



New connection on: : 28-07-2017 : 19:02:51 - Last disconnection on: : 28-07-2017 : 18:30:17

V 4.0.0.43847(LP,U,linux) (Rev:41675 2016-01-15 13:33:59 +0100#(D201706)) (RPM D201706)

Welcome to EPOQUE Rebuild under the Production Environment

[EPODOC: SS 10] ..fi epodoc

 Database: EPODOC

[EPODOC: SS 10] letterpress and printing

Results in EPODOC 1.658

[SS 11] 10 and cylinder+

Results in EPODOC 320

[SS 12] 11 and ink+

Results in EPODOC 185

[SS 13] 12 and relief

Results in EPODOC 19

[SS 14] ..v

[EPODOC: SS 14] ..li 1-10



1/19 © EPODOC / EPO

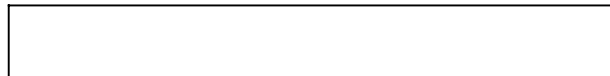
PN - [JP2013086296](#) A 20130513

PR - JP20110226773 20111014

AP - JP20110226773 20111014

DT - I

FI - B41F3/20&Z; B41F3/81;
B41F31/08; B41F31/14&B;
B41F31/15; B41F31/26&Z;
G02B5/20&101; H05B33/10;



	H05B33/14&A
FT	- 2C250/DA07; 2C250/DB14; 2C250/DB21; 2C250/DC04; 2C250/DC05; 2C250/DC09; 2C250/DC10; 2C250/DC11; 2H048/BA55; 2H048/BB42; 2H148/BC42; 2H148/BG02; 2H148/BH28; 3K107/AA01; 3K107/BB01; 3K107/CC45; 3K107/FF15; 3K107/GG07
PA	- TOPPAN PRINTING CO LTD
TI	- PRINTING APPARATUS
AB	- PROBLEM TO BE SOLVED: To provide a letterpress printing apparatus in which ink supplied into cells of respective regions of an anilox roll is consumed at predetermined time intervals without fail. - SOLUTION: The letterpress printing apparatus using a relief printing plate as a printing plate includes a rotary printing cylinder, a substrate surface plate on which a substrate to be printed is placed, the anilox roll supplying ink to the relief printing plate, an ink chamber for immersing the anilox roll in ink to supply the ink, and a device scraping the supplied ink to a constant film thickness. The letterpress printing apparatus being characterized in the anilox roll is slidable along its axis of rotation, and printing is carried out by changing the position where relief parts of a relief printing plate come into contact with the anilox roll each time a substrate to be printed is printed. - COPYRIGHT: (C)2013,JPO&INPIT - PROBLEM TO BE SOLVED: To provide a letterpress printing apparatus in which ink supplied into cells of respective regions of an anilox roll is consumed at

predetermined time intervals without fail.

SOLUTION:

The **letterpress printing** apparatus using a **relief printing** plate as a **printing** plate includes a rotary **printing cylinder**, a substrate surface plate on which a substrate to be printed is placed, the anilox roll supplying **ink** to the **relief printing** plate, an **ink** chamber for immersing the anilox roll in **ink** to supply the **ink**, and a device scraping the supplied **ink** to a constant film thickness.

The **letterpress printing** apparatus being characterized in the anilox roll is slidable along its axis of rotation, and **printing** is carried out by changing the position where **relief** parts of a **relief printing** plate come into contact with the anilox roll each time a substrate to be printed is printed.

2/19 © EPODOC / EPO

PN - [JP2013065505](#) A 20130411

PR - JP20110204422 20110920

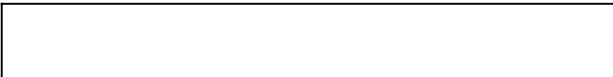
AP - JP20110204422 20110920

DT - I

CT - || STSE (A)
[JP2011073269](#) A 20110414 [
] (TOPPAN PRINTING CO LTD)
[JP2010158883](#) A 20100722 [
] (ASAHI KASEI CORP)
[WO2009038171](#) A1 20090326 [
] (TOPPAN PRINTING CO LTD [JP],
 et al)

