



(11) **EP 2 837 497 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
20.05.2015 Bulletin 2015/21

(51) Int Cl.:
B41J 2/165^(2006.01) B41J 2/045^(2006.01)

(43) Date of publication A2:
18.02.2015 Bulletin 2015/08

(21) Application number: **14172583.8**

(22) Date of filing: **16.06.2014**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

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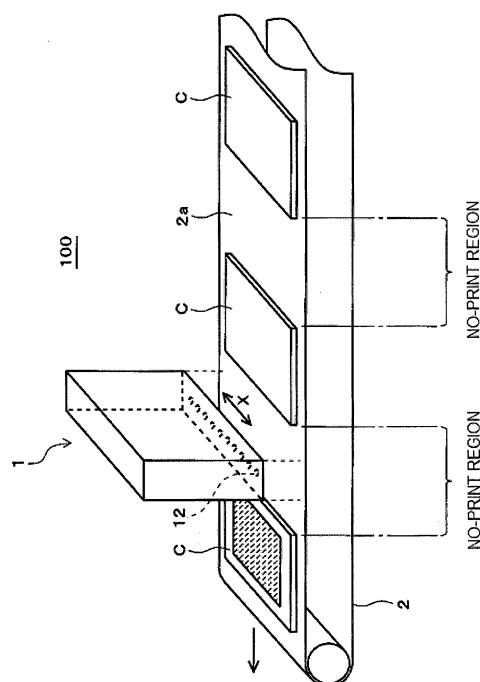
(30) Priority: **24.06.2013 JP 2013131601**

(54) **Liquid droplet ejection apparatus and method for recovering nozzle of liquid droplet ejection apparatus**

(57) Sedimentation of solid particles in an ink is affectively eliminated, and liquid droplets can be stably ejected for a long time.

There is provided a liquid droplet ejection apparatus including: a head 1 that includes an ink chamber, a nozzle 12 provided in accordance with the ink chamber, and an energy giving device that gives energy to the ink in the ink chamber, the head performing printing on a print region of a recording medium C by ejecting liquid droplets from the nozzle 12; and a drive pulse generating device for generating, as the drive pulse, an ejection pulse that is used for ejecting the liquid droplets from the nozzle 12 and a micro-vibration pulse that micro-vibrates the ink in the ink chamber so as not to eject the liquid droplets from the nozzle 12, wherein the ink contains a dispersion medium and solid particles having higher specific gravity than that of a dispersion medium, and the liquid droplet ejection apparatus includes a refresh device for performing a micro-vibration operation for applying the plurality of micro-vibration pulses when the head is present in a non-print region, and an ejection operation for applying the plurality of rejection pulses after the micro-vibration operation and ejecting a liquid droplet amount equal to or greater than a capacity of the ink chamber from the nozzle 12.

FIG. 1



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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 15 April 2015	Examiner João, César
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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