC

- (1) By default, patent numbers, application and priority numbers are displayed in STN Format. To display them in Derwent format, enter SET PATENT DERWENT at an arrow prompt. To reset display to STN Format, enter SET PATENT STN.
- (2) You can combine this display field with the qualifier .PK (Patent Kind Code) to display the content for a certain publication level of a record, e.g. STD.A1.
- (3) Custom display only.
- (4) SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.
- (5) If priority information is not available for a certain document, this information is taken from the application information of this document and marked with an asterisk (*).

SELECT, ANALYZE, and SORT Fields

The SELECT command is used to create E-numbers containing terms taken from the specified field in an answer set.

The ANALYZE command is used to create an L-number containing terms taken from the specified field in an answer set.

The SORT command is used to rearrange the search results in either alphabetic or numeric order of the specified field(s).

You can combine all fields except FA with the qualifier .M to SELECT/ANALYZE the content of all publication levels.

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Abstract (English and French)	AB	Y	N
Abstract in English	ABEN	Y (2)	N
Abstract in French	ABFR	Y (2)	N
Accession Number	AN	Y	Y
Application Country	AC	Y	N
Application Date	AD	Y	N
Application Information	AI (AP)	Y (3)	N
Application Information Original	AIO	Y	N
Application Year	AY	Y	N
Claims (English and French)	CLM	Y	N
CPC Classification	CPC	Y	Y
Data Entry Date	DED	Y	Y
Data Update Date	DUPD	Y	Y
Detailed Description (English and French)	DETD	Y (5)	N
Document Type	DT (TC)	Y	Y
Entry Date	ED	Y	Y
Entry Date Full-Text	EDTX	Y	Y
European Patent Classification	EPC	Y	N
Field Availability	FA	Y	N
Graphic Image Size	GIS	Y	Y

SELECT, ANALYZE, and SORT Fields (cont'd)

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
International Patent Classification	IC	Y	N
Inventor	IN (AU)	Y	Y
ICO (in-computer-only) Classification	ICO	Y	Y
IdT Classification	IDT	Y	Y
IPC, Additional	ICA (IPCA)	Y	Y
IPC, Index	ICI	Y	Y
IPC (ICM, ICS, ICA, ICI, IPCI, IPCR)	IPC	Y	Y
IPC, Advanced Level Symbols	IPC.A	Y (6)	N
IPC, Advanced Level Symbols for Invention	IPC.AI	Y (6)	N
IPC, Initial	IPCI	Y (6)	Y
IPC, Main	ICM	Y	Y
IPC, Reclassified	IPCR	Y (6)	Y
IPC, Reform	IPC.REF	Y	Y
IPC, Secondary	ICS	Y	Y
Key Terms	KT	Y	Y
Language	LA	Y	Y
Language of Filing	LAF	Y	Y
Main Claim (English and French)	MCLM	Y	N
Number of Claims	CLMN	Y	N
Number of Paragraphs in DETD	DETN	Y	N
Occurrence Count of Hit Terms	OCC	N	Y
Patent Applicant Country	PA.CNY	Y	Y
Patent Applicant	PA (CS)	Y	Y
Patent Country	PC	Y	Y
Patent Information Publication Type	PIT	Y	Y
Patent Kind Code	PK	Y	Y
Patent Number	PI (PN)	Y (3) (default)	Y
Patent Number Original	PNO	Y	Y
Patent Number/Kind Code	PNK	Y	Y
Pre-IPC8 Symbols from the ICM and first IPC8 values from 2006-present	IPC.F	Y (6)	N
Priority Country	PRC	Y	Y
Priority Date	PRD	Y	Y
Priority Number	PRN (PRAI)	Y (3)	Y
Priority Number, Original Format	PRNO	Y	Y
Priority Year	PRY	Y	Y
Priority Year, First	PRYF	Y	Y
Publication Date	PD	Y	Y
Publication Year	PY	Y	Y
Related Application Country	RLC	Y	Y
Related Application Date	RLD	Y	Y
Related Application Number	RLN	Y	Y
Related Application Type	RLT	Y	Y
Related Application Year	RLY	Y	Y
Related Patent Number	RLPN	Y	Y
Title	TI	Y (8)	Y
Title in English	TIEN	Y (9)	Y
Title in French	TIFR	Y (9)	Y
Update Date	UP	Y	Y

(1) HIT may be used to restrict terms extracted to terms that match the search expression used to create the answer set, e.g., SEL HIT TI.

(2) Appends /AB to the terms created by SELECT.

