



(11) **EP 3 399 096 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
07.11.2018 Bulletin 2018/45

(51) Int Cl.:
D21F 1/44 (2006.01)

(21) Application number: **18179661.6**

(22) Date of filing: **06.11.2015**

(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**

(30) Priority: **10.11.2014 GB 201419956
10.11.2014 GB 201419957
10.11.2014 GB 201419960
10.11.2014 GB 201419978
10.11.2014 GB 201419986
10.11.2014 GB 201419987**

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:
15794255.8 / 3 218 545

(71) Applicant: **Portals De La Rue Limited
Overton
Hampshire RG25 3ST (GB)**

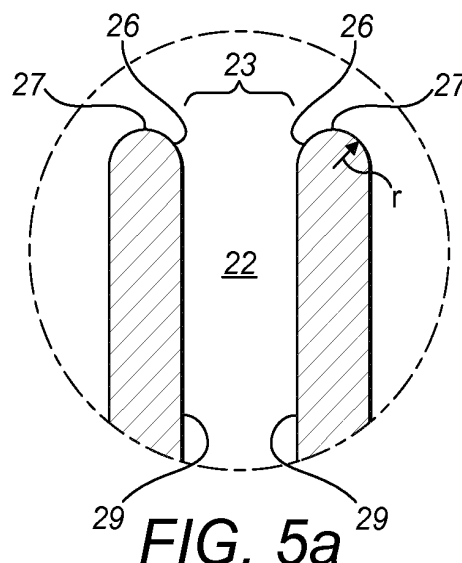
(72) Inventor: **CLARK, Christian
Bristol, South Gloucestershire BS30 9SU (GB)**

(74) Representative: **Boulton Wade Tennant LLP
Verulam Gardens
70 Gray's Inn Road
London WC1X 8BT (GB)**

Remarks:
This application was filed on 25-06-2018 as a
divisional application to the application mentioned
under INID code 62.

(54) **IMPROVEMENTS IN WATERMARKING**

(57) The invention relates to a watermark formation element for forming multi-tonal watermarks in paper, a cylinder mould cover comprising such a watermark formation element, a method of making such a cylinder mould cover, a method of making paper using such a cylinder mould cover and paper made thereby. The watermark formation element has an integrated body comprising a watermark forming surface, which has one or more watermark forming regions, and a drainage surface, said watermark formation element having a plurality of drainage channels extending from front surface apertures in the watermark forming surface to the drainage surface. The shape of, size of, and/or spacing between, the front surface apertures in a given horizontal plane, which is parallel to the drainage surface, is varied in the one or more watermark forming regions to create tonal variation in paper formed on said watermark formation element.



EP 3 399 096 A1