FI - B41F17/14&E; B41F31/26&Z;
 B41M1/02; B41M1/34;
 H05B33/10; H05B33/14&A

FT - 2C250/DB11; 2C250/DC14;
 2H113/AA04; 2H113/BA01;
 2H113/BB09; 2H113/BB22;
 2H113/BC05; 2H113/CA17;
 2H113/EA15; 3K107/AA01;



- 3K107/BB01; 3K107/CC35;
3K107/CC45; 3K107/FF00;
3K107/GG07; 3K107/GG35
- PA - TOPPAN PRINTING CO LTD
- TI - **LETTERPRESS PRINTING** DEVICE
AND METHOD FOR
MANUFACTURING ORGANIC
ELECTROLUMINESCENT ELEMENT
USING THE SAME
- AB - PROBLEM TO BE SOLVED: To
provide a **printing** device
capable of manufacturing a fine
thin film pattern without **printing**
unevenness and foreign matter
entry, and especially to provide
a method for manufacturing an
organic EL element not having a
non-display pixel by using
this **printing** device.
- SOLUTION: A **letterpress printing**
device for **printing** a fine pattern
on a substrate to be printed
includes: at least a **printing**
cylinder which is equipped with
a **relief printing** plate and
rotates: a substrate surface plate
on which the substrate to be
printed is placed; an anilox roll
by which **ink** is coated on
the **relief printing** plate; and **ink**
supplying means for
supplying **ink** to the anilox roll.
In the anilox roll, a large number
of fine recesses are engraved in
parallel on the surface of a
cylindrical part thereof, and a
surface processing layer having
liquid-repellency to **ink** is formed
on the surface of the cylindrical
part.
- COPYRIGHT: (C)2013,JPO&INPIT
- PROBLEM TO BE SOLVED: To
provide a **printing** device
capable of manufacturing a fine
thin film pattern without **printing**
unevenness and foreign matter
entry, and especially to provide
a method for manufacturing an

organic EL element not having a non-display pixel by using this **printing** device.SOLUTION:
A **letterpress printing** device for **printing** a fine pattern on a substrate to be printed includes: at least a **printing cylinder** which is equipped with a **relief printing** plate and rotates: a substrate surface plate on which the substrate to be printed is placed; an anilox roll by which **ink** is coated on the **relief printing** plate; and **ink** supplying means for supplying **ink** to the anilox roll. In the anilox roll, a large number of fine recesses are engraved in parallel on the surface of a cylindrical part thereof, and a surface processing layer having liquid-repellency to **ink** is formed on the surface of the cylindrical part.

3/19 © EPODOC / EPO

PN - [CN102858541](#) A 20130102
PNFP - CN102858541B B 20151125
PR - WO2011JP54638
20110301; JP20100082323
20100331
AP - CN2011817187 20110301
DT - I
CT - || STSE (A)
[US4627346](#) A 19861209
[X] (DIETZELL HANS-PETER [DE], et al)
[X]
[JP2003291307](#) A 20031014
[A] (TOYOTA MOTOR CORP)
[A]
[JPH08309961](#) A 19961126
[A] (DAINIPPON PRINTING CO LTD)
[A]
[CN2181393Y](#) Y 19941102
[A] (ZIMING MACHINERY CO LTD SHANGH [CN])
[A]



	JP2009272143 A 20091119 [A] (DAINIPPON SCREEN MFG) [A]
CCI	- B41F31/022 ; B41F31/08 ; B41F35/02 ; B41F35/04 ; B41M1/04 ; B41F5/02
CCA	- B41M1/02 ; H01L51/0004 ; B41P2235/26
PA	- (A) TOPPAN PRINTING CO LTD
TI	- (A) Letterpress Printing Device And Printed Matter Produced Using Same, And Process For Production Of Organic Electroluminescent Element
AB	- (A) Disclosed are: a letterpress printing device which enables the reduction in the contamination of a printed pattern by foreign matters attributable to the printing device and which also enables the formation of a fine pattern having in-plane uniformity on a material of interest with high positional accuracy; and a process for producing a printed matter. Specifically disclosed are: a letterpress printing device characterized by comprising a rotary plate cylinder , a relief printing plate which is arranged on the plate cylinder , an anilox roll which has a concave-convex processed surface and can supply an ink onto the relief printing plate, and a coating unit which can apply the ink onto the surface of the anilox roll to form an ink film; and a printed matter produced using the letterpress printing device.