(3) SELECTed, ANALYZed, and SORTed application, priority, and patent numbers are in the format set by the MESSENGER SET PATENT command, either Derwent or STN.

(4) Appends /CLM to the terms created by SELECT.

(5) Appends /BI to the terms created by SELECT.

(6) Appends /IPC to the terms created by SELECT.

(7) Appends /MCLM to the terms created by SELECT.

- (8) Selects TIEN and TIFR with /TI appended to the terms created by SELECT.
 (9) Appends /TI to the terms created by SELECT.

Sample Records

DISPLAY BIB.M

AN 2865532 FRFULL ED 20141112 UP 20190104 EDTX 20141112
 DUPD 20181223

TIEN Light weight field howitzer - includes a barrel which is supported by a
 cradle constructed from hollow members and which is pivotally mounted
 about a trunnion bearing secured to a chassis

TIFR PERFECTIONNEMENT AUX OBUSIERS DE CAMPAGNE

IN SEARLE HAROLD LESLIE; EAGLESTONE DAVID ANDREW; BONE JAMES

PA VICKERS SHIPBUILDING & ENG, GB

LAF French

LA French

DT Patent; (Fulltext)

PIT FRA1 APPLICATION FOR PATENT OF INVENTION, (FIRST PUBL.) [FROM NO.
 2000000]

PI FR 2865532 A1 20050729

AI FR 1990-7815 A 19900620

PRAI GB 1988-29192 19881214

AN 2865532 FRFULL ED 20141112 UP 20181219 EDTX 20141112
 DUPD 20181213

TIEN IMPROVEMENT WITH THE FIELD HOWITZERS

TIFR PERFECTIONNEMENT AUX OBUSIERS DE CAMPAGNE

IN SEARLE HAROLD LESLIE; EAGLESTONE DAVID ANDREW; BONE JAMES

PA VICKERS SHIPBUILDING AND ENGINEERING LIMITED, GB

LAF French

LA French

DT Patent; (Fulltext)

PIT FRB1 PATENT OF INVENTION (SECOND PUBL.) [FROM NO. 2000000]

PI FR 2865532 B1 20070810

AI FR 1990-7815 A 19900620

PRAI GB 1988-29192 19881214

DISPLAY IBRIEF

ACCESSION NUMBER: 2865532 FRFULL

ENTRY DATE: 20141112

UPDATE DATE: 20181219

ENTRY DATE (FULLTEXT): 20141112

DATA UPDATE DATE: 20181213

TITLE (ENGLISH): IMPROVEMENT WITH THE FIELD HOWITZERS

TITLE (FRENCH): PERFECTIONNEMENT AUX OBUSIERS DE CAMPAGNE

INVENTOR(S): SEARLE HAROLD LESLIE; EAGLESTONE DAVID ANDREW; BONE
 JAMES

PATENT APPLICANT(S): VICKERS SHIPBUILDING AND ENGINEERING LIMITED, GB

LANGUAGE OF FILING: French

LANGUAGE OF PUBL.: French

DOCUMENT TYPE: Patent; (Fulltext)

PATENT INFORMATION TYPE: FRB1 PATENT OF INVENTION (SECOND PUBL.) [FROM NO.
 2000000]

PATENT INFORMATION: FR 2865532 B1 20070810

APPLICATION INFO.: FR 1990-7815 A 19900620

PRIORITY INFO.: GB 1988-29192 19881214

IPC ORIGINAL: F41F0001-00 [I,A]

FRFULL

IPC RECLASSIF.: F41A0023-30 [I,A]; F41A0023-46 [I,A]; F41A0025-16 [I,A]; F41A0027-08 [I,A]; F41A0027-24 [I,A]; F41A0027-30 [I,A]

CPC CLASSIF. F41A0027-30; F41A0023-46; F41A0027-08; F41A0025-16; F41A0027-24; F41A0023-30

EPC CLASSIF. (ECLA): F41A0023-46; F41A0023-30; F41A0025-16; F41A0027-08; F41A0027-24; F41A0027-30

ABSTRACT (ENGLISH):

Equivalent from ES2126538A6

The light weight field howitzer includes a barrel (101) which is supported by a cradle constructed from hollow members (119,119A) and which is pivotally mounted about a trunnion bearing (113) secured to a chassis (117). The trunnion bearing (113) lies on the barrel axis and is positioned beyond the limit of maximum recoil of the barrel. Front stabilisers and rear trail support legs are provided to spread the load of the howitzer and spades (106) are rigidly but removably secured to the chassis. The howitzer includes a single hydraulic accumulator arrangement (136,177,185,130,189,119) constituting a combined recoil buffer and recuperator system. A barrel elevating device (Figure (7) not shown) is provided comprising a geared manual device (115,116,153,149,139) assisted by a precompressed gas system (114,119A). Hydraulically pivoted wheels and a pivotted towing lunette may be provided and the howitzer may be split easily into units which can be carried by a light helicopter.

