

## **PATENTS ACT 1977**

IN THE MATTER OF an application under  
Section 72 by Marine Coral Co. Ltd. for the  
revocation of UK Patent No. GB 2201408B  
in the name of Nobuo Someya

### **DECISION**

1. This is a final decision in an action brought by Marine Coral Co. Ltd ("the applicants") for revocation of UK Patent No. GB 2201408B ("the patent") in the name of Nobuo Someya ("the proprietor").
2. In my interim decision of 4 November 1997 I found all claims of the patent to be invalid and refused all the amendments which had been proposed by the proprietor in the course of the proceedings up to that point. I did however allow the proprietor an opportunity to propose further amendments with a view to avoiding revocation of the patent.
3. The proprietor duly filed, with his agent's letter of 24 December 1997, proposals for amendment to the claims and description. There followed several rounds of correspondence involving the Office, the applicants and the proprietor in the course of which the applicants raised detailed arguments by way of objection to the amendment of the patent. The Office also observed that additional amendments to the description may be required in consequence to those already proposed. The proprietor filed a schedule of further proposed amendments under cover of his agent's letter dated 11 February 1998.
4. The proposed amendments were advertised in the Official Journal of 25 March 1998.
5. Both parties have indicated their willingness for me to decide the matter on the basis of the papers on file, without the need for an oral hearing, and that it what I shall now proceed to do.

6. The patent relates to a method of purifying water for drinking purposes which comprises contacting an agent derived from coral sand. To show how the proposed amended claims differ from those of the granted patent, I repeat below the text of the granted claims with the proposed additions shown in *italics* and deletions shown in ~~strikeout~~:

1. A method of purifying water for drinking purposes *to render it bacteriostatic and give it a pH on the alkaline side of neutrality* which comprises ~~bringing~~ *passing* the water ~~into contact with coral sand which has~~ *through a filter filled with coral sand produced from coral that is living coral or obtained from existing coral by marine erosion of a living reef, the sand having been washed to remove salt therefrom and dried at a temperature of from 70 to 190EC sufficient to dry it and to impart to it an ability to render the water bacteriostatic.*

2. A method as claimed in claim 1, wherein the coral sand is coated with silver.

3. A method as claimed in claim 1 or 2, wherein the coral sand is obtained from a living coral reef.

4. A method of purifying water as claimed in claim 1, substantially as described herein.

5. Drinking water which has been purified by the method of ~~any one~~ *either* of the preceding claims.

7. Consequential amendments have also been proposed to the body of the specification.

8. I note that there is some inconsistency in the proposed claims which suggests that it may have been the proprietor's intention to delete claims 2 and 3. However, despite being prompted by the Office the proprietor has not responded to this point. I shall therefore consider the proposed claims in the form they appear above. This point, as can be seen later, has some significance.

9. The amendments to claim 1 can thus be summarised as follows:

(a) the reference to "purifying water" in claim 1 has been qualified by references to rendering of water bacteriostatic and to giving it a pH on the alkaline side of neutrality;

(b) the water is to be passed through a filter (as opposed to just bringing it into contact) with coral sand;

(c) the coral sand is more narrowly defined by reference to its origin from living coral; and

(d) the drying step is further qualified by reference to the ability of the resultant sand to render water passed therethrough bacteriostatic.

10. The arguments in support of the proprietor's case are contained principally in the letter from his agents, Haseltine, Lake & Co, dated 24 December 1997. In summary, these are as follows:

(a) The present invention is concerned with bulk purification of water supplies by treatment with coral sand in a filter bed to produce a bacteriostatic effect. In contrast, the prior art previously considered most relevant, EP 0115216, describes a process in which the coral sand is consumed by being dissolved in the water. This document is unclear what, if any, bacteriostatic effect could be obtained.

(b) The temperature range of 70-190EC claimed is sufficient to sterilise the sand but below that required to produce any chemical activation. This produces sand suitable to render water bacteriostatic at economical cost. Higher temperatures of up to 400EC are also technically effective (actually more effective) but are more costly in terms of energy consumption.

11. The applicants' substantive objections to the proposed amendments are set out principally in their agent's letter dated 27 January 98. In summary, these are that the use and bacteriostatic effect of coral sand derived from a living reef are known in the prior art; there is no justification in the specification for the attempt to distinguish the proposed claim 1 over the prior art by reference to the volume of water to be treated or the non-consumption of the coral sand; the

qualification "sufficient to impart to it an ability to render the water bacteriostatic" imparts no technical limitation to the scope of claim 1 as proposed to be amended; and it is not inventive to specify a lower or absent level of activation where activation is not required, or to specify a temperature sufficient to achieve the desired effect.

12. The applicants have also raised objections as to the accuracy and self-consistency of certain of the proposed amendments.

13. The amendment of specifications in cases such as this is a matter of discretion. The principles I must apply in deciding whether to allow them are well known, and can be broken down into two issues: firstly, questions relating to the proprietor's conduct which will normally be unrelated to the substance or merits of the proposed amendments; and secondly the allowability of the amendments themselves from a technical point of view.

