

PATENTS ACT 1977

APPLICANT Khalil Arafat

ISSUE Whether patent application
GB1502999.4 complies with section
1(1)(b) and section 1(2)

HEARING OFFICER H Jones

DECISION

Introduction

- 1 This decision is concerned with the questions of whether the invention set out in patent application GB1502999.4 involves an inventive step and whether it relates to excluded subject-matter. The examiner has maintained through seven rounds of examination that the application fails to meet these two requirements, so the matter is now referred to me for decision. A hearing of the arguments was held on 31 July 2018 in which Mr James Ford and Ms Sarah Phillips of Abel and Imray attended as the attorneys representing the applicant.
- 2 After hearing the applicant's arguments on the matter, I have decided that the invention does involve an inventive step over the cited prior art and that it does not relate to a business method as such, and my reasons are set out below.

The invention

- 3 The invention is described as a system for verifying the authenticity of printed sheet material, e.g. paper documents. The system has a receiving station for scanning in sheet material "bearing" an invisible and unique security mark and then tagging each particular sheet with a temporary identifier in a central database. If the sheet material is free from a security mark then then the receiving station can apply such a mark. The system includes a packaging apparatus to package one or more sheets into a secure package and to mark the package with a further invisible external security mark. A link is made in the database between the external security mark and the temporary identifiers associated with each sheet within the package. A third-party consumer of sheet material located remote to the receiving station can scan both the sheet material and the packaging to verify the association between the two (by reference to the database) and be assured of its authenticity. The third-party consumer can record itself as the authorised registrant of the sheet material within the central database, for example when printing onto it, and other parties with access to a further scanner connected to the database can verify the provenance of the printed sheet material.

4 The application has one independent claim as set out below:

1. A sheet product verification and activation apparatus for operating using block-chain technology, the apparatus comprising a receiving station (18), a temporary identity assignment module (23), a packaging apparatus (24), an identity status module (27), a temporary identity activation module (25), a system database (10), a sheet recognition module (26) and first and further scanners (20);

Wherein all modules correspond with the system database (10);

Wherein the receiving station (18) is operable to receive one or more blank sheet products (0) for processing by the apparatus, wherein subject to conformance with the system database (10), the sheet products (0) are each provided with an invisible security mark, said invisible security mark being assigned an identity according to the temporary identity assignment module (23) in corroboration with the system database (10), this temporary identity being unassigned to any third party;

Wherein the packaging apparatus (24) is operable to package one or more sheet products (101) into a secure package (1) and provide said secure package (1) with an external security mark, said external security mark being assigned an identity comprising at least the identities of the one or more sheet products (101), in communication with the temporary identity assignment module (23) and the system database (10), and authenticate the identities of the one or more sheet products (101) with the secure package (1) for future processing via the temporary identity activation module (25);

Wherein, the security marks of the secure package and the sheet products therein, are printed onto, or embedded into, the secure package and the sheet products therein, with one or more inks that comprise ordinarily invisible to the human-eye (microscopic/nanoscale) particles or other particles bearing their own verifiable identities; Wherein the sheet product verification and activation apparatus comprises a device configured to determine the identity of the particles;

Wherein the first scanner (20) is operable in correspondence with the sheet recognition module (26) to confirm an association of the identity of the external security mark of the secure package (1) and the identity of the security marks of the sheet products (101) therein;

And the first scanner (20) is operable in correspondence with the temporary identity activation module (25) to register the identity of the secure package (1) and its associated sheet products (101) therein with respect to the system database (10) upon confirmation of an association of the identity of the external security mark of the secure package (1) and the identity of the security marks of the sheet products (101) therein, with reference to the identity status module (27) whereby the package and its contents can then be recognized as being activated and registered to a third party registrant such that the temporary identity is switched from being unassigned to any third party, to then being assigned to the third party registrant;

Wherein the first scanner (20) is remote from the receiving station (18), so that the assigning of a temporary identity and the registering of that identity occur at separate locations;

Wherein the further scanner (20) is operable in correspondence with the sheet recognition module (26) and the identity status module (27) to determine the identity status of the third party registrant of a sheet product (101).

Section 1(2)(c) - method for doing business

- 5 The applicant argues that the invention cannot be said to be a business method *per se* because the claim is directed to an apparatus, which includes various distributed hardware, including a receiving station, a packaging apparatus, a first scanner, and further scanners amongst other parts. The applicant says that the examiner's analysis incorrectly dissects the apparatus into constituent parts and dismisses those parts individually as being known, but fails to acknowledge the invention as embodied by the apparatus as a whole, which it says is not known. The applicant adds that the functionality enabled by the new apparatus is not merely a business method. In particular, the claimed apparatus enables the user to stockpile a store of un-activated (but securable) sheet products, for use when required. Because the sheet products are un-activated, they do not require secure handling on receipt or secure storage. The user can very quickly and easily convert the un-activated sheet products into secure (i.e. having traceable origin) form. The applicant says it is this functionality which is key to the claimed invention: not only can the user activate sheet products quickly and easily for communicating securely on demand, but any number of different users having the relevant equipment can do the same thing. I agree with all of this.

Section 1(1)(b) – inventive step

- 6 The examiner bases his inventive step objection on the disclosure in WO2007/025045 (D1), which teaches a labelling and tracking system that combines multiple barcodes fixed to a product along a supply chain, whereby the barcodes have a reserve code used as a linking flag to indicate that further codes are available to be scanned. This system allows for a substantial increase in the amount of data conveyed by the barcodes. As the applicant quite rightly notes, D1 does not disclose a receiving station "operable to receive one or more blank sheet products for processing by the apparatus". The barcodes in D1 are visible, whereas the unique identifier associated with the sheet material of the invention are invisible. The invention is capable of receiving a sheet product having a temporary identity and quickly converting that to a permanent indication of source when required. This enables efficiencies to be provided through the mass production of assignable sheet products, and provides a very different user experience to both the intermediate party and the final end user. In view of all this, the applicant argues that D1 would not lead the skilled person to the present invention, and I agree.

Conclusion

- 7 I have found that the invention as it is presently claimed does not relate to a method for doing business and that it involves an inventive step over WO2007/025045. I will remit the case to the examiner to complete his examination of the application.

H JONES

Deputy Director, acting for the Comptroller