MAIN CLAIM (ENGLISH):

1 - Howitzer campaign that includes: (I in) a tube (101) howitzer; (ii) a cradle (119a, 125, 126) supporting the tube and having a rear end; (iii) a frame (117); and (iv) a support structure (124) trunnion frame-fixed (117) and including a trunnion bearing (113) about which the rear end of the cradle is pivotally mounted, said journal bearing being located on the axis (101a) of the tube (101) and being located beyond the limit of the maximum back of the tube.

MAIN CLAIM (FRENCH):

1- Obusier de campagne qui comprend : (i) un tube d'obusier (101); (ii) un berceau (119A, 125, 126) supportant le tube et comportant une extremite arriere ; (iii) un chassis (117) ; et (iv) une structure support de tourillon (124) fixee sur le chassis (117) et comprenant un palier de tourillon (113) autour duquel l'extremite arriere du berceau est montee a pivotement, ledit palier de tourillon se trouvant sur l'axe (101A) du tube (101) et etant place au-dela de la limite du recul maximal du tube.

KEYTERMS:

light weight field howitzer; barrel axis; trunnion bearing; hollow member; howitzer and spade; pivotted towing lunette; light helicopter; trunnion support structure; threaded rod; bearing elevation; howitzers campaign; howitzer campaign ultra light; thrust bearing; journal bearing; tube howitzer; precompressed gas; small central bearing positioning; inert gas volume; recoil tube; recoil energy; adaptive system; inert gas reservoir; howitzer ultralight campaign; firing position; muzzle brake; hydraulic accumulator; housing pointing orientation; hydraulic fluid; hydraulic damper; tube weight

DISPLAY MAXG

AN 3043273 FRFULL ED 20170517 EW 201718 EDTX 20170517 [Full-text](#)
UP 20180917 UW 201836 UPTX 20180917

TIEN THE POWER SUPPLY SYSTEM AND SOLAR POWERED RECHARGING OF MOBILE DEVICES
USING THE INTERNET

TIFR SYSTEME D'ALIMENTATION ET DE RECHARGE PAR ENERGIE SOLAIRE D'APPAREILS
MOBILES UTILISANT INTERNET

IN NGAKA MOUKANGALA; BOHLI IMED

PA NGAKA MOUKANGALA; BOHLI IMED

PA.CNY FR; FR

LA French

DT Patent

PIT FRA1 APPLICATION FOR PATENT OF INVENTION, (FIRST PUBL.) (FROM
2,000,000)

PI **FR 3043273** **A1 20170505**

AI FR 2015-2306 A 20151102

PRAI FR 2015-2306 A 20151102 *

IPCI H02J0007-35 [I,A]

CPC H02J0007-355; H02J0007-0055; H02J0007-35; H04M0019-08

ABEN Device for powering and recharging a battery of an apparatus using the Internet such as a portable telephone, a computer or a tablet. The field of intervention of the present invention is the consumer electronics industry. The invention relates to a device for in the absence of any conventional source of recharging electric power can not be in power failure to be able to reload the portable telephone in all circumstances. It consists of a portable telephone (2) provided with a conventional keypad (1), a speaker (6), a digital display (4), a microphone (7) and an antenna (3) to which is installed a solar panel (5) for powering and recharging the battery. The device according to the invention is particularly intended for powering and recharging portable phones..

ABFR Dispositif permettant de d'alimenter et de recharger la batterie d'un appareil utilisant internet tel qu'un le telephone portable, un ordinateur ou une tablette. Le domaine d'intervention de la presente invention est l'industrie de l'electronique grand public. L'invention concerne un dispositif permettant en cas d'absence de source classique de recharge d'energie electrique de pouvoir ne pas etre en panne d'electricite d'etre en mesure de recharger son telephone portable en toute circonstance. Il est constitue d'un telephone portable (2) classique muni d'un clavier numerique (1), d'un haut-parleur (6), d'un ecran digital (4), d'un microphone (7) et d'une antenne (3) auquel est installe un panneau solaire (5) permettant d'alimenter et de recharger la batterie. Le dispositif selon l'invention est particulierement destine a recharger et a alimenter les telephones portables..

DETDFR La presente invention concerne un dispositif permettant de charger la batterie d'un appareil portable utilisant internet tel que le telephone portable ou une tablette, en utilisant l'energie

solaire.