PNFP - TWI526322B B 20160321

PR - JP20100082323 20100331

AP - TW20110110949 20110330

DT - I

CCI - [B41F31/022](#) ; [B41F31/08](#) ; [B41F35/02](#) ; [B41F35/04](#) ; [B41M1/04](#) ; [B41F5/02](#)

CCA - [B41M1/02](#) ; [H01L51/0004](#) ; [B41P2235/26](#)

PA - (A B)
TOPPAN PRINTING CO LTD [JP]

TI - (A B)
Letterpress printing device, method by using the same for producing print and organic electroluminescence element

AB - (A)
Provided are a **letterpress printing** device and a method for producing print, which can makes pollutants resulted from **printing** device decrease in mixing into **printing** patterns, moreover, makes tiny patterns be formed on the printed substances with in-plane uniformity and high positional precision. The said **letterpress printing** device characterized in having a rotary plate **cylinder**, a **relief printing** plate set up on the plate **cylinder**, an anilox roll which is treated with concave-convex shape processing on its surface and provides **ink** to the **relief printing** plate, a coating device which coats the surface of the anilox roll with **ink** so that a **ink** coating film can be formed. Furthermore, to use this kind of **letterpress printing** device for producing the print.

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PN - [WO2011122204](#) A1 20111006

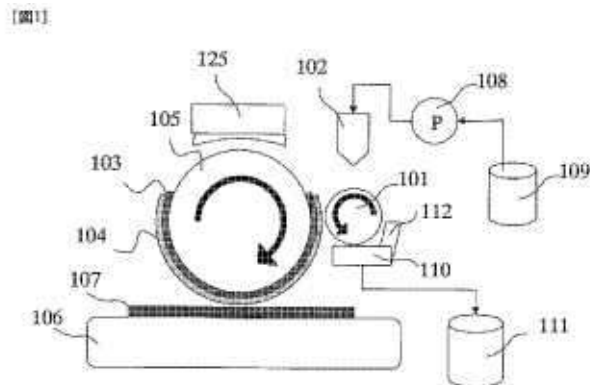
PR - JP20100082323 20100331

AP - WO2011JP54638 20110301

DT - **

CT - [JP] ISR (A1)
[JP2009272143](#) A 20091119
[X] (DAINIPPON SCREEN MFG);
[JP2003291307](#) A 20031014
[X] (TOYOTA MOTOR CORP);
[JPH08309961](#) A 19961126
[Y] (DAINIPPON PRINTING CO LTD);
[JPH0592554](#) A 19930416
[Y] (ISOWA INDUSTRY CO);
[JPS54154606](#) A 19791205
[Y] (MITSUBISHI HEAVY IND LTD);
[JP2008296547](#) A 20081211
[A] (TOPPAN PRINTING CO LTD);
[JPH08295006](#) A 19961112
[A] (SHARP KK)

CCI - [B41F31/022](#) ; [B41F31/08](#) ;
[B41F35/02](#) ; [B41F35/04](#) ;
[B41M1/04](#) ; [B41F5/02](#)



- CCA - [B41M1/02](#) ; [H01L51/0004](#) ;
[B41P2235/26](#)
- PA - TOPPAN PRINTING CO LTD [JP];
MIHASHI NORITAKA [JP]; KANO
KATSUYUKI [JP]; KOMURO
SHUNSUKE [JP]
- TI - **LETTERPRESS PRINTING** DEVICE
AND PRINTED MATTER PRODUCED
USING SAME, AND PROCESS FOR
PRODUCTION OF ORGANIC
ELECTROLUMINESCENT ELEMENT
- AB - Disclosed are: a **letterpress
printing** device which enables
the reduction in the
contamination of a printed
pattern by foreign matters
attributable to the **printing**
device and which also enables
the formation of a fine pattern
having in-plane uniformity on a
material of interest with high
positional accuracy; and a
process for producing a printed
matter. Specifically disclosed
are: a **letterpress printing** device
characterized by comprising a
rotary plate **cylinder**, a **relief
printing** plate which is arranged
on the plate **cylinder**, an anilox
roll which has a concave-convex
processed surface and can
supply an **ink** onto the **relief
printing** plate, and a coating unit
which can apply the **ink** onto the
surface of the anilox roll to form
an **ink** film; and a printed matter
produced using the **letterpress
printing** device.

