

OPINION UNDER SECTION 74A

Patent	EP1657072 B2
Proprietor(s)	DataLase Ltd
Exclusive Licensee	
Requester	Siltech Ltd
Observer(s)	Gill Jennings & Every LLP
Date Opinion issued	11 August 2015

The request

1. The comptroller has received a request from AdamsonJones on behalf of Siltech Ltd to issue an opinion as to whether EP 1657072 B2 (“the patent”), granted to DataLase Ltd is novel and/or inventive in light of a number of prior art documents.

2. The requestor has supplied the following prior art documents.

D1: DE19848080 (together with an English translation which I have accepted as accurate)

D2: US5855969

D3: US5206280

Allowance of the request

3. There has been some argument from the two parties whether the request should be allowed, with the observer arguing the case has been sufficiently considered before the EPO. The observer has made reference to Paragraph 3.3.1 of the UKIPO Opinion’s Manual which quotes Rule 94, specifically “The comptroller shall not issue an opinion if the question upon which the opinion is sought appears to him to have been sufficiently considered in any relevant proceedings”. The observer has also argued that the request is vexatious and therefore should not be allowed under rule 94.(1)(a). In this case I can see no evidence that the citations being relied on by the requestor have been put before the EPO for consideration. The requester has also set out new evidence and supplied detailed arguments regarding that evidence. For these reasons it is my opinion that the request is not vexatious and the evidence has not been considered previously, thus the request is allowable.

4. The observer, under a section titled “Commercial relevance”, discussed which claims were commercially relevant and requested that the opinion contains a specific conclusion on the validity of claims 3 and 5. For the avoidance of any doubt I shall issue an opinion on the validity of all the claims of the patent, as requested by the requestor.

Observations

5. Observations were received on 17 June 2015 where the observer disputed all allegations that the claims lacked novelty or inventiveness. The observer also stated that the comptroller should not offer an opinion on the Patent, for reasons discussed above.

Observations in reply

6. Observations in reply were received on 2 July 2015 where the requester reiterated the allegation that the patent lacked novelty and invention.

The patent

7. The patent relates to a method of providing barcoding to a substrate and involves applying to the substrate a formulation which includes a white pigment and at least one other component which forms a black image when irradiated with a laser. There is one independent claim, which reads:

8. *A method of providing black bar-coding on a substrate, which comprises applying, to a relatively small area of the substrate, a formulation comprising a white pigment and one or more other components that form a black image on irradiation with laser light, and irradiating the area, wherein the black bar-coding has greater contrast with respect to the pigment than with respect to the substrate.*

Claim construction

9. There has been considerable discussion as to the meaning the skilled person would apply to a number of the terms and whether specific properties of the formulation should be inherent to the formulation, so I shall discuss in turn how I think the skilled person would interpret each of these features.

10. I will consider these in the manner set out in *Kirin-Amgen and others v Hoechst Marion Roussel limited and others [2005] RPC 9*. The key point being “what a person skilled in the art would have thought the patentee was using the language of the claim to mean”. I will therefore interpret these aspects of the claim in a purposive manner and interpret them in light of the descriptions and drawings, taking into account the Protocol to article 69 of the EPC.

11. I will consider firstly the phrase “a relatively small area”. This is not defined in the patent though since one of the objectives is to save cost I think it is reasonable that the skilled person would construe this to mean that the coating formulation is

applied largely to an extent that enables the information to be displayed, as opposed to, for example, coating the entire substrate with an unnecessarily large bar code or alternatively an unnecessary number of smaller bar codes. Whether the area covered is relatively small will of course depend on the size of the substrate.

12. The term “formulation” has been discussed in some detail by both parties with the observer stating that the formulation “should be construed as a liquid formulation, especially in view of the Example and the discussion of ink/coating in paragraphs 12 and 13 of the Patent.” The requester in the observations in reply states that there is “no reason whatsoever to import into Claim 1 any further limitations.”

13. I therefore need to come to an opinion on how the skilled person would interpret the term “formulation” in the context of the patent. I note that there is no restriction in claim 1 which limits the formulation to a liquid. Paragraph 12 which the observer has brought to my attention does not seem to be helpful in determining the meaning of a “formulation” as it merely describes a preferred wavelength for the colour change and how that colour change can occur. Paragraph 13 does mention a liquid but I agree with the requester that the sentence which contains the reference to a liquid is not particularly clear in that it is not clear whether the sentence is referring to ink as the barcode or ink that is already present on the packaging.