Actuellement, pour charger par exemple un telephone portable on utilise un chargeur electrique qui delivre un voltage precis selon le modele du telephone et de la batterie et ayant une borne specifique selon le modele du telephone. Recharger la batterie d'un telephone par ce procede est tres simple mais a plusieurs inconvenients. En effet, l'autonomie des batteries depend de la consommation electrique du portable et de la quantite de lumiere emise par l'ecran, or l'utilisation d'internet via le telephone portable s'est enormement developpee et avec elle l'augmentation de l'utilisation de la batterie entrainant sa decharge prematuree. Dans ces situations, l'absence d'une source d'energie electrique pour la recharge de la batterie peut vite devenir problematique, notamment si l'on se trouve a des endroits loin des habitations telle que sur la montagne ou un terrain desertique. A l'exception des chargeurs mobiles de batteries qui eux-memes souffrent des memes inconvenients qu'un telephone portable, Il n'existe pas un procedes connus permettant de remedier a ces inconvenients.

Le dispositif selon l'invention permet de remedier a ces inconvenients. Il comporte en effet selon une premiere caracteristique un panneau solaire miniature qui est similaire a celui des calculatrices a energie solaire, installe au-dessus de l'ecran du telephone relie a la batterie qu'il recharge en continue. Cette source d'energie est complementaire du procede classique de recharge de telephones. Ainsi, le nouveau procede de recharge des batteries des telephones portables permet a ces derniers d'avoir un systeme electrique de recharges hybride utilisant le courant alternatif/continue et l'energie solaire pour recharger les batteries. Par consequent, en l'absence de prise de courant, les utilisateurs de telephones portables ne se retrouvent pas sans source d'energie pour charger leurs portables car ceux-ci continue a etre alimente par l'energie solaire.

Selon les modes particuliers de realisation, le panneau solaire peut etre installe a l'arriere du telephone, sur la face anterieure ou posterieure de son couvercle pour les telephones portables qui ont ce dispositif.

Les dessins annexes illustrent l'invention :

La figure 1 represente une vue de face du telephone ou l'on peut apercevoir un petit panneau solaire pres des hautes parleurs du telephone.

La figure 2 represente une vue en 3 dimensions du telephone vu de face.

La Figure 3 represente une vue de face en 3 dimensions du telephone avec le panneau solaire installe cote interieur du clapet (8) de protection du telephone.

La figure 4 represente une vue de cote en 3 dimensions du telephone ou l'on peut apercevoir le panneau solaire installe sur la face posterieur du clapet du telephone Il est evident que la presente invention ne se limite pas aux formes de realisations decrites et representees, mais englobe toute variante d'execution possible.

En reference a ces dessins, le dispositif comprend un telephone portable (2) classique muni d'un clavier numerique (1), d'un haut-parleur (6), d'un ecran digital (4), d'un microphone (7) et d'une antenne (3) et d'un clapet de telephone (8) auquel est installe un panneau solaire (5) permettant d'alimenter le telephone portable et de recharger la batterie.

CLMFR 1) Dispositif permettant de charger un telephone portable (2) par l'energie solaire caracterise en ce qu'il comporte un panneau solaire (5) qui absorbe l'energie issue du soleil place a cote du haut-parleur (6) et de l'ecran (4) du telephone et sur le clapet (8) qui permet de proteger le telephone.

2) Dispositif selon la revendication 1, caracterise en ce que l'ecran du telephone (4) peut etre confondu avec le panneau solaire (5).

3) Dispositif selon la revendication 1, caracterise en ce que la batterie du telephone continue a etre chargee par le courant electrique via le chargeur classique.

4) Dispositif selon la revendication 1 caracterise en ce que la batterie du telephone portable est hybride qui se charge par l'electricite et l'energie solaire.

5) Dispositif selon la revendication 1 caracterise en ce que le dispositif de recharge par energie solaire peut etre installe sur d'autres appareils electroniques utilisant internet tels les tablettes, les appareils photographiques ou les tablettes

DETDEN The present invention relates to a device for charging the battery of a portable device using the Internet as the mobile phone or tablet, using solar energy.

Currently, to load such as a portable telephone is used an electric charger that outputs a voltage accurate according to the model of the phone and battery and having a specific terminal according to the model of the phone. Recharging the battery of a telephone by the method is very simple but has several disadvantages. Indeed, the autonomy of the

battery depends on the power consumption of the portable and the amount of light emitted by the display, and use over the Internet via the portable telephone greatly expanded and thus the increase in the use of the battery causing its premature discharge. In these situations, the absence of a source of electrical energy for recharging the battery may quickly become problematic, especially if it is in places with far dwellings such as on the mountain or desert terrain. With the exception of mobile battery chargers which themselves suffer from the same disadvantages that a portable telephone, there is not a known method for these drawbacks.