14. I consider that the act of allowing the proprietor in my earlier interim decision the opportunity to propose amendments effectively decided the first of these issues in favour of the proprietor. I acknowledge that the applicants have objected to the way that the Office allowed the proprietor a second bite of the cherry in respect of consequential amendments, but I regard this as very much a subsidiary matter to the main point about allowing substantive amendment to the claims to avoid the finding of invalidity in my interim decision. Thus I do not regard it as necessary to consider the matter of the proprietor's conduct any further.

15. As to the substance of the amendments, I need principally to satisfy myself, if I am to exercise discretion favourably, that they cure the defects I found originally in the granted claims. This means in practice that the claims, if amended as proposed, need to be novel and inventive. I also need to be satisfied that the proposed amendments do not of themselves add matter or extend the scope of the claims contrary to Section 76, and that there are no other obstacles to the exercise of discretion. If in these questions I find for the proprietor, it follows from the above that I should allow the patent to be amended and thus it will stand. However if I decide the other way, revocation of the patent will be automatic.

16. The applicants have not raised any question that the proposed amendments add matter or extend the scope of the monopoly. However for the avoidance of doubt, I confirm that I have considered for myself, bearing in mind the public interest, whether there are grounds for any such objections, and I am satisfied that there are not.

17. As commented above, in my interim decision of 4 November 1997 I found the unamended claim 1 to be anticipated by the proprietor's own earlier patent, GB 2128600. I should therefore first consider whether the amendments now proposed would remove this objection.

18. In my earlier decision, I considered the amendments as at that time proposed to be adequate to confer novelty with respect to GB 2128600. To see why I came to this conclusion (and hence the reasons for my contrary view now) it is, perhaps, of value to consider the claims as previously proposed to be amended. Claim 1 at that time read (with *italics* and ~~strikeout~~ again differentiating from the granted text):

1. A method of ~~treating~~ ~~purifying~~ water for drinking purposes *to render it bacteriostatic* which comprises bringing the water into contact with coral sand *as obtained from a living coral reef but for being* ~~which has been~~ washed to remove salt therefrom and *for being dried only* ~~dried~~ at a temperature of from 70 to 190EC.

Moreover, it was additionally proposed to delete claim 2 relating to optional silver coating of the sand.

19. I came to the earlier decision in favour of the proprietor because I considered that the proposed wording, and in particular the phrases “ *as obtained from a living coral reef **but for being washed...***” and “ *for being dried **only...***” (my emphasis), together with the deletion of claim 2 had the result of notionally amending the claims to exclude use of coral sand which had been subjected to any additional steps, such as coating with silver or treating to any high temperature activation.

20. However, the present proposed amendment is differently worded. There is no wording here

which leads me to conclude that the method steps specified in the notional claim 1 are to be the only ones permitted and I therefore construe the claim as including within its scope methods including other steps such as coating with silver (as once again explicitly allowed by claim 2) and heating at a higher temperature.

21. I have already in my earlier decision construed GB 2128600 as disclosing a process of rendering drinking water bacteriostatic, so this aspect of the proposed claim 1 is anticipated. In addition, GB 2128600 discloses rendering the pH of the treated water "weakly alkaline" (page 3 line 13), and the passage of the water through a filter (page 3 line 31). I therefore conclude that the proposed claim 1 in its entirety is anticipated.

22. As noted in my earlier decision, GB 2128600 discloses silver coated sand and sand which has been derived from a living reef, so claims 2 and 3 are also anticipated. It follows that claims 4 and 5 are also anticipated.

23. Having found all notionally amended claims to be lacking in novelty, it is not strictly necessary to go further, but for completeness, I would add that had I found claim 1 to be novel I would not have accepted the proprietor's arguments on inventive step in the light of the clear teaching in several of the prior art documents (for example GB 2128600, GB 1387552, JP 56-15814, JP 58-146491) of treatment of water for drinking using filters including coral sand, and having regard to my earlier decision that there is no inventive step in the realisation that coral sand when desalted and dried at 70-150°C is effective as a bacteriostat in its own right.

24. For the above reasons, I refuse all the amendments proposed by the proprietor, and accordingly I order the revocation of UK Patent No GB 2201408 B.

25. The applicants have asked for costs. It is normal in cases such as this for costs to go with the decision, and I therefore have to consider what award is appropriate.

26. I see no reason to depart from the normal Comptroller's scale, and on this basis I award the applicants £520 as a contribution toward their costs. Accordingly I order that this sum be paid

to Marine Coral Co. Ltd. by the proprietor, Nobuo Someya.

27. This being a decision on a substantive matter, the period for appeal is six weeks.

Dated this 3<sup>rd</sup> day of September 1998

G M BRIDGES

**Superintending Examiner, acting for the Comptroller**

**THE PATENT OFFICE**