14. I do however agree with the observer that the Example shown in the patent does describe an ink which can be printed “by flexography to produce a panel on manila corrugate”. The Patent in paragraphs 0010 and 0011 does however discuss how the colour changing component (AOM – ammonium octamolybdate) can be incorporated in various polymers and milled for example. Paragraph 0010 sets out a large range of polymers which could be used and includes “solvent based epoxy/vinyl/polyester coatings and lacquers, and siloxane resins”. Paragraph 0011 then mentions “AOM inks/coatings” a number of times, e.g. “Organic and inorganic pigments can be incorporated in to AOM inks/coatings without any adverse effect on the laser markability of the AOM inks/coatings”. I think it is therefore clear that without any specific limitation in claim 1 to an “ink” the skilled person would understand the term “formulation” to cover more than just an ink and to encompass other forms of coatings and lacquers. Furthermore it is clear from the patent and claim 1 that the formulation must comprise at a minimum the colour changing material and a pigment and there does not seem to be any disagreement on this aspect of the term.

15. There has also been some discussion of claim 2 with the observer stating that claim 2 should be construed as strongly absorbing laser light (e.g. 10 600nm) and gives rise to a distinct low energy colour change. I see no justification for assuming the skilled person would impart those restrictions to the claim and if the proprietor had wished to limit the claim in that way he could have done so.

Prima facie obviousness

16. The observer initially proposed a prima facie obviousness argument, specifically “It appears to us that in a situation in which high contrast is required between an image and the substrate on which it is formed, it is prima facie obvious

(or to put it another way, obvious over the common general knowledge) to whiten the region of the substrate to which the image is to be applied in order to achieve a high degree of contrast". The requester then goes on to use the analogy of a white address label applied to a brown paper envelope. The observer in response to this states "This allegation is made without applying any form of objective test and in hindsight of the claimed invention". I agree with the observer. The requester has not adequately made the case for a prima facie obviousness objection. Although it may be obvious to increase contrast when labelling an object such as is done with a white address label, the requester has given no evidence how the jump to using a laser makeable formulation would be made by skilled person. I therefore agree with the observer it is an argument based on hindsight.

Novelty

17. D1: This document describes the application of a heat shrinkable sleeve to a tool and then marking the sleeve with a laser. It seems to be agreed that the sleeve is light in colour (i.e. the translation says the label is "in particular white") to give better contrast between information provided by the laser on the sleeve than would be the case if the information was provided directly on the tool. D1 also shows information provided in the form of a barcode. Claim 1 of the patent does however require that the formulation comprises "one or more other components that form a black image on irradiation with laser light". D1 is silent on this feature and merely mentions the laser is used to abrade the sleeve to produce the information. I agree with the observer that abrasion could mean the white pigment of the sleeve is blackened and charred to produce the information and there is nothing to indicate an additional component is present as required by claim 1. It is therefore my opinion that claim 1 is novel over D1.

18. D3: This document discloses coating and pigment compositions that can be applied to wires to allow for laser marking. There is no disclosure of forming barcodes and for at least this reason claim 1 is novel in light of D3, as acknowledged by both parties.

19. D2: This document relates to the provision of information either on tags that are applied to metal objects or to the provision of information to a "zone" on the metal object. This is achieved by the provision of a formulation comprising a product which includes an additive which is darkenable under the action of a laser. It also shows the formation of a barcode which is said to be preferably black with a white background thus providing the barcode with greater contrast with respect to the background than to the substrate. It seems there is some agreement that the document shows the aforementioned aspects of claim 1. The observer does however dispute that the coated area of the substrate is "relatively small" and refers to fig 4 to support that view. I cannot agree with the observer that the citation is concerned with covering the entire product with the coating. In the statement of the invention of D2 it states that "The zone can be an area on the metal product that has been coated with a layer of a coating..." and claim 14 of D2 reads,

"Method for marking a product for its identification, which comprises the steps

of (a) forming on said product a zone coated with a layer of coating containing silicone resin having pendant groups selected from one or more of methyl groups and phenyl groups, which layer has been cured to a degree effective for its marking by a CO₂ laser beam; and (b) directing a CO₂ laser beam onto said zone for forming identification indicia selected from one or more of alphanumeric characters and graphics.”