The device according to the invention overcomes these drawbacks. It includes a first feature as a solar panel that is similar to a miniature calculator to solar energy, installed above the phone display connected to the battery recharging it continuously. This energy source is complementary to the conventional method of recharging telephones. Thus, the novel method for recharging a battery cell phone will then have an electrical system of refills hybrid using alternating current/continuous and solar energy for recharging the batteries. Therefore, in the absence of electricity outlet, users of portable telephones are not present without a power source for charging laptop because thereof continues to be powered by solar energy.

According to particular embodiments, the solar panel can be installed at the back of the phone, on the front or back of its cover for portable phones that have this device.

The accompanying drawings illustrate the invention:

Figure 1 represents a front view of the phone where we can see a small solar panel near high loudspeakers of the telephone.

Figure 2 represents a view in 3 dimensional end view of the telephone.

Figure 3 represents a front view in 3 dimensions of the telephone with the solar panel installed inside of the valve (8) protection of the phone.

Figure 4 represents a side view in 3 dimensions of the phone where we can see the solar panel installed on the rear face of the valve of the phone it is evident that the present invention is not limited to the forms of embodiments described and shown herein, but includes all possible execution variants.

With reference to the drawings, the device comprises a portable telephone (2) provided with a conventional keypad (1), a speaker (6), a digital display (4), a microphone (7) and an antenna (3) and (8) to which telephone is installed a solar panel (5) for powering the portable phone and recharge the battery.

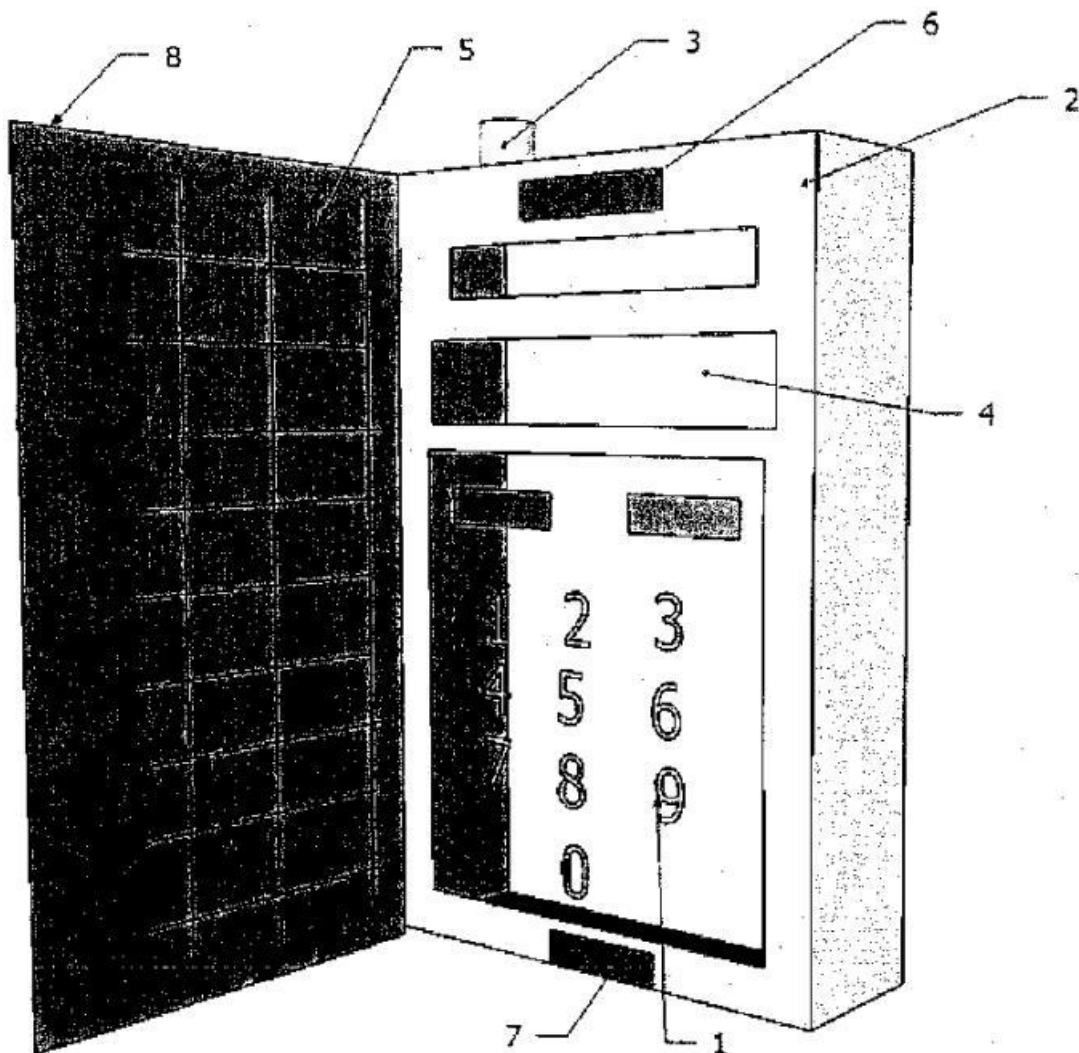
CLMEN 1) device for charging a portable telephone (2) by solar energy characterized in that it comprises a solar panel (5) which absorbs the energy from sun placed next to the speaker (6) and the screen (4) telephone and on the valve (8) which provides protection to the telephone.