PN - [JP2010158883](#) A 20100722

PR - JP20080314916
20081210; JP20090249310
20091029

AP - JP20090249310 20091029

DT - I

CT - || STSE (A)
[JP2008198519](#) A 20080828 [
] (TOPPAN PRINTING CO LTD);
[JPH0361593](#) A 19910318 [
] (NISSHA PRINTING)

FI - B41F31/13; B41F31/26&Z;
B41M1/02; B41N1/12;
B41N1/16; H05B33/10;
H05B33/14&A

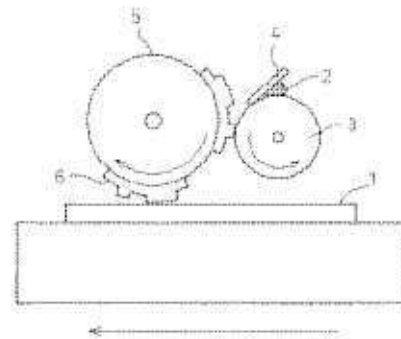
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2H113/BC12; 2H113/CA17;
2H113/EA01; 2H113/EA15;
2H114/AA01; 2H114/AA09;
2H114/AA23; 2H114/BA02;
2H114/EA04; 2H114/FA06;
3K107/AA01; 3K107/BB01;
3K107/CC33; 3K107/CC35;
3K107/CC45; 3K107/FF15;
3K107/GG07

PA - ASAHI KASEI CORP

TI - **LETTERPRESS PRINTING METHOD**
OF ELECTRONICS MATERIAL

AB - PROBLEM TO BE SOLVED: To
provide a **letterpress printing**
method which is most suitable
for formation of wiring in a
display panel, formation of an
electrode and production of an
insulating material or an
organic EL element and which
can suppress line fattening and
can improve film thickness
uniformity.
- SOLUTION: A **letterpress**
for **printing** having **relief** is made
to a cylindrical shape in a state
where a top face of the **relief** is
turned outside and

図 1



the **letterpress** for **printing** is rolled around a **cylinder** shaft while supplying **ink** from an anilox roll to the top face of the **relief** to transfer the **ink** from the **letterpress** for **printing** to a body to be printed.

The **letterpress printing** method contains this transfer step.

The **letterpress** for **printing** has a plurality of recesses with an aperture area of 10 to 1,600 μm^2 at the top face of the **relief**, the number of lines of the anilox roll is ≥ 400 line/inch and < 700 line/inch and further the aperture area per one recess is made to be smaller than the aperture area per one cell of the anilox roll.

- COPYRIGHT: (C)2010,JPO&INPIT

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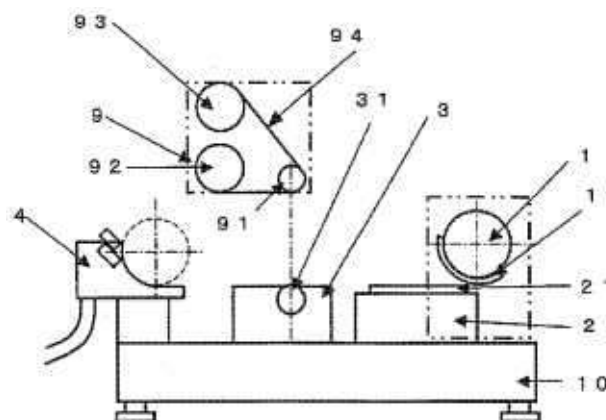
PN - [US2009217834](#) A1 20090903

PR - US20090463333
20090508; JP20060020478
20060130; JP20060023335
20060131; JP20060121496
20060426; US20060604074
20061122