20. It therefore seems clear that the “zone” does not mean the entire product. I also agree with the requester that the irregular lines of product 84 in fig 4 conventionally means the entire product is not shown. Hence I am satisfied that this document discloses applying the formulation to an area of the substrate. Furthermore I am satisfied that the skilled person would if the substrate was relatively large as a matter of normal practice apply the formulation to only a relatively small area of the substrate in the way that I have construed that phrase. It is therefore my opinion that claim 1 lacks novelty in light of D2.

21. I turn now to the appendant claims.

Claim 2: A method according to claim 1, wherein the formulation includes a component that absorbs laser light, e.g. at 10, 600nm.

22. An additive is said to be present in the formulation which absorbs laser light.

Claim 3: A method according to claim 1 or claim 1, wherein the substrate is a polymeric film.

23. There is no indication that the substrate is polymeric.

Claim 4: A method according to any of claims 1 to 3, wherein the substrate is metal e.g. aluminium foil.

24. The substrate is said to include products formed from metal

Claim 5: A method according to any of claims 1 to 4, wherein the substrate is paper or cardboard.

25. There is no indication that the substrate is paper or cardboard.

Inventive step

26. To assess whether there is an inventive step I shall follow the guidance set out in *Pozzoli SPA v BDMO SA [2007] EWCA Civ 588* which reformulated the well known Windsurfing steps.

27. There seems to be some agreement between both parties for the first two steps of the test and I shall therefore take my lead from them.

1.a Identify the notional person skilled in the art.

28. The skilled person is a packaging technician seeing to apply a bar-code to a substrate.

1.b Identify the common general knowledge of that person.

29. The skilled person would have common general knowledge of bar-codes, laser-darkenable compositions and packaging substrates.

(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it

30. The inventive concept is the provision of a method for applying a laser bar-code to a substrate and involves the inclusion of laser-markable substance in a composition including a white pigment to enhance the contrast of the bar-code formed on a substrate and where the composition is applied to a relatively small area of the substrate.

31. The next steps are to identify the differences between the state of the art and the inventive concept and then viewed without hindsight ascertain whether the differences constitute steps that would have been obvious to the skilled person.

32. I shall firstly consider D2. As it is my opinion that claims 1, 2 and 4 lack novelty in light of D2 it follows that they also lack an inventive step. Should I be wrong about the extent of the disclosure in D2 in particular with regards to applying the coating to only a relatively small area of the substrate, then I am satisfied that the invention in these claims would be rendered obvious by this document. More specifically I would not consider it inventive for the skilled person (as set out above) to only coat a small area of the product for marking. This would be the obvious choice to limit cost.

33. Turning to claims 3 and 5, there would not seem to be anything inventive in specifying different substrates. The technique would seem suitable for application to a range of substrates and without any argument to persuade me why for example it could not work on a polymeric film or cardboard claims 3 and 5 are not in my opinion inventive in light of the disclosure in D2 alone.

34. Under the section relating to novelty, the difference I identified between claim 1 and D1 was that there was a material present in addition to the pigment which changed colour when a laser was shone on it. This difference would not seem inventive in light of documents D2 and D3, both of which discuss the use of compositions which include additives that change colour when acted on by a laser. Claims 1 and 2 would therefore seem to lack invention in light of D1 in light of the disclosure of either D2 or D3.

35. Claims 3, 4, 5 specify possible materials for the substrate. As I have discussed early I do not consider these claims to add inventive subject matter.

Opinion

36. It is my opinion claims 1, 2 and 4 of EP1657072 lack novelty having regard to US5855969. It is also my opinion that claims 3 and 5 lack an inventive step in light of US5855969 alone and that claims 1-5 lack an inventive step with regard to DE19848080 in light of either US585596 or US5206280.

Application for review

37. Under section 74B and rule 98, the proprietor may, within three months of the date of issue of this opinion, apply to the comptroller for a review of the opinion.

Lyndon Ellis
Examiner

NOTE

This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.