2) device according to claim 1, characterized in that the phone display (4) may be confused with the solar panel (5).

3) device according to claim 1, characterized in that the phone's battery continues to be charged by the electrical current via the conventional loader.

4) device according to claim 1 characterized in that the battery of the portable telephone is hybrid which is charged by electricity and solar energy.

5) device according to claim 1 characterized in that the recharging device by solar energy may be installed on other electronic appliances using the Internet of the shelves, the cameras or tablets



AN 3043273 FRFULL ED 20180917 EW 201836 EDTX 20180917 [Full-text](#)
UP 20180917 UW 201836 UPTX 20180917
TIEN THE POWER SUPPLY SYSTEM AND SOLAR POWERED RECHARGING OF MOBILE DEVICES
USING THE INTERNET
TIFR SYSTEME D'ALIMENTATION ET DE RECHARGE PAR ENERGIE SOLAIRE D'APPAREILS
MOBILES UTILISANT INTERNET
IN NGAKA MOUKANGALA; BOHLI IMED
PA NGAKA MOUKANGALA; BOHLI IMED
PA.CNY FR; FR
LA French
DT Patent
PIT FRB1 PATENT OF INVENTION (SECOND PUBLICATION) (FROM 2,000,000)
PI **FR 3043273** **B1 20180907**
AI FR 2015-2306 A 20151102
PRAI FR 2015-2306 A 20151102 *
IPCI H02J0007-35 [I,A]
CPC H02J0007-355; H02J0007-0055; H02J0007-35; H04M0019-08

DETDFFR La presente invention concerne un dispositif permettant de charger la batterie d'un appareil portable utilisant internet tel que le telephone portable ou une tablette, en utilisant l'energie solaire.

Actuellement, pour charger par exemple un telephone portable on utilise un chargeur electrique qui delivre un voltage precis selon le modele du telephone et de la batterie et ayant une borne specifique selon le modele du telephone. Recharger la batterie d'un telephone par ce procede est tres simple mais a plusieurs inconvenients. En effet, l'autonomie des batteries depend de la consommation electrique du portable et de la quantite de lumiere emise par l'ecran, or l'utilisation d'internet via le telephone portable s'est enormement developpee et avec elle l'augmentation de l'utilisation de la batterie entrainant sa decharge prematuree. Dans ces situations, l'absence d'une source d'energie electrique pour la recharge de la batterie peut vite devenir problematique, notamment si l'on se trouve a des endroits loin des habitations telle que sur la montagne ou un terrain desertique. A l'exception des chargeurs mobiles de batteries qui eux-memes souffrent des memes inconvenients qu'un telephone portable, Il n'existe pas un procedes connus permettant de remedier a ces inconvenients.

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Les dessins annexes illustrent l'invention :

La figure 1 represente une vue de face du telephone ou l'on peut apercevoir un petit panneau solaire pres des hautes parleurs du telephone.

La figure 2 represente une vue en 3 dimensions du telephone vu de face.

La Figure 3 represente une vue de face en 3 dimensions du telephone avec le panneau solaire installe cote interieur du clapet (8) de protection du telephone.

La figure 4 represente une vue de cote en 3 dimensions du telephone ou l'on peut apercevoir le panneau solaire installe sur la face posterieur du clapet du telephone Il est evident que la presente invention ne se limite pas aux formes de realisations decrites et representees, mais englobe toute variante d'execution possible.