AP - US20090463333 20090508

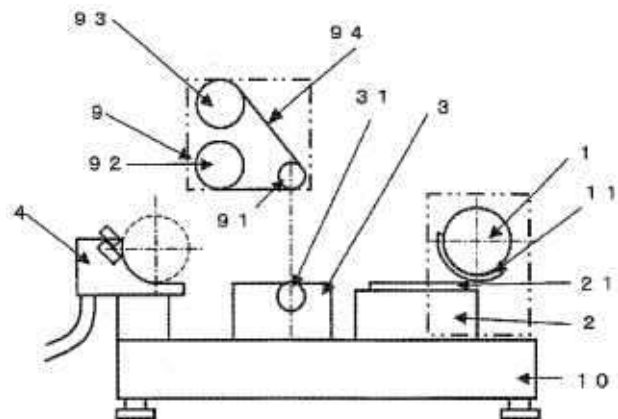
DT - **

CT - || R141 (A1)
[US2004021413](#) A1 [];
[US2004050277](#) A1 [];
[US3656431](#) A [];
[US4015307](#) A [];
[US3735702](#) A [];
[US3737940](#) A [];
[US6582504](#) B1 [];
[US4393778](#) A [];
[US6082262](#) A [];
[US6420200](#) B1 [];
[US2004163561](#) A1 [];
[US3980018](#) A [];
[US3701316](#) A [];
[US3913797](#) A [];
[US4054685](#) A [];



- [US4774884](#) A [];
[US6472121](#) B2 [];
[US2005223926](#) A1 [];
[US5575211](#) A [];
[US7137697](#) B2 []
- CCI - [B41F35/02](#)
 CCA - [B41P2235/24](#) ; [B41P2235/26](#) ;
 [B41P2235/27](#) ; [B41P2235/30](#)
 PA - TOPPAN PRINTING CO LTD [JP]
 TI - **Letterpress Printing Machine**
 AB - A **letterpress printing** machine is disclosed including a rotary **printing cylinder** in which a **relief printing** plate is installed, a substrate surface plate on which a substrate is placed, an **ink** supply device supplying **ink** on the **relief printing** plate, a **relief printing** plate washing equipment washing the surface of the **relief printing** plate, and a wiper for a plate. The **relief printing** plate washing equipment can include a washing liquid supplying unit, an air blasting unit jetting pressurized gas to the **relief printing** plate, a suction unit sucking the washing liquid scattered by air blasting unit, and a washing liquid recovery unit.

- 8/19** © EPODOC / EPO
 PN - [US2007175349](#) A1 20070802
 PNFP - US7546803 B2 20090616
 PR - JP20060020478
 20060130; JP20060023335
 20060131; JP20060121496
 20060426
 AP - US20060604074 20061122
 DT - *; Rep
 CT - || STSE (B2)
 [US3656431](#) A 19720418 [] (DE LA RUE GIORI SA)
 [US3701316](#) A 19721031 [] (HARRIS



INTERTYPE CORP)
[US3913797](#) A 19751021 [
] (BALDWIN GEGENHEIMER CORP)
[US3980018](#) A 19760914 [
] (DIRECTOR GENERAL PRINTING BURE)
[US4393778](#) A 19830719 [
] (DAINIPPON PRINTING CO LTD [JP])
[US6472121](#) B2 20021029 [
] (MACDERMID GRAPHIC ARTS INC
 [US])
[US7137697](#) B2 20061121 [
] (AURENTUM
 INNOVATIONSTECHNOLOGI [DE])
[US2004050277](#) A1 20040318 [
] (STANKA HERBERT [DE])
[US2004163561](#) A1 20040826 [
] (YOKOYAMA KAZUHIRO [JP])
[JP2001179928](#) A 20010703 [] (ASAHI
 KASEI CORP)

- || R141 (A1)
[US2004050277](#) A1 [];
[US3656431](#) A [];
[US6582504](#) B1 [];
[US4393778](#) A [];
[US6420200](#) B1 [];
[US2004163561](#) A1 [];
[US3980018](#) A [];
[US3701316](#) A [];
[US3913797](#) A [];
[US6472121](#) B2 [];
[US7137697](#) B2 []