En reference a ces dessins, le dispositif comprend un telephone portable (2) classique muni d'un clavier numerique (1), d'un haut-parleur (6), d'un ecran digital (4), d'un microphone (7) et d'une antenne (3) et d'un clapet de telephone (8) auquel est installe un panneau solaire (5) permettant d'alimenter le telephone portable et de recharger la batterie.

CLMFR 1) Dispositif permettant de charger un telephone portable (2) par l'energie solaire comportant un panneau solaire (5) qui absorbe l'energie issue du soleil et la transforme en energie electrique, un ecran (4) caracterise en ce que l'ecran du portable (4) est confondu avec le panneau solaire (5), ce dernier etant monte sous l'ecran du portable (4).

2) Dispositif selon la revendication 1, caracterise en ce que la batterie du telephone continue a etre chargee par le courant electrique via le chargeur classique.

3) Dispositif selon la revendication 1 caracterise en ce que la recharge de la batterie du telephone portable se fait indifferemment via une prise electrique ou via l'energie issue du panneau solaire.

4) Dispositif selon la revendication 1 caracterise en ce que le dispositif de recharge par energie solaire peut etre installe sur d'autres appareils electroniques tels que les tablettes, les appareils photographiques ou les ordinateurs portables.

DETDEN The present invention relates to a device for charging the battery of a portable device using the Internet as the mobile phone or tablet, using solar energy.

Currently, to load such as a portable telephone is used an electric charger that outputs a voltage accurate according to the model of the phone and battery and having a specific terminal according to the model

of the phone. Recharging the battery of a telephone by the method is very simple but has several disadvantages. Indeed, the autonomy of the battery depends on the power consumption of the portable and the amount of light emitted by the display, gold use over the Internet via the portable telephone greatly expanded and thus the increase in the use of the battery causing its premature discharge. In these situations, the absence of a source of electrical energy for recharging the battery may quickly become problematic, especially if it is in places with far dwellings such as on the mountain or desert terrain. With the exception of mobile battery chargers which themselves suffer from the same disadvantages that a portable telephone, there is not a known methods for these drawbacks.

The device according to the invention overcomes these drawbacks. It includes a first feature as a solar panel that is similar to a miniature calculators to solar energy, installed above the phone display connected to the battery recharging it continuous. This energy source is complementary to the conventional method of recharging telephones. Thus, the novel method for recharging a battery cell phones will then have an electrical system of refills hybrid using alternating current/continuous and solar energy for recharging the batteries. Therefore, in the absence of electricity outlet, users of portable telephones are not present without a power source for charging laptop because thereof continues to be powered by solar energy.

According to particular embodiments, the solar panel can be installed at the back of the phone, on the front or back of its cover for portable phones that have this device.

The accompanying drawings illustrate the invention:

Figure 1 represents a front view of the phone where we can see a small solar panel near high loudspeakers of the telephone.

Figure 2 represents a view in 3 dimensional end view of the telephone.

Figure 3 represents a front view in 3 dimensions of the telephone with the solar panel installed inside of the valve (8) protection of the phone.

Figure 4 represents a side view in 3 dimensions of the phone where we can see the solar panel installed on the rear face of the valve of the phone it is evident that the present invention is not limited to the forms of embodiments described and shown herein, but includes all possible execution variant.

With reference to the drawings, the device comprises a portable telephone (2) provided with a conventional keypad (1), a speaker (6), a digital display (4), a microphone (7) and an antenna (3) and (8) to which telephone is installed a solar panel (5) for powering the portable phone and recharge the battery.

- CLMEN 1) Device for charging a portable telephone (2) by solar energy with a solar panel (5) which absorbs energy from the sun and converts it into electrical energy, a screen (4) characterized in that the screen of the laptop (4) coincides with the solar panel (5), the latter being mounted under the screen of the laptop (4).
- 2) Device according to claim 1, characterized in that the phone's battery continues to be charged by the electrical current via the conventional loader.
- 3) Device according to claim 1 characterized in that the recharging of the battery of the mobile phone is indifferently through an electrical outlet or via energy from the solar panel.
- 4) Device according to claim 1 characterized in that the recharging device by solar energy may be installed on other electronic devices such as tablets, the cameras or portable computers.

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FIG. 1

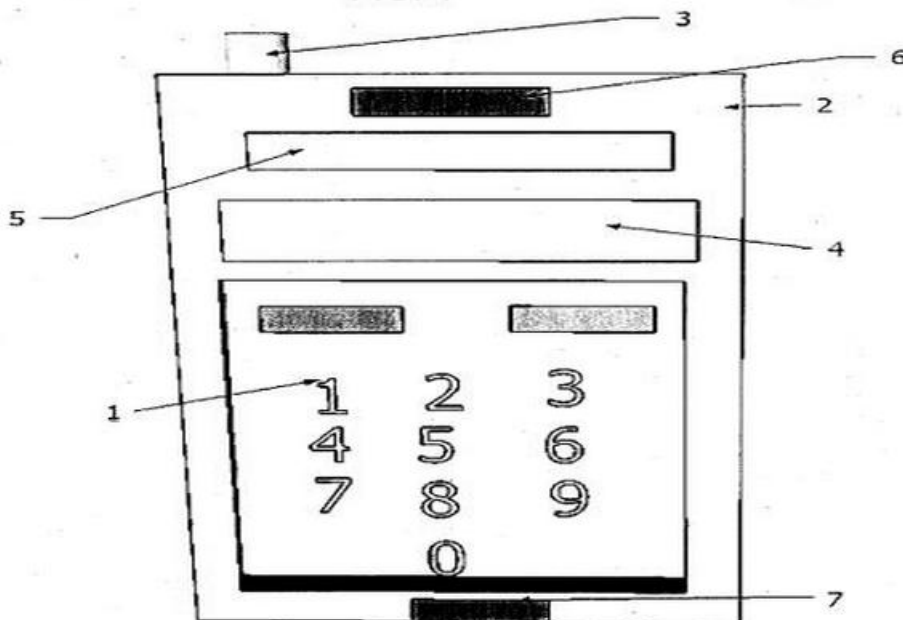
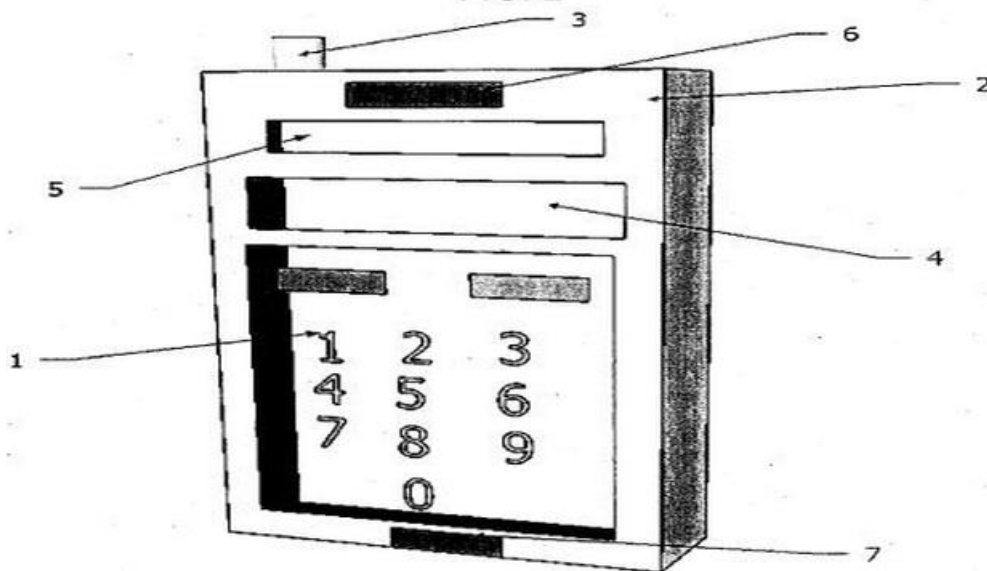


FIG. 2



In North America
CAS
STN North America
P.O. Box 3012
Columbus, Ohio 43210-0012 U.S.A.

CAS Customer Center:
Phone: 800-753-4227 (North America)
614-447-3700 (worldwide)
Fax: 614-447-3751
Email: help@cas.org
Internet: www.cas.org

In Europe
FIZ Karlsruhe
STN Europe
P.O. Box 2465
76012 Karlsruhe
Germany
Phone: +49-7247-808-555
Fax: +49-7247-808-259
Email: helpdesk@fiz-karlsruhe.de
Internet: www.stn-international.com

In Japan
JAICI (Japan Association for
International Chemical Information)
STN Japan
Nakai Building
6-25-4 Honkomagome, Bunkyo-ku
Tokyo 113-0021, Japan
Phone: +81-3-5978-3601 (Technical Service)
+81-3-5978-3621 (Customer Service)
Fax: +81-3-5978-3600
Email: support@jaici.or.jp (Technical Service)
customer@jaici.or.jp (Customer Service)
Internet: www.jaici.or.jp