- CCI - [B41F35/02](#)
- CCA - [B41P2235/24](#) ; [B41P2235/26](#) ;
[B41P2235/27](#) ; [B41P2235/30](#)
- PA - (B2)
 TOPPAN PRINTING CO LTD [JP]
- TI - (A1 B2)
Letterpress printing machine
- AB - (A1 B2)
 A **letterpress printing** machine is
 disclosed including a rotary **printing**
cylinder in which a **relief printing**
 plate is installed, a substrate
 surface plate on which a substrate is
 placed, an **ink** supply device
 supplying **ink** on the **relief printing**
 plate, a **relief printing** plate washing
 equipment washing the surface of

the **relief printing** plate, and a wiper for a plate. The **relief printing** plate washing equipment can include a washing liquid supplying unit, an air blasting unit jetting pressurized gas to the **relief printing** plate, a suction unit sucking the washing liquid scattered by air blasting unit, and a washing liquid recovery unit.

9/19 © EPODOC / EPO

PN - [JPS5954561](#) A 19840329
 PR - JP19820165061 19820924
 AP - JP19820165061 19820924
 DT - **
 CCI - [B41F17/02](#) ; [B41F5/00](#) ; [B41M1/02](#)
 FI - B41F33/04&S; B41F5/04&A; B41M1/02
 FT - 2C034/AA02; 2C034/AA42; 2C250/EA22; 2H113/AA01; 2H113/AA05; 2H113/BA01; 2H113/BB02; 2H113/BB26; 2H113/DA41; 2H113/DA66; 2H113/DA68
 PA - SHIMAMURA SEIHACHIROU
 TI - METHOD AND APPARATUS FOR CONTINUOUS **LETTERPRESS PRINTING**
 AB - PURPOSE:To permit the **printing** of long (tens meters) **printing** medium by a method in which plural flexible **relief printing** plates having different contents are continuously supplied to a plate **cylinder** and wound around the **cylinder** detachably, and **printing** of different contents is orderly made on papers advancing between the plate **cylinder** and a compression **cylinder**. CONSTITUTION:A long paper 1 is sent out of a paper supplier 11 and inserted between a plate **cylinder** 2 and a compression **cylinder** 3. Flexible **relief** plates 4 are sent one by one onto a chain conveyer 6 from a **relief printing** plate stacked section 5 into the space between a pulley 8 and the plate **cylinder** 2. The flexible **relief** plates are coupled with a guide pin provided at the edge of the plate **cylinder** 2, wound around the plate **cylinder** 2, and turned. **Printing** is made between the plate **cylinder** 2 and the compression **cylinder** 3 by means of the **relief** plates 4 inked by an ink roll 9, and the **relief** plates after the **printing** are separated from the plate **cylinder** by a vacuum sucker 15.

10/19 © EPODOC / EPO

PN - [GB191221526](#) A 19131021
 PR - GBT191221526 19120921
 AP - GBD191221526 19120921
 DT - *
 CCI - [B41C1/18](#)
 PA - DUMONT MAURICE [BE]; MORR LEON DE [BE]
 TI - Improvements relating to a Chemical Process for Engraving on Metal **Cylinders** in Intaglio or in **Relief**.
 AB - 21,526. Dumont, M., and Moor, L. de. Sept. 21. Etching.-In a process for etching designs

in intaglio or **relief** on **printing-cylinders** of copper, brass, zinc, aluminium, steel, &c., the design is produced on the **cylinder** in a greasy **ink** by transferring or other method. The design is powdered over with colophony or lime and the **cylinder** treated with a weak solution of acid to remove all trace of grease. The **cylinder** is then coated with a solution of fish glue sensitized by means of a bichromate or other medium. The coating is dried in a dark-room, and after exposing to light, is flooded with water. The roller is then immersed in turpentine which removes the design and with it the emulsion on the design, and finally leaves the metal bare in these parts. The remaining coating is heated to render it acid-proof, and the roller is etched in acid. The design to be produced on the roller may be drawn on stone or zinc and the design printed in greasy **ink** on paper or sheet gelatine and transferred by pressure on to the roller. In a modification, the design may be reduced by photographic means from a drawing or the like, and the design printed from a photographic positive or negative plate in greasy **ink** on to a suitable sheet and transferred on to the roller, which is then etched. Specifications 2264/82, [Class 101, **Printing** other than **letterpress** &c.] and 27,165/10 are referred to.

[SS 14]